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Folder ID: 1779609

Series: Country Files

Dates: 10/16/1984 – 04/21/1987

Subfonds: Records of President Barber B. Conable

Fonds: Records of the (Staff) Economic Committee

ISAD Reference Code: WB IBRD/IDA EXC-11-49S

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THE WORLD BANK

Washington, D.C.

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The World Bank

1818 H Street NW

Washington DC 20433

Telephone: 202-473-1000

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BRAZIL: POLONOROESTE PROBLEM

1779609


Archives



1779609

R1992-122 Other #: 4

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Brazil - Country Files - Correspondence - Volume 4 - Polonoroeste problem

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THE WORLD BANK
Washington, D.C. 20433
U.S.A.

BARBER B. CONABLE
President

April 21, 1987

Dear Ms. Sawyer:

Your report on World Bank lending to Brazil, mostly filmed in 1985, ignored the fact that in April 1985 the World Bank agreed with the Brazilian Government that disbursements to the Polonoroeste project would be stopped until agreements were reached on some of the very same social and environmental issues that you highlighted in your program.

I have been President of The World Bank since July 1, 1986. Your program was taped before then, but I can assure you that lessons have been learned, changes have been made and a reorganization of the Bank, now underway, will further strengthen our focus on the environmental issues in development.

The World Bank believes strongly that development benefitting the poor people of the developing nations cannot be sustained unless it is environmentally sound.

Sincerely,

(Signed) Barber B. Conable

Barber Conable

Ms. Diane Sawyer
"60 Minutes"
CBS
524 West 57th Street
New York, New York 10019

The World Bank and Brazil's Polonoroeste Program

Background

1. The Polonoroeste program was intended to balance development and environmental considerations in the Northwest region of Brazil. This includes Rondonia and western Mato Grosso, an area about three quarters the size of France on the eastern end of the Amazon forest. The army had built a dirt road (BR-364) across the state in the 1960s, but transportation remained difficult, especially during the rainy season. Distance, poor access, and the difficulties of human settlement in the Amazon kept the Northwest region's tropical forest relatively intact until 1970.

2. The situation then began to change dramatically. Migration to the Northwest accelerated. Rural unemployment and pressure for migration increased due to population growth, droughts in the Northeast, frosts in Sao Paulo and Parana, and the expansion of large-scale capital-intensive export agriculture (mainly soybean and cattle production). BR-364 was improved in 1969, there were exaggerated rumors of fertile soils in Rondonia, and the government land reform agency announced plans to allocate large plots in the region.

3. By the end of the 1970s, population was growing by 16% a year in Rondonia and by 8% a year in Mato Grosso. 5,000 migrants were arriving in the region every month. At that time, the Government of Brazil asked the World Bank to survey the region, evaluate its development potential, and identify issues concerning possible financing.

World Bank Role

4. A World Bank report in 1980 concluded that parts of the region did have potential for economic development based on agriculture, provided that careful steps were taken to reduce social and environmental risks. The recommended steps included planning to direct development away from ecologically fragile areas and the establishment of large ecological and Indian reserves. The World Bank also suggested an expansion of health services and programs to help settlers adopt agricultural practices that would preserve the region's long-term potential.

5. The Polonoroeste program on which Brazil and the Bank eventually agreed included the paving of BR-364, but within the framework of complementary environmental, health, social, and agricultural measures. The highway project was held up 18 months while officials within Brazil and within the Bank deliberated over the environmental and social aspects of the program. Even with a range of

precautionary measures, the Bank recognized that Polonoroeste had high risks, but the risks of spontaneous, disorderly development in Brazil's Northwest region were judged to be far greater.

6. The Bank made five loans in support of Polonoroeste between 1981 and 1984. They totalled \$435 million. The project got off to a good start, but implementation of the program soon became unbalanced. The project to pave BR-364 was completed ahead of schedule, while the environmental and social components of Polonoroeste were fraught with difficulties and delay. The paved highway contributed to further acceleration in migration, which government agencies responsible for orderly settlement, health, Indians, and environmental protection proved unable to handle. There was much spontaneous settlement outside the planned settlement areas. Settlers cut into the tropical forest, often exploiting fragile soils for a few years and then moving on to another site. Deforestation increased from about 5 percent of Rondonia in the early 1980s to 17 percent today. There were long delays in setting up Indian and ecological reserves.

7. In early 1985, Brazil and the Bank agreed to stop disbursements from the Bank loans pending urgent action to protect Indian reserves and agreement on a remedial Action Program for Polonoroeste as a whole. The Action Program put greater emphasis than before on Indian and environmental protection, services for small farmers, malaria control, overall management and coordination of Polonoroeste, and measures to reduce migration to the Northwest region.

Corrective Action

8. There has been significant progress since disbursements resumed:

- > accelerated action on Indian reserves (now 9.4 million hectares, an area the size of Kentucky, for about 7,500 Indians);
- > increased staff and equipment to strengthen the government agencies that police and protect ecological and Indian reserves;
- > a credit program to promote crops that are sustainable in the environment of the Northwest;
- > a stop to the official advertising that encouraged people to migrate to the Northwest;
- > a stop to official settlements on poor soils, with increased effort to improve existing settlements instead;
- > a stop to any further road construction in the Northwest without a satisfactory environmental impact statement;
- > the creation of state environmental and forestry agencies in Rondonia;

- > steps to expand malaria control efforts; and
- > advance planning for areas of the Amazon which are not immediately threatened by development.

9. Brazil is now preparing, with World Bank assistance, a National Environmental Project. It will develop stronger federal and state environmental agencies and a network of parks and environmental centers.

10. The 60 Minutes segment on Polonoroeste which CBS aired on April 19, 1987, was filmed in 1985. It failed to mention that the disbursements on the loan had been suspended and, of course, did not report on corrective action taken since then.

11. Mr. Bruce Rich of the Environmental Defense Fund, who has organized much of the environmentalist criticism of Polonoroeste, testified on April 10, 1987, to a committee of the U.S. Congress: "With respect to the now infamous Polonoroeste loans for roadbuilding and agricultural settlement in the northwest Brazilian Amazon forest, it can be said now that the World Bank's presence is by and large a positive one, since Bank staff are devoting much of their efforts at this stage to promoting measures and actions to mitigate the deforestation and human suffering that the earlier stages of the project have caused."

The World Bank
External Relations
April 21, 1987

WORLD BANK OTS SYSTEM
OFFICE OF THE PRESIDENT

RECEIVED DATE : 86/12/11
LOG NUMBER : EXC861211007

DUE DATE : ⁸⁷86/01/05

SUBJECT : Complains about certain Brazilian projects and wants BBC
to raise issues with Braz. Min. Mines and Energy -- 1/16/
OFFICE ASSIGNED TO FOR ACTION : Mr. Knox (A907)

ACTION:

- _____ APPROVED
- _____ PLEASE HANDLE
- _____ FOR YOUR INFORMATION
- _____ FOR YOUR REVIEW AND RECOMMENDATION
- _____ FOR THE FILES
- _____ PLEASE DISCUSS WITH _____
- _____ ✓ PLEASE PREPARE RESPONSE FOR BBC's SIGNATURE
- _____ AS WE DISCUSSED
- _____ RETURN TO _____

COMMENTS : *Copy to Mr. Stern + Isaac*

ENVIRONMENTAL DEFENSE FUND

1616 P Street, NW
Washington, DC 20036
(202) 387-3500

December 11, 1986

Mr. Barber B. Conable
President
World Bank
1818 H St. N.W.
Washington D.C. 20433

Dear Mr. Conable,

We wish to thank you for your letter of November 18, 1986 in which you called for continued dialogue on the environmental issues we raised in our meeting of July 30 and expressed an interest in meeting with us again early in the new year. We were particularly heartened by your statement that the Bank can and must more fully integrate environmental considerations into its operational work. In this light, there is one issue of immediate concern that we wish to raise with you.

It has come to our attention that Mr. Aureliano Chaves, Minister of Mines and Energy of Brazil, will be meeting with you in the near future to discuss the Brazilian electrical energy sector.

We have serious concerns about the environmental and social effects of many of the Brazilian energy sector's planned and ongoing hydro projects, as detailed in our letter to Mr. Clausen of June 14, 1986 and in a recent letter to you, dated December 10, 1986. As you know, the US Executive Director and members of the US Congress expressed similar concerns over the Bank's recent loan to Brazil for this sector.

The Bank's appraisal report for the Brazil energy sector loan identifies the Itaparica dam resettlement plan as a special problem, and specifies measures to bring the project into compliance with the Bank's resettlement policy. As we note in our letter of December 10 and attached memorandum, this project is indeed a crucial precedent for the future development of the energy sector in Brazil. It should be a key test case for the Bank's support of that sector in Brazil, given the enormously complex and delicate environmental and social issues that will arise in the construction of the many hydro projects that are planned.

444 Park Avenue South
New York, NY 10016
(212) 686-4191

1405 Arapahoe Avenue
Boulder, CO 80302
(303) 440-4901

2606 Dwight Way
Berkeley, CA 94704
(415) 548-8906

11 South 12th Street
Richmond, VA 23219
(804) 780-1297

We are dismayed to learn that despite the Bank's insistence that an adequate resettlement plan be submitted by Oct. 15, 1986, the local organizations representing the communities to be resettled still have not had the opportunity to engage in meaningful negotiations with the regional power company. These groups have publicly proclaimed their profound dissatisfaction with the resettlement plan and their lack of access to the power company's, and the Bank's, decision making process. Last week, over 800 members of these Brazilian rural organizations staged peaceful demonstrations at the dam site in Petrolandia, Pernambuco to halt work on the dam until a resettlement plan acceptable to local populations is prepared.

We urge you to raise these subjects, and to address the issues of environmental and social impacts of large hydro projects in your discussions with the Minister. In particular it would be useful to carefully examine what provisions have been made in the Eletrobras Environmental Master Plan for institutional mechanisms for public participation in the planning process. Unless these issues are given serious attention at all levels, we can only expect the grave environmental problems unfortunately familiar throughout the sector to increase.

Thank you again for your consideration of these concerns.

Sincerely,

Bruce Rich
Senior Attorney
Environmental Defense Fund

Barbara Bramble
Director
International Program
National Wildlife Federation

Larry Williams
International Representative
Sierra Club

Brent Blackwelder
Director
International Resources Project
Environmental Policy Institute

Stephan Schwartzman
Washington Representative
Cultural Survival

David Wirth
Senior Project Attorney
International Project
Natural Resources Defense Council

BBC

WORLD BANK OTS SYSTEM
OFFICE OF THE PRESIDENT

RECEIVED DATE : 86/12/12 DUE DATE : 00/00/00
LOG NUMBER : EXC861212006
SUBJECT : Urging BBC to explore environmental issues w/ Min. of
Mines & Energy of Brazil
OFFICE ASSIGNED TO FOR ACTION : Mr. Knox (A907)

ACTION:

- _____ APPROVED
- _____ PLEASE HANDLE
- _____ ✓ FOR YOUR INFORMATION
- _____ FOR YOUR REVIEW AND RECOMMENDATION
- _____ FOR THE FILES
- _____ PLEASE DISCUSS WITH _____
- _____ PLEASE PREPARE RESPONSE FOR _____ SIGNATURE
- _____ AS WE DISCUSSED
- _____ RETURN TO _____

COMMENTS : *Copies sent to Messrs. Knox & Stern*
Copy given to Isaac.

Copies to Mr. Knox, Mr. Sten

DISTRICT OFFICE:
FEDERAL BUILDING
317 FIRST STREET
WAUSAU, WI 54401
PHONE: 715-842-5606

DISTRICT REPRESENTATIVE:
JERRY MADISON

FIELD REPRESENTATIVE:
MARTIN HANSON

Congress of the United States
House of Representatives
Washington, DC 20515

December 10th, 1986

CHAIRMAN:
JOINT ECONOMIC COMMITTEE

CHAIRMAN:
FOREIGN OPERATIONS
APPROPRIATIONS SUBCOMMITTEE

MEMBER:
HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEES: LABOR-HHS-EDUCATION
LEGISLATIVE

WASHINGTON OFFICE:
2217 RAYBURN HOUSE OFFICE
BUILDING

PHONE: 202-225-3365

EXECUTIVE ASSISTANT:
LYLE STITT

Hon. Barber Conable
President
The World Bank
1818 H St. N.W.
Washington, D.C. 20433

Dear Mr. Conable,

Dec. 16 @ 3 p.m.

It has come to my attention that you will be meeting soon with Mr. Aureliano Chaves, Minister of Mines and Energy of Brazil, to discuss plans for the electrical energy sector in that country. I understand that he is seeking some \$1.4 billion in support for the sector, in addition to the \$500 million already committed by the World Bank and \$550 million in loans being prepared by the Bank.

In light of my ongoing concern with environmental and social problems associated with multilaterally financed development, and in the Bank's involvement in the Brazilian Power Sector, I urge you to take this opportunity to examine these issues in depth with Minister. As I noted in my letter of June 17th, 1986 on the Power Sector loan to Secretary Baker, the environmental provisions in the Bank's first power sector loan appeared inadequate to ensure that sound natural resource management and protection of indigenous peoples were taken into account. More recent information on the sector suggests that these matters continue to require your personal attention.

The more often loans like these are approved, the more difficult it is going to be for the Bank to remain defensible with its friends.

Thank you for your consideration of this matter.

Sincerely,



David R. Obey
Chairman
Appropriations Subcommittee on
Foreign Operations

enclosure

DISTRICT OFFICE:
FEDERAL BUILDING
317 FIRST STREET
WAUSAU, WI 54401
PHONE: 715-242-5606

DISTRICT REPRESENTATIVE:
JERRY MADISON

FIELD REPRESENTATIVE:
MARTIN HANSON

Congress of the United States

House of Representatives

Washington, DC 20515

June 17, 1986

CHAIRMAN:
FOREIGN OPERATIONS
APPROPRIATIONS SUBCOMMITTEE

MEMBER:
HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEES: LABOR-HHS-EDUCATION
LEGISLATIVE

WASHINGTON OFFICE:
2217 RAYBURN HOUSE OFFICE
BUILDING
PHONE: 202-225-3365
EXECUTIVE ASSISTANT:
LYLE STITT

Secretary James Baker III
U.S. Treasury Department
15th Street and Pennsylvania Ave., N.W.
Washington, D.C. 20220

Dear Secretary Baker:

It has been brought to my attention that the World Bank will soon be considering a loan of nearly \$500 million for electric power projects in Brazil. It is also my understanding that two additional loan applications equaling that amount are currently being prepared and appraised.

As you know, both the House and Senate Appropriations Subcommittees have been giving increased attention to environmental issues associated with World Bank and other multilateral lending institutions in recent years.

In 1985, I introduced legislation directing the U.S. Executive Directors to the banks to promote several environmental reforms, including a call for greater citizen participation in borrowing countries during the planning process.

In light of these recommendations, I am seriously concerned about the proposed electric power loans to Brazil.

It is my understanding ^{67% below} that the Energy Sector is already being heavily subsidized, prices are ~~only 33%~~ of the costs of investment in the sector. In addition, subsidies are greater for large industrial users than for small private consumers.

It has been argued that this not only encourages wasteful use of energy, but may end up putting an unjust share of the burden of paying this debt on private consumers - namely the poor. While I understand that energy pricing reforms are part of the loan, I am concerned that they may be insufficient and that little effort has been made to introduce energy conservation measures into the package.

It seems to me that a loan of this magnitude, in such an environmentally sensitive sector, merits the most serious attention to conservation efforts.

It is particularly disturbing that this loan would be used to save a number of financially troubled hydro-electric projects that have already caused grave environmental and social problems.

For example, the much publicized Tucurui hydro-electric project, which even the bank refused to finance as part of the Carajas Iron Ore project in the mid 1970s, has now caused flooding of more than 2000 square kilometers of tropical forests and serious dislocation of groups of the Parkana Indian Tribe, as well as many other regional inhabitants.

Secretary James Baker III
Page Two
June 17, 1986

Enormous foreign investment has been poured into this \$4 billion dam, which is selling electric power below cost to multinational corporations and other interests, while fueling a tremendous resettlement into an immense area of Amazonia - perhaps as much as 300,000 square miles.

I have been told that other hydro projects to be completed using funds from this loan, are equally problematic. These include the Balbina and Sanuel projects.

The forced relocation of more than 70,000 persons as a result of the Machadinho and Sobradinho dams would seem to highlight the necessity of consulting with the populations to be effected by such projects ahead of time, allowing their full participation in the decision making process.

It would appear that the proposed environmental provisions in this loan are similarly inadequate to ensure that natural resources or indigenous peoples concerns will ever be adequately taken into account.

It is my feeling that if the bank is truly committed to its own environmental and indigenous peoples policies, the environmental and social aspects of this loan must be seriously reconsidered.

More effective price reforms, implementation of environmental protection measures, and more active participation in planning by the local communities affected by these dams, should serve as the basis for U.S. support for this loan.

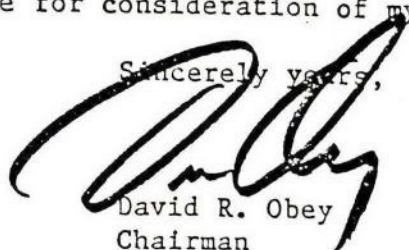
It would also seem logical to consider alternatives to investments in large-scale hydro projects in order to avoid the negative economic and environmental implications that have been associated with them in the past.

I want to reiterate that that my concerns with this project relate entirely to the features which make it unacceptable from an environmental and indigenous peoples point of view and do not relate to any other aspects of this project that may be considered.

In closing I would urge that you give this matter your careful personal attention to see that these issues are addressed in the most thorough manner possible.

Thank you in advance for consideration of my request.

Sincerely yours,



David R. Obey
Chairman
Appropriations Subcommittee on
Foreign Operations

DATE: 10/17

~~BBC~~

JWS

Judith

~~Isaac~~

JWS 10/17

Vivek

Linda

Myra

Jenny

REMARKS

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE: October 15, 1986

TO: Mr. Barber B. Conable
(through Mr. Ernest Stern)

FROM: A. David Knox

EXTENSION: 75901

SUBJECT: BRAZIL - Northwest Region Integrated Development Program (POLONOROESTE)

1. You will find attached a letter addressed to you by Mr. Ailton Krenak, National Coordinator of Brazil's "Union of Indigenous Nations". This association represents several Amerindian groups in Brazil.
2. This letter and two attachments were delivered to us in person by Mr. Krenak. The first attachment to the letter summarized the results of a recent symposium in Brazil on the environmental aspects of development of Brazil's Northwest frontier. The recommendations of the symposium dealt with the following topics: (a) the viability of smallholder agricultural development in the Northwest region; (b) protection of indigenous communities; and, (c) alternatives for sustained management of renewable natural resources. The recommendations ranged from general statements of policy or strategy (e.g., agrarian reform on large, unproductive estates should be carried out nationwide, colonization projects should be restricted to areas with good soils) to quite specific actions (e.g., rigorous environmental criteria for road construction should be defined, Amerindian reserves which have already been demarcated should be legally established through registration in the federal land registry). Many of the recommendations are in fact the same measures that the Government is undertaking with Bank support under the POLONOROESTE program.
3. A recurring theme in the recommendations was the need for participation of affected communities (smallholders, rubber-tappers, indigenous groups) in the planning and implementation of development activities. This was repeated in the Resolution on the World Bank Role in the Amazonas Region (the second attachment to Mr. Krenak's letter) which urges the Bank to undertake "mandatory consultation with all populations to be affected by loans". The Resolution also enjoins the Bank to stop lending to projects which do not promote the sustainable use of tropical forest, and to strengthen environmental training and staffing within the Bank.
4. We are presently studying the attachments to Mr. Krenak's letter. I propose to provide an answer shortly, at the Regional level.

Attachment

cc: Mr. Husain (plus incoming attachments)

RRuivivar:el

TO: [Illegible]

FROM: [Illegible]

SUBJECT: [Illegible]

[Illegible header text]

[Illegible paragraph 1]

[Illegible paragraph 2]

[Illegible paragraph 3]

[Illegible paragraph 4]

OFFICE OF THE PRESIDENT

1988 OCT 17 PM 3:26

RECEIVED



UNIÃO DAS NAÇÕES INDÍGENAS . UNI / NÚCLEO DE CULTURA INDÍGENA . NCI / COORDENADORIA DE
PUBLICAÇÕES . REGIONAL SUL RUA MINISTRO GODOY, 1484 . CEP 05015 . PERDIZES . TEL. 62-4246

10/03/86, Washington D.C.

Hon. Barber Conable
President
International Bank for Reconstruction and Development
1818 H St. N.W.
Washington D.C. 20433

Dear Mr. President:

As a representative of the Amazonian Alliance of the Peoples of the Forest, which, through the Union of Indigenous Nations and the National Council of Rubber Tappers unites indigenous populations and rubber tappers, I would like to bring the following documents to your attention:

1. The resolution taken by the Amazonian Alliance concerning multilateral bank-financed development projects in Amazonia.
2. The conclusions of symposium "Environmental Consequences of the Politics of Occupation of Northwest Brazil - The Case of Rondonia", held in Porto Velho, Rondonia, June 10-12, 1986.

We look forward to your response at your earliest convenience.

Sincerely

Ailton Krenak
National Coordinator
Union of Indigenous Nations



INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
WASHINGTON, D.C. 20433

October 17, 1986

Hon. Carlos Caserio
President
International Bank for Reconstruction and Development
1818 H St. N.W.
Washington D.C. 20433

Dear Mr. President:

As a representative of the Association of Banks of the Americas (ABA) and the Forest, which through the Union of Indigenous Nations and the National Council of Rubber Tappers unites indigenous populations and rubber tappers, I would like to bring the following documents to your attention:

1. The resolution taken by the Amazonian Alliance concerning bilateral bank-financed development projects in Amazonia.
2. The conclusions of symposium "Environmental Consequences of the Politics of Occupation of Northwest Brazil - the Case of Rondonia", held in Paris Velas, Rondonia, June 10-17, 1985.

We look forward to your response at your earliest convenience.

Sincerely,

Alf Knut

Alf Knut
National Coordinator
Union of Indigenous Nations

OFFICE OF THE PRESIDENT

1986 OCT 17 PM 3:31

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THE WORLD BANK

ROUTING SLIP

Date

Nov. 20, 1985

OFFICE OF THE PRESIDENT

Name

Room No.

Mr. Botafogo

E-823

To Handle

Note and File

Appropriate Disposition

Prepare Reply

Approval

Per Our Conversation

Information

Recommendation

Remarks

Please give me a call.

Roy Southworth

From

The Ecologist

Editorial Department: Whitehay, Withiel, Nr Bodmin, Cornwall PL30 5NQ
Tel: Lanivet (0208) 831237

November 12th 1985

Mr. Clausen,
President,
The World Bank,
Washington, D.C.,
U.S.A.

Dear Mr. Clausen,


I refer to the letter of November 8th 1985 from Mr. Jose Botafogo. I am afraid that you will not be able to bring our correspondence to an end in the way you suggest.

Our special issue of The Ecologist has been circulated to all the world leaders - 300 issues were distributed in Washington alone. My letter to you has been reproduced in four languages in the foreign press and is now also in Venezuela and Mexico.

A number of western politicians have expressed their sympathy for my thesis. Mrs. Thatcher, our Prime Minister, wants to organise a meeting with me to consider this whole issue more carefully, as does the leading figure in the SDP/Alliance (one of our opposition parties), Mrs. Shirley Williams.

Your 'earlier response' has been answered and will be published with over one hundred pages of supplementary material, in the next issue of The Ecologist. Again, it will be circulated to the world leaders and the press. This, unquestionably, will have more impact than the last issue. I therefore think it is being unrealistic in trying to bring this correspondence to a close.

Yours sincerely,


Edward Goldsmith
Editor.

THE WORLD BANK
Washington, D.C. 20433
U.S.A.

November 8, 1985

Dear Mr. Goldsmith:

Thank you for your letter of October 15
addressed to Mr. Clausen.

We feel that the earlier response sent to
you following the publication of your article on The
World Bank was fully comprehensive and thus we have
nothing further to add on the subjects that you have
raised with us.

Should you require any further information
on The World Bank's activities, I hope you will feel
free to contact Mr. Tim Cullen, Chief of Information
& Public Affairs in the Bank's European Office in
Paris.

Sincerely,


Jose Botafogo G.
Vice President
External Relations

Mr. Edward Goldsmith
The Ecologist
Whitehay, Withiel, Nr. Bodmin
Cornwall PL30 5NQ
United Kingdom

bcc: Mr. Cullen (Paris Office) (with copy of incoming letter)
Mr. Southworth " " " " "
Mr. Blinkhorn " " " " "

1434
logged out
A

ROUTING SLIP		Date
		Oct. 22, 1985
OFFICE OF THE PRESIDENT		
Name		Room No.
Mr. Botafogo		E-823
<input checked="" type="checkbox"/>	To Handle	Note and File
<input type="checkbox"/>	Appropriate Disposition	Prepare Reply
<input type="checkbox"/>	Approval	Per Our Conversation
<input type="checkbox"/>	Information	Recommendation
Remarks		
<p><i>Vogt</i></p> <p>Roy Southworth</p>		
From		

The Ecologist

Editorial Department:
Whitehay, Withiel, Nr. Bodmin, Cornwall PL30 5NQ, U.K.
Tel: Lanivet (0208) 831237

October 15th 1985

1434

Mr A Clausen
The World Bank
International Development Association
Washington DC 20433
USA

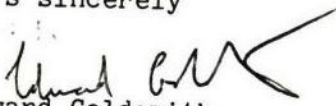
Dear Mr Clausen

I thank you for your letter of September 24th written to me by Jose Botafogo on the subject of the Narmada dam project.

You tell me "that the appropriate authority that should be given an opportunity to respond would be the Government of India, if it chooses to take advantage of such an opportunity" and that I "should address the questions to the Government" This is a very significant letter. What you are telling me is that the World Bank is simply a banking institution which will fund any project, however destructive it might be, so long as the request has come from a "Sovereign member government."

Would you confirm that this is your position?

Yours sincerely


Edward Goldsmith

The World Bank
Washington, D.C. 20433
U.S.A.

JOSE BOTAFOGO G.
Vice President, External Relations

August 7, 1985

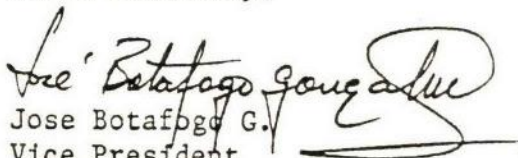
Dear Mr. Goldsmith,

Further to my letter to you of June 6 I now enclose a detailed response to your letter of May 17 addressed to Mr. Clausen which you published in The Ecologist.

Because of the length of the issue, and the many diverse subjects treated, we felt that an item by item rejoinder would not be appropriate, and have therefore grouped the responses under several sub-headings which seem to touch most of the major issues.

I submit this reply for use in a future issue of your magazine.

Yours sincerely,


Jose Botafogo G.
Vice President
External Relations

Mr. Edward Goldsmith
Editor
The Ecologist
Whitehay, Withiel,
Nr. Bodmin, Cornwall PL30 5NQ
England

bcc: Mr. Wicks, UK ED

bcc: Messrs. Stern, Botafogo, Southworth, S. Husain, Vogl, Blinkhorn

JBotafogo:TBlinkhorn:sf

* 517

OFFICE MEMORANDUM

DATE August 9, 1985

TO Mr. A. W. Clausen, President
Through: Jose Botafogo G., VPE
FROM Frank Vogl, Director, IPA

EXTENSION 72468

SUBJECT Reply to The Ecologist Magazine

A fine letter.
My only doubt concerns
whether the President
of the Bank should
personally get into
these kinds of
exchanges. *2/6/85*

1. The editor of The Ecologist magazine, Mr. Edward Goldsmith, wrote to you on May 17, 1985 asking whether you would wish to respond to an open letter in the latest issue (copy attached). The letter and the entire issue attack the Bank for allegedly causing or aggravating environmental problems in developing countries.
2. Although the overall tone of the issue is highly intemperate, and many of the allegations based on mistaken assumptions or misunderstandings, our European office informs us that Mr. Goldsmith has circulated it widely to political leaders and other influentials in the United Kingdom and elsewhere. Essentially, the issue focuses on five major areas: (a) food crop versus cash crop development strategies in Sub-Saharan Africa; (b) Brazil Polonoroeste (there is an article by Bruce Rich of the Natural Resources Defense Council, along with a copy of the letter he and others wrote to you earlier this year); (c) India social forestry, particularly in Madhya Pradesh; (d) Transmigration in Indonesia; and (e) the Bank's overall development/environmental policies.
3. We believe that a detailed, factual response is warranted. In your absence, Mr. Botafogo, in a letter dated June 6 (copy attached), acknowledged Mr. Goldsmith's letter and stated that a more detailed reply would be forthcoming separately. We are exploring with the European office the possibility of having a well-known environmental agency sponsor a seminar later this year at which our representatives could discuss many of these issues in detail.
4. The attached covering letter, and detailed reply, is for your review and signature.

Attachments (4)

cc: Mr. Toulmin, UK ED's office
 cc: Mr. Stern, Mr. S. Husain
 cc. and cleared in substance with: Messrs. Gusten, Bianchi, C.P. Nottidge,
 A. Hussain, N. Tcheyan, Mme. Maritta Koch-Weser
 cc: Mr. Bart (Paris)
 TB:sm

DEVELOPMENT AND ENVIRONMENT:

A REPLY TO THE ECOLOGIST

The latest issue of The Ecologist (Volume 15, No. 1/2) contains a large number of unfounded charges and allegations about The World Bank and its work in developing countries. The editor of The Ecologist requested a response and we welcome this opportunity to set the record straight.

Perhaps the most unfounded allegation is that development per se is antithetical to the aspirations and interests of poorer nations, is automatically destructive of the environment in those countries and that the Bank, as a development institution, therefore contributes to these alleged maladies.

This deduction is frankly preposterous. It ignores some fundamental facts about current conditions in developing countries. The most fundamental fact of all is the widespread poverty, the very worst form of environmental degradation. Only about a quarter of the people who live in developing countries, for example, have access to clean water. Disease typically takes up a tenth of a person's productive time. Poverty also puts severe and often irreversible strains on the natural environment. At survival level, people are sometimes compelled to exploit their environment too intensively.

Then there is the fundamental fact of excessive population growth. Poverty and rapid population growth reinforce each other. In Africa, for example, population is growing at a rate faster than any continent in history -- 3% a year or twentyfold a century. This enormous growth in human numbers, now underway for a third of a century, is taxing natural support systems throughout the continent. In country after country, forests and grasslands are being decimated. Soil erosion and the loss of soil organic matter are diminishing land productivity over much of Africa.

No serious analysis of these problems could possibly conclude that they are the result of economic development, as The Ecologist implies. Africa's phenomenal population growth is largely the result of public health measures and vaccinations, which have reduced death rates, but without parallel efforts to reduce birth rates. The World Bank's 1984 World Development Report dealt with the problems of global population growth. One central message was that economic and social progress helps slow population growth but, at the same time, rapid population growth hampers economic development.

Sustainable economic development, carefully conceived and managed, offers realistic opportunities for resolving or alleviating these problems. The World Bank's mandate is to help promote such development in its member developing nations. And an integral part of this development effort is proper resource management.

We certainly do not have all the answers in this difficult area and we have much to learn. But we are trying. Through our lending operations and our continuing dialogue with developing countries we attempt to heighten awareness of the need for improved resource management as a critical ingredient in sustainable growth strategies. We are working on many other fronts as well. In agricultural research, we are collaborating with other agencies in the Cooperative Group for International Agricultural Research (CGIAR) to seek solutions to a host of basic problems, among them how to improve soil and water management in Africa and to increase yields from rainfed crops. Through our development project work we are attempting to increase supplies of fuelwood without creating erosion problems. We are prepared to help find better ways of saving or regenerating scarce forest resources. The only limitation here is the willingness and ability of countries to implement sustainable development and conservation programs.

These efforts are being pursued in many ways and not only, as The Ecologist alleges, through large development projects. Most of the Bank's lending each year -- 25 to 30% -- goes for agriculture and rural development activities, mainly for food production and to help thousands of small farmers become more productive. Our lending for health, family planning, water supply, mainly benefits lower income groups in cities and villages. In energy, our aim is not only to help develop new energy resources, including renewable energy, but also to promote greater conservation through appropriate pricing policies and other actions. In industry, the main beneficiaries of our efforts are seldom large plants but many medium and small enterprises throughout the developing world.

But size is not the real issue. The issue really is how can we most effectively help most of the world's peoples strengthen their economies and improve their living standards. Developing countries today face perhaps unprecedented difficulties and challenges. They have been hit especially hard by the recent shocks to the global economy -- the energy crisis, persistent recession, the international debt problem and the natural catastrophe of prolonged drought. All societies face difficult choices. In developing countries, the choices must be made in the face of deplorably widespread poverty, unemployment, rapidly growing population, other deprivations.

The World Bank has been assisting developing countries with these choices for some 35 years. We have learned that economic development, while a slow, long and often painful process, can yield enormous dividends if done carefully and well.

For example, some 20 years ago, India was unable to feed itself. It was importing about 10 million tons of food grains each year. Today, food production has increased to the point where India can feed itself. This achievement is a tribute to sensible government policies -- development policies -- as well as assistance from development agencies such as The World Bank, and its affiliate, the International Development Association (IDA).

Sound economic development policy, aided by external financial and technical assistance, also helps explain the Korean success story. Twenty-five years ago, Korea was an extremely poor country with a per capita income of about \$80 a year and a future that many regarded as uncertain, if not bleak. Today the average Korean can expect to live more than 67 years, up from 53 years in 1960. Infant mortality has dropped from 78 per thousand to 32 per thousand over the same period while the number of city dwellers with access to safe drinking water has soared to 85% from 18%. Per capita income is now up to about \$2,000.

There are many other examples of development success and the World Bank has played a constructive role in many of these achievements.

As we see it, an overriding issue is how to avoid environmental damage or reduce it to an acceptable minimum without slowing the pace of development. When poorly planned, development may contribute to the depreciation of a country's natural capital. Even when carefully planned, the process of economic development may cause some modification of natural ecological systems.

But this is no reason to abandon the search for better ways to help most of the world's peoples strengthen their economies and improve their living standards. With due attention to resource management,

economic development can improve people's environment, in the broad sense of the word. That is, after all, the fundamental purpose of development. And that is the fundamental mandate of The World Bank.

In the final analysis, sustainable development and wise conservation are mutually reinforcing and absolutely inseparable goals.

* * *

The Ecologist makes many other unfounded allegations. Because of the diversity of the subjects, it is more appropriate to group responses under a few sub-headings, which deal with most of the major issues.

A. Cash Crop Versus Food Crop Production in Sub-Saharan Africa: The allegation is made that the Bank, and other development agencies, have stressed cash, or export, crop production in Sub-Saharan Africa, instead of food crops, and thereby have encouraged impoverishment and famine.

The facts are quite different. In the last 10 years, (1974-84), the World Bank and its affiliate, the International Development Association (IDA), provided almost \$5 billion for agricultural development in Sub-Saharan Africa. Only about 15% of this assistance went for pure cash, or export, crop production. The rest was for food crop production or a

combination of food and export crop production as well as for livestock and fisheries development to help increase domestic consumption. The so-called dichotomy between food and cash crops is actually quite misleading. Throughout Sub-Saharan Africa, both are grown, often in rotation and experience has demonstrated that countries with dynamic export production generally do better, not worse, in food production as well.

Increased exports are needed to finance the import of critical items needed for food, as well as cash, crop production. Foreign exchange scarcity, which is largely the result of declining crop exports, can impede food production as well and this phenomenon is common in Sub-Saharan Africa.

The task really is to look carefully at the total agricultural sector in each country and try to improve it by helping to increase production in areas where the need is great and the advantage large. Sometimes, the appropriate approach may involve a fairly comprehensive development program or project involving a range of services. In other instances, a more modest intervention is warranted. The ultimate decision, of course, rests with each country and the World Bank tries to help with the best possible technical advice and financial assistance.

B. Forestry Projects in India: The charge is made that Bank-supported forestry projects in India are promoting deforestation of remaining forested areas and that social forestry projects designed to help

the poor are, in fact, mainly aiding wealthier individuals. The Bank-financed Madhya Pradesh Forestry Technical Assistance Project in Bastar is singled out for criticism.

Of India's total land area, 23%, or about 75 million hectares, is designated in land revenue records as "forests", mostly Government owned. Increasing population and cattle pressures have resulted in an ever-increasing depletion and degradation of much of the natural forests so that only about 40 million hectares of this land is actually tree covered. Deforestation has resulted because of outright clearing for agriculture or through the slow and continuous decimation that comes from meeting the fodder, fuel and timber needs of the community and industry. The Government has accorded high priority to forestry development. It is one of the ten areas of development which Prime Minister Gandhi has singled out for special attention.

The World Bank's first intervention in the forestry sector came in 1975, with the Madhya Pradesh Forestry Technical Assistance Project. It was designed to investigate the possibilities of developing a pulp and paper industry in the Bastar region. However, the project was actually terminated a few years later. The Government and the Bank agreed that the industrial development proposal would not be justified because of social and environmental considerations of tribal peoples in the area.

Since then, the main thrust of the Bank's operations has been in support of India's social forestry program. We have approved seven projects involving assistance in 11 states. Each of these has had the objective of increasing the supply of fuelwood and providing poles, small timber, fodder and other minor forest products to those living in rural areas, with additional concern for increasing employment and fuelwood supplies for marginal farmers and the landless. The Bank's experience with social forestry in India is relatively brief, with the first projects just completing five years of implementation. Nevertheless, many useful lessons have been learned and are constantly being used to improve social forestry programs.

The main purpose of early projects was to produce fuelwood, particularly for the rural poor. Quantitative goals have been met or exceeded in all states; tree farming by individual farmers has proved to be more popular and cost effective than was originally expected. While only a small part of the earlier projects was aimed at farm forestry, this has become a major focus in later projects.

While it is true that so-called large farmers have participated in social forestry and expect to make money selling the trees they plant once the trees mature, it is wrong to conclude that large farmers are the main beneficiaries. For example, a recent survey in Gujarat showed that about 67% of the farmers planting seedlings owned two hectares or less of land.

The World Bank is concerned about ensuring adequate supply of wood products to the poor and recent projects have been designed to help meet this need.

C. Brazil's Polonoroeste Program: The Ecologist alleges that Bank-financed projects in northwestern Brazil (Polonoroeste) have aggravated environmental problems and jeopardized the position of several indigenous Amazon tribes.

In 1980, the Bank, at the request of the Government of Brazil, undertook a general economic survey of the Northwest region. The request arose from concern that an uncontrolled and spontaneous settlement process, accelerated in the late 1960's when a dirt highway was built into the area, could harm the regional ecology. The Bank produced a report that concluded that the region has high potential for economic development based on agriculture, provided a balanced, long-term program could be undertaken in which environmental risks were minimized. After careful deliberation, the Government adopted such a program. One important aim was to steer continuing migration away from fragile and/or ecologically exceptional areas (including Amerindian areas) and to encourage sound agricultural practices that would preserve the region's long-term potential.

The Bank has assisted this program through projects approved between 1981 and 1984 involving a total of about \$435 million. Throughout this period, Bank staff, working with government and regional officials, have undertaken periodic comprehensive reviews of the program's progress. It is true that there have been problems and this is understandable given the dynamic nature of the growth and change taking place. For example, the program has been comparatively more successful with infrastructure development than with institution building or services to farmers. The special project for protection of Amerindians, involving, among other things, full establishment of five reserve areas, has not moved as well as planned.

As a result of these and other implementation difficulties, the Government of Brazil earlier this year took the initiative to have disbursements from outstanding Bank loans supporting the program held in abeyance until a remedial action plan could be discussed and agreed with the Bank. This was done and progress is now being made.

In retrospect, the easiest course for the Bank may have been not to get involved at all in the Polonoroeste program, to "play it safe" and thereby possibly avoid public criticism. This would not, however, have prevented environmental problems and jeopardy to tribal people from occurring as a result of continued uncontrolled settlement.

We should add that the entire history of the Bank's involvement in this program, as well as the current situation, was explained and discussed in great detail last May to a group of individuals interested in environmental matters, including one of the authors of the article in *The Ecologist*.

D. Indonesia Transmigration: The *Ecologist* characterizes Indonesia's transmigration program, which the Bank has helped to support, as an ecological "debacle."

In fact, one major purpose of Indonesia's transmigration program is to reduce ecological damage and stabilize fragile ecosystems in Java where large population densities in critical watershed areas create deforestation, siltation of reservoirs and other problems.

The resettlement of Indonesians from densely populated Java and Bali to other islands of the archipelago actually began 80 years ago. Since independence in 1949, the Government has assigned high priority to the program, in view of the potential benefits to be realized in reducing land and population pressures in one part of the country, transferring skilled farmers to underused land elsewhere, raising the incomes of transmigrants themselves and stimulating regional development in remote parts of Indonesia.

While transmigration is strongly encouraged, the program is voluntary and applicants are placed on waiting lists.

The Bank has financed several projects since the mid-1970's to support the transmigration program. The main thrust of our assistance, which involves about 10% of total financing for the program, is to undertake planning studies to ensure the selection of suitable sites and appropriate designs for eventual settlements. These studies are not confined to technical judgments about the climate, topography, fertility, hydrology and accessibility of prospective sites. They also involve an assessment of environmental features; existing and alternative land uses; prior claims on the land from other Government programs, such as forestry, or from local populations; the likely costs of settling large numbers of people in specific areas; and a range of options for ensuring the most economic and socially acceptable development of proposed sites. The Government has made good use of these studies and almost half of the sites rejected in the past have been ruled out primarily on environmental and social grounds rather than on the basis of their poor agricultural potential.

There is considerable concern about the impact of transmigration to Irian Jaya, where the indigenous people do not share the same cultural features or history as the migrants. The Government, with assistance from the Bank, has taken various steps to anticipate and prevent possible problems for the local people. These include, among others, requirements

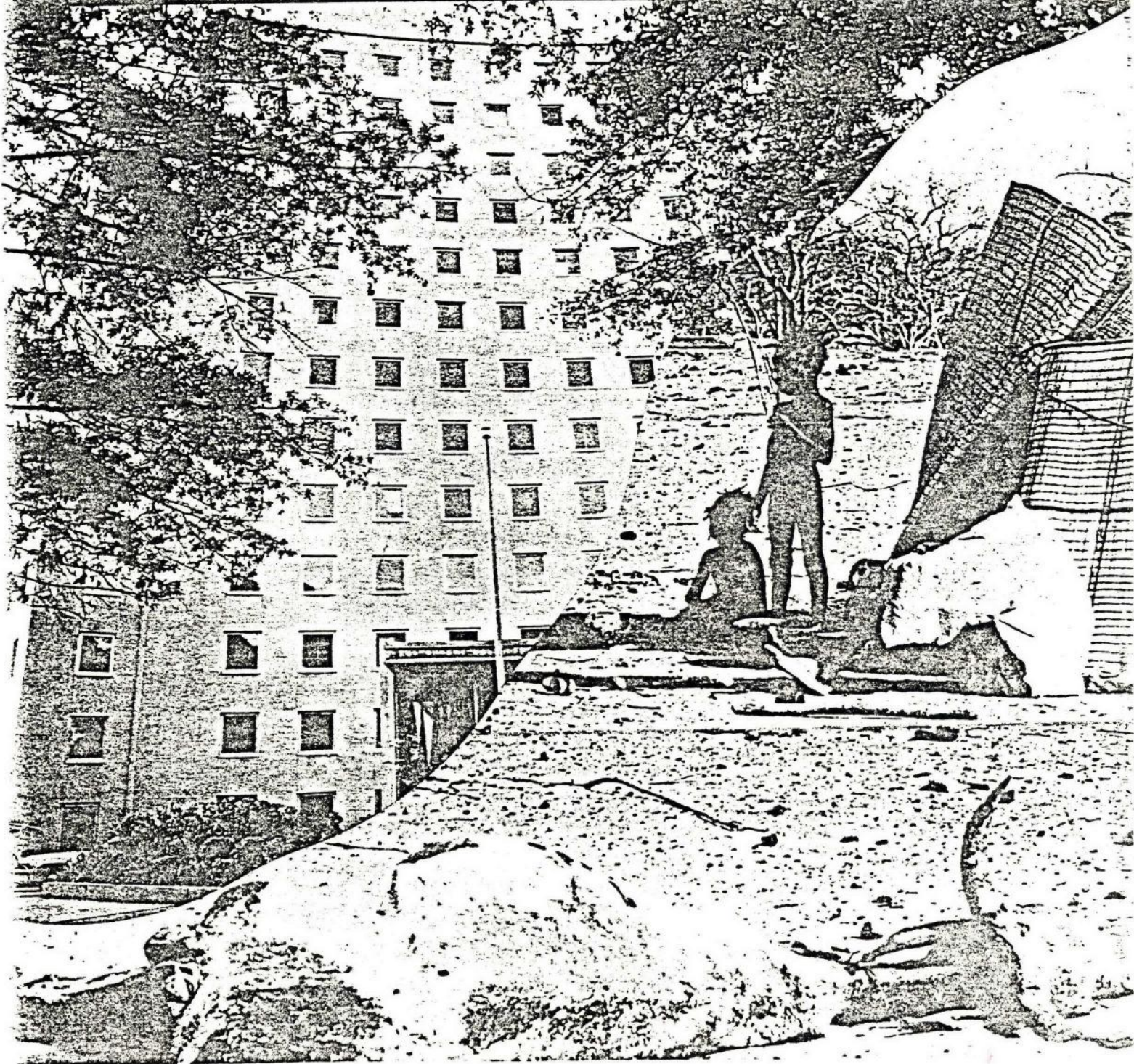
that (a) settlement sites have soils capable of sustaining crops; (b) economic development be promoted at a pace that will not unduly jeopardize the cultural milieu of local peoples; (c) settlement be prohibited in wildlife reserves or areas of particular ecological importance.

While transmigration has been controversial and has encountered problems, on balance it has benefitted the national economy in several ways. It has demonstrated that there are sound, sustainable measures that can be taken to reduce or eliminate ecological damage, taking into account the lives and cultures of people, presence of primary forests, soils for agriculture use and other environmental factors. It has increased food production by expanding cropped areas and allowed previously landless farmers to become self-sufficient in food. It has created hundreds of thousands of new agricultural jobs. It has provided improved education and health services to transmigrant families. And it has helped at the margin to contain soil exhaustion and erosion in the most densely populated areas of Java.

Jose Botafogo G.

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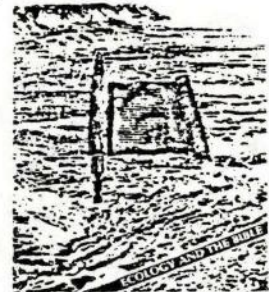
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DR NART TUNTAWIROON: Thailand's leading Anti-Dam Campaigner

The recent murder of the Dean of a University in Bangkok did not make world news, but, in Thailand, Dr Nart Tuntawiroon was no obscure academic—he was a fierce fighter against destruction of the natural environment by dam builders and had managed to stave off construction of a major dam on the Mae Klong River—the River Kwai of world fame.

There is no evidence to connect the murder of Dr Tuntawiroon and his wife in his office at Mahidol University on 20 November 1984 with the dam controversy, but his passing is a great blow to the conservation movement.

Dr Tuntawiroon had only just returned home from attending the General Assembly of the International Union for Conservation of Nature and Natural Resources (IUCN) in Madrid. Leading world scientists and conservationists were impressed by his cogent indictment of his country's dam building programme. This indictment, which has world-wide relevance, is Dr Tuntawiroon's testament as it appears in a contribution to a book which is being published by *The Ecologist*. In it he recounts his detailed criticisms of the Nam Choan dam project on the Mae Klong in Kanchanburi Province at a special Cabinet meeting in 1982, which resulted in postponing a decision on proceeding with the dam.

Dr Tuntawiroon accused the Electricity Generating Authority of Thailand (EGAT) of "major errors" in its report to the Cabinet. Rainfall data could be 400% wrong and the amount of potential energy exaggerated. He added that no account was taken of opportunity, social and environmental costs of impounding large areas of land and forest, loss of land fertility downstream and loss of marine productivity in the Gulf of



Dr Nart Tuntawiroon

Thailand because of reduced nutrient flow, which would be borne by the whole country, of potential loss of archaeological and anthropological wealth, as well as mineral resources, indicated by recent exploration, of damage to the forest and wildlife of the Tung Yai and Huai Kha Khaeng wildlife sanctuaries—the largest contiguous block of forest land set aside for wildlife conservation in Thailand, and of siting the dam in an earthquake prone area.

Dr Tuntawiroon was able to convince the Cabinet to postpone approval of the Nam Choan dam for an initial 90 days, and today, just over two years later, a decision is still pending.

His standing as an opponent of the Nam Choan dam and other dam projects was strongly reinforced by

the fact that he was an electrical engineer, and initially a supporter of damming Thailand's rivers to produce energy, control floods and irrigate agricultural land. He was disillusioned. The frequency and magnitude of floods appeared to increase after dams were built, and to the authorities' claim that the floods would have been even worse and more dams were needed he replied: "We might as well build a roof to cover the total area of Thailand."

Dr Tuntawiroon drew pointed attention to the failure of the dams to produce the steady flow of hydro-electricity predicted. In 1966, when there were two dams, hydro-energy accounted for 64 per cent of electricity generated, but in 1980, when there were 10 dams, it accounted for only 8.4 per cent. Instead of providing the basic source of electricity, the projects were only intermittently supplying peak load.

He declared that multi-purpose dams in the tropics were not buffers against weather fluctuation, but were at the mercy of the weather. On 3 November 1984 the *Bangkok Post* frontpaged reports of severe floods in many parts of Thailand alongside a report about critically low levels in the power dams. To the layman there might appear to be large amounts of impounded water, but it was "dead storage" because it was below the power intake level.

Hydro authorities, Dr Tuntawiroon said, were "very possessive" of the "dead storage" because of the time it takes to accumulate and they release water for irrigation only from "live storage", which fluctuates widely both in a year and over the years. The result is that farmers fail to get irrigation water when they need it, and, ironically, it is released when they are enjoying natural supplies.

"A hydro-electric power dam is

unable to perform its task of irrigation and flood prevention effectively. It can be concluded that the label multipurpose assigned to a hydroelectric power dam is largely cosmetic," Dr Tuntawiroon declared.

Dealing with the environmental impact of dams, Dr Tuntawiroon said that dam construction was one of the main culprits in forest destruction. Poachers and shifting cultivators moved in, and people evacuated from impounded areas, who were resettled on relatively infertile land, pushed further into the watershed areas in an uncontrollable chain reaction. The watershed destruction played havoc with the water regime, and accelerated soil erosion and the rate of sedimentation in the reservoir in a vicious circle. Meanwhile, the productivity of the Gulf of Thailand deteriorated because nutrients were trapped by the dams. The giant fresh water prawn declined considerably because its life cycle was interrupted by the dams. These facts, Dr Tuntawiroon stated, led to public anti-dam sentiment reaching such a level that it forced the shelving of a project in Khao Yai National Park in 1970.

The Mae Klong river, where the Nam Choan dam has been proposed, is one of the four main rivers of Thailand, and flows from the mountains on the Burmese border to the Gulf of Thailand. The name "Kwai", which has become so famous, comes from the word for tributary, and the Kwai Yai (big tributary) and Kwai Noy (small tributary) join in Kanchanburi Province. There was strong public opposition to the Chao Nane dam (now Srinigarind dam), first of a proposed string of dams on the rivers, but it went ahead. However, the prolonged period of accumulating the dead storage water starved downstream areas allowing saline water intrusion and wiping out coconut and lychee plantations. A second dam, the Kao Laem, has been built, according to Dr Nart, in a geological fault zone on structurally weak breccia rock. The authorities claimed that it was one of the most difficult to construct in the world—a tribute to ingenuity or stupidity, asked Dr Tuntawiroon?

The authorities quietly went ahead with preliminaries to the Nam

The Ecologist, Vol. 15, No. 1/2, 1985

Choan dam on the Upper Kwai Yai, but work on building an access road came to light because it passed without permission through the Tung Yai Naresuan Wildlife Sanctuary, whose director was Phairot Suvankorn, an official who had earlier publicised and blocked a dam in Khao Yai National Park. There was an outcry led by students, whose power had been demonstrated earlier when they launched agitation which brought down the government in the mid-seventies following the discovery that high officials were poaching in Tung Yai. It was this outcry, joined by environmentalists, archaeologists, geologists, lawyers and the mass media, that led to the cabinet meeting at which Dr Tuntawiroon successfully persuaded the government to review the project. Meanwhile, the opponents of the dam took their case to the President of the World Bank, which was offering loans, and declared that they would "absolutely not be subject to any debt incurred."

Nature itself appears to have come to the support of Dr Tuntawiroon's case, for in 1983 a series of earthquakes shook the originally non-seismic area of Kanchanburi, with their epicentres within the Srinigarind dam reservoir, not far from the Nam Choan dam site.

The frequency and magnitude of floods appeared to increase after dams were built, and to the authorities' claim that the floods would have been even worse and more dams were needed he replied: "We might as well build a roof to cover the total area of Thailand."

Stone age artifacts and lignite deposits were discovered in the area which would be submerged by a team led by Dr Tuntawiroon. This confirmed the potential archaeological wealth of the Kanchanburi area, which had first come to light when a Dutch prisoner of the Japanese working on the "Death Railway" in World War Two found

pebble tools similar to those at the *Pithecanthropus pekinensis* site near Beijing and the *Pithecanthropus erectus* site in Java. This led to speculation that there was a Pleistocene migration route through Thailand.

In his attack on the dam builders, Dr Tuntawiroon recalled that Thailand could claim to be the most advanced country in southeast Asia in water resource management, with a long history of canal digging and the art of living in a flood plain near sea level. But the Royal Irrigation Department, which had established a canal network beneficial to agriculture, had had to hand over responsibility for water storage to EGAT, which is dedicated to using water for electrical power.

Dr Tuntawiroon declared that it was false to argue that hydroelectricity dams were cheaper to run than thermal stations, despite high construction costs, because water is free. The water, he said, was obtained in exchange for land, which could be used for agriculture, forestry, or even firewood production, apart from its intrinsic values, such as ecological equilibrium and wildlife habitat, which were difficult to quantify. These values were discounted by EGAT, thus allowing the organisation to claim that its projects were financially sound.

Concluding his case against the dams Dr Tuntawiroon said: "Whether EGAT will eventually succeed in manipulating its way to build Nam Choan dam or not, it seems that there will be no more place for a large hydro-electric power dam in Thailand, not only because of rising public opposition, but also because it is simply too expensive in terms of land loss as against increasing pressure of rising population."

It is sad to think that Dr Tuntawiroon will not be around to ensure and savour ultimate victory, but others will surely take up the challenge.

Peter Jackson

Peter Jackson is Environmental Journalist and Consultant and was chairman of the Cat Specialist Group, International Union for Conservation of Nature Resources (IUCN).

Open letter to Mr Clausen, President of the World Bank

Dear Mr Clausen

This double issue of *The Ecologist* has been prepared in order to expose to world leaders the role played by your bank and the other international agencies with which you work, in particular the Food and Agricultural Organisation of the United Nations (FAO), in creating the present escalation of human misery, malnutrition and famine in the Third World.

The coming population crash

It has been clear for at least ten years that a massive population crash in Africa and South Asia was inevitable. When I worked for Environment Canada in 1975, documents were already being circulated which suggested that half a billion people would starve to death before the end of the century. Professor Paul Ehrlich of Stanford University was pointing out at that time that population projections to the end of the century, established by governments and international agencies, were simply absurd. Indeed the world will never support a population of 6½ or 7 billion, let alone 30 billion which the FAO still has the gall to tell us it can support—so long of course as that iniquitous organisation is provided with sufficient funds to carry out its programme.

At the Second International Conference on the Environmental Future held in Reykjavik in 1977, 120 participants—many of whom were men of the greatest possible eminence in their respective fields—declared that *the death by starvation of a thousand million people could well be the final tragedy of this century.* (See *The Ecologist*, Vol 7 No 6)

Since then events have given ever greater credence to this dismal prospect. Today the people of more than twenty African countries are threatened with famine, hundreds of thousands if not millions have already died and the prospects for the survivors are very grim. There is even terrible starvation today in the Sudan, which country the FAO was telling us only a few years ago, had the greatest agricultural potential in Africa and could be turned into the breadbasket of the Arab world.

Why is this happening? You and your colleagues tell us that people are hungry because they are poor—from which it must follow that the cure for famine must be to make them rich, hence the need for economic development.

In other words you interpret the incidence of hunger in such a way as to rationalise the solutions you wish to apply—those which the World Bank has been set up to finance and which most favour various short-term political and economic interests.

Your faith in economic development

Your quasi-religious commitment to economic

development is clearly reflected in your Fairfield Osborn Memorial Lecture (1982). In it, you not only insist that development is essential to combat poverty and malnutrition but you actually pretend that it also provides the only means of protecting our natural environment. Thus you tell us that "a better environment more often than not depends on continued economic growth", and that if we are to have a sustainable world then it must "include economic growth". You even go further and tell us that "all development can enhance the conditions in which we live", and further on in your talk that "all economic development should, on balance, improve people's environment . . ."

These are shocking statements to make. Do you really believe that the vast areas devastated by open-cast mining have been improved by these ventures? Do you really believe that the 100 million or so hectares of water logged and salinised land created by perennial irrigation schemes, many of which were financed by the World Bank, have enhanced the conditions in which the local people live? Do you really believe that the vast development schemes that have forced tens of millions of villagers and tribesmen from their homes to eke out a miserable existence in the ever growing and ever more squalid slums of the large Third World conurbations have actually "enhanced the conditions in which those people live?" If you do, then you can believe anything.

Worse still you are guilty of a most callous confidence trick in pretending to the inhabitants of the Third World that the economic development you finance can really enable them to achieve the material prosperity that we know, temporarily at least, in the West today.

You know yourself that in order to develop, Third World countries have eventually to achieve an economic surplus—for they cannot go on borrowing from you indefinitely. But how are they to do this? In most cases their present foreign earnings are insufficient to pay even their oil bills let alone the interest on the loans they have already contracted—in some cases by a very wide margin. If you continue to lend them more money, such interest payments must still further increase.

What is more, their foreign earnings are, in nearly every case, almost entirely derived from the land, and this land, under the impact of the intensive methods of production required to make its produce economic on the world market, is being rapidly degraded. Under such conditions, those foreign earnings can only fall from year to year until they are eventually non-existent.

Basil Rossi, who manages large agricultural estates in the Philippines, recently sent me a letter which I circulated among the banking community of

the UK. In it, he pointed out, that bankers were lending sugar-cane plantations large sums of money for which their land, valued at several thousand dollars an acre, served as security. But once this land has been used for intensive sugar-cane production every year for a decade or so, it must become so degraded as to be worth little more than the land which borders the Sahara desert.

Under such conditions, how can Third World countries, whose costs can only go up and whose earnings can only fall, conceivably develop? You know, and everybody in the development business knows too (though he may not admit it) *that it is impossible*, and that the Third World is being made to destroy its environment and sacrifice its cultural patterns and social structures for nothing.

In any case, what reason have you for supposing that development can make the poor rich and enable them to eat? Has development eliminated poverty and malnutrition in America, the most highly developed country in the world? The answer is most surely no. The inhabitants of the black ghettos of America are very poor indeed if this term is to be used in a sensible manner. Among these people, the family and community have largely disintegrated, households are run by single women who have no men to help them. Crime, delinquency, alcoholism, drug addiction are rife and there is a general distrust, if not hatred, for any form of authority. This is what Oscar Lewis calls the 'Culture of Poverty'. What is more, it can co-exist with great material affluence. Its victims may possess colour television sets, video-tape recorders and expensive automobiles.

Karl Marx was wrong when he said that religion was the opium of the people. It is materialism that is the opium of the people for when the alienated play with these toys they are temporarily transported into a surrogate world and forget the real one which we have made so intolerable to them. But this surrogate world cannot satisfy their basic spiritual, aesthetic and social needs. Indeed, as Ivan Illich puts it, "development has not eliminated poverty it has modernised it."

Nor has uncontrolled development in the USA eliminated malnutrition. Perhaps as many as twenty million people in America suffer in one way or another from a lack of nutritious food. It is not that food is unavailable, only that they have become too psychologically disturbed and too socially alienated to spend their money on the food they need rather than on junk food, worthless consumer goods, alcohol and drugs. Development has in fact not eliminated malnutrition either. It has also modernised it.

Are primitive people really poor?

If you wish to find a society where there is no poverty or malnutrition, you should not look towards the industrialised world. There are a few so called primitive peoples left today. Some live in what remains of that area of Amazonia where you plan to set up the Polonoroeste project, others in the Bastar area of Madhya Pradesh whose destruction you also plan to finance. Their societies and their environments are still intact and, as a result, their members do not suffer from the social alienation or the malnutrition so prevalent in the slums of the USA. In fact, they possess what one should regard as the

most valuable possible forms of wealth: *social and ecological capital* which provide them with great security and all sorts of other important physical and psychological satisfactions. Once the members of such societies are dispersed, however, by some vast development scheme and are forced to seek refuge in the slums of some large conurbation, they are deprived of these sources of wealth which economic development can never replace.

There is no reason to suppose that Third World people actually have anything to gain by economic development. Indeed, contrary to what we are made to believe, while their societies and environment are still intact, they are not short of the technology required to grow ample food. Over the years, we have described in the pages of *The Ecologist* the traditional agricultural practices of 'primitive' people and shown just how well they satisfy nutritional, social and ecological requirements.

In our book *The Social and Environmental Effects of Large Dams* we devote a whole section to traditional methods of irrigation which we show to be the only ones that are sustainable and do not cause the terrible social and environmental problems associated with modern methods. Even, at the UNEP Conference on Desertification, it was concluded that the only method of preventing further degradation of the marginal lands of Sahelia was to return to some form of nomadic pastoralism similar to that which has been practised there for thousands of years.

Nor do primitive peoples suffer from malnutrition, let alone starvation, which as William Dando in his excellent book *The Geography of Famine* points out, is a largely-man-made phenomenon, whose incidence and severity have increased with the development of the market system.

Significantly, John Madeley, in his article on page 36 suggests that villagers in Tanzania may well be better fed when the formal economy is depressed than when it is flourishing.

What is particularly important is that these people create none of the problems which today are threatening the very survival of our species on this planet. They do not cut down their trees, desertify their soil nor contaminate the air they breathe and the water they drink. They do not, as we are doing, change the very chemical composition of the atmosphere nor threaten to destabilise world climate. Nor, for that matter, do they build atom bombs. Yet, as irony would have it, you are intent in financing the annihilation of their way of life—even more ironically, so as to rescue them from their 'poverty'.

Selling their food

Perhaps the most obvious reason why development cannot provide a cure for malnutrition and famine is that the Third World must earn vast amounts of foreign exchange in order to finance it, and to earn this they must first of all sell off their forests. This is how the Indonesian 'economic miracle' was financed. This is largely, too, how Malaysia financed its economic development and how Papua New Guinea now proposes to finance its development. We shall see later on what are the consequences of destroying forests in the Third World. What we must note here, is, that once their forests have gone, Third World governments must

then turn to plantation crops and cattle-ranching as a source of foreign exchange. Indeed, in many countries of the Third World well over fifty per cent of the good agricultural land is used in this way to produce cash crops for export, and as these countries run ever shorter of foreign exchange, largely as a result of the high cost of their oil imports and ever growing interest payments, more and more land is being diverted from producing food for their already undernourished population—to producing food for export.

The Chilean economist Manfred A Max-Neef points this out very eloquently. "The developed countries" he writes "force the Third World to pay back their debts. The only way they can do that is producing cash crops. Cash cropping prevents subsistence farming, the alternative to paying unpayable debts is committing suicide. "What" he goes on to ask "is more important, our banking system or the human beings . . . ?" This is indeed the crux of the matter.

You will see in Marcus Linear's article on page 27 how the FAO plans to annihilate the tsetse fly in a partly forested area of seven m sq km in Central Africa so as to turn it into rangelands for producing beef for export to the USA. Perhaps the EDF may be persuaded to turn down the FAO's request to finance this project, though a decision is still to be made.

In Bharat Dogra's article on page 42 you will see that, though no more than fifteen per cent of the children born each year in India are adequately fed, the Indian government is doing everything it can to encourage more and more food exports. Can you really believe that such a policy is in the best interests of the people of that country? Can you really believe that it is even remotely conceivable to feed the hundreds of millions of starving people in the world by forcing them to sell an ever greater proportion of their food?

What is particularly depressing is that your agricultural policies continue to be influenced by the FAO which has been, for many years, under the complete domination of the agro-chemical industry, whose representatives, the GIFAP, until recently occupied spacious offices at the FAO headquarters in Rome and were instrumental in organising the 1974 World Food Conference.

FAO's policies only make sense at all when seen in their true light as providing a means of maximising the sales of agro-chemicals and the availability of cheap food imports, in particular beef, to the food-processing industries of the West. By financing FAO-inspired projects, this is what you are helping to achieve at the cost of creating the poverty and the famine we are only beginning to witness today.

Destroying the Third World environment

There is another way in which your policies are giving rise to this poverty and famine, it is by causing the most terrible environmental degradation. We are generally made to believe that environmental degradation is the concern of the rich, the poor, we are told being only interested in the material benefits and the jobs provided by the enterprises that give rise to it. This is, of course, sheer nonsense. The truth is that environmental degradation is the main cause of poverty and famine in the world today.

Indeed the tragedy we are witnessing in Africa

today, rather than being the result of an inevitable and unpredictable drought, in other words an Act of God is, as Anders Wijkman and Lloyd Timberlake demonstrate on pages 9 and 18 but the result of environmental degradation most of which has occurred since the war and much of which (though they do not say so) has been financed by development banks such as yours.

In many areas where the drought is said to have occurred *there has not even been a reduction in rainfall*. It is the water-retaining capacity of the soil that has been reduced and this has been caused by its over-exploitation for intensive agriculture and by deforestation. At the same time, where there has really been a reduction in rainfall this has had a far more severe effect than such an event would have given rise to in the past, again because of environmental degradation, and because much of the land once used by nomadic pastoralists, to feed their cattle, has been taken away from them for the production of cash crops, in Sahelia, for instance, for the intensive cultivation of peanuts for export to France. (See *The Ecologist* Vol 11 No 4)

The consequences of deforestation

Deforestation in the Third World is another reason for this devastation, and you do not seem to realise its full implications. Traditional forest-dwelling peoples who once made up the bulk of humanity, are totally dependent on the forests for the maintenance of their cultural pattern and indeed for their physical survival. This means that the removal of their forests condemns them to terrible biological and cultural impoverishment. This should be made clear to you by Bharat Dogra's article on page 44, as well as by the small excerpt we have published on page 49 from Anil Agarwal's recent seminal article 'Beyond Pretty Trees and Tigers.'

Another reason why you may not understand the terrible effects of deforestation in the tropics is that, in the temperate areas in which we live, deforestation can occur with relative impunity. In the tropics, however, conditions are totally different, a fact that cannot be over-emphasised.

Indeed, in such areas, deforestation inevitably leads to the transformation of rivers into torrents, the drying up of streams and springs and the erosion and desertification of the soil which becomes deprived of all protection against the winds and the heavy monsoon rains. What is more, whereas in temperate areas, forests, even when clear cut, can often recover (though perhaps in a slightly degraded form), in the tropics, once they are removed, they are—at least on a historical time-scale—gone for good.

The US Department of State, as you undoubtedly know, has at last understood this, and indeed the USAID leadership has now undertaken not to finance any projects which lead to the destruction of tropical forests.

In your Fairfield Osborn Memorial Lecture, you tell us that "as a matter of policy, we won't finance a project that seriously compromises public health or safety; that causes severe or irreversible environmental deterioration".

Unfortunately, this is not true. The Polonoroeste Project, the Bastar Project, worse still in India the vast Narmada Project, which we shall describe in

detail in volume 2 of our study *The Social and Environmental Effects of Large Dams*, do all these things and worse, yet you still insist on financing them.

You may indeed impose conditions on national governments as part of the loan agreements you make them sign, but these are invariably insufficient and, as you know only too well, are rarely implemented and rarely will be.

Besides, if you really observed this policy, it would not have been necessary for Robert O Blake, Chairman of The Tropical Forestry Working Group, Washington D.C., to have written you the letter we publish on page 78 asking you so earnestly to desist from financing projects that can only lead to the destruction of the world's remaining rainforests.

There is another reason of course why you do not understand the importance of forests in the tropics. It is that your organisation, as I learnt to my horror some years ago when I spent an afternoon in Washington with your Director of Forestry, Mr Spears, refuses to distinguish between a forest and a man-made plantation of quick growing exotics. A plantation may alone be able to yield the financial return that enables its owners to pay back the money they have borrowed from you for setting it up, but as you will understand when you read Bharat Dogra's article on page 44, it can provide almost none of those subtle benefits which a natural forest provides its traditional inhabitants and on which they are so *totally dependent for their survival*.

A natural forest, as Sunderlal Bahuguna, the great Chipko leader of the Himalayas always says, provides "soil, water and pure air"—the very source of life—a plantation provides but "timber, resin and foreign exchange"—a source of commercial wealth to but a tiny minority.

Deforestation and climatic change

Furthermore, deforestation must ultimately lead to climatic change. It has already done so in many areas on a local level. But there is now every chance that further deforestation could lead to a global and irreversible climatic catastrophe. Already at the 1977 conference at Reykjavik, four of the world's leading climatologists (Kenneth Hare of Canada, Hermann Flohn of West Germany, Tom Malone and Reid Bryson of the USA) declared that, if we continued burning fossil fuels and cutting down forests at the present rate, a *global climatic catastrophe was inevitable*, a view which is now shared by most serious climatologists.

Since then, much has been learned of the global mechanisms which have evolved over the last 3,000 million years to assure world climatic stability, and in the absence of which, life on this planet would become extremely difficult. It has in particular become reasonably clear that if we tamper sufficiently with the structure and functioning of the biosphere, above all by destroying any more of the forests which once practically covered this planet and replacing them with endless stretches of monoculture and cement, a point must eventually be reached when these mechanisms can no longer function.

The well known atmospheric chemist, Dr Jim Lovelock, who has possibly looked at this question more closely than anyone else, describes on page 52

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just why this must be so, and how the destruction of the Amazonian rainforest which you are helping to finance, could trigger off a climate 'flip'.

Let us not forget that the heavy rainfall in Amazonia over an area of something like seven million square kilometres is largely derived from evapo-transpiration from the Amazonian forests themselves. This means that a massive volume of water is continuously moving upwards and downwards over an enormous area. This, it seems, provides a very effective global cooling system, and to destroy it is to court disaster. Indeed a tentative model recently published in *Science* suggests that the mean temperature of the tropics, could, as a result, shift to something like 50° centigrade which would be sufficient to render a considerable part of our planet uninhabitable.

Who destroys the environment?

Needless to say, you pretend that it is the poor who destroy their environment. In your Fairfield Osborn Memorial Lecture you tell us that "poverty puts . . . severe—and often irreversible—strains on the natural environment." You also tell us that "at survival levels people are sometimes compelled to exploit their environment too intensively", and that "poverty has often resulted in long years of mismanagement of our natural resources, evidencing itself in over-grazing, erosion, denuded forests, and surface water pollution." You know that this is very misleading.

Of course the peasants have a greater impact on their forests today than they did thirty years ago. This is partly because their numbers have increased, but very much more because the vast bulk of their forests have been cut down by logging companies, which means that their activities which were quite tolerable when their forests were intact, have now become very destructive.

The same is true of the impact of peasant agriculture and of pastoralism. If the Masai, for instance, are over-grazing their land, it is that their cattle are confined to a quarter of the area that was once available to them, the rest having been confiscated to the former colonial government to satisfy commercial requirements. As already mentioned the same is true of the impact of pastoralists on the marginal lands of Sahelia (see *The Ecologist* Vol II No 4).

Indeed, rather than destroy their environment, the villagers and tribesmen of India, for instance, are the only people in their country who are seriously engaged in protecting what remains of their forest. In Bihar, hundreds of Santal tribesmen have been killed in clashes with the army, when they tried to protect their sal forests from being transformed into eucalyptus plantations.

In the Himalayas the Chipko movement has been organised by the peasants themselves under the leadership of Sunderlal Bahuguna and Chandi Prasad Bhatt and is spreading throughout the area. The village women, when they see the commercial loggers approach, stream out of their villages to hug the trees, which they thereby protect with their own bodies from the depredations of government contractors (see *The Ecologist* Vol 13 No 5)

Environmental degradation in the Third World is thus but the inevitable consequence of present development policies, and Third World people are

poor, not as you would like to think, because they are 'underdeveloped' but because they have been impoverished by previous development, because, they have been robbed by developers of their means of sustenance, and are now condemned to scratching an ever more marginal existence from land that resembles ever more closely the surface of the moon.

They are poor, in fact, Mr Clausen, because you and your colleagues have made them poor, and, at the rate you are going, the poor and the starving will, in but a matter of decades, make up the bulk of humanity on this planet.

The Irresponsibility of FAO

Consider what would in fact happen if you were to finance in its entirety, the plan for feeding the world described in the October 1971 issue of the FAO journal *Ceres*. "First", this journal tells us, "we would open up for intensive arable farming some seven million square kilometres in the Amazon basin and a smaller area in equatorial Africa. Second, we would make it possible to turn the warm deserts of the world into a sea of waving green, with some twelve million square kilometres in the Sahara alone, an area almost equal to the total cultivated land in the world at present. An unlimited supply of fresh water would also make it possible to provide perennial irrigation to the existing cultivated lands, to the vast areas under permanent pasture, and to the lands now under tropical forest."

This sounds like the LSD-inspired dream of some technology-obsessed adolescent. No serious person could really believe that it is a serious statement from a United Nations agency which received some 500 million dollars a year for research on strategies for feeding the hungry millions.

The sheer folly of such a plan should be evident to all. The great bulk of the seven million sq km of the Amazonian basin is, of course, unuseable for agriculture, the soil being largely lateritic and yielding two or three harvests at most before becoming desertified (see Jose Lutzenberger's article on pages 69 to 72). To clear it of its forests, as pointed out by Jim Lovelock, (see pages 52 to 55) might well trigger off a climatic catastrophe that could make agriculture impossible over a vast part of our planet.

Significantly, fourteen years after this plan was published, the twelve million sq km of the Sahara Desert, rather than being transformed into "a sea of waving green" is on the contrary rapidly expanding and threatening to engulf a major part of Africa, and this in spite of, or perhaps more realistically, because of, the money spent on FAO-inspired development schemes in this area.

Even the United Nations Environment Programme (UNEP) admitted at its 1977 Conference on Desertification that at least a third of the world's remaining agricultural land was, at current trends, being turned into a desert.

As for the unlimited supply of fresh water, this is also but a dream. Water shortages are likely to be one of the most serious problems facing the world in the next decades and they are caused precisely by those strategies which you and the FAO recommend for solving the world food problem: economic development which necessarily involves deforestation and intensive export-oriented agriculture.

As for the perennial irrigation which is supposed

to provide this water (see our book *The Social and Environmental Effects of Large Dams* and *The Ecologist* issue Vol 14 Nos 5/6), this can only result in large-scale water-logging and salinisation and hence in the creation of wet and salt encrusted deserts. Indeed even the FAO admits that more than fifty per cent of the land under perennial irrigation today is already suffering, in varying degrees, from these associated and eventually fatal evils, though none of these considerations have led Mr Saouma to modify his lunatic policies, as is clear from his insistence on turning Central Africa into a seven million sq km cattle-ranch (see Marcus Linear's article page 27).

Finally, when you finance these massive projects, you are more often than not allying yourself with criminal elements in Third World governments, in their bureaucracies and in the business community, both here and over there.

When doing the research for our book on *The Social and Environmental Effects of Large Dams* we found that an enormous proportion of the money you provide for large development schemes is simply syphoned off by crooked politicians. With regard to the Mahaweli scheme in Sri Lanka, for instance, we were assured, though of course no one can prove it, that at least thirty per cent of the funds provided by aid agencies for its construction, were diverted in this way. It is well known that the same is true of the funds provided for putting up the large Brazilian Dams that are being built today.

In many countries—Indonesia for instance—it is also generally conceded that each minister has his own private forest concession. In India, B B Vohra, one of the most respected authorities on forestry and agriculture in the country, and for many years a top civil servant, admits himself (see "How India's forests have been cut down" page 50) that the forests of that country have been cut down by what he refers to as "formidable mafias based on a triangular alliance between the corrupt bureaucrat, the corrupt politician and the corrupt businessman."

Do you realise that by financing such enterprises you are in effect becoming a member of this alliance? You are financing "institutionalised crime" on an unparalleled scale, what is more, crime that will not simply lead to a diversion of funds from a few rich individuals but to a diversion of essential resources from the rural masses you are supposed to be serving and without which they are condemned to irreversible impoverishment and starvation.

It may be a shock to you, Mr Clausen, to be brought down to earth in so rude a manner, but I strongly suggest you do not ignore this letter. You cannot be allowed to continue financing the destruction of the tropical world, the devastation of its remaining forests, the extermination of its wildlife nor the impoverishment and starvation of its human inhabitants.

Yours sincerely

Edward Goldsmith
Publisher of *The Ecologist*

Is the African Drought an Act of God or of Man?

by Anders Wijkman and Lloyd Timberlake



PHOTO: F. BOTTS/FAO

Drought-killed livestock beside the camp of Mali nomads.

It is taken for granted that the tens of millions who are already starving or threatened with starvation in Africa today are the victims of a drought, caused by an unpredictable and unpreventable reduction in rainfall. This is a convenient myth. In reality in many drought stricken areas the rainfall today is much the same as it always was. However the soil's water-retaining capacity has been reduced by massive deforestation and by the over-exploitation of land and water resources. Also the traditional knowledge and the will to co-operate, which previously enabled people to cope, have been eroded by economic development. The famine we are witnessing today is thus not an act of God, but the inevitable result of present development policies.

Ari Toubou Eibrahim, Niger's Minister of Agriculture, told an audience of foreign journalists in 1982 that his ministry had done away with all Western scientific definitions of drought which depended on measuring quantities of rainfall. It now uses another definition: "Not as much water as the people need".

This may be somewhat imprecise, but in fact it represents a new way of

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looking at drought which could be helpful to agricultural and soil scientists. To a farmer, a drought is not necessarily about rainfall.

In the Caribbean, earthquakes, volcanoes and hurricanes are the most dramatic natural hazards. But drought and wind erosion cause more damage and economic loss. The Windward Islands—Dominica, Grenada, St Lucia and St Vincent—tend to slope steeply from the tops of peaks to the beaches. Bananas are the most important export, accounting for more than

seventy per cent of St Lucia's total agricultural exports.

The bananas are cultivated on lower hillslopes, which have variable rainfall. The unprotected topsoil beneath the trees is washed away by rain erosion and blown away by the wind. There is little topsoil to retain rainwater, so the rain which falls immediately moves down the slopes and away from the crops. In some areas, old channels built to remove water from former sugarcane fields help carry the water away from the bananas.

In such conditions, the only meaningful measure of rainfall is on a day by day basis. Between 1970 and 1975, over twenty million dollars in banana producer revenues was lost due to "daily" drought conditions, even in the middle of the rainy season. Thus a crop can be damaged by "drought" in the midst of a better than average rainy season¹.

Scientists have observed the same effect in Haiti, where deforestation has led to catastrophic erosion. Rains may come, but the water runs quickly down the bare slopes, and the crops do not get the benefit. The plants have all the symptoms of drought affliction². Botanist Jack Ewel of the University of Florida has called this condition "pseudo-drought", but the only way to tell it from a "real" drought is by measuring the rainfall. To the farmer, the effect is exactly the same.

The Cagayan river valley in the north of Luzon island in the Philippines has undergone thorough study by the International Rice Research Institute (IRRI) of the Philippines, which is trying to develop a successful rice variety to flourish without irrigation there. The government started a large-scale irrigation project in the area, but abandoned it because it proved too expensive to keep up flows of water. The local people practise slash-and-burn agriculture, but do not allow time for adequate regeneration. This has led to erosion and loss of topsoil.

Lack of vegetation and topsoil means that the land cannot retain the water. The old irrigation channels actually take water away from the crops. So normal rains become "floods", and these are followed quickly by "droughts". And all of this can happen in years of normal average rainfall. After several years work, the IRRI has been unable to produce a rice strain that can flourish when drought follows quickly on the heels of total submersion.

These "droughts" during plentiful rainfall—with the damage to crops associated with seasons of little rain—make nonsense of the three types of drought defined by geographers:

- precipitation drought due to lack of rainfall;
- runoff drought due to low levels of river flow; and
- aquifer drought due to a lack of groundwater.

In fact, US disaster expert I. Burton defines drought in Tanzania not in terms of rainfall, but in terms of crop production³. A "major" drought is one that diminishes crop yields by as much as thirty per cent and a "severe" drought would "cause a loss of crop and animal production of about eight per cent". This definition not only removes drought from a measurement of rain but emphasises how narrow the margins are in Third World agriculture.

Rain, soil, drought and climate

When US climatologist C. W. Thornthwaite measured average monthly rainfall for Lagos, Sokoto (in northern Nigeria on the southern border of the Sahel region) and London, he found that Sokoto receives 100mm (4 inches) more rain a year than London⁴. But most of Sokoto's rain comes in July, August and September. There are five months during which Sokoto receives no rain at all. London's rain is evenly spread throughout the year.

The Sahel's rains come during a few months—when they come at all—and during those months it often comes in downpours. Most of the tropics, whether rainy or arid, gets its rain in seasons of intense rainfall between dry seasons. For these rains to do crops any good, the soil must retain water.

Yet most of Africa's soil is infertile sand and laterite soils (with a high content of iron and aluminium compounds, which become hard on exposure to sun and air). Sand and laterite not only erode easily, but hold little water compared to the clayey and humus-rich soils of the temperate zones. Laterite soils, when devegetated and exposed to sun and rain, can bake into a hard, concrete-like texture which is almost impossible to cultivate and absorbs virtually no rainfall. Soils throughout the tropics generally tend to be poorer than temperate soils. There are, however, many exceptions, such as the volcanic soils of Indonesia and Burundi, the

deep clays of the northeast coast of Brazil, the Gezira area of Sudan and south of Lake Chad.

In the tropics, soils naturally prone to erosion receive a harder buffeting by rainstorms. At a rainfall rate of 35mm (1.4ins) per hour, there is a sharp rise in rain's ability to cause "splash erosion": to knock crumbs of soil loose, beginning the process of wash erosion that cuts deep into the soil.

Vegetation helps fragile tropical soils to retain water. When this vegetation is removed, topsoil rapidly erodes, according to Dr W. E. Ormerod of the London School of Hygiene and Tropical Medicine (who assembled most of the above data on Sahel rainfall and soil).

Areas with widespread erosion are more prone to drought—because the soils can retain less and less water—and more prone to floods for the same reason.

The big droughts

But surely the major droughts of several years affecting several nations are due plainly and simply to lack of rain?

In early 1984, more than 150 million people in twenty-four western, eastern and southern African nations were "on the brink of starvation" because of droughts, and "famine has already caused deaths in some countries", according to a UN Food and Agriculture Organisation (FAO) report. In October 1983, FAO had launched a general alert concerning the food situation in Africa.

Rains in 1983-84 either did not come, or came too little, too early or too late. Countries outside the Sahel were also affected:

- Ethiopia: in four northern regions five million people were suffering after several consecutive years of drought. Eritrea had little rain except on the coast. Civil war also disrupted agriculture and food distribution schemes.
- Sudan: Eastern Sudan had a poor harvest, but refugees from Ethiopia continued to pour in. The British relief organisation OXFAM reported that in one camp the new arrivals were not fleeing war, but were drought refugees—farmers from Tigre and Wollo regions who were malnourished upon arrival.



PHOTO Y. MULLER/FAO

A Gambian farmer in his millet field, destroyed by the 1984 droughts.

■ **Mozambique:** Central and southern areas had had little or no rain since 1979, and with drought affecting the entire region many of the rivers normally flowing into the country had dried up. The government reported in late 1983 that "for the rural population in many areas the only food supply during the last months were some fruits and leaves growing in the savannah forest". A UN report in early 1984 said 10,000 people had already died in three of the worst hit provinces and at least 750,000 people were in need of urgent aid.

■ **Zimbabwe:** All eight districts got some rain in late 1983, but the water supply remained critical, with cattle dying in some areas. Living cattle were weak, so in some areas there was no draught power, causing people to use hoes to plough, reducing the area they could plant and so affecting future harvests.

The weather was clearly to blame. But in each nation human activity made the disaster worse:

■ **Ethiopia:** Robert Lamb of UNEP reported that "the highlands, especially the regions of Wollo, Tigre and Gondor have been so overfarmed, overgrazed and deforested that efforts to scrape a bare living from this land threaten to destroy it permanently. The erosion resulting from overuse causes the Ethiopian highlands to lose one billion tonnes of topsoil

each year, according to UN estimates." The situation is so desperate that the government has begun a major resettlement scheme to transfer farmers from the highlands to underpopulated lowlands. Government officials have referred to the people to be moved as "environmental refugees".⁵

■ **Sudan:** For some time the Sahara has been encroaching upon the Sudan across a broad front at a rate of about five kilometres (3 miles) a year, claimed Sudanese President Jaafar Mohamed Al Nimeri in late 1983 at the FAO annual conference. In fact, scientists say that the process of desertification is less like the advance of a wall of sand than the outbreak of a blotchy skin disease, here and there over an area of 100-200sq km (60-125sq miles). Yet the Sudanese government continues to allow, even to encourage, overcultivation and overgrazing in the afflicted areas. President Nimeri told the FAO meeting that the nation's motto was "agriculture and more agriculture".

■ **Mozambique:** Some 8,000-10,000 Mozambique National Resistance Movement fighters, widely reported to be backed by South Africa, destroyed homes, state-run shops, health centres and crops in late 1983 and early 1984, according to OXFAM. They prevented government delivery of relief supplies, frightened people out

of planting their crops and caused many to flee to safer areas, especially in the two southernmost provinces, Gaza and Inhambane. Mozambique has suffered both drought and destabilisation.

■ **Zimbabwe:** As Zimbabwe approached independence in 1980, the whites five per cent of the population—controlled fifty per cent of the land. Economic and security problems have meant that land redistribution since then has been slow. African families crowded onto poor quality "tribal lands" have been forced to overcultivate and deforest these fragile areas. Poor rainfall has been the final blow. The cattle-herding Ndebele people do not feel they are getting their fair share of the redistributed land under the Shona-dominated government of premier Mugabe. Their own land has been overgrazed by their herds, and the Ndebele appeared to be suffering the worst from the drought.

An FAO report released in July 1984 listed six African countries which would face severe food shortages right through 1985, due to the failures of three successive harvests. Zimbabwe and Mozambique were joined on the list by Angola, Botswana, Lesotho and Zambia.

The Sahel: 1968-1973

The 1968-73 Sahel drought, which most directly affected Chad, Mali, Mauritania, Niger, Senegal and Upper Volta (now called Burkina-Faso), was made worse by human action and inaction. According to a report to the 1977 UN Conference on Desertification (UNCOD), between 100,000 and 150,000 died in the region. And in a report by the Club du Sahel (an informal collection of countries giving aid to the region) and the Permanent Interstate Committee for Drought Control in the Region (CILSS—an organisation of Sahelian governments) the toll was 50,000-100,000⁶.

But the death toll tells little of the story. Jean Copans of the Centre for African Studies in Paris, claims that by 1974 there were 200,000 people in Niger (5 per cent of the population) completely dependent on food distribution; 250,000 people in Mauritania (20 per cent of the population) had moved to towns and were completely destitute; and in

Mali another 250,000 people (5 per cent) were totally dependent on aid in towns⁷.

The drought focused scientific and public attention on the Sahel in particular, and on the climate in general. Scientists checked to see if climatic change was to blame.

"No serious analysis of the available data is known to show a falling trend of rainfall in the zone over the period for which records are available", concluded E G Davy in a report for the UN World Meteorological Organisation; his findings also covered arid zones in India and the Middle East. Other climatologists agreed. Rainfall has been lower over the past 15-20 years than during the 1950s and early 1960s, but there is no evidence that this represents a major climate change. Scientists also looked at the historical record and found that rains have often failed in the Sahel. The nomadic Tuareg tribespeople have given earlier droughts names like "Forget your wife" and "The sale of children".

Alan Grainger of Oxford University, UK wrote in a 1982 Earthscan report: "Drought triggers a crisis, but does not cause it. Overcultivation and overgrazing weaken the land, allowing no margin when drought arrives. The high human pressure will continue during the drought, leading ultimately to even greater and more visible damage to the land and the deaths of large numbers of animals⁸.

After the drought, both the Club du Sahel and CILSS agreed that good self-sufficiency was the main goal of national and regional development. Over 1975-80, donor countries committed 7.5 billion dollars in aid. Yet only 24 per cent of this was actually directed toward agriculture, and less than 40 per cent of all agriculture and forestry projects were rural. The rest went to urban-based support projects. Of the 7.5 billion dollars only 8 per cent went for cropping which depends on rain rather than irrigation. (Some 28 per cent of all agricultural aid went to cash crops, most of which were exported. In 1960-70, almost all aid to "rainfed" cropping went to cotton and peanut projects.) Only 5 per cent of the 7.5 billion dollars went to livestock raising, a major

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activity in the region. Only 1.4 per cent of aid went to forestry/ecology in 1980, up from 0.35 per cent in 1975. Writing in 1983 of the ways in which both aid-giving and aid-receiving nations had been spending money to combat desertification, Dr Harold Dregne of Texas Tech University (US), noted: "Governments do not see desertification as a high-priority item. Rangeland deterioration, accelerated soil erosion and salinisation and waterlogging do not command attention until they become crisis items. Lip service is paid to combating desertification, but the political will is directed elsewhere. There seems to be little appreciation that a major goal of many developing nations, that of food self-sufficiency, cannot be attained if soil and plant resources are allowed to deteriorate⁹."

Each year the region falls further and further behind its goal of food self-sufficiency. Population is increasing at the rate of 2.5 per cent a year and cereal production rises at one per cent a year. Between 1955 and 1979, the land area under millet and sorghum increased at an average rate of 3.4 per cent per year, but production rose only 2.5 per cent, per year. Thus yields per hectare are falling. Food aid to the region never falls below 100,000 tonnes a year.

Why, when everyone seems agreed that food self-sufficiency is of utmost importance for the Sahel, does so little money go to agriculture?

First, the peasants who live in arid lands have little political power. The governments—civil servants, police, army—are in the capitals. So leaders like to keep aid in the capitals—whether it be food aid or the construction of buildings and other

projects which generate employment.

Second, for the same political reasons, Sahelian governments have a policy of providing cheap food to urban centres. So subsistence farmers rarely produce extra food to sell in the market—because the selling price does not pay for the fertiliser or better seed they need to increase production.

Third, the donor nations have few experts who can increase yields of sorghum and millet in arid lands, but do have experts at constructing roads and buildings, and they have companies manufacturing equipment for such purposes.

Yield per hectare of foods is falling because increasing populations tend to push farmers and herders onto marginal lands, and because plantations of cash crops get the best land along southern rivers, pushing subsistence farmers and nomads north towards the desert.

Fourth, livestock numbers are climbing toward their pre-drought (1968) levels. The contribution of domestic animals to desertification is a controversial issue, but overgrazing is certainly playing a role in degrading land in the Sahel. In 1980, the numbers of cows and sheep in the Sahel were at 70 per cent of their pre-drought levels; the numbers of goats, horses and donkeys, were equal to 1968 levels, according to a UNDP report.

"The situation has become extremely precarious in the Sudan, as in all countries in the region, and is today much more delicate than in the late 1960s. The next serious drought might well entail more severe consequences than the last one", predicted French rangeland expert Michel Baumer in 1982⁹.

"Whether you see the desert as advancing or the Sahel as losing ground, a real catastrophe is on the way", predicted Mamadou Mahamane, director of a Niger forestry aid project the same year⁹.

The Sahel today

In 1983, rains were either too late or too little across much of the Sahel, except in the south.

In Mauritania, the rains failed in 1982 and 1983. The Mauritanian government distributed food in late 1983, but this went to centres up to

100km (60 miles) away from some villages. There was a mass migration to the capital Nouakchott, which already contained half the country's population.

In Burkina-Faso (formerly called Upper Volta), there was almost no 1983 harvest in the north. Water-holes were only a quarter full. An aid worker in Oudalan reported that peasants there were as badly off as in 1972.

All the Sahelian countries except Niger were on the FAOs list of threatened African countries. Niger also suffered from late 1983 rains, but its government has perhaps done more than any other Sahelian government to promote food self-sufficiency, emphasising food rather than cash crops after the 1968-73 drought. Niger seems to be the lead country in the region in terms of extending advice and services to the countryside. Its leaders took quick action in 1983, selling off 5,000 head of cattle from government farms as a warning to pastoralists that grazing lands would not be sufficient for several months. It advised herders to move to better pastures and began to provide animal fodder to help get the herds through the 1983-84 dry season.

Latin America

Though current droughts may seem a uniquely African scourge, they also regularly hit Asia and Latin America.

Northeast Brazil, an area roughly the size of Europe, has a few very rich planters who own vast sugarcane plantations and many very poor peasants who own little or no land. It was in its fifth year of drought in 1983; some 20 million people were affected. In some areas, 90 per cent of the 1983 harvest was lost and people were reduced to eating lizards and cacti.

But here too, the problem was not only rain. "The drought in the Northeast is a creeping, not a sudden disaster", reported OXFAM. "Irregular and inadequate rainfall has been slowly and insidiously destroying peasant agriculture which has already been undermined by a grossly inequitable land tenure system."

In the high valleys of Bolivia and southern Peru, over two million

people had little food after the almost complete failure of the 1983 potato crop. It was Bolivia's worst natural disaster in more than a century. (The nation's eastern lowlands were flooded in March 1983, and some 40,500 hectares (100,000 acres) of prime agricultural land was destroyed.)

There was rain in the area toward the end of 1983. But as it came late, 1984 was also expected to be a bad year, and observers estimated it could take four years to overcome the effects of the 1983 drought.

Some 20 per cent of the land area of Latin America is either affected or likely to be affected by desertification, according to data prepared for a UN world map of desertification (1977). Maximum threats are in Chile, Argentina, Mexico and Peru. Among the Andes nations, according to the *Arid Lands Newsletter* (US): Bolivia is 15 per cent arid, 10 per cent semi-arid; Ecuador is 5 per cent semi-arid; Peru is 20 per cent arid; Venezuela is 5 per cent semi-arid.

Bolivia is one of the least developed nations in the region. Children have a life expectancy at birth of 49 years, compared to a tropical Latin American average of 62; 131 of every thousand infants die before their first birthday, compared to an average in tropical Latin America of 74 per thousand. The nation has a per capita GNP of 570 dollars, less than one third of the average of 1,890 dollars for tropical South America¹⁰.

The country is sparsely populated, but as only three per cent of the land is arable and as the rural people are especially poor, most peasants intensively farm small plots of poor soil. Fallow periods become shorter every year, according to OXFAM.

"No serious analysis of the available data is known to show a falling trend of rainfall in the zone over the period for which records are available"

"There are droughts in a few departments each year. But in 1983 drought stretched throughout the high valleys", they said.

In mid-1983, the Bolivian army announced that it would cultivate 607,000 hectares (1.5 million acres) of land it owned to offset potato shortages. But the fact that the army kept that much arable land out of circulation was regarded by some local relief workers as an indication of how lightly the government takes the plight of the rural smallholders.

Most of the cultivated soil in the Andes suffers erosion. Only 2.7 per cent of Peru is classified as "arable", but according to Peruvian forester Marc Dourojeannie, 30 per cent of that nation's territory is affected by water erosion, both on the arid western slopes, and on the humid eastern slopes, to which much of the agriculture is now moving.

The populations of the Andean countries of Bolivia, Ecuador and Peru are growing faster than the regional averages. As these populations seek more farmland, more land will become more prone to drought.

The Indian subcontinent

India has been more affected by drought and associated famine than any other country in the world. Floods in the heavily populated northern, eastern and coastal zones often make headlines, but over 80 per cent of the subcontinent is chronically drought-prone. In fact, 1983 was the first year that Africa had more drought victims than India. Even in that year, when drought affected 150 million Africans, 120 million Indians were suffering from less well publicised droughts.

The subcontinent has suffered at least a dozen great famines in which a million or more people have died in the past 1,000 years; there have been four major famines in the past 100 years.

L A Ramdas, an Indian geographer, reckoned in 1949 that the subcontinent was liable to a subcontinent-wide drought once every twenty years, but to drought in one or more provinces in one year out of every five. He estimated that widespread favourable conditions—

neither drought nor flood—could only be expected in one year out of every two.

The 1967-68 drought-related crop failures caused relatively little suffering, while the 1972-73 drought may have left as many as one million people dead of starvation, according to Canadian geographer Kenneth Hewitt, who wondered why the two very similar disasters should have had such different effects.

In 1967-68, the United States had good harvests and no major foreign bidders for its grain; there were no other major shortage disasters beside the one which occurred in India. India's grain production was down 19 per cent over the previous year in 1966-67, but in those two years approximately 20 per cent of the US wheat crop was shipped to India, on fairly favourable terms, according to Hewitt.

In 1972-73, drought again hit the southern and northwestern areas of the Indian subcontinent. But this time: both China and the Soviet Union had suffered bad harvests and put in bids for US grain; the Nixon administration, embattled by the Watergate scandal, was willing to sell to the highest bidder; industrialised nations had just recognised the seriousness of the Sahel drought, and were sending aid in that direction; India was hit by the sharply rising oil prices of the period, and could not afford grain; and India and Pakistan were embroiled in the Bangladesh secession.

"Human institutions that could have been used to avert famine were turning out to be no more reliable than the monsoon", wrote Hewitt. Political and other events outside India turned the drought into a major human disaster.

Induced "droughts": US and USSR

It is not only the peasants in poor tropical countries who can help cause drought conditions on land which previously provided thousands of people with a living. It can happen in both capitalist and communist societies of the North.

During the First World War, rapidly rising wheat prices encouraged US farmers to plough up the prairie grasses of the western Great Plains to plant wheat. The droughts of the early 1930s ruined many of



A Somali woman digs for water in a river bed. Even in the worst drought, some water is available.

these farmers and turned the area into what was then called "the Dust Bowl". Photos show mounds of sand and sandstorms which would never have occurred if the prairie grass and its tough root system had been left in place.

The US government responded with massive soil conservation and rehabilitation programmes, as many farmers migrated westwards to California. But as US environmentalist Erik Eckholm wrote "Tens of millions in the Third World today have no California to head for when the soils that sustain them blow away."¹¹ Few Third World governments have effective soil conservation programmes either.

In the 1950s, the Soviet Union began a "virgin land programme" as part of a national effort to increase grain production. Millions of hectares of the semi-arid Kazakh Steppes in Soviet Central Asia were ploughed and planted with cereals. Soviet soil scientists slowly realised that they were creating a desert by state decree. By 1965, most of the work had been halted: some of the

land was allowed to return to grass, and anti-erosion measures—wind-breaks, increased fallow periods and the use of machinery which leaves crop stubble in the fields—were taken on other stretches.

Yet at least three million hectares (7.4 million acres) still suffer severe erosion, and during dry spells sandstorms are a problem where there were none before.¹²

US droughts: spreading the risk

While much of Africa and parts of Latin America and Asia were suffering droughts in 1983, the United States suffered a combination of heatwave and drought from the eastern states to Texas. The drought coincided with the Reagan administration's "payment-in-kind" (PIK) programme, which encouraged farmers not to plant and paid them in crops—corn, wheat, rice or cotton—for land not planted.

PIK was an effort to lower US grain reserves. In the late summer of 1983, officials were estimating that PIK had reduced the potential corn crop by 2.2 billion bushels and the

drought had done away with another one billion bushels. Farmers who bet on PIK did well; many of those who planted anyway suffered badly.

But US farmers suffer less in a drought than do Sahelian farmers, mainly because of the vast amounts of government help they get. In 1983, for the first time in US history, the government spent more supporting farmers (over 20 billion dollars), than the nation's total net farm income, according to US environmental writer David Sheridan.

Since the 1890s, there have been four major droughts in the US Great Plains, one about every 20 years: in the 1890s, 1910s, 1930s and 1950s, according to Richard Warrick of the Natural Hazards Information Centre, University of Colorado, US. There were less severe droughts in the 1870s and 1970s and during the summer of 1983¹³.

During the 1890s, there were widespread reports of starvation deaths and malnutrition in the drought-afflicted central and southern High Plains. There were similar reports during the 1910 drought from the Dakotas and eastern Montana. There was little relief effort or even the admission of a problem in either case, because the state governments were trying to lure in settlers by promoting the region as prosperous farmland.

Over the decades, human suffering has diminished from drought to drought in the US, largely because of state and federal programmes such as the Federal Crop Insurance Corporation, the Soil Conservation Service and the Agricultural Stabilization and Conservation Service.

These organisations, working with increasing numbers of highly educated farmers, introduced schemes to conserve water and protect its sources (evaporation control, seepage reduction); and to protect farmland (contouring, terracing, leaving fields fallow in summer, ploughing stubble back into the fields, drought-resistant crops and varieties, flexible cropping plans and land use regulations). Crop insurance, reserves of feed and grain and various types of financial reserves (including reasonable credit) add to security during drought.

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Between the 1930s and the late 1970s, the Great Plains also experienced a sixfold increase in irrigation.

According to Warrick, all of this has resulted in a shifting of the impact of droughts to higher levels. The harsh realities of starvation and migration facing the 1890s farmer, he says, were replaced locally during the 1950s "by the hardships of paying insurance premiums, by slightly premature retirements and by a lingering uneasiness over receiving government support. The national obligation to bail out the Plains farmer shifts much of the stress to the US citizen. This stress takes the form of increased taxation and of rising prices for scarce agricultural commodities."

But Warrick warns that the security of the US Great Plains farmer has been achieved through "an increasing commitment to greater social organisation and technological sophistication". It is a complex, very expensive structure. In a really severe drought, "the failure of these mechanisms under severe stress might result in far-ranging, unexpected disruptive consequences".

The Sahelian states are hardly in a position to mimic the details of the Great Plains agricultural system. But there are inexpensive technologies for water and cropland conservation and protection which are not getting to the Sahelian subsistence farmers because—as detailed above—little government and foreign aid ever reaches these

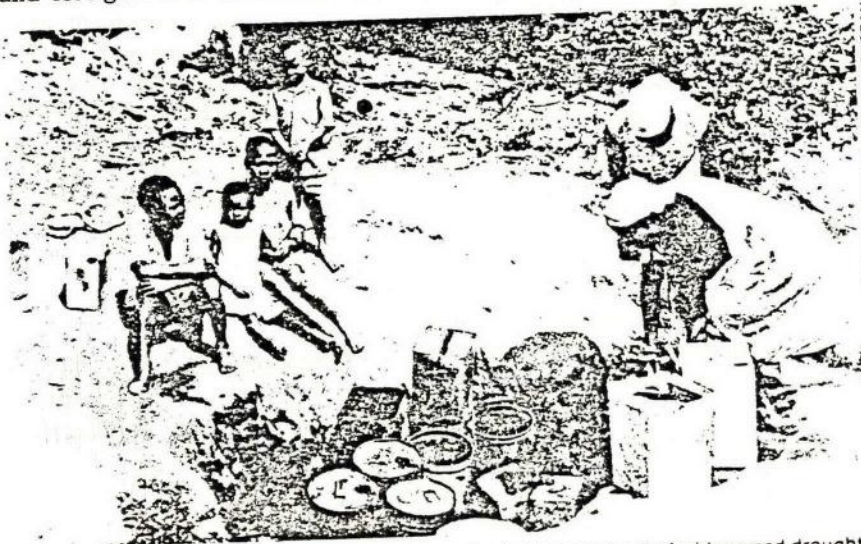
farmers. The basic concept of spreading the burden of disaster throughout the population has not yet been adopted in the Sahel or other drought-prone Third World areas. The Sahelian cities are artificially supported by food aid, most of which goes to governments and is used to keep urban elites content.

Instead of allowing the prices of agricultural products to rise to help pay for agricultural security and improvements, as in the US, Sahelian governments keep these artificially low to maintain stability and to buy loyalty in cities. Tax revenue does not get to the countryside, but stays in the cities, for the same reason.

Warrick's warning against dependency on technology sophistication and social organisation is even more important for such a delicate area as the Sahel. Many of the "big ideas" tried in the Sahel—massive irrigation projects, reorganisation of pastoral life and the settling of nomads—have failed.

The Sahelian nations lack the technology for big technical fixes, and do not know enough about how their rural societies operate to reorganise them effectively. Improvement in the Sahel will come, experts believe, only when the states find ways to make their farmers more secure and their efforts more profitable. This is also the way improvement began on the US Great Plains.

Brazil: the poor pay for disasters
The drought in northeastern Brazil, which entered its sixth year in early 1984, offers an example of a system



Africa — the region currently facing the greatest hardship as a result of widespread drought.

for coping with drought which places most of the burden on the poorest, and in some cases even makes the rich better off. (Much of the information in this section comes from relief workers in the area who did not wish to be quoted.)

The 19th century Brazilian Emperor Dom Pedro II pledged that no jewel would remain in his crown while the Northeast suffered drought. Today his crown is in a museum in southern Brazil, all its jewels in place.

This century the Northeast has suffered seventeen droughts, and in 1978 the Aerospace Centre in Sao Jose dos Campos warned the government of a seven-year drought (the basis of this prediction was not clear). There were some rains in late 1983, but residents still expected two more years of drought.

There are no reliable statistics on deaths and malnutrition in the nine states affected. In Pernambuco state alone some 45,000 people have died as the result of the five years of drought, according to the Federation of Rural Workers Unions of that state. One official estimate holds that three million poor people may die as direct and indirect results of the current drought.

"Foreign aid experts here are comparing the harm done to human life and nature with that caused by the current great drought in sub-Saharan Africa", said a report in the *New York Times* newspaper in late March 1984. It added that 25 million of the more than 30 million people in the area were affected, with 15 million suffering directly from hunger and thirst.

The *New York Times* quoted Valfrido Salmato, co-ordinator of the nation's relief effort, explaining why Brazil was not accepting major outside aid: "It is humiliating to ask for food. It's an embarrassing situation because Brazil is the fourth largest producer of grains in the world."

The hunger is the result of "a man-made drought, a fact which has been stressed by church and social agencies working with the poor", according to *Christian Aid Magazine*¹³ "Years of government mismanagement has seen large funds which should have gone to provide work and social reform for the poor allocated instead into bolstering the for-

tunes of large landowners and private industry."

The Brazilian government also tends toward either grand projects or schemes which attack symptoms but not the disease, according to local relief workers. Mario Andreazza, transport minister in the 1960s, advocated sending the poor "nordestinos" (northeasterners) to colonise the Amazon. This ended in disaster and extreme suffering among the colonists, and today large-scale ranching and logging industries have taken over in the Amazon. Andreazza, now interior minister, advocates a 2-3 billion dollar project to use the water of the Tocantins and Sao Francisco rivers to irrigate the Northeast.

Symptom-attacking schemes have enriched many people and given rise to what some locals call the "Industria da Seca" (drought industry). Among these was the building of a series of dams in Pernambuco despite warnings of flash floods by residents; floods washed away all of the dams.

Since 1979, the government has disbursed over 500 million dollars for "Emergency Work Fronts", reaching about two million drought victims by the end of 1983. These schemes pay unemployed rural workers or smallholders to help supplement lost income. Groups of 15-60 men work to deepen reservoirs, build earth barrages and clear land for when the rains finally come.

Yet most of this work—administered by the Brazilian national drought relief agency DNOCS, the army and the government agricultural extension agency EMATER—is done on the property of large landowners, helping the rich through the drought and making them better prepared for when it ends. The smallholders often find themselves

**Throughout the famine
Ethiopia was a net
exporter of food**

building earth barrages to hold water on the land of the rich and keep it away from their own small-holdings.

Brazilian Vice-President Aureliano Chaves visited the Northeast in August 1983 and promised a further 18 million dollars. Yet much of this was to go to companies and "infrastructure" projects; only a third was for direct emergency relief. Meanwhile, the state government of Ceara was asking for nearly 3 million dollars just for one month's payments of the Emergency Work Fronts.

The government development agency for the Northeast, SUDENE, delivers water by tanker trucks; in the state of Rio Grande do Norte, water comes 130 km (80 miles) by train before 240 tankers take it to 130 cities and towns. Oil drums, tins and clay pots line the roads awaiting water trucks.

But truck routes are determined by local governments, often affected by local political interests. So large landowners may get daily deliveries. The fortunate poor along the routes to the big estates may get regular service, and those less fortunate may see a tanker every two weeks. Some landowners are conserving water by stopping their tenants and share-croppers from building their own wells and small dams, making them dependent on tanker deliveries to the landowners.

The Rural Workers Unions—while campaigning for simple things like time off for the Work Front workers to prepare their own land for when the drought ends—are also working for land reform. Hunger seems to be becoming a political issue in Brazil, especially among the prosperous middle class of the south. Media coverage of the 1983 floods in the south helped focus attention on the disaster in the Northeast. Magazines and television launched appeals for disaster victims, but the drought appeal raised less than the one for the flood victims of the prosperous south.

However, churches of the south were linking up with northeastern churches to channel money and materials, and such organisations as Rotary and Lions Clubs and the Red Cross were helping. These efforts might move Brazil toward spread-

ing the disaster burden more evenly, and not letting the poor bear the brunt.

Drought and famine

Just as poor rainfall is not the single and direct cause of drought, drought is not the single and direct cause of famine.

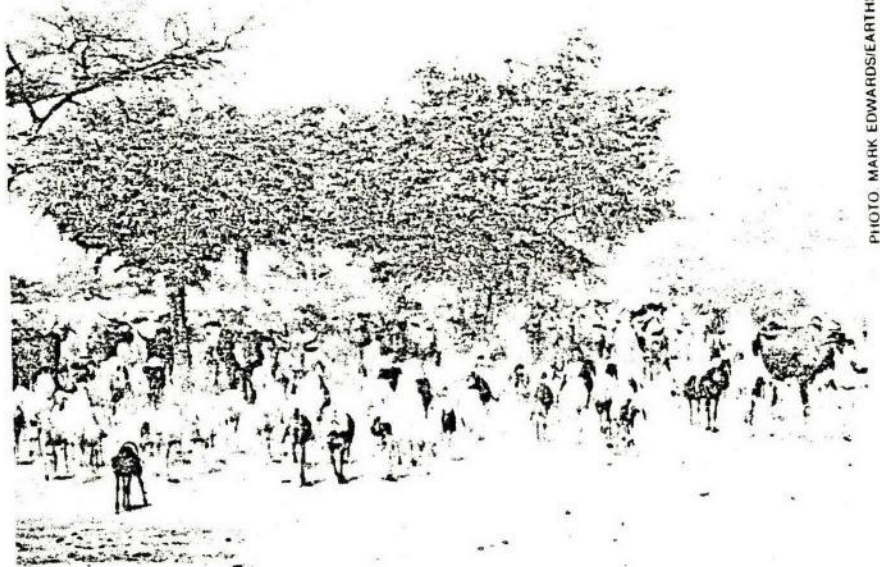
People do not starve in a drought-related famine simply because there is no food. No relief worker has starved to death during a drought; no journalist has died of hunger while covering a drought. Because of a complex set of economic, cultural and political factors, these people are "entitled" to food, to borrow a concept from economist Amartya Sen. Due to economic, cultural and political reasons, the "victims" of the famine are not entitled to food¹⁴.

Critics of this analysis point out that just because there is enough food available for journalists and relief workers to buy, does not necessarily mean there would be enough for all the hungry to buy if they had money.

The International Labour Organisation (ILO) studied the famines in Bengal in 1943, in Ethiopia in 1973 and in Bangladesh in 1974. It found that famine "chose" its victims by class and occupation, and there were many other factors at work besides food scarcity. In Bengal, food stocks were below the level of 1942 but were within the normal range of fluctuation. But wartime inflation had destroyed the Bengal currency. In Ethiopia, the lack of food was a highly localised phenomenon. But richer farmers had dismissed labourers and household staff because of low yields, so there were no wages to buy food. Dr John Rivers of the International Disaster Institute maintains that throughout the famine Ethiopia was a net exporter of food. In Bangladesh, there was actually more food available on a per person basis than in some recent non-famine years. But floods had disrupted industry and thus cut other employment opportunities¹⁵.

In each case people's options were diminished. Those who suffered most were the landless labourers and the pastoralists who had to sell their livelihood—their cattle—to survive, at a time when there was no market for cattle.

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A mixed herd of cattle and sheep in Niger. Surrounded by drought-stricken nations in 1984, Niger produced a food surplus, partly by encouraging herders to sell excess animals.

B.M. Bhatia, in his 1967 study of Indian famines, also concluded that famine is not an imbalance between populations and natural resources, but that "instead of absolute want, famine under modern conditions has come to signify a sharp and abrupt rise in food prices which renders food beyond the reach of the poor who suffer starvation"¹⁶.

Flexibility and drought

Up to fairly recent times, people have relied on flexible responses to avoid the effects of droughts and other disasters.

The most basic form of flexibility is mobility, notes Canadian geographer Eric Waddell, who quotes an old Chinese proverb, "Of thirty ways to escape danger, running away is best"¹⁷.

Many of the coping mechanisms of the nomadic herdsmen of the Sahel depend on movement to another area, but there are also other ways of increasing flexibility. The Wodaabe Fulani people of Niger not only move seasonally (transhumance) from the southern cropped fields during the dry season to the northern Sahelian pastures as the rains begin in June, but move out of camps in different directions daily to seek water and grass. They carefully diversify their herds, mixing camels, sheep and goats with cows. Different animals have different needs for water and pasture and

breed at different times, spreading risk. They trade their sheep, goats, hides, milk, butter and cheese with Hausa farmers for such staples as millet and sorghum. They rely on certain "fallback activities" such as short-term, spontaneous sedentarisation and wage labour. (The government has discouraged one traditional fallback activity: raiding other tribes.) They share animals in a very complex system of kinship duties and traditional exchanges. Animals may be given, loaned or rented out. A cow may be loaned until she has three calves; the borrower keeps the calves and returns the cow.

Flexibility can aid farmers as well as herders. New Guinea cultivators once moved into other areas during drought. But before doing so, they exhausted other possibilities. They typically planted gardens far apart and at different elevations, sowing crops resistant to various climate extremes—rain, drought, frost—in different gardens.

Recently, a number of factors have virtually eliminated the flexibility of response of many marginal people in drought-prone areas. Most governments discourage "mobility" as a response to an emergency, and have also tried to settle nomads. Yet through custom, the herders still keep large numbers of animals. Population pressure—especially the growing numbers of cultivators—

and government regulations such as grazing fees and range block systems also hinder mobility. Cultivators' flexibility is limited by their need to earn money to concentrating on perhaps only one cash crop. Also, their poverty and the lack of government agricultural extension means that they have little or no choice in the varieties of subsistence crops which they plant. Investing all one's efforts in one variety of one staple is dangerous, especially in drought-prone areas.

US geographer Ben Wisner, studying ways used by traditional societies to diminish the effects of drought in Kenya in the past, found 157 different mechanisms at work, most of them complex sharing systems among extended families. Looking at the same society recently, he found only two of these mechanisms still at work: leaving the countryside for urban jobs, and prayer¹⁸.

Flexibility today can cover a number of possibilities: the ability to move; a choice of types and varieties of cash and subsistence crops; a choice of markets for crops or livestock (in a drought, herders cannot sell their livestock locally because the bottom has dropped out of the market); alternative ways of making money, such as light industry; and government insurance schemes.

Flexibility is not only a defensive approach. Under the right conditions, it can even bring prosperity in drought-prone areas.

In the late 1920s a group of Mennonite Christians of German-Russian origin left Canada seeking cultural and religious freedom and settled in the remote "Chaco" region of Paraguay, some 750 km (465 miles) by small riverboat, rail and road from Asunción. Severe floods alternate with drought in this region of fine clayey and sandy soils.

Canadian geographers A. Hecht and J.W. Fretz, who studied three Mennonite settlements of almost 10,000 people, found that "in about one out of four years, major drought conditions exist in the Chaco". Yet after 50 years of hard struggle, these settlers, admittedly the offspring of immigrants with industrial and professional backgrounds, are flourishing¹⁹.

They appear to succeed by spread-

ing their options as widely as possible, planting cotton and castor beans as cash crops and peanuts, beans and sorghum as food crops. Harvests vary wildly from year to year; wheat proved so vulnerable to drought that the Mennonites ceased planting it in 1970. They have imported "buffalo grass" from Texas, which is an excellent cattle feed, does well on the Chaco soils and recuperates quickly after a drought. Milk from their cattle is turned into cheese and butter at their own dairy, thus providing a market for their milk, which they would not be able to sell as milk. A local tree provides a resin which is sold for use in perfumes and various industrial purposes.

Other local industries include a tannery, a shoe factory, a metal foundry, tile and brick yards, a furniture factory, a blacksmith and tinsmiths. The Paraguayan Mennonites have even set up an agricultural experiment station.

Such industries help the settlements survive drought years such as 1975, when harvests were only 48 per cent of 1974 yields, in that the people can continue to produce things to sell. And today they also have supplies of saved capital upon which to draw.

Hecht and Fretz attribute the Mennonites' prosperity to "the ability to specialise in agricultural endeavours suitable to the environment" and the abandonment of unsuccessful crops attempted in the early years of the settlements. The authors draw from this the lesson that "environmentally sensitive regions are vulnerable when crop production strives to meet all needs", as in subsistence farming.

The Mennonites have moved beyond subsistence by overcoming great transport problems in getting products to markets, but more importantly by relying on a wide range of food and cash-producing options.

The cultivators of the Sahelian countryside lack agricultural options, markets which pay reasonable prices for any surpluses, and any manufacturing opportunities. The Mennonite experience offers the hope that well-considered tactics and economic development can offer at least the possibility of doing well amidst droughts.

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This article is an extract from the book by A. Wijkman and L. Timberlake, *Natural Disasters*. Earthscan, London, 1984.

Development induced Soil Erosion and Flash Floods in Malaysia

by E. Pushparajah

Economic development — in particular mining and logging operations — is causing serious erosion problems and increasing the sediment-load of rivers which in turn is causing ever worsening floods. Legislation has been passed to control such activities, but it is not enforced. These trends cannot be allowed to continue.

The problems associated with soil erosion have long been recognised all over the world. Malaysia too has her share of experiencing sedimentation of waterways, flash floods and other concomitant consequences. The effects of such erosion have been evident for a long time. However, the realisation of the need for soil conservation has not materialised in any concerted efforts; but the *ad hoc* actions taken in isolated instances seem to be a mere lip service to meeting the serious problems. The seriousness of the problem should have been accepted a long time ago, and is evidenced in a report by Daniel & Kulasingam (1974) where they state "excessive sediment from uncontrolled mining operations has buried the old township of Kuala Kubu under several feet of silt. Costly engineering work had to be carried out to save the township of Serendah and Betong from suffering a similar fate. Uncontrolled mining and logging practices together with clearing of jungle on steep slopes and undesirable cultural practices (clean weeding) adopted in the cultivation of rubber, gambier, pepper and pineapple have allowed vast quantities of sediments to be worked into the rivers. These have resulted in deterioration of many rivers in the country causing obstruction to navigation and increasing the tendency to flooding. The Klang and Kinta rivers are examples of these where large-scale flood mitigation work had to be carried out. It is on record that the Klang river was in the early days used for navigation by large rafts to transport tin ore. But excessive sedimentation over the years has caused this river to deteriorate so badly that even a small speedboat cannot be operated here today. Nearly all the major rivers in the country have naturally raised banks which have been formed by the deposition of silt when the rivers have been in flood. The banks of the Kelantan river in its lower reaches are as much as 6 metres higher than the surrounding country, whilst the banks of the Perak river are some 3–4.5 m higher than the surrounding country. The Pahang river has also built up high banks in its lower reaches".

Repeated occurrence of flash floods throughout the country and in particular in the Federal Territory even after heavy rains for a day, seem to be of common occurrence. Unless immediate measures are instituted

on a national basis, this situation may well deteriorate as massive agricultural and urban development, highway construction, logging and other infrastructural development activities continue. Such developmental activities are a necessity for progress. However, there is a need to reconcile such developments with the need for conservation of soil and environment and this can readily be achieved at economic costs with properly coordinated, planned and controlled development.

Impact of Land Clearing

The clearing of the land particularly through the opening of jungle leads to hydrological changes. It has been estimated (Daniel & Kulasingam, 1974) that during peak storms, runoff from land under plantation crops (rubber and oil palm) during a period of 13 months was twice that from a similar area under jungle, while on the other hand the low flows were halved. Similarly, Tang *et al* (1979) showed that increased activity in the forest would result in higher sedimentation. In an extensive study area in Kelantan, they found that sediment yield under undisturbed forest conditions was 100m³/km²/year. This increased to 300m³ when 30-40 per cent of the catchment was under logging and dramatically rose to 2500m³ when the entire catchment was logged by mechanised logging. This, therefore, clearly shows that proper management of logging for example could minimise hydrological changes and hence erosion.

Erosion is the movement of soil away from the site, by water. The result would be an increase in the sediment load of waterways with the resulting silting up. A casual observation of some of the major rivers indicates that even as early as 1974-1975, a number of major waterways in the country were affected (*Table 1*).

The rivers in Selangor and Sg. Pari in Ipoh were relatively high in sediment load. In the case of Sg. Klang, the sediment load is derived mainly from urban development, particularly housing. A further study by Law and Mohsin (1982) carried out during the period October 1977 to 1978 (*Table 2*) gives the extent of the problem in some of the rivers in the Klang valley.

In fact, near Puchong Weir, there has been a steady and dramatic increase in the amount of suspended solids within a 4 year period of 1974-1977. The increase being fivefold (*Table 2*) is frightening.

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TABLE 1. SEDIMENT LOAD OF SOME MAJOR RIVERS IN PENINSULAR MALAYSIA (1974/1975)*

River	Average suspended sediment (mg/litre)	Suspended load (tonnes/km ² /year)
<i>Kedah</i>		
Sg. Muda at Titi Syed Omar	57	98
<i>Perak</i>		
Sg. Pari at Ipoh	1740	5010
Sg. Bidor at M.S. 18	97	569
Sg. Ijok at Kg. Titi	27	142
Sg. Perak at Iskandar Bridge	19	53
<i>Selangor</i>		
Sg. Kelang at Puchong	1830	5068
Sg. Langat at Dengkil	469	1079
Sg. Selangor at Rantau Panjang	483	1772
<i>Johore</i>		
Sg. Muar at Buloh Kasap	32	65
Sg. Lenggor at M.S. 42	240	1052
<i>Pahang</i>		
Sg. Kuantan at Bukit Kerasu	64	285
<i>Terangganu</i>		
Sg. Cherul at Ban Ho	9	41

*After Soong *et al* (1980) citing Tan (1976)

TABLE 2. SEDIMENT LOAD IN SOME RIVERS IN KLANG VALLEY*

Sampling Station	Suspended solids Range	(g/l) Mean
Sg. Kemansah (tributary of Sg. Kelang at Ulu Gombak)	0.01-0.04	0.024 ± 0.01
At confluence of Sg. Gombak and Sg. Kelang	0.08-0.25	0.118 ± 0.02
At 10 m from confluence in Sg. Gombak	0.58-2.52	1.60 ± 0.21
Near Puchong Weir (1977/78) i.	2.60-10.32	6.59 ± 0.92
(1978) ii.	neg.-6.24	2.09
(1974) iii.	0.14-2.73	1.18
5 km downstream from Puchong Weir	2.09-8.01	4.68 ± 0.68

*Values for all stations except Puchong Weir ii. and iii. are for period Oct. 1977 to Sept. 1978 and are from Law *et al*. The values for Puchong Weir ii. and iii. are for 1976 and 1974 respectively and are from DID reports.

TABLE 3. MEAN RUNOFF AND SOIL LOSS UNDER DIFFERENT COVERS

Treatment	Runoff (mm)	Runoff % Rain-fall	Soil Loss t/ha/yr
Bare	236	15	79
Legumes	70	5	11
Natural Covers	61	3	10

Conservation Practices

Agriculture is a major activity involving land clearing. On newly cleared areas without any vegetation, runoff and removal of sediment in the water could be large. Fortunately in Malaysia, agriculture, mainly plantation agriculture, there is a keen awareness of the need to conserve the soil. Hence generally within a reasonable period of time from clearing of land, conservation measures such as terraces, silt pits, and bunds are constructed. At the same time, in most of the areas particularly in commercial estates and large land development schemes, legume covers are established. Such practices of legume covers or maintenance of suitable covers result in rapid arrest of soil erosion.

In a new clearing, Ling *et al* (1979) showed that within a period of one year after land clearing, total soil losses was only 10-11 tons per hectare where some

cover was present, while under bare conditions, the losses were observed to be 79 tons per hectare (Table 3).

Such covers, particularly legume covers also reduce the surface runoff of water. The need for conservation measures even under mature rubber and oil palm has been demonstrated and such conservation measures are being increasingly implemented in the plantation sector.

In such developments as housing, highway construction, the common forms of conservation are turfing, use of wire-mesh protection, provision of concrete structures and use of sand bags. This may serve the purpose in the short run, but as they are expensive to maintain in the long run, they are often neglected. The amount of erosion taking place in new housing areas, highway construction, tin mines and destructive logging is readily evident in most parts of the country.

Need for Enforcement of Conservation

There are enough practices to counter soil erosion losses. Nevertheless, there is an apathy on implementing this. Appropriate legislation has been enacted over the years, including:-

- Land Conservation Act of 1960
- The Forest Enactment of 1934
- The Forest Rules of 1935
- The Water Enactment of 1935
- The Mining Enactment of 1935
- Environment Quality Act 1934
- Street, Drainage and Building (Amendment) Act 1978
- Provisions under Standard Logging Permit

Legislations lay down procedures and restrictions to ensure orderly exploitation of the natural resources of the country. They are all aimed at minimising the extent of soil erosion and thus conserving the conditions of natural rivers and streams. There are several deficiencies in some of these Acts. The need for revision or amendments cannot be denied. However, currently the deficiencies do not appear as important as enforcing the existing legislation. Reluctance to enforce is probably confounded by the lack of extension workers versed in conservation techniques. However, the need for an enforcement and extension body to be created on a national basis is critical.

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DESTRUCTION OF WATER RESOURCES— The Most Critical Ecological Crisis of East Asia

by N.D. Jayal

The most critical ecological crisis of East Asia is the destruction of water resources which threatens the livelihood and indeed the survival of the rural population. This is the result of a number of factors including deforestation which leads to the drying up of rivers and springs, excessive withdrawals for large-scale irrigated agriculture, industry and urbanisation, and the pollution of rivers and groundwater with agricultural and industrial chemicals. An integrated water conservation policy is essential if large scale catastrophes are to be avoided.

The most serious ecological crises facing the countries in the East Asian region are also the most ignored in conservation research and action, partly because they arise from invisible processes of destruction or destabilisation of soil-water-vegetation systems, and partly because they affect the silent, overwhelmingly poor majority which directly depends on these resource systems for their livelihood and survival. The destruction of the life-support systems of the poor and marginal populations is the real cause of growing poverty and deprivation which is in turn related to a whole spectrum of related economic and social problems.

Probably the most important of the life-support system conservation problems deal with water resources. Water resources are central to life-support systems since water is a precondition for plant, animal and human life, and an essential input in all economic activity. The status of water resources, in turn, is related to the status of the soil and vegetation systems, and to the patterns of resource utilisation for economic activity. As the ancient Hindu text, the Chhandogya Upanishad, has stated "water is the essence of earth, plants are the essence of waters".

The destruction of water resources is increasingly becoming the most severe threat to survival in the countries of the South. This

destruction is arising in two ways:

- By the disruption of the hydrological cycle on which the renewability and sustained availability of water depends, and
- By the pollution of water systems with industrial and urban wastes.

Disruption of the Hydrological Cycle—Geographical Considerations

The tropical monsoon parts of East Asia have considerable similarity in overall ecological conditions. All the countries of this region are considered developing nations facing comparable economic, social and ecological problems.

This densely populated part of the world has agrarian rural populations where industrialisation and urbanisation are only beginning to make their impact felt. Practically all the countries in this region are mountainous or hilly and there are also archipelago nations. Many countries are littoral with extensive coastal regions. Major rivers are few and only those originating in the Himalaya are snow-fed, the others being dependent for perennial stream flow on water retentivity of soils in catchments. Being tropical countries, rainfall intensity is high and hence the water retaining soil layers are susceptible to erosion damage. Greater availability of solar radiation increases evaporation loss. Higher ambient temperatures and greater amount of rainfall accelerates weathering and soil formation by speeding up the mechanical, chemical and bacterial processes, but these factors result also in an extremely impoverished soil

due to continuous leaching. Most of the nutritive capital of the soil is actually locked up within the biomass and cycled rapidly, the balance of which can be maintained optimally only by the natural animal and plant communities. The water retentivity of the soils and its thermal and ionic balance are controlled by the organic content and particularly by the top humus layer. Steep slopes and thin soils which occur over extensive stretches of East Asia accelerate run-off. Ground water recharge is critically controlled by the top soil. Islands and coastal reaches of continental areas face the problems of saline water intrusion from the sea which can be countered only by adequate sub-surface fresh water flow. Since there is a seasonal abundance of fresh water during the monsoon, river channels have evolved to discharge and/or store the excess flow in lagoons, backwaters or extensive flood plains. Though in summer the backwater and estuarine regions become brackish due to sea-water ingress and are thus no longer potable, these regions have extremely rich and diverse biota including mangrove forests, prawn and other fishery grounds. Since the tropical days are uniform and more solar energy reaches the ground, evaporation loss can be very high unless the ground is well insulated. Where the multi-layered natural vegetation is destroyed, due to a series of physico-chemical changes tropical soils in many regions are transformed into laterite curtailing plant productivity drastically and reducing water retention.

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Historical transformation in land-use

Most of the countries in this region have been part of colonial empires and resource management and exploitation were subjected to short-term profit motives of the colonial powers. Sustainability of the rate of exploitation of resources or even the long-term profitability were rarely taken into account. The science and technology of the West which evolved in a temperate system did not understand the tropical ecological conditions. Hence it rejected or transformed quickly the traditional subsistence life styles of the people which were integrated with the specific local conditions. This imposed change disrupted the balance between man and nature. Large-scale shifts in land-use favouring cash crops and surplus production in many cultivated crops for marketing destroyed soil resources. Exploitation of such renewable resources as forests through timber mining for export-oriented cash economies wiped out the resource capital rapidly affecting other inter-dependent basic resources like soil and water. Energy-intensive and centripetal patterns of development such as industrialisation and urbanisation quickly wiped out all local resources and siphoned off wastefully the resources from distant hinterlands. This process necessitated large-scale transfer of water, power, and biomass. The large hydro-electric and irrigation dams and inter-basin transfers of water, modify the natural drainage basins and disrupt the hydrological cycles, and thus not only destroy the land and its resources *in situ*, but also disrupt stabilised life styles elsewhere.

Drinking Water: A Vanishing Resource

During the current International Drinking Water Supply Decade fewer people in East Asia have access to clean and adequate water than they did in the 1970s. This has happened in spite of heavy financial outlays for drinking water schemes. Technological solutions for supplying scarce drinking water have failed to be adequate since the water crisis is the result of a failure to sustain water availability. This has resulted primarily from a rapid destruction in recent years of the

vegetation cover which earlier ensured the recharge of ground water. For example, in India, in the State of Maharashtra alone 17,112 villages were identified as facing drinking water problems at the beginning of the Sixth Plan. There are 15,302 villages likely to be covered in the ensuing Seventh Five-Year Plan. The rapid depletion of ground water resources has, however, increased the problem villages with no source of drinking water to a staggering 23,000 villages. This situation prevails in smaller or larger measure in almost all the states of the country, and is especially critical in the fragile Himalayan region. There is a serious water crisis in the northern hill districts of Uttar Pradesh where out of the 2,700 drinking water supply schemes provided by the State Government 2,300 have failed as a result of drying up of the sources of water.

In the neighbouring countries of Nepal, Thailand, and Malaysia, the situation is equally serious. A number of areas in Malaysia where water was previously available in abundance now face shortages. Water scarcity is a threat to human health and survival, particularly of vulnerable groups. Every day, about 25,000 people die worldwide either from shortage of water or due to the use of polluted water. Four out of five deaths of children in the developing countries are due to water-borne diseases. The death of more than 2,000 people in West Bengal early this year in a dysentery epidemic dramatises the ecological crisis leading to the drying up of ground water resources which forced people to resort to consuming contaminated pond water. It is the poor and marginal groups in these countries that are most vulnerable to this threat to survival that arises from the water crisis.

Floods and Drought—A Consequence of Deforestation and Mining in Vulnerable Catchments

India and its neighbouring countries, which have a seasonal tropical monsoon rainfall, have special problems in water management in catchments. Except for snow-fed rivers that rise from the Himalayas, all water sources in Peninsular and



Deforestation in Nepal makes both homes and elaborately terraced fields vulnerable to floods when monsoon rains, unimpeded by vegetation, roar down the southern slopes of the Himalayas.

Eastern India depend on the capacity for retention of soils in catchment areas which are mostly on steep hill slopes dependent upon natural forests for protection. But it is in these vulnerable catchment areas that extensive deforestation is causing serious erosion which prevents controlled stream flow and causes recurring droughts and floods. As a consequence of the mismanagement of catchments, the flood-prone areas had doubled by 1980 to 40 million ha from 20 million ha in 1971. The disruption of the hydrological cycle in the tropical monsoon climate implies too much water in the rains, and too little the rest of the year. Thus, along with flood-prone areas the drought-prone areas are also expanding and now cover 59 million ha causing serious loss of productivity. In monetary terms the resulting losses are of staggering proportions. Nearly 50 per cent of the population live at the subsistence level lacking purchasing capacity to buy food, even if adequate food stocks were available for every citizen of the country. Studies indicate, however, that with proper land management and other inputs India can produce at least 300 million tonnes (mt) of foodgrains as against the present output in the US of 250-260 mt. The low level of food

production in India is not merely on account of lack of monetary or technological inputs, or even organisational weakness, but substantially on account of an overall lack of recognition of basic ecological principles for managing its critical resources of soil and water in a long-term viable and productive manner.

The Doon Valley in the Western Himalayan foothills is illustrative of how the lack of recognition of basic ecological principles can destroy the productive basis of an ecosystem. This valley is bountifully endowed with 2000m of rainfall, a large part of which has naturally percolated into the limestone belt running across the Himalayan range. Ecologically, the limestone belt has, therefore, had an essential function in conservation of water resources in the valley on which human survival and diverse economic activities such as agriculture, animal husbandry, and forestry, depend. In the last 20 years, however, a heavy demand has been made on the Doon Valley limestone for industrial raw material. The mining of the mineral has led to a 60 per cent decline in stream flow, and has dried up most springs which were recharged by water stored in the fissured limestone. As a result, a valley abundant in water faces water famine. Agricultural productivity has dropped by 50 per cent and livestock populations have similarly declined.

The Water Crisis Undermining Food Systems

Seventy per cent of Indian croplands are rain-fed. They have a fundamental role in producing high protein grains and fodder, oilseeds and pulses. Traditional rain-fed farming practices have evolved strategies to cope with the threat of drought. The central mechanism for

During the past three decades India has spent over Rs. 100 billion on developing irrigation facilities and by the end of this year the total area covered by irrigation will be 40 mha.

Moreover, six mha of arable land have become unproductive through water-logging and another seven mha have been similarly affected by salinity.

conservation of soil moisture in rain-fed food systems to maintain biological productivity has been the addition of organic matter to the soil to increase its water holding capacity. Genetic diversity in cropping systems has been a second insurance against drought.

Crop mixes and crop rotations have been chosen to minimise demands on soil moisture and to minimise risks of crop failure in case of soil moisture deficits. In the rain-fed red soils of the Deccan Plateau, a pulse crop like 'togare' or 'avare' is sown along with 'ragi'. By this practice, the best use is made of rainfall. If the rains are unfavourable for 'ragi', they often benefit the 'avare' or the 'togare' crop and vice versa so that at least one of the crops is obtained even with a poor or untimely rainfall, and a total crop failure is prevented. Ragi itself is one of the hardiest crops, well suited for dry farming. It can grow under conditions of very low rainfall and can withstand severe drought, reviving again with vigour after a good shower of rain. The crop is remarkably free from pests and diseases. Ragi straw is a valuable fodder, highly favoured both for draught and milch animals. Traditional dryland farming has often been called 'marginal', and dryland crops have been called inferior because they have not played a central role in cash crop farming. In cash crops, the productivity is defined on the basis of cash and income, not on the basis of food value and livelihoods, and water use efficiency of crops is rarely the guiding principle in the introduction of new crops.

Disruption of food systems through cash crops

The contemporary food crisis in Africa is in large part the result of the introduction of cash crops, such as groundnuts and cotton with nutrient and water requirements vastly different from the staple food crops. The traditional cropping patterns had, in contrast, strategies built into them to maintain productivity. "The crops that were cultivated were those that had demonstrated their genetic resilience and ecological adaptability so that they were less vulnerable to pests and

diseases. Intercropping too was a favourite strategy designed to maximise output within the environmental constraint and to keep at a minimum the risk of crop failure and concomitant starvation".¹

In India, the logic of replacing staple food crops by non-sustainable cropping patterns has been carried to the extreme by the shifting of large areas of rain-fed farmlands in states such as Gujarat and Karnataka for planting pulpwood species like *Eucalyptus* under so-called 'social forestry' schemes. *Eucalyptus* in rain-fed croplands invites desertification by undermining the biological productivity of these vulnerable ecosystems in the following three ways:

- The high water demand of the species depletes soil moisture and destroys ground water recharge, destabilising the hydrological cycle.
- The heavy nutrient demand creates a large annual deficit destabilising the nutrient cycle.
- The release of Allelo chemicals affects plant growth and soil organisms, thus further killing soil fertility.²

Inappropriate land use based on cropping patterns which demand higher withdrawals of moisture and nutrients from the soil are a major cause for the water crisis in drylands; aridisation results from not recognising that soil is a massive water resource and biological productivity depends entirely on conserving water resources available from this reservoir. In the absence of such awareness non-irrigated farming *per se*, is viewed as non-productive and this creates the demand for irrigation.

Conversion of forests to cash-crop plantations

The countries of South Asia produce a very significant portion of the cash crops available for the Western consumer market. Tea, rubber, coffee, cardamom, pepper, and oil palm, are cultivated extensively. This was a shift in land-use brought about during the colonial period which has continued subsequently. All these cash crops are extremely

sensitive to local micro-climatic conditions and all of them require humid tropical conditions. Extensive replacement of natural forests, particularly on hill slopes, has modified hydrological cycles, and modifications of original forest ecosystems have had consequences on the ecology of the region, ultimately detrimental to the cash crops also. The Nilgiri mountains of South India, the Darjeeling hills of East India, the Central Highlands of Sri Lanka are all examples where uncontrolled expansion of cash crops have marginalised previously productive regions. Disappearance of water resources has taken place in all these regions. Modernisation of cash crop cultivation by converting it into an industry consuming large amounts of pesticides and fertilisers have led to the poisoning of entire drainage basins and even coastal stretches since plantations are located in watersheds. With its large population dependent upon rice as the staple diet, East Asia is facing a serious shortage of land suitable for paddy cultivation. Rice, which requires a considerable amount of water for its cultivation, is normally grown in river valleys and low-lying areas. Pressures of population, on suitable areas have resulted in large-scale reclamation of shallow fresh water bodies, and swamps destroying water resources and the habitat for aquatic biota. In wet regions extension of rice cultivation upwards on hill slopes, where the people lack traditional expertise in land terracing and water management, has resulted in accelerated erosion and increased demand for water for irrigation. Loss of flood water storage areas coupled with greater silt load in the rivers have damaged stabilised river channels, accentuated flood damage, upset nutrient cycling pathways and groundwater recharge mechanisms. Such ramified adverse effects extend to coastal fisheries, estuarine mangroves and offshore coral reefs.

Ecological impact of large irrigation systems

Irrigation is as old as farming itself. What is new is the scale of projects. The traditional irrigation systems were mainly designed for protective irrigation and not adap-

ted to the modern intensive agriculture based on high-yielding crop varieties and multiple cropping techniques with increased fertiliser use requiring frequent irrigations.

The high water requirement of new cropping systems in turn creates large projects, which generate new instabilities in the ecosystem. The impounding of water in large dams often leads to deforestation in the catchment which changes the micro-climate and leads to soil erosion, thus decreasing the availability of water. In the command area, the transport of large volumes of water over large distances wastes water in seepage. The introduction of large volumes of water beyond the natural drainage capacity of the ecosystem disrupts the hydrological cycle and results in water-logging and salinity.

During the past three decades India has spent over Rs. 100 billion on developing irrigation facilities and by the end of this year the total

The contemporary food crisis in Africa is in large part the result of the introduction of cash crops, such as groundnuts and cotton whose nutrient and water requirements vastly differ from those of the staple food crops.

area covered by irrigation will be 40 mha. Moreover, six mha of arable lands has become unproductive through water-logging and another seven mha has been similarly affected by salinity.

The Kabini project is a good example of a water development project which became the cause of the disruption of the hydrological cycle in the basin. The Kabini project has a submersion area of 6,000 acres, but it led to the clear-felling of 30,000 acres of primeval forests in the catchments to rehabilitate displaced villages. As a consequence the local rainfall fell from 60 inches to 45 inches, and high siltation rates have already drastically reduced the life of the project. In the command area, large areas of well-developed coconut gardens and paddy fields have been laid waste through water-logging and salinity within two years of irrigation from the project. The story of the Kabini project is a classic case of how the water crisis is

being created by the very projects aimed at increasing water availability or stabilising water flows.

River valley projects are considered the usual solution to meeting the water needs of agriculture, or for controlling floods or mitigating drought. More than 1,554 large dams have been built in India during the past three decades. It is estimated that about 79 mha-metres of water can be used annually from the surface flow in Indian rivers but less than 25 mha-metres is actually utilised. The obvious answer so far has been to provide storage capacity in large reservoirs behind huge and costly dams. Between 1951 and 1980, India has spent Rs. 75,100 million on major or medium irrigation dams. Yet the return from this large investment has been far less than anticipated. In fact, where irrigated lands should yield at least 5 tonnes of grain per ha, in India it has remained at 1.7 tonnes per ha. The annual losses from irrigation projects caused by unexpectedly low water availability, heavy siltation reducing storage capacity, and water logging, now amount to Rs. 4,270 million. These large river valley projects on the one hand cause deforestation in catchments and on the other, cause water-logging in command areas. The option created for water use is therefore unsustainable. Non-sustainability is also built into the ecological impact of large irrigation works on cropping patterns. Large discharges demand uniformity, uniformity in discharge compels uniformity in cropping patterns which decreases genetic diversity and increases vulnerability to pests. Trees on farms are cut in the command area for land development, thus further destabilising soil moisture and disrupting the soil nutrient cycle and destroying the habitat of pest-predators.

Old irrigation systems have lasted for centuries because they were based on prudent use of water which saves catchments and prevents water-logging. The impounding was done by a series of small dams, or tanks. The distribution channels were lined with farm trees performing the dual function of preventing seepage and providing agricultural inputs in terms of fertiliser or fodder



PHOTO: EARTHSCAN

Rivers and pools used for drinking are polluted by industrial activity.

1979, the Malaysian river system was so polluted that 42 major rivers in Peninsular Malaysia were officially declared 'dead', the primary pollutants being oil palm and rubber effluents, sewage and industrial wastes. This meant that rivers no longer sustained fish, shell fish, shrimps or crabs and were also unfit for drinking or washing. Besides killing riverine and marine life, pollution of rivers also threatens the health of villagers who rely on water from such contaminated aquatic environs for purposes of drinking, washing, cooking and bathing.

which in turn improve soil structure and prevent water-logging or salinity.

The engineering interventions for water conservation have failed to view the central role of humus-forming trees as the most powerful means for water conservation in vulnerable catchments and in fragile tropical agricultural ecosystems. The integrity of the soil-vegetation-water system is crucial to water conservation both in forests and on farmlands. Water conservation strategies are therefore ultimately related to strategies for soil conservation and the conservation of genetic diversity in forests and croplands.

Poisoning by pollution

Development strategies based on resource and energy wasteful industrialisation patterns are a second major cause for the destruction of water resources. Such industrialisation first destroys water resources by putting heavy demands on raw materials which lead to excessive withdrawals of resources from ecosystems and destabilise the hydrological cycle. The four-fold increase of pulp and paper industries in India over the past decade has been associated with heavy negative externalities of deforestation and the destruction of natural forests and stable croplands for cultivation of pulpwood species like eucalyptus. Secondly, such resource intensive industries divert scarce water from vital needs such as drinking and irrigation. A pulp factory of Gwalior Rayon, at Nagda on the Chambal river, draws 114,000 cubic metres of water a day for which the company has built two reservoirs, 2km up-

stream of Nagda. Says Babulal Bharatiya, who has his farmlands adjacent to the reservoir: "During the summer, when water is very scarce, the factory does not allow the farmers to irrigate their land. Security guards, who keep a round the clock vigil, even assault the villagers".

Finally, the destruction of water resources is caused by the pollution of water systems by these industries. According to Umrao Singh, a peasant of Nagda village, the Gwalior Rayon factory management did not even bother to warn the villagers that they were discharging the effluents containing toxic chemicals. "Chambal, the life-giver, had undergone an overnight transformation into a killer".³ The experience of the villages along the Chambal river has also been the experience of villages along the Tungabhadra river in Karnataka where an associated polyfibre plant is seriously polluting the river. In Kerala, the rayon mill at Mavoor has destroyed the drinking water and fisheries potential of the Chaliyar river. In none of these cases have the hazards and costs of water pollution been identified by the official water pollution control agencies. Assessing and controlling water pollution has repeatedly been a task left to affected villagers and citizens groups. As a result, in spite of India being a water-rich country, 70 per cent of India's water resources are polluted.

The situation in other East Asian countries is similar. Sababat Alam Malaysia (Friends of the Earth Malaysia) reports that by the year

At times this new pollution is brazenly transferred from a rich country to a poor country because of public pressure in the rich country. A spokesman for Kawasaki Steel had this to say about the recent move of a sintering plant from Chiba, Japan to Mindanao, Philippines: "Chiba citizens need not be afraid because we are moving the sintering plant to Mindanao". Another Kawasaki executive further explained, "People in the Philippines don't know anything about pollution".⁴

An Ecological approach to Water Conservation

Conventional meanings of water conservation reflect the engineering approach to handling natural resource crises. Water conservation in this approach is reduced to impounding river water in large dams, to building large networks of concrete lined canals. This water conservation strategy does not solve the water crisis of the marginal populations. A water conservation strategy that aims at being sustainable needs to be based on ecological principles. It has to recognise that water resources get destroyed either by excessive withdrawals of natural resources from an ecosystem (disruption of the hydrological cycle) or by excessive additions of wastes into an ecosystem (pollution). Conservation of water in Asian societies means avoiding the *destructive* and *distorted* use of resources. It means respecting essential ecological processes like the hydrological cycle. It means respecting the difference between vital and non-vital needs, and ensuring that the vital needs of the poor or the marginal are satis-

fied before essential resources like water are diverted to non-vital needs.

IUCN's role in Water Conservation

In spite of the water crisis being the most severe crisis in tropical countries of East Asia, none of these countries yet have a water-use policy. Such a policy would need to be based on scientific information about the status of water resources, the processes that are causing the destruction of these resources, the processes that will restore their sustained availability, a complete assessment of conflicting demands on water resources, and a rational water resource allocation plan for satisfying diverse water needs.

IUCN can fulfil an important role in focusing upon these emerging problems in the affected countries. It can provide technical expertise where necessary. It could assist in developing and funding research programmes and providing technical support for formulating policies and plans related to water conservation.

By way of illustration, in most East Asian countries there is still inadequate scientific data available on hydrological regimes under different vegetational conditions, both in forests and on croplands. Such data are essential for proper selection of species and species mixes for stabilising vulnerable catchments through afforestation and for determination of cropping patterns for sustainable food production, both under irrigated and under rain-fed conditions. Research in these areas would discover linkages of the soil-water-vegetation systems and would integrate components of the conservation strategy which have so far remained fragmented. The role of biological diversity in maintaining the essential ecological processes of soil and water conservation has not yet received the attention it merits. Such knowledge is essential for basing sustainable development on the Biosphere Reserve model the development of which diverges substantially from the engineering ap-

proach to development in favour of a policy, which conserves and carefully husbands the basic resources of soil, water and biota with the total participation of the society for its collective well-being. The whole region must eventually become a Biosphere Reserve and the world a true Biosphere where man is once again an integral component of an intricate self-sustaining system, and not a self-destructive exploiter.⁵

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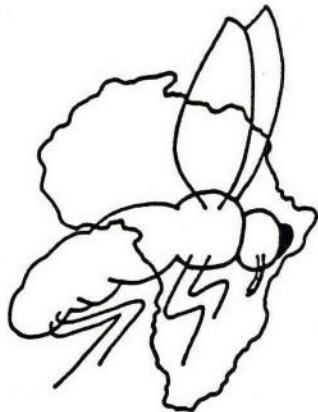
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THE TSETSE WAR

by Marcus Linear

A multi million dollar, 40-year UNO aid programme is threatening 40 African countries with ecological disaster and hence with massive poverty and famine. Headed by the FAO and with large contributions from the World Bank, and various bi-lateral aid bodies, as well as the Common Market's European Development Fund (EDF), the programme aims at eradicating tsetse flies by pesticide spraying over 7m sq. km. of land, which is, according to the agency, mostly tropical forest and woodland.

The scheme's critic's condemn it on four counts:



If tsetse are to be wiped out, why use 'hard' chemicals banned as too hazardous for use in the West instead of available safer chemicals?

If beef production is the aim, there are alternative methods of raising cattle which do not require exterminating the tsetse fly with the terrible pollution this involves.

If meat (as opposed to specifically beef) production is the aim then it would be ecologically and economically better to farm indigenous animals rather than cattle.

In any case, the rural poor cannot conceivably afford commercially produced meat, which must inevitably be exported to the West. At the same time they will have been deprived of their forests on which they now depend for free food and other essential resources. Also without the forests their streams and springs will dry up, their soil will blow away and they will be condemned to inevitable impoverishment and famine.

Why is the aid industry so keen on promoting this callous enterprise?

Many people today have accepted the agency's—and the whole aid industry's—inability to solve the problem of world hunger. Too few, however, are aware of a more disquieting reality: that it is precisely the operations of the FAO, and of the agribusiness food system which it fronts and promotes, which are a major root cause of worsening hunger in the world, and the poisoning of the poor.

To appreciate why this is so requires a systematic perspective, which is difficult enough to obtain even without the massive obfuscation practised by highly polished PR campaigns, such as are constantly maintained by the aid industry, and aiming to prove just the contrary.

However, an aid to understanding is to be found in the study of the FAO's 'Tsetse War'. This offers a paradigm of errors and of false directions which have trapped the agency, and its supporters, on the treadmill of addictive, inappropriate and destructive tech-

nology called by critics the 'technological fix'. A multi-billion dollar campaign, already under way for a decade and planned to continue for thirty years or more, and affecting about forty African countries, it is one of the FAO's most extensive, most enduring and most heatedly criticised field operations; and while undoubtedly bringing vast benefits to its pesticide-pushing promoters, it is—as will become clear—a dangerously damaging and cynical exercise in futility, at the cost of impoverishment and empoisonment of the defenceless poor of the vast regions under attack.

The aim of the campaign was initially to eradicate—though later, in the light of realities on the ground, this was reduced to 'control'—tsetse flies over seventy per cent of their African habitat, encompassing in all ten million square kilometres. This vast area, greater in size than the United States or, for the total infested area, than China or Canada, was according to FAO's publicity at the time "almost all rainforest or woodland".¹

The declared object of the exercise is to clear this land in order to introduce 120 million additional head of cattle, to produce some 1.5 million tonnes of low-grade beef a year at the end of this forty-year period. Who would actually produce this beef and who consume it, were unspecified in the initial publicity or programme.

Marcus Linear is a free-lance writer concerned with environmental problems and the ecological impacts of western technology, especially in the Third World. He has written for various English and European newspapers and technical journals. His latest book, on the destruction of Third World environments by large-scale agricultural and industrial schemes, often financed by multilateral development banks will be published in spring 1985 by Pluto Press under the title *Zapping the Third World*.

Tsetse—Keeping Africa Green

Tsetse flies are small brown insects, roughly the size and shape of the common housefly. Their innocuous appearance is belied by their vicious bite and vampirical life-style, for they feed exclusively on the blood of other living creatures. They are only known in Africa south of the Sahara, apart from an insignificant pocket in Arabia, which probably migrated across the Red Sea, and which may well be extinct today.² There is, however, some fossil evidence that they may once have lived in North America, millions of years ago.³

Some twenty different species or subspecies of tsetse flies are classified under the generic name *Glossina*. Of these, although all can become infected with and are capable of transmitting the sleeping sickness trypanosomes, ecological considerations limit this transmission to about six species. Other insects can also transmit this disease.

The trypanosomes—gimlet-shaped microbes for most of their lives—are protozoa comprising about 100 different species or varieties. African trypanosomiasis, as the disease is called, only involves four species: *T. vivax*, *T. congolense*, *T. simiae* and *T. brucei*. A fifth trypanosome, *T. evansi* (which is world-wide in distribution), will probably turn out to be a form of *T. brucei*.⁴ This last, *T. brucei*, is the cause of sleeping sickness in man, although not all forms of it are infective for humans, while the others are involved in animal trypanosomiasis, often called by the Zulu word 'nagana', after the name this people used for the disease they recognised in their cattle.

The animal version, nagana, takes its heaviest toll among domestic animals, none of which are among the original fauna of Africa, but 'exotic' imports over the last few thousand years. In contrast, local or 'indigenous' animals are largely resistant to the disease if not completely immune. If they were not, they would obviously have been wiped out by it long since.

Tsetse is mainly to be found in areas which scientists call the *Grenzwildnis*, the intermediate or frontier wilderness zones, or 'interface' zones between conflicting tribes or peoples. These are often poorly watered uplands or watersheds between natural drainage systems, which form in themselves the limits of geographically defined ecological units. Such areas, thus, as are less suitable or desirable as human habitats, separating ecologically-based ethnic communities which Edward Goldsmith has described as 'ethnocracies'.⁵

Human settlement and activity tend to drive out the tsetse, by destroying the bush or forest cover the fly needs as resting or breeding places. People settle in the better land, and clear the bush as first step in the system of traditional shifting or rotational agriculture—a system which was practiced for millenia until the arrival of the slave-traders, colonists and developers.

Under this traditional system, the bush is chopped down flush with the soil and burnt; but many of the roots remain alive in the cropland, each year's re-growth being chopped back during planting and cultivation as it appears. Rotational cycles are short (and under the pressure of development becoming ever

shorter) so that when agriculture of the area again ceases, the bush regenerates.

When, as so often happens today, crop growing is disturbed by wars and other forms of civil unrest, frequently leading to mass migration, the same re-growth occurs throughout the abandoned farming areas, followed by rapid recolonisation by the tsetse fly. Indeed, the fly appears to lurk in marginal, uninhabited areas awaiting opportunities to move into more favoured regions, whenever bush cover reappears to offer it a habitat and wild animals return to ensure its food supply. With the constant turmoil of wars and insurgency blighting the stability of rural Africa today, this is a common, widespread occurrence.

But in less troubled times, while the fly is kept at bay in its *Grenzwildnis* realm by established, intensive human activity in land use, it serves to provide protection for these border zones, and for the wildlife they contain. This is mainly through discouraging encroachment by pastoralists' herds, which do not share the wild animals' immunity to tsetse-borne disease to anything like the same extent. Thus many believe that over much of the continent, it is only tsetse that is keeping Africa green.

As the *Grenzwildnis* concept implies, tsetse habitat is agriculturally marginal or unsuitable land for human habitat. Even if cleared of tsetse, prospects of maintaining permanent viable settlement without permanent outside aid are slim. On the other hand, those familiar with these regions regard proposals to

Two few are aware of a more disquieting reality; that it is precisely the operations of the FAO, and of the agribusiness food system which it fronts and promotes, which are a major root cause of worsening hunger in the world, and the poisoning of the poor.

introduce what would, in effect, be uncontrollable numbers of livestock with dismay. The primary cause of spreading desertification in such ecologically fragile areas is overstocking with cattle.

The only management systems possible for running cattle in such uninhabited areas are either that of the nomadic (or seminomadic) pastoralists, or imported 'high-tech' systems on the western model. The former—the nomads—are renowned for their tendency to disappear over the distant hills with their herds whenever the census taker or taxman appears on his annual rounds; they are invariably deaf to suggestions that they limit the size of their cattle herds, or that they cease cutting down trees to feed them in times of fodder shortage. In the case of the latter, with expensive imported management and other inputs, such 'high tech' systems on the western model. The former out marketing their produce in the richer areas. And they would be equally subject to the danger of overstocking and consequent environmental damage, in that the marginal economics of such undertakings would inevitably place tremendous pressure on them

to maximise returns in any profit-motivated enterprise.

Lines of Attack

Eradication of the tsetse fly has long been the dream of Africa's colonial settlers and developers, even from the time of the early explorers. In 1858, David Livingstone was asked, when leaving Britain to explore the Zambezi, to carefully note the number of tsetse bites needed to kill an ox—a familiar inconvenience as tsetse flies killed off his riding animals, and reduced the intrepid doctor to crossing Africa on foot.⁶

Two years later Sir Richard Burton, who knew the pest from his explorations further north, around the sources of the Nile, wrote: "It is difficult to conceive the purpose for which this plague was placed in a land so eminently fitted for breeding cattle . . . Possibly at some future date, when the land becomes valuable, the tsetse may be exterminated by the introduction of some insectivorous bird, which will be the greatest benefactor that Central Africa every knew".⁷

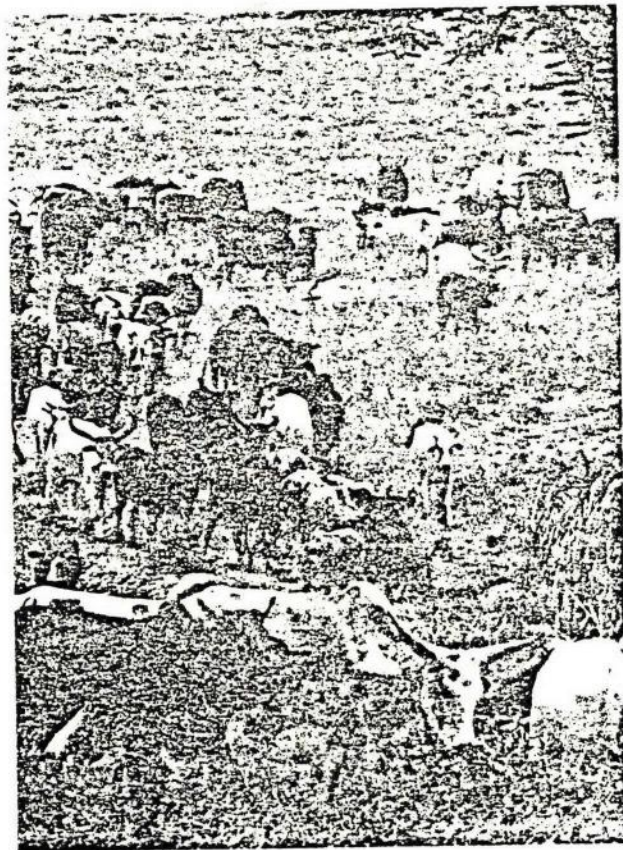
Burton's bird has not yet been discovered; but his idea, well over a century ago, had perhaps more ecological virtue than later methods when attempts at tsetse eradication actually began. They commenced under various colonial regimes, but notably the British, in the early years of this century. Their initial attack was aimed at the fly's habitat and wild animal hosts, destruction of which was undertaken at considerable ecological and financial cost, but with little if any long term effect on the size or distribution of tsetse populations. Wide scale spraying only came into vogue after the Second World War, with its introduction of cheap, man-made insecticides.

The weaponry overwhelmingly deployed in this attack⁸ consists of the 'hard' pesticides—DDT, lindane (BHC gamma isomer) and the deadly range of 'drins' (dieldrin, aldrin, endrin etc.), or the more recently developed Thiodan (endosulfan)—known collectively as chlorinated hydrocarbons, or organochlorines. The more lethal organophosphates—malathion, parathion and dichlorvos—are also employed, although not on a wide scale, and often for testing or comparative research purposes.

All of these poisons are manufactured in the West. Although use of the most notorious of them, DDT, was first banned or severely restricted following the 1962 publication of Rachel Carson's *Silent Spring*, the Second International Conference on Environmental Futures in Reykjavik learnt in 1977 that more DDT was then being manufactured in the West than before the prohibitions were imposed.

Today, however, the biggest world producer of DDT—as well as its biggest consumer—is India, where hard pesticides are produced in almost unlimited quantities. Another important non-western producer of this and many other highly toxic agrichemicals is Israel. Both of these countries are predominantly dependent on agricultural exports for their foreign currency earnings; the cash crop agriculture of both depends utterly upon a massive blanket of pesticides.

They are both also large-scale exporters of such hazardous chemicals. Indeed, so complex are the rami-



Some cattle in Africa have a degree of tolerance to nagana almost as developed as that of indigenous wild animals.

fications and pathways of the poison pushers' trade today that it is wellnigh impossible to trace with any certainty the original source of many such products, which are imported in bulk as 'active ingredients', mixed or 'formulated' with others into lethal cocktails, and used locally or—where banned—re-exported for use in more 'permissive' areas under various, and often changing, brand names.

The 'drins' on the other hand are easier to trace back to their origin. They are produced exclusively in the West, at the Royal Dutch Shell Company's plant at Pernis, on the outskirts of Rotterdam, apart from small quantities of endrin produced at Velsicol's plant at Memphis, Tennessee. Royal Dutch Shell's entire production is marketed by the London-based Shell International.

Use of all these organochlorines, which we manufacture in thousands of tonnes per year, is now totally banned throughout the advanced countries for all practical purposes, with the notable exception of endosulfan, produced under the trade name Thiodan by the Hoechst AG's West German plant near Frankfurt, and by ICI in the UK. They are all dumped in the poorer tropical countries which have not yet instituted such bans, the sales most often being paid for with money loaned under the title of 'aid'. In this way, western chemical producers have been able to overcome the embarrassment of surplus production capacity and, together with the application specialists and aid agencies with whom they closely work, to make considerable profits from this dubious trade.

In the early days, spraying was carried out mainly by locally trained semi-skilled African 'control assistants', using back-pack tanks of pesticide and hand pumps with manually operated spray nozzles. The method works well. Insecticide dosage can be accurately controlled, and the spray directed precisely at the fly's resting places.

The method has one great advantage, in countries suffering—as tsetse areas almost invariably do—from chronic mass unemployment; that of being extremely labour-intensive. Another is that, with proper control of the spray teams' activities, pollution of human and 'non-target' animal environments can be strictly limited. And lastly, it is not only the most economical method of applying chemical insecticides to accessible tsetse habitat (costs per unit of area treated generally being reckoned at one quarter to one third of those incurred in aerial spraying), but perhaps more importantly, the largest part of the money spent on such 'hand-held' operations goes into the local economy in the form of wages and allowances.

Its disadvantage however, is that the workers are constantly exposed to the chemicals, although it should be added that this is rarely admitted either by the authorities concerned or, perhaps for obvious reasons, by the pesticide companies supplying the poisons and promoting alternative 'high tech' methods of application. While spray operatives can be largely protected against such risks by impervious clothing, boots and filtering face-masks—as they are by law in the rich countries—wearing such equipment in the humid heat of tropical bush areas causes intolerable discomfort, even involving the risk of fungal skin complaints or heat-exhaustion which can lead to collapse. This, coupled with the general hardship and discomforts of living for months in remote, bush areas—which makes up the tsetse *Grenzwildnis* habitat—makes the job unattractive to any but the most highly motivated (or desperate) candidates.

Such difficulties, plus the refinement of aerial spraying techniques and aircraft, created an opening for the technology-minded developers, to the obvious delight of the pesticide manufacturers and their salesmen. Thus at the time of the FAO's "Declaration of War" on the tsetse in 1974, the first campaigns were under way using slow flying fixed-wing aircraft, deluging huge concentrations of 'active ingredient'—then usually DDT or dieldrin—dissolved in petroleum-based solvents, over thousands of kilometres of Africa.

The object was to leave residues of sprayed droplets, after the solvent had evaporated, on the vegetation where the tsetse rests after feeding or sleeps at night. Spectacular kills of fish, birds and many other animals (referred to by the sprayers as 'non-target' organisms) occurred, and led to refinements of the method to reduce the quantities of poison distributed. These are now down to the point where operators refer to the technique as 'Ultra-Low-Volume' (ULV) spraying.

To get enough pesticide down onto the fly's resting places however still involves distributing between 800 grammes and one kilogramme of potent poison per hectare ($1/100$ th of a square kilometre or 10,000 square metres). The areas involved in aerial spraying normally

If the object of the campaign is to increase meat supplies to those in the region who most need them, why should FAO and agribusiness go to such expensive lengths to produce beef which the poor will not be able to afford, while wiping out, in the process, the local population's meat supplies in the form of wildlife, which these areas still contain?

run to thousands of square kilometres for each operation.

Many areas need to be ULV sprayed several times to achieve eradication of the tsetse, and as much as twenty-five per cent of the total region being cleared is covered at least once. The prime targets in any area are streams and rivers, and the banks of these and any other bodies of water the area contains, these being the preferred habitat of the most dangerous species of flies.

According to an estimate by one expert within the FAO "Task Force" (who has demanded anonymity, for his own protection, as the price for discussing the problem at all), between 150,000 and 175,000 tonnes of active ingredient have already been nonchalantly rained down upon Africa's tsetse areas during the decade since this programme began. And this, we must bear in mind, means tonnes (one million grammes) of stable, accumulative poisons so deadly that a healthy adult directly consuming as little as three grammes of any one of them—say a small teaspoonful—would suffer a gruesome death within hours.

Dieldrin is notorious for its effect on fish and other aquatic creatures, as well as those who live on them. Endosulfan, the still widely permitted Thiodan of West Germany, is reputed—also by its manufacturers—to be even worse. But these and other such chemicals do not eliminate the tsetse entirely by this ULV method, for a number of reasons. To appreciate one source of the difficulties confronting the FAO's attack force, it is necessary to look more closely at the tsetse fly's life style, and in particular its breeding habits.

These are fairly unusual even by insect standards. Unlike most other flies, the female lays no eggs, but gives birth to single larva; she only needs to mate once in her eight-to-ten-week life-time, storing the sperm in internal storage organs known as spermathecae. She produces on average less than one larva per week, depositing them carefully on the ground, in suitable places under fallen logs or other protective vegetable litter. They then burrow immediately into the soil and litter, there to pupate and metamorphosize into adult flies.

This last process can take from three weeks to three months, depending on the weather and particularly the temperature. For the whole of its 'subterranean' life, the immature insect lives entirely on food reserves absorbed from its mother, so that it remains safely buried and out of reach of most predators—and of its tsetse-exterminating human enemies.

The implications of this life-cycle for the sprayers are obvious; a single application of insecticide cannot wipe out the fly completely unless a sufficiently large proportion of the poison remains active over the area for several months. The 'hard' persistent chemicals (having a 'half-life' measured in years) will do this, if applied in large enough doses, but at vast environmental cost which their opponents today find totally unacceptable. The alternative is repeated spraying with smaller doses.

The latter is fundamental to the latest refinement in the field of application techniques. Known as 'aerosol' or 'mist' spraying, this idea is to create a cloud or fog of molecular-sized droplets to completely envelope the vegetation and the flies, catching the latter in effect on the wing. But here again, major problems rapidly appeared.

Today, much aerial spraying—both ULV and aerosol—is done by helicopter, and the early experiments with mist spraying involved injecting the sprayed pesticide into the helicopter's exhaust gases. Pesticide mixtures are highly inflammable, however, and it was found to be more practical to produce the mist by an electrically powered atomiser. The main problem, as against ULV spraying, is to get such microscopically fine droplets to fall onto the ground—or at least to the bush growing on it.

The Shell Company (and later, Hoechst AG) hired a British meteorologist, Peter Coutts, to solve this problem, which is essentially one of atmospheric movements. In good weather in the daytime, the sun-heated ground produces upward air currents which, even on the stillest day, are sufficient to overcome the gravitational force on such minute droplets, to the point of preventing the poisonous cloud from reaching the ground, even if discharged at barely more than treetop height. This effect not only foils the sprayers, but also results in traces of the poison being picked up more than forty km away from the point of discharge; while Coutts says that more than fifty per cent of the pesticide simply disappears, no one having the least idea where it gets to.⁹

He solved this problem through the idea of using one of nature's own tricks. This is known as a 'temperature inversion', when a reverse of normal air movements occurs as the lower warm layer is trapped by an overlying cooler layer. This frequently occurs in Africa just around dawn, and at sunset. Thus by spraying with an aerosol in the approaching dusk, the operators are able to get their deadly cloud to settle around the flies as they bedded down for the night.

Flying at treetop-height across broken, featureless bush is a hazardous enough business at best of times; doing so at sundown or before dawn, while looking for down-draughts and under pressure to cover as much ground as possible while the light lasts, or before the sun's heat starts its effects can only appeal to the true 'kamikaze' spirit. Nor can it be said to add much to the accuracy of navigation, or the in-flight adjustment of dosage levels (especially where contractors' payments are based on quantities of chemicals distributed). This is equally the case in the latest development of aerial spraying, by large twin-engined aircraft

flying at night.

Relevant on this point is a recent study¹⁰ financed with almost a quarter of a million pounds by the ODA, of test spraying the Okavango Delta and Swamp—one of southern Africa's few remaining wildlife areas still to contain any appreciable numbers of indigenous animals—with endosulfan. The developers seek to turn the area into cattle pasture.

In this carefully controlled experiment, endosulfan aerosol spraying was carried out by fixed-wing aircraft flying in pairs, equipped with the latest Global 300 VLF guidance systems, and with further guidance provided by tracks previously cut for the purpose through the bush of the zone to be sprayed. It should be noted that fixed-wing aircraft are easier to navigate than helicopters; and that the aircraft flew at fifteen metres above treetop height, the Okavango Swamp being essentially a flat area offering few of the hazards of more broken hilly country.

These are untypical advantages, in that commercially run field operations, which include the vast majority of spraying contracts are generally run on a much more *ad hoc* basis, and subject to little or no real control from any independent body. Despite this the report—which the ODA still treats as 'Top Secret', although copies are available in Holland and Germany—speaks frankly of observing "the results of large navigational errors". It states for instance:

"In each of the first three spray cycles in 1978 the aircraft repeatedly missed a monitoring experiment that had been set up at Moremi North Gate. The aircraft passed approximately one km (estimated visually) either side of the experiment and on one side were observed to pass over the same point (Khwai Lodge) on three consecutive runs. On that occasion there were fish kills around Khwai Lodge and it is also relevant to note that tsetse were found surviving near North Gate after the spraying season."

Spraying rates at each run were nominally between six to twenty five grammes of active ingredient per hectare, the dosage being repeated up to six times for

It is pointless to exterminate an unknown number of 'non-target' organisms when it is now obvious that the real target (the trypanosome) is certain to escape extermination.

each area. The report notes, further, that complete eradication of the tsetse has never been achieved under this programme. And indeed, most independent experts refuse to believe that contractors will ever reduce the amount of insecticide actually applied in field operations to this low level.¹¹ The report also states that the average concentration of endosulfan shown on sheets of aluminium foil laid out at ground level to check the amount reaching the ground "represents forty-six per cent of the sprayed dosage", largely confirming Peter Coutt's figure given earlier of more than fifty per cent simply disappearing.

Wrong on all Counts

Today, ten years after its declaration, and with expenditures already amounting to around 1 billion dollars, the FAO's 'Tsetse War' is arousing widespread and vociferous criticism from an ever-growing spectrum of people—experts and non-experts alike. Its overall impact on the tsetse and the diseases it vectors is judged by many who know Africa not merely to be insignificant, but as positively harmful. And this not to mention the damage done either to human habitats or to the national economies indebted as a result.

Many specialists today claim that tsetse now infest more territory than was the case before the eradication or control campaign began. Despite some small successes in clearing limited areas—among which can be noted an area of some thousands of square kilometres of Northern Nigeria, a densely populated country where the necessary intensity of subsequent land-use may well maintain the clearance, although perhaps at the cost of ultimate desertification—other larger areas have been reinvaded by the fly. And sadly, this expansion is likely to continue until Africa achieves a considerably greater degree of stability. For the best weapons in fighting the tsetse fly and its diseases are peace and prosperity.

The FAO's 'hard-line' tsetse eradication campaign is criticised on several main levels; and at each of these, according to such critics, the agency and its sponsors and supporters in the aid industry have got it wrong.

For instance, they ask, why use 'hard' chemicals? Even if it is agreed that chemical spraying must be used to wipe out tsetse flies, why should this be done with such banned or restricted insecticides as dieldrin, DDT or dichlorvos—or even 'permitted' organochlorines like endosulfan—when alternatives exist? The British-developed synthetic pyrethrins are widely available, and many 'chemical warfare' advocates agree that these are many degrees safer in terms of their effects of enduring environmental damage, if not in terms of immediate impact on 'non-target' species.

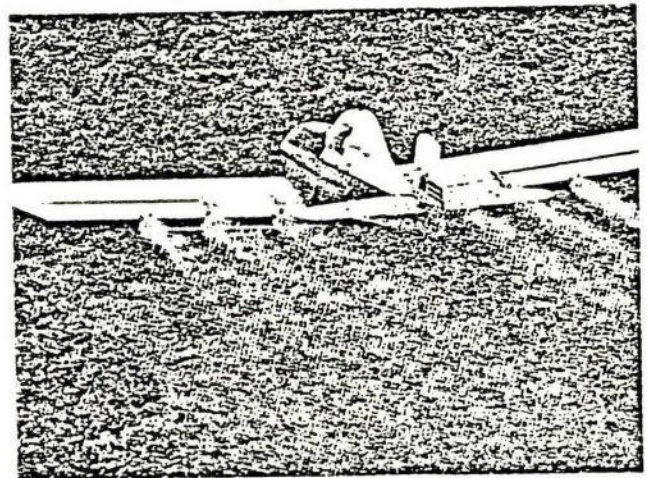
Hard chemical advocates, on the other hand, say bluntly: "We in the rich countries can afford the luxury of banning such cheap and effective crop-protection compounds. The developing countries cannot afford to do so."¹²

But the danger to man and environment of such broad-spectrum insecticides lies not only in the fact that, given the right dosage, they can kill any living creature apart from the technician's target species; nor that many of them cause serious and usually fatal illness such as cancer and birth defects; but they are also generally known to cause sterility in both men and women, as well as commonly causing impotence in men exposed to them—which has much the same ultimate effect.¹³

Discussing such issues, a senior member of the FAO's Information Division claimed that a less diplomatic—not to say more brutal—version of the opinion of developing country priorities given above is frequently expressed privately by the more cynical development aiders who advocate hard pesticides. In this view—obviously unattributable, although claimed to be commonplace—most of the poor countries

affected are said by the aid authorities to suffer from an overgrowth of population. Thus any side effects which help to reduce the fertility of Africans can only be beneficial; while any carcinogenic or mutagenic effects there may be would constitute a rather long-term hazard. This, such cynics declare, although regrettable, is unimportant in view of the short life-expectancy of the poorer inhabitants of these lands—who are of course those most intensively exposed to such spraying—which makes it likely that they will die of something else before any such long-term effects can appear.

Such double morality standards epitomise the insouciant malevolence motivating much of the development aid industry and its allied agribusiness. And the fallacies behind such misanthropic 'double think' are also emphasised by a second group of critics, who are more concerned with the social and environmental aspects of such ill-conceived campaigns.



By spraying in the approaching dusk the operators are able to get their deadly cloud to settle around the flies as they bed down for the night.

Levels of Doubt

Thus far we have discussed the errors of the FAO's chosen method of fighting the tsetse. The declared objective of the campaign is increased beef production. But at another level some experts, while accepting the aim of beef production as the solution to the African poor's hunger, consider that we should not be trying to wipe out tsetse at all, but rather should try to live with it. This thinking is based on the fact that some ten different breeds of dwarf shorthorn cattle in Africa have a degree of tolerance to nagana almost as developed as that of indigenous wild animals.

Even within the UN agency, many experts believe that this would be a more fruitful, and less damaging method of producing beef in tsetse infested regions. Jan Rendel, the Swedish chief of the FAO's Animal Production Service, advocates this approach.

One such breed, which is hardly bigger than a Shetland pony and is often to be seen in European zoos, is known as the Dahomey dwarf shorthorn strain. As Rendel explains, such 'expatriate' animals will have lost their 'trypanotolerance'—as indeed will any other African animals, of whatever species, which have been kept for long or bred in zoos away from the tsetse

areas. For maintenance of this desirable characteristic requires that the animal is subjected to constant heavy exposure to the disease. If the disease challenge is removed—either by relocating the animal, or by eliminating it along with the fly—then any tolerance will rapidly disappear. Animals born and bred in non-infected areas never acquire it.

On the other hand, the characteristic can be fostered, as the early explorers soon discovered by studying native pastoralists' methods. This is done by 'salting' their livestock, in a limited exposure at the fringes of the tsetse belt, and then allowing the animals to recover from the disease which appeared. According to Rendel, selective breeding also helps to promote such tolerance, which he claims can also be passed on to some extent to crossbred offspring, under conditions of constant exposure.

This implies, of course, letting the cattle live with the fly instead of trying to eradicate it. If the idea were to be adopted generally, it might conceivably lead to tsetse conservation programmes instead of the campaign to exterminate them.

The last method worth mentioning of enabling cattle to live with tsetse involves chemical prophylaxis. The effectiveness of this was demonstrated, among others, by Frank Teubner, a Bavarian veterinarian working in the Webi Shebeli area of Somalia over fourteen years ago. During a period of extreme fodder shortage on the Afgoi dairy farm following several years of drought, Teubner found that the farm's herd could be safely pastured on a nearby tract of tsetse-infested bush—the last remaining strip of greenery within hundreds of miles of that arid country's capital Mogadishu—after injecting them with May and Baker's drug 'Samorin'. This gave complete protection against two of the three trypanosomes present in the area—*T. congolense* and *T. vivax*. The third, *T. brucei*, was not affected by this drug-induced immunity, but could be cured if infection showed up in the herd's weekly blood tests by Hoechst AG's 'Berenil'.

As a general solution, however, prophylaxis suffers from two main limitations. The first is that trypanosome resistance to the few available drugs rapidly appears; and profit-motivated pharmaceutical companies are unwilling to invest in research for products purely for the poor country markets—especially those whose inhabitants are growing daily poorer despite, or more likely because of development aid. Secondly, this solution—like the tsetse eradication methods described above—depends permanently upon high technology (properly equipped blood-testing laboratories and the personnel to run them), and the expensive, addictive products of the western pharmaceutical industry.

Wildlife Alternative

There are other ways of producing meat from these tsetse-infested areas. This touches on the third level of criticism of the FAO's misbegotten tsetse eradication campaign. At the first there are those who question, assuming that tsetse must be eradicated, why it must be done with hard pesticides or high technology; at the second, those who ask, assuming that beef production

is the answer, why the beef producers cannot live with the fly; at the third, critics wonder, if the object of the campaign is to increase meat supplies to those in the region who most need them, why the FAO and agribusiness should go to such expensive lengths to produce beef which the poor will not be able to afford, while wiping out, in the process, the local population's meat supplies in the form of wildlife which these areas still contain?

Many studies—some commissioned by the FAO itself, in the days when its Forestry Division had a functioning Wildlife Section—have shown the importance of wildlife (including aquatic creatures) as the pre-ponderant or even sole source of animal protein for the rural poor. Confronted with these however, tsetse eradication and cattle breeding advocates invariably claim that the regions concerned no longer contain any significant numbers of game animals, and that this factor is thus unworthy of consideration.

Such reasoning demonstrates its proponent's ignorance of African diet and tastes, and is based on western prejudice in the definition of edible 'game' animals. For, in Africa, taboos and similar prohibitions aside (and these can apply equally to imported domestic animals), all kinds of animals are eaten in most areas, from insects, snakes and snails to bats, birds, baboons and beyond. The subject is a large and important one, and will be treated in detail in a later article; but one point is worth noting in the present context.

The small number of studies already undertaken of side effects of tsetse and similar spraying campaigns on natural animal populations, almost invariably show

Between 150,000 and 175,000 tonnes of active ingredients have already been nonchalantly rained down upon Africa's tsetse areas during the decade since this programme began. And this, we must bear in mind, means tonnes (one million grammes) of stable, accumulative poisons so deadly that a healthy adult directly consuming as little as three grammes of any one of them—say a small teaspoonful—would suffer a gruesome death within hours.

(in their later, published versions at any rate) that little long-term negative effect can be demonstrated—often mainly due to a dearth of evidence of animals poisoned after spraying operations. All these reports fall into the same trap.

Based on comparisons of animals caught or killed before and after the spraying, and collecting dead animals found after it (the latter cadavers usually being analysed later at the researcher's home base), none of them has yet taken into account the fact that rural people, even in the remotest bush area, have long-since discovered that the poison spray is one of the most effective short-term hunting aids yet introduced. Collecting sick and dying animals is far easier than

actively hunting healthy ones; so that the news of the spray plane's passage is greeted with joy by the local hunters, for the easy booty they know will follow.

By the time the researchers arrive on the scene, most of the poisoned animals they seek have already ended up in the bellies of the local population—poison and all. There are even frequent reports of pesticides being stolen or otherwise illegally acquired for use as aids to hunting or fishing, occasionally with disastrous results for the ultimate consumers.

To quote one example of such prejudiced western expert's findings—which are frequently quoted in justification of further spraying programmes—a German study in Cameroon discovered fruit bats (*Micropteropus pusillus*) containing from 133 to 175 parts per million of dieldrin after spraying.¹⁴ Nor did these animals, being purely vegetarian, amass such doses by bioaccumulation, as could have been the case with insectivorous bats. The researchers, however, glibly reassured their contracting authority (the GTZ—a West German government agency) that this contamination was of no practical significance since bats do not form part of the local diet—a mis-statement illustrating a frightening degree of ignorance about the affected people, their habits and their needs.

Such 'findings' are commonplace. But aside from such wanton expert ignorance—for the FAO, like every other such agency or authority, only employs those experts who can be guaranteed to produce the reports and opinions it desires—a much more conspicuous and reprehensible 'Nelsonian blind-spot' is evident to anyone studying the agency's 'Tsetse War' objectively.

Ultimate Futility

The campaign's aim is ostensibly, by wiping out the tsetse fly, to eliminate African trypanosomiasis. But all the experts involved are aware—although they remain diplomatically tight lipped about it—that while the tsetse exists solely in some parts of Africa, trypanosomiasis is endemic world-wide. It is pandemic, often in non-pathogenic forms, from Timbuctu to Tahiti, and from Norway to New Zealand—and even exists in parts of Africa where the tsetse does not.

While the South American Chagas Disease, from which millions suffer today and which possibly numbers Charles Darwin amongst its past victims, is also a form of human trypanosomiasis, it is caused by an entirely different group of trypanosomes—*T. cruzi*—with its own vector in the shape of the reduviid bug, which does not vector African 'tryps'. This unpleasant creature, a soft-shelled bed-bug, is locally known as the 'kissing bug' from its habit of leaving 'love-bite' swellings on the faces of its sleeping victims.

Nevertheless, African trypanosomiasis or nagana is also widespread in Latin America, having been introduced into that tsetse-free continent in earlier centuries with the importation of infected cattle from Africa and the conquistadores horses from Spain, and is transmitted by various other vectors, including the vampire bat. A further, much rarer form today of the disease, which has also occasionally been found in Europe, is a venereal disease in horses caused by *T.*

equiperdum and transmitted simply by sexual contact, without the intervention of any vector at all. The latter, incidentally is thought probably to be a derivative of *T. evansi*/*T. brucei*.

Walter Ormerod of London's School of Hygiene and Tropical Medicine, the leading expert on trypanosome infections—and among such perhaps the most outspoken, least 'tight-lipped' and most studiously ignored by the FAO and its allies—explains the situation thus:

"*T. vivax* which is transmitted to cattle in Africa by tsetse is transmitted in South America (Brazil, Colombia and Venezuela) and also in Mauritius in the absence of tsetse. *T. evansi* is also present in South America; this is transmitted elsewhere without tsetse. In the Sahelian and Sudanian zones of Africa, where *T. brucei* (transmitted by tsetse) and *T. evansi* (transmitted by other flies) meet in the one place, it is quite impossible to tell them apart. It is gradually dawning that they are actually the same species.

"Thus the evidence is accumulating that exterminating tsetse will not exterminate trypanosomiasis. Certainly it will greatly decrease the prevalence, but it is clearly not going to be the final solution for trypanosomiasis: *T. vivax* infection in South America is now of commercial importance, and 'mal de caderas' in horses has been important since the days of the conquistadores.

"I agree . . . that it is pointless to exterminate an unknown number of 'non-target' organisms when it is now obvious that the real target (the trypanosome) is certain to escape the extermination."

Confronted with such clear and authoritative scepticism about the FAO's programme, many will justly wonder how its sponsors can ever manage to continue it, let alone expand it massively as they are presently planning to do. In their latest move, following the Okavango spraying trials, and in extension of a Dutch sponsored campaign currently being carried out in western Zambia, the common market's European Development Fund (EDF) is actually putting together, within the general framework of and in co-ordination with FAO's overall campaign, a programme to spray a vast belt of southern Africa with organochlorine pesticides. This is to include part of Zambia, Zimbabwe, Malawi and Mozambique.

The first phase having been finally approved in March this year, appears to be first fruit of a massive sales campaign mounted over recent years by Germany's Hoechst AG. This company has been offering a 'package deal' to many African governments—with all the customary blandishments—under which, working with their own aerial spraying sub-contractors, they guarantee eradication of tsetse over a given area at a fixed price per square kilometre of area freed. To achieve this, the company alone decides which of their chemicals and what quantities are to be employed. The EDF's participation in this will be limited to loaning the necessary funds to the countries affected.

This highly dubious operation is in many ways reminiscent of the notorious Gezira cotton spraying contracts given to the Ciba-Geigy Company of

Switzerland, which have practically reduced Sudanese cotton growing to the verge of bankruptcy. The whole of this complex of vested interests, administrative inertia and the noxious pressure of the 'development imperative' forms a major topic in itself, but constraints of space do not permit it to be dealt with here.

In conclusion, however, it may be worth touching upon a final possible danger of the 'Tsetse War's' outcome which—although certainly more speculative in the present state of our knowledge of the complex factors involved—could in the event prove even more disastrous than the widespread poisoning and impoverishment of the African populations under attack, on the scale at which these are already certainties.

This recent thinking derives largely from the work of J G Charney and others, who believe to have identified a 'biographical feedback mechanism' in the dynamics of desert formation and Sahelian drought. It relates largely to a factor known as the 'albedo effect', and the annual movements of the Inter-Tropical Convergence Zone (ITCZ)—the massive meeting of air flows under the zenith of the sun, which moves north or south within the tropics according to season and the position of the sun. The albedo is an index of reflectivity of a planet's surface; in the case of earth, the general rule (over land) is that the denser the vegetation cover, the lower the reflectivity.¹⁵

What this means in practical terms is that forest or bush cover absorb and retain far more impinging solar energy than bare ground or desert, which simply reflect the radiation back into space. This energy goes into fuelling the wind system and the evaporation of water. Both of these, together with the annual northward swing of the ITCZ, have considerable influence on the monsoon rainfall reaching the Sahel. In brief, the reduction of the forest cover to the south of the latter is likely to have the direct effect of reducing the amount and duration of rainfall reaching the drier northern zone.

But since the Sahel is already a major traditional producer and exporter of large quantities of beef, any tendency to further reduce forest cover further south—and this, sadly, would be the inevitable result of any large-scale introduction of beef production there—would reduce the Sahel's potential as a productive area, and lead to further spread of the desert which it fringes. And since, as will be clear from the foregoing, trypanosomes are unlikely to have been eliminated from these southern zones, an eventual failure of cattle raising there is also a fairly safe prediction. Thus the ultimate folly of the FAO's project could possibly be not only to destroy the rich resource that the forest represents in itself but also to run the risk of destroying cattle breeding in the present producing areas to the north. All this to the profit of no one other than the pesticide manufacturers.

In conclusion, the words of George McRobie, Chairman of the Intermediate Technology Development group seem most apposite. In 1981 he wrote:¹⁶

"Inappropriate technologies take many forms. The

most obtrusive are large and expensive items of hardware—factories, processing plants, huge dam complexes—foisted on developing countries under the guise of aid and development programmes. But a far greater threat to the people of developing countries—and to all of us—is presented by the less spectacular but more pervasive products of the chemicals industry, in the form of herbicides, pesticides and other poisons.

"Farming systems and practices that promote monoculture, and depend heavily on oil and inorganic chemicals are the most inappropriate package of technologies that could possibly be devised for the use of very small farmers in the Third World.

"Even the current rate of loss of African forest is calamitous. . . . There is nothing inevitable about this kind of ecological destruction. It is a direct result of violent technologies, especially agrochemicals. For more and more people, the ability to exercise choice in the matter of technology, and to opt for technologies that are non-violent, is rapidly becoming a condition of survival."

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DOES ECONOMIC DEVELOPMENT FEED PEOPLE?

by John Madeley

Economic development, by forcing peasants to export their food, is causing poverty and malnutrition. Significantly, it has been found both in Tanzania and in Uganda that it is when the economy is most depressed that villagers eat best. The reason is that they can no longer sell their food and must now eat it. It is by non-institutionalised self-help schemes such as those the author describes in India and Ethiopia rather than by Government-sponsored economic development that the rural poor are most likely to feed themselves.

The efforts of developing countries to transform their societies and economies, overcome poverty and enjoy self-reliant development, are generally failing to come up to expectations. As each year passes, it seems to be crisis rather than development that is the lot of a growing number of countries. On major issues such as food, energy, trade, debt, aid, the environment, the problems seem to be mounting.

"After years of political independence, after so called development decades; all the efforts of UN agencies, hundreds of pious declarations on aid, trade and development" points out Mohamed Idris, the President of an enterprising Malaysian non-government organisation, the Consumers Association of Penang, "most of the people in the Third World continue to be poor, unemployed and homeless and millions of children are starving to death".

But is there something seriously wrong with the way that the Third World is trying to develop? Has the Third World fallen into the trap of being over-dependent on the west to buy their export crops, lend them money and give advice through

bodies like the World Bank? If so, what practical and workable alternative paths to development could be taken?

The crisis in Ethiopia and across the Sahel belt of Africa has served to sharpen such questions. For it was not drought on an unprecedented scale that caused the 1984 Sahelian famine; 1984 was a dry year as was 1983. But two dry years together are not unexpected in the Sahel—history shows they have occurred quite often. No government can claim they were caught unawares. A new study of rainfall patterns in the area by University of Reading agronomist Dr Michael Dennett had found that rainfall in the Sahel during the ten years from 1974 to 1983 was only around five per cent less than in the 1931-60 period. The real problem is not less rain, but official development policies—these are at least partly responsible for turning drought into famine.

[Most countries in the Sahel region—Niger is an exception—have pursued a policy of planting out large areas of their land to cash crops for export to affluent westerners; far less attention has been given to food crops for local people. Donor aid agencies have financed the policy, and Chad, one of the worst affected countries, has just enjoyed a record cotton harvest. Mali has increased its cotton output by over 150 per cent in the last five years and

stepped up its peanut output by almost 100 per cent in that time. World Bank estimates suggest that most people in the countries of the Sahel region are eating perhaps a fifth less food than they were a decade ago.

This is understandable in view of the very limited attention that has been given to helping the people of Sahel to grow more food for their own use, rather than for western dinner tables. The figures tell a grim story. Between 1974 and 1983 the Sahel countries received around 7,500 million dollars in aid for agriculture. Less than one-fifth of the money went to rain-fed crops. Yet almost all the region's cereal production comes from rain-fed agriculture.

The amount of research being done into local foods is so small as to be a disgrace. There are estimated to be some 250,000 flowering plants in the world, many of which could grow and possibly grow well in very dry Sahelian type weather. Yet only a tiny amount of research is going into developing these plants—even though their development stands to make a substantial contribution to overcoming hunger in some of the world's poorest countries. Neither research institutions in developing or western countries seem particularly interested.

Poor countries have given scant priority to helping communities

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grow more food for themselves. Instead, aided and abetted by the World Bank and other international development organisations, they have sought assistance for prestigious large scale projects—including the ever-popular big dam schemes—and are paying a heavy price. As the cost of irrigating land from their dam(ned) schemes has soared so many countries have been left with less money to implement alternatives.

Yet throughout the developing world, alternatives are being implemented. Sometimes communities are stumbling across the right path almost by accident. Always it is a deep commitment by local peoples to overcome often huge problems that is at the root of whatever success is being achieved. In the alternatives lies proof that existing government policies are by no means the only ones there are—and hope of something better beyond the present crisis.

Tanzania

Tanzania rarely fails to make anyone's list of developing countries that are badly affected by crisis. Included in the United Nations Food and Agriculture Organisation list of twenty-four African countries "facing emergency situations" over food supplies, Tanzania is desperately short of foreign exchange, having been hit by global economic recession and the resultant lower prices for Tanzania's commodity exports.

Foreign exchange shortages mean that the government cannot provide all the support services for agriculture that it would like. There are difficulties in importing the spare parts, for vehicles for example, that are crucial if food is to be delivered from villages to markets. Yet behind Tanzania's crisis, something quite surprising seems to be going on.

To get an accurate picture of what is happening in Tanzania we must distinguish, says Mr Urban Jonsson, the United Nations Children's Fund (UNICEF) country representative in Dar es Salaam, between the state economy and the village economies. As nine out of ten Tanzanians live in the villages, it is the village economies that might, he says, be called the natural economy.

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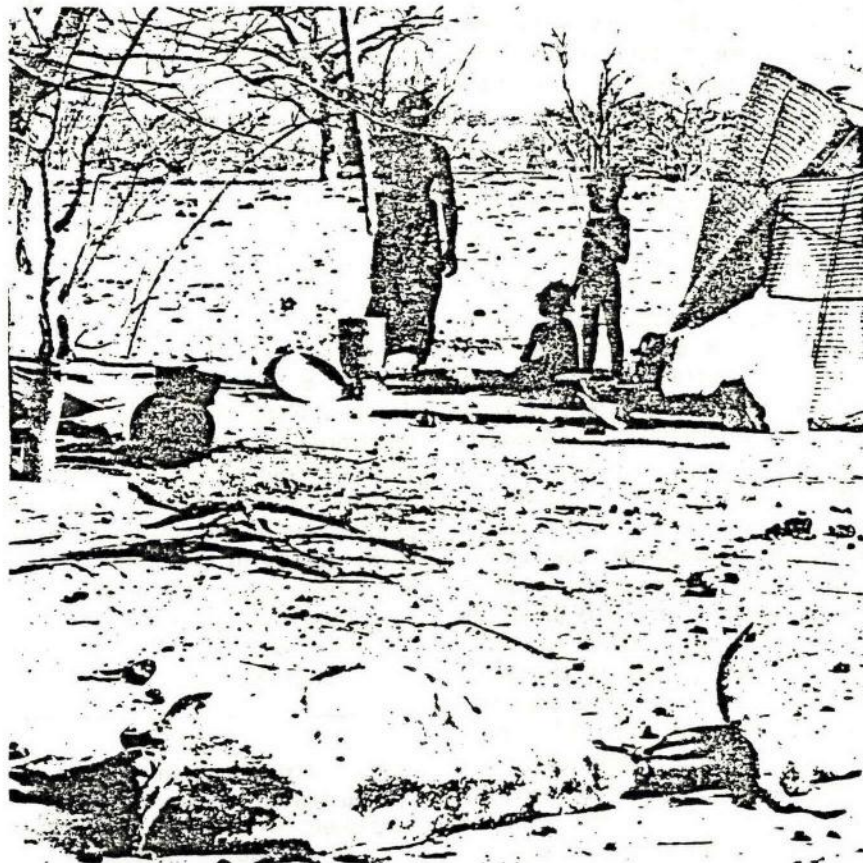


PHOTO: FAO

The Sahel region of Africa is suffering both drought and misdirected foreign aid.

"When the world economy and Tanzania's state economy are doing well," says Urban Jonsson, "the villagers sell much of their maize and other staple foods. But when the state economy is in a bad way, the distribution system tends to break down—there are fewer vehicles to transport goods to market; prices for food drop and give the farmer less incentive to sell."

So the villagers cannot get the food to market nor do they particularly want to because prices are so low and they would get a poor return. The villagers then do the only thing possible—they keep the food and eat it themselves. Not only do they keep the food they grow, the villagers start to use land that grows coffee, and other cash crops, to grow food, insofar as there is little point in farmers growing cash crops if they cannot be sure of getting them to market.

Since the beginning of the 1980s, and the onset of acute difficulties for Tanzania's state economy, there has been a switch from cash to food crops. Overall, the crisis in the state economy has meant that many

villagers in Tanzania today have more to eat. The natural economy, the one in which most Tanzanians operate, is faring better ironically *because* the state economy is depressed.

Urban Jonsson takes issue with those who describe Tanzania as a country in crisis. "This country does not have a crisis," he believes, "walk through the villages and you certainly do not sense crisis. There are periodic food shortages—every year before the harvest, Dar es Salaam is short of food, but this is a distribution problem—the failure of the transport system to deliver food to the capital."

But although there may be no crisis, it is still the case that many Tanzanians are malnourished because they do not get enough food to eat. With the improvement in the natural economy, there is just a glimmer of hope this may be changing, particularly for children.

The 1970s witnessed a disturbing decline in the health of Tanzania's children. Whereas in 1970, only about one child in five was under 80 per cent of normal weight for age, by

1980, every other child was below this weight. In a brief ten years the number of children below 80 per cent of normal weight for age had therefore more than doubled. During the last four years coinciding with the economic depression, with more food staying in the villages, this deteriorating situation appears to have been halted. "At least malnutrition does not seem to be getting worse," believes Jonsson.

The most serious crisis facing many villages, believes Jonsson, is 'the insect attack'. Coffee berry disease has damaged tens of thousands of bushes and is seriously affecting coffee yields. Ironically the disease is leading some growers to question whether coffee is worth it, although because of the contribution that coffee exports make to Tanzania's economy, it is illegal for coffee bushes to be uprooted.

A further aspect of the state economy being in crisis is that men have less opportunity to exploit women. For when food leaves the village, it is men who normally collect the cash and are prone to spend it on beer and other luxuries. A survey of Tanzania's Kilimanjaro district found that the exploitation of women by men was a bigger factor in mother and children malnutrition than is sometimes recognised, and that almost a third of men in the villages had a drink problem. When food stays in the village, mothers eat better and their husbands are more likely to stay sober.

There have been other unexpected, and as yet not fully understood, spin-off benefits—on housing for example. "Housing in the villages has never improved so fast as in the recession" says Urban Jonsson. One reason for this appears to be that men now have more time. They no longer have to transport their goods to market and no longer have the money to spend in beer houses.

Despite Tanzania's ujamaa (fellowship) ideals, very little land in the country's villages is farmed cooperatively—only around five per cent of total cultivated area (a lower proportion than in the United States!). Villagers have their own plots and in some regions farm a comparatively small plot together.

Tanzania is not the first country where villages are thriving at a time of a depressed state economy. A similar phenomenon was noticed in Uganda, after Amin. But what are the implications for policy?

If villages fare better when they are, to some extent, separate from the state economy, then it would appear to make sense to develop that separation. Economists point out however that if villages become self-sufficient units they will not produce export crops and a country's foreign earnings will decline. They argue the villagers must produce a surplus both in cash crops to yield foreign exchange and in food crops to feed the growing populations of the towns. However if the quality of life in the villages was higher, fewer people would drift to the towns and less 'surplus' food would be needed—and possibly also less foreign exchange.

Millions of people in "grain self-sufficient" India are today exposed, in Sheth's words, "to a kind of doom, a state of destitution, semi-starvation and chronic malnutrition, a long period of physical and psychological stunting, and slow death."

Whilst other voluntary agencies besides UNICEF have noticed successful village economies in a depressed state economy, the implications have still to percolate through to most agriculturalists, economists and administrators.

The Tanzanian village of Manushi Ndoe in the predominantly banana and coffee growing region of Kilimanjaro has shown what can be achieved. With its rich soils and good climate the region has for years been home to wealthy coffee farmers. It has also tended to have a higher proportion of malnourished people than most other regions in Tanzania. In 1974, Manushi Ndoe, which has a population of around 4,000, had a high incidence of malnutrition. Today, village officials claim that malnutrition is a thing of the past. Health workers from outside the village back their claim. How has it been done?

Committed leadership appears to have played the most important part. The Secretary of the village committee, Alloyce Mmassy, is also head teacher of the school. Five years ago the committee decided to give priority to ensuring that adequate supplies of vegetables and milk were available to people, at normal prices if they could afford it, but otherwise free.

A women's group persuaded a wealthy family in the village to give up part of their land for vegetable production; the group has now successfully organised the growing of onions, tomatoes, cabbage and spinach. Oxfam was asked to supply three dairy cows, (also rabbits and seeds) so that the villagers could have milk on the same basis as vegetables. Together with an agricultural extension officer the women's group has made it their task to see that every family has the vegetables and milk they need. Today, the healthy children at Manushi Ndoe's school bear witness to the success of the village efforts.

Not all crisis hit African countries have villages which are necessarily suited for developing along the lines of this village. And problems with self-sufficient villages need to be recognised—one of the biggest problems may be that the government will not be able to extract as much revenue from them to pay for the services that it offers them—health and education for example. In Tanzania, quite substantial advances have been seen in education; seven times more children are in school today compared with twenty years ago—some three and a half million instead of half a million.

In practice most villages in Tanzania are likely to continue producing some food for the market so that people can earn money to buy goods which are not available locally.

It is just possible that through the crisis that affects their country, Tanzania's villagers are finding their own route to development—one that owes little to western theories, but rather a route forged through the harsh jungle of experience. Should present trends continue, help from outside is still likely to be sought—the Oxfam contribution is considered vital by

the villagers of Manushi Ndo. But it will be villagers themselves who carve out their future; Julius Nyerere's dream of self-reliant villages may yet come true—if in a different way to how he imagined.

India

India is sometimes held up as a model of what African countries ought to strive to achieve. India's 'green revolution' has led to an increase in grain which has enabled the country to be grain self-sufficient (at what cost to the soil remains to be seen)—but that is a long way from saying that everyone has enough grain to eat. Estimates suggest that sixty per cent of India's population is below the poverty line, which is much the same proportion as it was *before* the green revolution started.

In India too there is an increased search for alternatives. "It is in the initiatives at the grass roots" says D L Sheth, director of the New Delhi based Centre for the Study of Developing Countries, "taking place generally outside governmental and bureaucratic structures, and away from the normal political processes of parties and elections, that another approach to rural development is becoming manifested".¹

Sheth points out that the people who are engaged in the search for an alternative, "all share a common perception about the nature and the sources of the misery of the 'left-out' as a consequence of the prevailing mood of development". He believes that the 'development establishment' and its beneficiaries—scientific, bureaucratic, managerial and military elites—"are busy inhibiting and even curbing grass roots initiatives, through the use of State power and bureaucratic subterfuge."

In India a group called 'Lokayan' has been formed to serve as a forum for grass roots activists and academics to evolve alternative approaches to rural development. "It is astounding" says Sheth, "that a programme of colonial type exploitation of the primary producers (the vast populations of tribals, artisans, small and marginal farmers and the landless) by a small urban industrial elite, and its client

class of dependent rural elite, has passed muster as a programme of rural development for so long".

Millions of people in 'grain self-sufficient' India are today exposed in Sheth's words "to a kind of doom, a state of destitution, semi-starvation and chronic malnutrition, a long period of physical and psychological stunting, and slow death. For them the problem is survival, not development . . . it has now become clear that the prevalent economic growth model has little to offer to the vast multitudes in the unorganised and informal sector".

It is in this context that new thinking about development is taking place. The new approach has at least six 'points of departure' from the conventional route. Firstly, poverty is viewed as a social and structural problem as well as an economic one. As caste is a powerful social reality in India, the new

"The villagers sell much of their maize and other staple foods. But when the state economy is in a bad way, the distribution system tends to break down . . . The villagers then do the only thing possible—they keep the food and eat it themselves."

thinking emphasises helping the backward castes, the Dalits ('untouchables') and other exploited groups to organise separately, and then later to evolve joint strategies. The approach is therefore one of targeting help to exploited groups and helping them to become aware of their potential and possibilities.

Secondly the Indian grass roots groups reject the 'inputs' view of rural development as 'partial and lopsided'. As a substantial majority of Indian people lack "any economic and organisational capacity to use inputs such as credit, seeds, fertiliser and irrigated water, these inputs are simply swallowed up by the upper castes". The new focus they believe should be on creating capabilities among the rural poor, rather than expecting them to rely on packages of inputs.

The new approach to development is seen, thirdly, not as a problem of efficient management and

implementation of certain schemes, but rather as a struggle for establishing the economic and political rights of the poorest, which are necessary for their very survival. Direct intervention by the State is needed, believes Sheth, "to protect the rights of the poor and ameliorate their situation, and at the same time, organise the people themselves for struggle".

Fourthly the Lokayan groups "resist the on-going attempts to depoliticise the development process". It is only through the politicisation of the poor, they believe, that development can reach the poor, and hence there is a need to help vulnerable groups to struggle and campaign on specific issues. "Through this process", says Sheth, "they (the poor) are building for themselves a new political credibility, bound to create a long term impact on Indian politics".

Because governments and political parties have largely failed to devise strategies which might help the poor, the scope for grass roots initiatives has increased. The fifth point of departure for the groups is that they are devising new forms of political action through "peaceful protests, sustained sensitisation, mutual learning and training of cadres . . ." They are creating a kind of non-electoral politics, with an economic and cultural content, which they describe as 'societics' rather than 'politics'.

Lastly, the groups emphasise the decentralisation of economic and political power. This they believe can make for "greater flexibility, experimentation, and innovation." In sum, the Lokayan groups believe that these six points can provide a basis for "a truly authentic and rooted development process."

Struggles

In a Third World hit by many problems, encouraging success stories are coming from local communities and groups in many countries, which show that people have managed to organise themselves, sometimes with outside help, increase the output of food for their own use, to exercise their own control over the development process, over the things which affect their lives. Many communities are strug-

gling hard to find type of development which is meaningful for them.

Many are finding that by organising themselves, they can step up their bargaining power and earn enough to enable their families to live decently. Sometimes this involves small but far-reaching changes in the way things are done. In the Sri Lankan village of Ranna, for example, some 130 miles from the capital, Colombo, twenty-five vegetable producers formed a group to analyse how they could break the cycle of poverty which afflicted them.

The producers decided that they could and must reduce the amount of money they spent in cultivation. They resolved to share their labour rather than bring it in from outside. With the savings that resulted, they started a small collective farm, which they cultivated as a group in their leisure time. Income from this collective enabled them to break free of the local moneylenders and their exorbitant rates of interest.

The twenty-five member group put itself in a sufficiently strong bargaining position to persuade the local bank to do something it had previously scorned—lend them money at normal rates of interest. The growers were able to earn for themselves a better deal for their produce at the local market centre. Vegetable growers in nearby villages have become interested in doing the same.

In the Sahelian country, Burkina Faso (formerly Upper Volta) some 500 cooperative and village groups have freed themselves from profiteers by buying their own grain at harvest time at a price laid down by the government. In battered Ethiopia, an organisation of peasant farmers and landless people have been active in the last decade in a project to improve the quality of their livelihoods by halting land degradation. Amidst all the grim news which has come from Ethiopia, it is worth noting that these peasant organisations are engaged in what the FAO describes as "one of the most successful soil conservation projects in the world".

In Latin America too a growing number of people are searching for alternatives. One group of Latin-Americans, now exiled in Britain,



PHOTO JOHN MADELEY

Head teacher and children of a village in Tanzania which has overcome malnutrition through its own efforts.

recently formed a project called the Latin American Cooperative Development Project to research into alternative ways of development for the continent and exchange information with organisations in the Third World and in Europe about the issues.²

The pressing need for alternatives surfaced at a non-government organisation (ngo) World Food Assembly, held in Rome during November 1984. The Assembly sponsors included over twenty People's Development Organisations from the Third World. The PDO's, among them church groups, cooperatives, consumer associations, village and landless groups, were largely in agreement with their northern counterparts that the policies of the World Bank and other international development organisations, such as the FAO, have very often not helped true development, but instead have made life harder for local people.

There was strong criticism of the way that cash rather than food crops have been encouraged and also of how people have been eased off their land for big development schemes that were ultimately supposed to help the displaced people—but have often not done so. Governments were urged to implement 'Food First' policies that help the hungry to grow and have access to more food—policies which might include

politically sensitive land reform. Unless people have sufficient land of their own, they lack the base to overcome poverty; a key part of the success of the Manushi Ndoo villagers in Tanzania concerned land re-distribution.

Growing fewer cash crops would not only release land for food crops, it would also help to remove the 'over-supply' that keeps down cash crop prices on world markets—it would therefore put developing countries in a stronger bargaining position vis-a-vis the west and help to lessen over-dependence.

One of the most important 'alternative' policies for development to be stressed at the Assembly was that people should have a genuine voice in the things which affect them, rather than having projects thrust on them from on high. It has become increasingly popular to talk about participation of local peoples. "Our experience over the last two decades" says UNICEF Executive Director James Grant, "lets us conclude that successful development for poor people could not be possible without substantial grass roots involvement". But even a statement like this conveys a hint of seeing grass roots involvement as just another piece, albeit an important one, in the development jigsaw.

The message that is coming across for Third World communities is that

there can be no true development unless it revolves around and is preferably initiated by the people of local communities themselves.

It is vital to remember that the Third World peasant who seems to western eyes so ragged in appearance, and so much in need of 'education' is usually someone with an enormous experience and knowledge of agriculture in his area. Such people often have a profound feel for the best balance between man and nature, for what is likely to work. They will not turn away outside help, often they value it—they welcome being told about rights they have which they were not aware of, and about possibilities for improving their lot—but they do not want outsiders telling them what to do.

It grieves people like this when insensitive government extension workers and aid officials come into their villages with half-digested schemes, which have not been thought out, and which upset delicate relationships. They wonder why they were not asked in the first place.

Should the very concept of development be dropped? "It's an imported concept that is not suitable for the Third World", believes Indian writer Claude Alvares.³ "What the west did was

Poor countries have given scant priority to helping communities grow more food for themselves. Instead, aided and abetted by the World Bank and other international development organisations, they have sought assistance for prestigious large-scale projects—including the ever-popular big dam schemes—and are paying a heavy price. As the cost of irrigating land from their dam(ned) schemes has soared so many countries have been left with less money to implement alternatives.

assumed to be good and hence to be copied; the local situation was seen to be stagnant and in need of 'development'".

The problem here however is largely one of words, of semantics. Those who favour dropping the word 'development' usually also

want to see the poorest living decently, overcoming hunger and having at least the very basic necessities of life, realising their potential as people—which others might call 'development'!

Development as it has preceded is clearly in urgent need of widespread revision and change. It is arguably more important to concentrate efforts on those changes rather than spending time labelling what it is. An ambiguous and unfortunate word it may be, but development is the one in use and perhaps those 'pro' and 'anti' the word might rally round the concept of it being the process by which people move towards realising their potential.

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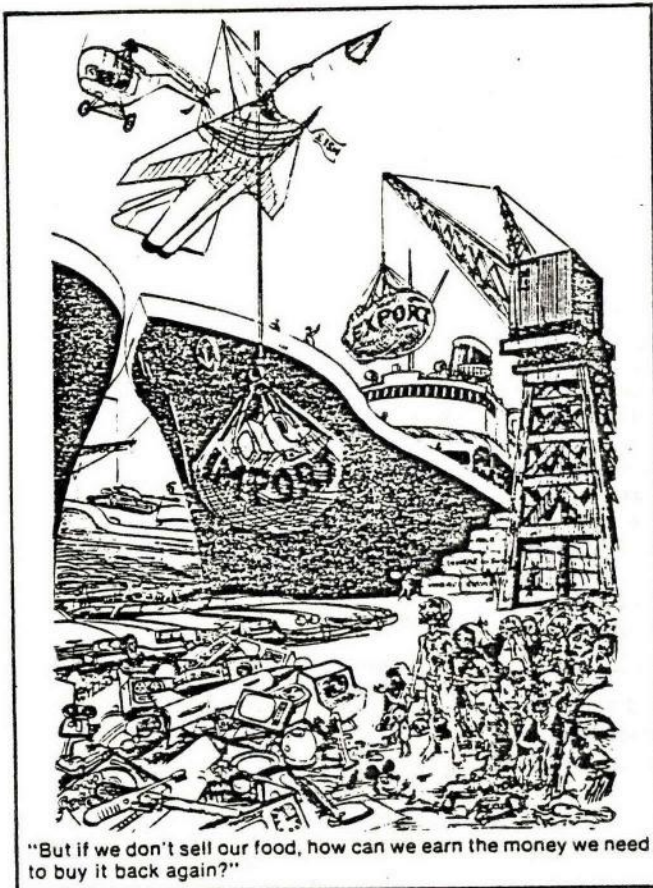
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How can you feed the starving by making them sell their food?

Mrs Indira Gandhi, when she was still Prime Minister, was congratulated by various Western dignitaries for having achieved food self-sufficiency for her country.

This was seen as providing the ultimate justification for the Green Revolution which had made possible this great triumph.

To have achieved food self-sufficiency, of course, conveys the impression—to the layman—that the proverbial malnutrition of the Indian masses has become a thing of the past.

This means, of course, that the country can now export its food 'surplus' so as to earn the foreign exchange required for development—with a *clear conscience*, since such a policy can no longer be construed as causing any hardships to the rural-masses in the interests of enriching the urban minority.

Needless to say nothing could be further from the truth. To say that a country is 'self-sufficient' in food does not mean that all its inhabitants have enough to eat. It simply means that the 'effective demand'—a purely economic concept—has been satisfied. This means that those who have enough money to spend on food have been satiated and that there is no remaining economic demand for any more food.

Unfortunately it so happens that the vast mass of the grossly underfed in India have no money. This means that their biological requirement for food is not reflected in 'effective demand'. This in turn means that food 'self-sufficiency' can co-exist with malnutrition and indeed famine on a very large and increasing scale.

Forcing the Starving to Export their Food

by Bharat Dogra

It is evident to all that one of the main causes of malnutrition and famine in India as elsewhere in the Third World is the systematic replacement of subsistence farming by large scale export oriented agriculture.

This still does not prevent the Indian Government (with encouragement from international agencies) to do everything in its power to further accelerate this fatal process in the interests of earning more foreign exchange for development.

Like most countries under colonial rule, India during the last two centuries has suffered from the systematic diversion of land from the production of staple food crops to that of export crops, a process which occurred even when serious food shortages existed in the country. But more unfortunate is the fact that today, nearly thirty-seven years after independence, a concerted drive to increase farm exports is being made at a time when serious hunger and malnu-

trition continue to exist in the country.

Statistics from country-wide diet surveys published by the National Nutrition Monitoring Bureau (NNMB) show that the diet of nearly half the households surveyed in different states of the country was deficient, even on the basis of the lowered criteria for the assessment of malnutrition by the NNMB since 1976. Again on the basis of the new (lowered) standards adopted by the NNMB, less than fifteen per cent of

the children below five years of age could be considered as being well-fed, the rest suffering from varying degrees of malnutrition. D Banerji's study of malnutrition and poverty in India comes to a similar conclusion. He undertook a long term study of these problems in nineteen villages located in eighteen different states. On the basis of this sample he concluded that almost half of the population is unable to satisfy its nutritional needs all-year round while more than a third is actually hungry for three months or more each year. This horrifying situation has not prevented the export of food abroad in order to earn foreign exchange required for development, in fact, farm exports during the last decade have increased very rapidly from 8,750 million rupees (1970-71) to 20,560 million rupees (1980-81). In other words it more than quadrupled during this period.

(Items whose export is taken into account in these figures include coffee, tea, oilcake, tobacco, spices, raw cotton, rice, fish, fish preparations, meat, meat preparations, vegetable oils, fruits, vegetables and pulses. Particularly notable has been the increase in the export of

Recently, two reports have been published which give some idea of the scale of malnutrition in 'food self-sufficient' India.

The first was produced by UNICEF. It is entitled "The State of the World's Children 1985". According to this report "India has more children than all the 46 countries of Africa put together." What is more "the majority of those children are living in poverty: one in three is born underweight, one in seven dies before the age of five, and an estimated 3 million die each year from conditions which could be prevented by oral rehydration and immunization alone."

The second report was produced by India's National Nutrition Monitoring Bureau. Its findings appear to be similar. According to the *Statesman* (22 December 1984) "Of the 23 million infants born in the country every year, only 3 million may be truly healthy", the report says. Of the rest, 7 million are likely to suffer from minor forms of *malnutrition*. Three million are expected to die before they complete their first year and one million before they reach childhood. And 9 million would enter adulthood with impaired physical stamina and reduced mental ability because of *severe malnutrition*. Thus only 15% of the children would have full genetic potential of growth and physical and mental development."

What is more the report notes "The infants, who do survive bear permanent mental and physical scars of *malnutrition*."

How in such conditions can one conceivably justify the policy of systematically increasing agricultural exports? If this is necessary to achieve economic development, then how can one conceivably consider that economic development is a means of assuring the welfare of the Indian people? It goes without saying that India is not the only country to find itself in this situation. It is increasingly true of Third World countries throughout the tropics. In such countries the choice is either to eat or else to export food so as to develop. To do both is simply not possible.

Edward Goldsmith

some staple foods which the local population requires. Thus the export of rice increased during this period by nearly twenty times, (32,000 tons to 726,000 tons) while the export of fish which constitutes the main source of animal protein in coastal areas has more than doubled.

Exports of vegetables, fruit and pulses which are an essential part of the diet of the Indian people increased during this period by more than six times from 123 million to 797 million rupees. The increase in the export of meat was even more impressive from 30 million rupees to 554 million rupees. The massive increase in meat production has meant diverting vast amounts of cereals which are badly needed for feeding local people to provide feed-stuffs for intensively reared livestock. The export of soya beans has increased significantly and export of tobacco has doubled during this period. All this means that land has systematically been diverted from producing food for local people to producing beef and cash crops for export.

Recently a prominent nutrition expert* questioned the wisdom of

* Dr. K.T. Achayya

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'extensive' lobbying and deliberate market support in respect of soya bean when there are desperate shortages of everyday feeds such as pulses and oilseeds. He said that two thirds of the land now under soya bean in Madhya Pradesh was once used to raise jawar, millets and several lentils and ground nuts.

However, our government encouraged by governments of industrial countries and by international agencies and multilateral development banks, wishes to divert more resources from feeding local people to exports that will bring in foreign exchange required for further development.

To this end a conference of Agricultural Ministers from all the states of India was recently called to find ways and means of boosting farm exports. At this conference the Union Ministers for Commerce and Agriculture sought to promote the idea of setting up a special export promotion corporation as well as cooperative societies whose role would be to accelerate the export of agricultural commodities. More recently the Union and Agricultural Ministry has announced a three-year cash-aid scheme. There would be a

statutory price support system, and fiscal incentives would be provided as well as other various encouragements. The object of all this, is to double the export of food products.

Various states have agreed to set up export promotion calls for farm products as part of a new 'farm yard to stock yard' strategy formulated by the Centre. A document prepared by the Commerce Ministry has called for the earmarking of a minimum quantum of production for exports regardless of the vagaries of weather—this means that even in serious drought years the country will be committed to supplying fruit and flowers, cattle feed and meat to other countries.

The Federation of Indian Chamber of Commerce and Industry has also proposed setting up large farms completely geared to exports. These would be run by industrialists exempt from all land-ceiling legislation which limits the amount of land that individuals are allowed to own. It is horrifying that such a proposal can be made at a time when there are so many millions of landless peasants in areas where only those who have their own land seem capable of sustaining themselves.

In today's exploitative system a large number of people in India do not have the purchasing power to meet their most basic food needs. Instead of taking those steps required to assure that the poor meet their minimum nutritional needs, the government seems to have decided to use the country's land resources for growing cash crops so as to earn the foreign exchange required to maintain a massive state bureaucracy and the well-to-do minority in the large cities.

This simply represents a systematic transfer of resources from the rural people who are thereby condemned to malnutrition and, at the current rate at which things are proceeding, to eventual starvation. What is truly depressing is that this should be the global policy of national governments, international agencies and multilateral development banks—those who at present determine agricultural and trade patterns throughout the world.

References will be available on request.

The World Bank vs the People of Bastar

by Bharat Dogra

Though it could not be better established that deforestation in the tropics is a major cause of impoverishment and malnutrition, the World Bank and national aid agencies are financing the deforestation of the remaining forested areas of India.

A recent report describes all the subtle ways in which villagers and tribals in the Bastar area depend on natural forests for their sustenance, and explains why their various needs cannot conceivably be met by the plantations of fast growing exotics with which the forests are being systematically replaced.

While the need for a massive re-forestation programme to bring more land under tree cover is accepted by almost everyone in India, in recent years the main features of the afforestation work have become increasingly controversial. One of these is the official policy to replace natural forests with monocultures of commercially lucrative species such as the pine and the eucalyptus, another is the setting up of monocultures on good agricultural land required for feeding the usually already undernourished local population.

One of the arguments against the first of these practices is that the tribals or other villagers who live in or near the natural forests derive from them much of their food, fodder, humus for their fields, building materials, and other necessities of life, all of which cannot be obtained from the plantations.

The main argument against the second of these practices, is that it not only reduces food availability but also the availability of employment for the landless poor. These arguments are of course only part of the case against such projects but they are the ones most frequently voiced.

Broadly, what is being argued is that such projects will further deprive those who are already the poorest and the most deprived in India. In return, it is not at all certain how the poor will benefit from the

sale of the timber from the plantations, or the paper mills or the rayon factories whose products will be consumed in the cities or sold abroad.

It is interesting that both these types of projects are among those most encouraged by the World Bank and also by national and international aid agencies. In 1980, the Minister of Agriculture published a list of current forestry projects which were being implemented with the assistance of foreign aid agencies (bilateral and multilateral). The names of these projects and those of the donor countries and agencies are given in Table 1.

Let us consider a few of these projects:

Project No 1

This FAO-assisted project aims at modernising the plywood industry in India so as "to develop typical models of plywood and veneer mills so as to modernise the plywood mills and to enhance their capacity to utilise a wider range of species and sizes than today." It is clearly designed to make the destruction of natural forests even more economic and hence desirable.

Project No 2

Though several recent reports have warned against the terrible ecological disruption in the Andaman and Nicobar Islands, this has not prevented FAO from helping to set up a project designed to undertake a "preliminary assessment of utilisation of Andaman Hard Woods for manufacture of paper and pulp."

Project No 8

This World Bank-assisted

Madhya Pradesh Forestry Technical Assistance Project in Bastar, Madhya Pradesh is described as "an experimental research-oriented project which envisages the felling of existing sal forests, mixed forests in selected localities for raising trial pine plantations to study their growth and performance for undertaking regular pulp wood plantations of pines." This project is considered in greater detail further on in this article.

Project No 18

This project is assisted by the Swedish Aid organisation (SIDA). Its object is to establish an Indian Institute of Forest Management "with a view to develop expertise in the field of business and commercial aspects of forest management."

The titles of the other projects make it clear that they are all designed in some way to facilitate and indeed accelerate the process of further destruction of native forests and their replacement with more commercial plantations of fast growing exotics.

The reader must not, of course, be taken in by such euphemisms as 'community forestry' or 'social forestry'. What this has actually meant in India has been described in the pages of *The Ecologist* by Jayanta Bandyopadhyay*. Like other forms of modern forestry it often involves the destruction of natural forests and their replacement by plantations of fast growing exotic trees—as will be shown later on in this article.

This bias of the aid agencies in the

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*See *The Ecologist* Vol 13, No 5, 1983.

selection of foreign projects in India should come as no surprise to anyone familiar with the world-wide role of foreign development aid in the area of forestry. That the World Bank is committed to this policy is made clear in one of its sector policy papers on forestry. This report states that the export of forest products from developing countries increased from 1500 million dollars in 1970 to over 3000 million dollars in 1975. This trend, they feel, will continue because of the continued demand for tropical hardwoods. They seem to regard it as perfectly legitimate that the Third World should continue exporting its hardwoods and thereby annihilating its remaining forests. Thus they tell us that "the developing countries contain the world's main reserves of tropical hardwood, they have, therefore, a major advantage in this area," and that "the extraction of this resource, however, provides valuable foreign exchange that can provide potential benefits to a much larger population." They show no concern whatsoever for the terrible social and ecological effects of such deforestation in particular the terrible poverty that this might give rise to in the newly deforested areas.

In a report on East Maharashtra, a Ford Foundation consultant expresses precisely the same irresponsible attitude. "Without the project" he writes "these forests would carry on the languid low (physical and economic) production regime of today with the project, they are to be replaced with a small cost, by high yielding plantations . . . In terms of the standard benefit cost parameters a situation like the one prevalent in East Maharashtra should put the project high in the economic ranking. And this is only a natural consequence of the very favourable (and relatively new) market possibilities that most forest products find in India today."

The aid provided by the World Bank, the Ford Foundation and other such organisations is seen to be justified in that it is supposed to "assist the poor". Not surprisingly official project reports pay lip-service to this—the supposed objective of all their activities. However it is increasingly difficult to maintain that this is their real goal. Consider a recent report in the *Indian Express*:

The Ecologist, Vol. 15, No. 1/2, 1985

TABLE 1: Indian Forestry Projects Receiving Foreign Aid, 1980

Name of the Donor Country/Agency	Name of the Project
1. FAO/TCP	Modernisation of plywood industry in India
2. TAO/TCP	Preliminary assessment of utilisation of Andaman Hardwoods for manufacture of paper and pulp
3. FAO/TCP	Transfer of Economic Model of FAO for use in India
4. UNDP	Integrated saw milling & wood working
5. UNFPA/FAO	Slash & Burn (Study on population in Asian Forestry Communities)
6. WFP	Social & Economic Development through Forestry Activities, Maharashtra
7. World Bank	Gujarat Community Forestry
8. World Bank	Madhya Pradesh Forestry Technical Assistance Project, Bastar, Madhya Pradesh (Pines in place of natural forests)
9. World Bank	Uttar Pradesh Social Forestry
10. Ford Foundation	Community Forest Project
11. Denmark/DANIDA	Development of seed Procurement and Tree Improvement Centre
12. FRG	Development of Conifers Research Centre, Simla
13. FRG	Project for Erosion Prevention, Dhahladhar Range, Himachal Pradesh
14. New Zealand	Establishment of Fire Fighting Depots
15. New Zealand	Seeding and Spacing trials of Conifers
16. Sweden/SIDA	Forestry Programme Co-ordinator
17. Sweden/SIDA	Support of the large scale afforestation of Giant Inil, by import of seed from the Philippines.
18. Sweden/SIDA	Support to the establishment of Indian Institute of Forest Management
19. Sweden/SIDA	Support to the Indian Logging Training Project
20. Sweden/SIDA	Support to West Bengal Forest Development Corporation

"Social forestry programmes designed to provide fuelwood and fodder for the poor are instead becoming a source of quick money for big farmers. The Uttar Pradesh Government's World Bank assisted social forestry programme has overshot its farm forestry targets by 3430 per cent, but fallen short of its targets for creation of community self help woodlot by 92 per cent. Judging by the World Bank's own mid-term review of the social forestry projects in UP and Gujarat, big farmers and the paper mills they supply with wood for pulp are emerging the primary beneficiaries of these multi-care schemes."

Another recent report in the *Indian Express* mainly quoting from a report prepared by the Madras Institute of Development Studies (MID) makes a damning indictment of the subservience of social forestry in Tamil Nadu to the requirements of the industry:

"Not only is the timber sold to the industrial sector, but it is sold at a price which is many times lower than its cost of production. The social forestry projects, are, in this way, subsidising the industrial sector in a very big way, which is totally contrary to the

principles which are supposed to under such projects. While the aim of the farm and social forestry projects is to meet the needs of the villagers as regards fuelwood, small timber, fire-wood, fodder and green manure, the forest department, for the past 13 years, has been selling the trees raised on the farms and in social forests to



Villagers depend on natural forests for firewood, a vital resource.

private paper and pulp industries at a price eight times lower than the expenditure incurred in raising a single hectare of eucalyptus wood. This alone has made the forest department incur a loss of several crores* of rupees. Apart from this there have been heavy losses owing to other things . . . While the price fetched per hectare (for selling the wood to paper and pulp industries) was Rs.244/—the percent cost of raising one hectare of social forest plantation (1981-82) is Rs.1946/—that is, the price was eight times lower than the cost of raising it."

To give a specific instance from the MID report, "the quantity of eucalyptus hybrid wood supplied from Chengalpattu district alone to a paper mill from 1975-76 to 1982-83 was 17,422 tonnes. Each tonne was sold to the mill as Rs.80 while the cost of raising the wood was more than Rs.540 per tonne. The Chengalpattu forest division incurred a loss of Rs1.07 crore from 1956-76, its expenditure during that period was Rs1.90 crore and income a meagre Rs.83 lakhs. The loss that the other 30 forest divisions in Tamil Nadu would have suffered during the same period can be imagined."

Having seen the overall nature of forestry projects in India that are assisted by the World Bank and other International Agencies, let us now concentrate on a single area, the Bastar district of Madhya Pradesh. This area, because its forest resources have not yet been entirely destroyed, has been examined with interest by various Aid agencies wishing to further extend their sphere of activity.

An FAO/SIDA mission visited this area in 1973 at the request of the Government of India. It identified an area within a radius of 350 kms, from Jagdapur, called the 'Dome' area as exceptionally suited for the setting up of high-yielding tropical pine plantations. Its geographical situation, its soil and climatic condition, in fact made it one of the most suitable areas for large scale conifer plantations in the whole country.

Indeed, from among a number of projects submitted by the forest departments of various States, initially only the tropical pine plantations project of the forestry department of Madhya Pradesh re-

ceived favourable acceptance from the World Bank. Subsequently (in 1974) the World Bank sent an identification mission to Madhya Pradesh. This mission recommended the creation of tropical pine plantations, as also the setting up of an export-oriented pulp mill based on an intensive management plan prepared by the Forest Department. In addition, the setting up of an integrated saw-mill and the conduct of a comprehensibility study for industrialisation was also recommended by the mission. As a follow-up measure, the World Bank sent a preparatory mission in 1975. This mission, while agreeing with the recommendations of the earlier mission, suggested that for the first phase of five years it would be worthwhile to concentrate on pilot pine plantations, setting up a pilot logging project and carrying out a detailed feasibility study for industrialisation.

In those deforested areas that are now situated in the vicinity of eucalyptus and teak plantations, the downward slide towards poverty and malnutrition is beginning to make itself felt. Thus in Dhourai, a village situated near a teak plantation, construction material is already becoming scarce. Edible fruits, such as the Anwla and Tamarind are also very much less available than they used to be. Salt, which was previously obtained by barter against forest produce now has to be purchased for cash and is even less available to local people.

It was entirely on the basis of the suggestions made by the preparatory mission of the World Bank that the project was recast and given the title of Madhya Pradesh Forestry Technical Assistance Project (MPFTAP). It was accepted for financing by the International Development Agency (IDA) in December 1975 and hence became the first forestry project in India to receive credit from the World Bank.

Apart from its felling and pine-

planting work, this project also aims at carrying out feasibility studies for determining the location, size and configuration of the integrated forest industries that could be established by ensuring the complete utilisation of the forest resources of that region. This task was assigned to a foreign company, Sandwell Management Consultants Ltd of Canada. Earlier, between 1965 and 1975 a pre-investment Survey of the Forest Resources at Bastar was made in collaboration with UNDP in the course of which the whole of Bastar was surveyed.

This project has evoked a lot of protest partly on account of the adverse impact it would have on the large tribal population of the area. As the protests have grown, some confusing official statements have been issued. On one hand there are reports that the project has been given up, on the other hand, we are told that a programme for replacing natural forests with man-made plantations has been pushed ahead in several areas of Chattisgarh of which the Bastar is a part.

Importance of forests to local tribals and other villagers

Let us now see some of the reasons why the cutting down of natural forests in the Sal area must further impoverish the local inhabitants.

The existing natural forests of this region are extremely important to the villagers, especially the tribals. This fact is brought out clearly in a recent document entitled "The Impact of Bastar Forestry Project on the Tribal Economy" prepared by the tribal and Harijan Welfare Department of the Government of Madhya Pradesh. The report points out that the many benefits that the villagers derive from the forests cannot be expressed in monetary terms, which means that they are generally ignored by Economists and development experts. What is more, wage-labour in a plantation is not seen as providing a substitute for these benefits.

The first benefits are provided by the foodstuffs that the local people can obtain from the forests, in particular the sal forests. These are a source of all sorts of edible fruits, roots, and shoots, which are collected when required. What is more, the availability of this food is the maxi-

* A Crore of rupees is 10,000,000 rupees

mum during the lean period of the year from March/April to August/September when the people's need for an alternative to their diet of cereals is the greatest. In addition, this produce acts as a nutrient additive during the year as a whole.

The report lists 22 types of fruit, 8 flowers, 14 leaves, 29 roots and 11 seeds that are used as food by local people and which can only be obtained from these forests. They also harbour a variety of small game animals which are traditionally hunted by local people and provide an important source of animal protein. The forests also provide valuable grazing lands for domestic animals.

Many food products are collected from the forest for sale and for barter. These include five types of fruit and flowers, 4 types of roots, 4 types of seeds, and 3 types of leaves. Other commodities obtained from the forests for this purpose include fuelwood, kisa cocoons, gum, dheep, bamboo chips, silyari and many grasses.

This brings us to an essential aspect of this whole question which tends to be totally neglected by development experts. It is not only the able-bodied workers who collect all this valuable produce from the forest but also the old, the infirm and the children. All are thereby in a position to make a contribution, however, modest, to the needs of the household.

Indeed according to the report, an average household consisting of two adult members and at least one child and one old person can gather produce whose value (in so far as it can be valued in monetary terms,) is estimated on average at Rs 1500 a year, which is very significant in this part of the world.

Socially and psychologically, the contribution made by the old, the infirm and the very young is of greater importance than such figures would suggest. It means that they are all busily employed, contributing to their own keep and indeed to that of their families. This provides an in-built system of social security. It also provides them with considerable psychological satisfaction, and maintains their status within the village society.

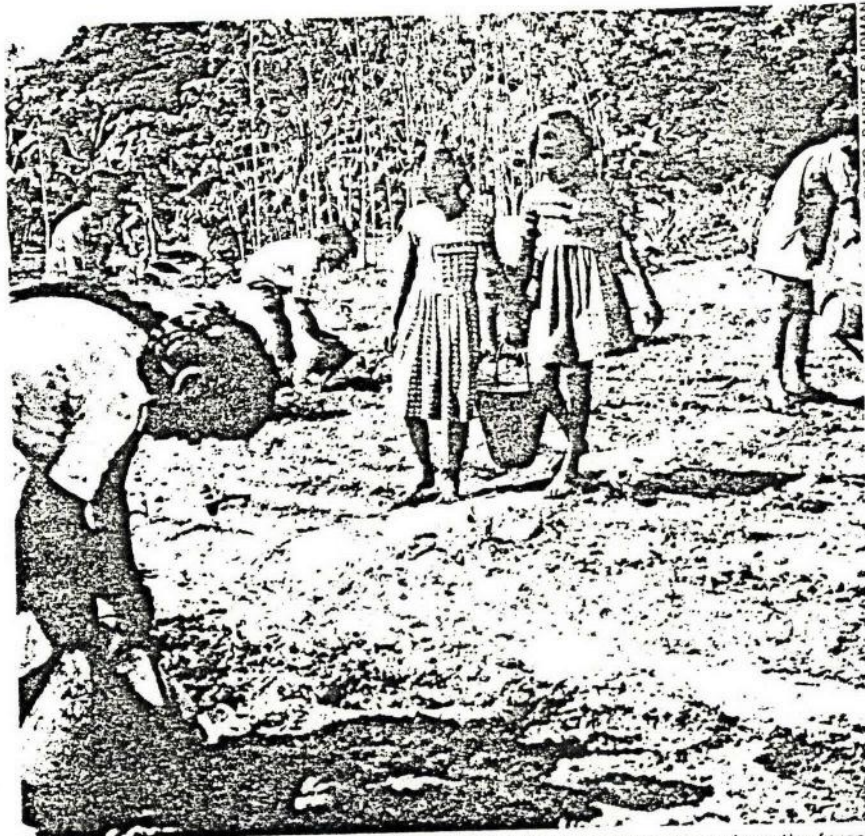


PHOTO BARNET SAIDMAN

It is not only the able-bodied workers who collect all this valuable produce from the forest but the old, the infirm and also the children. All are thereby in a position to make a contribution, however modest, to the needs of the household.

Once the forests are cut down of course, the produce is no longer available to gather. The young and the able may obtain jobs in the plantations, when these are available; but they are just as likely to be unemployed. The old, the infirm and the children, however, are no longer catered for. They can no longer make any contribution to the household, nor obtain the psychological and social satisfaction which they once had. Their status within the village community is thus seriously affected, and as a result its whole structure may be disrupted.

A further factor which tends to be neglected by economists and development experts, is that the forest provides an insurance against famine. Today famines in Africa and in Asia tend to be blamed on drought. Drought occurs more and more in areas where the rainfall has not changed for decades. In such conditions it is not due to a reduction in rainfall as one would expect, but to the *degradation of the soil*, which now has reduced capacity to retain water.

Forests, by storing water in their

elaborate root systems, and by providing shelter against the elements, conserve water. When an area is deforested, rivers, streams and springs tend to dry up, water ceases to be available to the local people. Soil also tends to be destroyed by wind and water erosion against which the forest previously provided considerable protection. In addition, the forest provides a source of food to local people which remains available even during a drought, at which time cultivated crops cease to be available. This is particularly so of the inhabitants of the sal forests, who could always subsist on the bamboo seed and pulp of the stem of the sago palm which are available there even when roots, shoots and leaves are not available.

A further benefit provided by the forests as we have already mentioned, is building-material, indeed in the Bastar area, house construction is only possible for the tribal people with the help of material collected from the forests. A list of 21 types of timber, 10 types of grasses and 11 other types of forest produce used in house construction is given in

the report. Even for the purpose of binding or fixing the poles, creepers or the bark of certain trees are used as rope instead of the screws and nails used elsewhere. The importance of forest produce in house construction activity is evident from the fact that in Chandanpur, a village whose adjoining forests were cut down two decades ago, no new houses have been constructed since.

In addition 9 types of timber are used for agricultural tools while 8 types of grasses and 17 types of leaves serve other useful purposes in economic activities. Fuel used from forests is used for cooking, lighting and for heating purposes.

Natural forests also meet the many social and ritualistic needs of the villagers. Thus, the marriage 'mandap' has to be built from sal logs and it has to be covered with sal leaves. Dheep (a resinous secretion of the sal tree) is burnt on almost all socio-religious occasions. The place of worship in the village is generally located beneath a Baja tree, which grows in the natural forests. The traditional musical instruments like drums are made from hollowed out logs of sal and khamar. The fact that the tribals perform some sort of puja (worship) before actually cutting down a tree is an indication of their sense of attachment to and reverence for their forests.

Unfortunately, most of the products we have considered in this article can only be obtained in the sal forests, and once these are converted into plantations of fast-growing exotic trees, they will cease to be available, and as we have seen this will not only deprive people of valuable foodstuffs but of their building materials required to put up their houses, of their traditional medicines and all sorts of other items required for the practice of their traditional way of life, while also changing the status of the older people and the infirm and eroding their social structure.

It is thus clear that tribal life and forests are intimately inter-related. Indeed, tribals cannot even visualise life without their forests, and even in areas where forests do not exist, they still visit the distant forests periodically and try to obtain their traditional requirements from them, however insignificant they may appear to

economists and development experts brought up in the affluent and materialistic society of the west. The economic consequences of present policies are already apparent in the Bastar area, as is pointed out in the report.

The method adopted by its authors was to examine a sample of 216 households, of which 187 were tribal, 29 were not. These households were taken from 11 villages which differ in terms of the extent and quality of forest cover. It noted, needless to say, that agriculture was the principle occupation of the great majority of the villagers. Looking into the question more deeply than most such reports, it fully established that the collection of forest produce is so much part of the daily life of the villagers that it cannot be considered to be a separate occupation. All agriculturalists in the area where there are still forests, practice it and, to all of them, forests provide a substantial source of sustenance.

Interestingly enough, in most of the villages studied, it was found that a decline in the income from forest activities does not result in an increased income from agriculture, but appears to force people to adopt other economic pursuits like working as labourers on construction sites and roads.

In villages/hamlets of Jangalpara of Mingachal and Gagrupara of Naimed of Bujapur Tehsil, which are near eucalyptus plantations, the income from agriculture is only at 27 per cent and 29 per cent respectively and this in spite of the fact that the average landholding per household in these villages is on the higher side. Agricultural production per acre in these two hamlets is less than that in other villages even of the same tehsil. The agricultural income per acre, both in Kashiras of Mundagarh which is situated in a sal forest and in Chipawand which is near one, is very much higher. This is very significant, it suggests that the income from agriculture in this area is dependent on such subsidiary activities as gathering forest produce. It also suggests that ordinary agricultural activities are dependent on the proximity of the forest. This is particularly so of animal husbandry. For instance, it was found that in a village situated on a main road, and near a town,

income from this source was negligible while income from animal husbandry in villages situated in or near forests was quite substantial.

Indeed many traditional agricultural operations and practices are to a great extent dependent on the existence of forests. The agricultural and forest work cycles are closely interwoven and any disturbances in either of the two activities is likely to have an adverse impact on the other, as well as on the economic life of the people involved.

The much touted ability of the new monocultures to provide employment for the local people is also largely illusory. On eucalyptus plantations (and probably on pine plantations too) work is available only when planting is in progress. Little is available once planting is over. On teak plantations, on the other hand, some work seems to remain after planting. Because of the temporary nature of the employment provided by these plantations, it would appear that, contrary to all the claims made in this respect, they cannot assure a reliable means of sustenance to the people living in this area.

Meanwhile in those deforested areas that are now situated in the vicinity of eucalyptus and teak plantations, the downward slide towards poverty and malnutrition is already beginning to make itself felt. Thus in Dhourai, a village situated near a teak plantation, construction material is becoming scarce. Edible fruit, such as the Anwla and Tamarind are also very much less available than they used to be. Salt, which was previously obtained by barter against forest produce now has to be purchased for cash and is even less available to local people.

All this information is readily available to those who seek it—including of course those development experts working for the World Bank and other such organisations. If they do not take it into account, it is not therefore because they are ignorant of the effect of their policies in increasing the poverty and the malnutrition of the Indian people, but because such considerations are of little concern to them, their objectives being of a very different order.

References will be made available on request.

Deforestation means an end to India's traditional crafts.

The Indian paper industry has ruthlessly destroyed the forests of India. Paper companies in Karnataka, having destroyed all the bamboo forests, are now getting their raw materials from the last major forested frontier of India: the Northeast. The government's own public sector paper companies are coming up in the Northeast itself. The Andhra Pradesh government has meanwhile set its sights on the forests of Andamans and Nicobar Islands for a paper mill that it wants to build in Kakinada. The shortage of raw materials for wood pulp has already forced the government to liberalise import of pulp for the country's paper industry, thus, adding to the pressure on the forests of other Third World countries

Forest resources not only meet crucial household needs but they also provide a range of raw materials for traditional occupations and crafts and are, hence, a major source of employment: firewood and cowdung are important sources of fuel for potters; bullock carts and catamarans are made from wood; bamboo is a vital raw material for basket weavers, and so on. Traditional crafts are not just being threatened by the introduction of modern products but also by the acute shortage of biomass-based raw materials. A study from the Indian Institute of Science—the first in India on the changing market of bullock carts—reports that people in Ungra village in Karnataka can now no longer afford to buy new bullock carts with the traditional wooden wheel because wood has become extremely expensive. A recent report from the Murugappa Chettiar Research Centre from Madras reports that traditional fisherfolk now find it very difficult to make new catamarans because the special wood they use is extremely scarce and expensive.

Several reports from all over the country—from MP, from Maharashtra, from Tamil Nadu—portray the extreme difficulty of hundreds of thousands of basket weavers in eking out a bare existence because of the acute shortage of bamboo. In the Bhandara and Chandrapur districts of Maharashtra, nearly 70,000 mat and basket weavers have been protesting against the discriminatory prices and small quota of bamboos given to them whereas big paper mills have been leased out large bamboo forests.

In Karnataka, Madhav Gadgil undertook a study of the use of the State's bamboo forests by paper mills, after a series of protests by basket weavers. Gadgil found that whereas bamboo was available to paper mills at Rs. 15 a tonne it was available to basket weavers and other small bamboo users in the market at Rs. 1200 a tonne. Social activists in Saharanpur have pointed out to the travails of the *baan* makers* who have now been deprived of their earlier sources of *bhabhar* grass. The UP Forest Development Corporation discriminates in favour of paper mills and this policy has turned thousands of these *baan* makers into destitutes, landless labourers and urban migrants. Wood is now difficult to get for making even agricultural implements like the plough, especially wood that has been traditionally used for these implements. Few people know that one of the things that led to the Chipko movement was the anger of the local people over the forest department's refusal to provide ash wood, wood that has been traditionally used for making ploughs, whereas the forest department happily allocated the same wood to sports goods manufacturers.

Even biomass resources like thatch have become so difficult that maintenance and repair cycles of mud and thatch huts have increased considerably. A government report from Bastar, of all places, as it is still one of the heavily forested districts in the country, points out to a village where no new hut has been built over the last two decades because the entire area around the village has been deforested. Traditional mud roofs have almost disappeared from many parts of the country because of the large quantities of timber needed by them. They are being replaced by tiled roofs, but baking of tiles still requires large quantities of firewood.

Fodder is another vital resource that is in acute shortage. With only 2.45 per cent of the world's land mass, India supports 15 per cent of its cattle, 52 per cent of its buffaloes, and 15 per cent of its goats, and these animals play an extremely important role in the integrated system of agriculture and animal husbandry that Indian farmers practise. Shortage of fodder, especially from public lands, means, as a study from the tribal areas of Gujarat shows, that poor landless households and marginal farmers do not benefit much from the milk co-operatives and animal improvement schemes in the region.

In such a situation where millions of people are heavily dependent on biomass sources for their daily existence, the destruction of the environment of any policy that reduces access to biomass resources will have an extremely adverse impact on the daily lives of the people.

**baan* makers are weavers of string.

Anil Agarwal

This is an extract from the fifth Vikram Sarabhai Memorial Lecture given by Anil Agarwal, Director of the Centre for Science and the Environment, in New Delhi in 1984.

Why India's forests have been cut down

by B. B. Vohra

This is an extract of B B Vohra's seminal article entitled *The Greening of India*. In it, a top Indian civil servant and one of the most respected, who was until recently chairman of the National Committee on Environmental Planning explains very frankly just what are the forces that, since independence, have brought about the catastrophic deforestation of his country.



PHOTO: INDIA TODAY

Destruction of the forests has upset the delicate ecological balance between soil and vegetation, ushering in attendant dangers.

The depletion of the country's forest wealth can be attributed to a number of factors. The increasing pressure of human and cattle populations on the land naturally led to excessive felling and grazing in adjacent forest areas as well as to encroachments on forest lands and their conversion to agricultural use. Substantial areas of forest lands were also officially placed under the plough by Government in an effort to resettle refugees, oustees and landless farmers. Big industrial and irrigation projects along with their townships were often located on government-owned forest lands.

B B Vohra was a top civil servant at the Indian Ministry of Agriculture. In 1972 he produced his famous charter for the land which was an appeal for a massive campaign to protect India's remaining soils and restore those that had become degraded. More recently he has served as chairman of the National Committee on Environmental Planning and is now head of a commission involved in cleaning up the River Ganges. The Ecologist has already published an article by him in our special issue, "The Relevance of Gandhi", in October 1975.

However, there is no doubt that by far the greatest damage to forest resources has been caused by the inexorable pressures to satisfy the increasing demands which a developing economy creates for timber, pulpwood, firewood and other forestry products.

The satisfaction of these demands at continuously rising price levels by means of illegal and unauthorised fellings proved to be a highly lucrative affair and soon attracted political patronage in much the same way as smugglers and other economic offenders have done. By a fortunate circumstance, such over-exploitation was greatly facilitated by the construction of new roads which opened up hitherto inaccessible forests—particularly in the Himalayan region, for strategic purposes. Forest officials who tried to check illegal extractions soon found themselves rendered ineffective, in much the same way as other limbs of the bureaucracy were emasculated when they proved to be

a nuisance to predatory politicians. As a result, the more cynical and unscrupulous members of State forestry establishments soon came to terms with criminal elements and began to share in the loot of the very resources they were supposed to look after. Formidable mafias based on a triangular alliance between the corrupt bureaucrat, the corrupt politician and the corrupt businessman emerged in all States and became a most powerful threat to the conservation of the country's tree cover.

The question arises as to why the large-scale spoilation of forests that has taken place during the last three decades did not attract sufficient notice at an early enough stage so that it could be stopped before it could do much damage. There are several reasons for this. Illegal fellings and encroachments which took place on "protected" and "unclassified" forests—over which the forest departments do not have anything like the complete administrat-

ive and legal control which they exercise over "reserved forests"—proved difficult to detect and prevent and were often ignored. Local politicians also often protected such offenders for the sake of gaining their votes. For much the same reason it has been found impracticable to take serious notice of excessive grazing in forest lands and shifting cultivation, although both these practices cause great damage to forest wealth. The fact must also be acknowledged that since the illegal extraction of timber from forests is by its very nature a crime which does not affect the interests of any individual person, it is easy to be glossed over. Again, officials generally helped in keeping illegal fellings under wraps either because they had a share in them or because they were afraid to incur the displeasure of the powerful mafias behind them. It must be mentioned in this connection that the so-called "timber-kings" who often headed these mafias were men of great influence and political clout—they were known to be capable of getting Forest Ministers and Chief Ministers to take policy decisions according to their wishes, not to speak of getting individual officers transferred, promoted or side-tracked as it suited them.

What is a forest?

However, in spite of all these circumstances, the depletion of our forest resources could not perhaps have failed to attract public notice and raise a big stink had it not been for the most curious system of reporting which is followed by our forest departments. For, unbelievable as it may seem, this system includes under the description "area under forests" all those lands which stand notified as "forest lands" under one section or the other of the Indian Forest Act, quite regardless of whether or not they possess any tree cover. This system thus makes it possible for even denuded and waste lands to be counted as "area under forests". Since lands once notified under the Indian Forests Act continue to retain this status till such time as they are denotified (as a result of an official transfer to some other land use—which is a very rare circum-

stance indeed), their description remains unchanged even though they may have suffered extensive deforestation and denudation over the years. This is the reason why land use statistics show the "area under forests" to be constant at around 70 m.h. for the last 15 or 20 years, thus giving the impression that the country's forest wealth has not suffered any depletion.

It is indeed surprising that this system should have survived so long and has not yet been replaced by one which employs the more accurate description "area notified as forests", and also provides a break-up of this figure into three parts—"good forests", (with a density of over 30 per cent), "poor forests", (with a density of 10 to 30 per cent) and "other areas" (with a density of less than 10 per cent)—to reflect the actual extent of our forest wealth. The fact that no such reform has been attempted would show that our forestry establishments are quite happy to take shelter behind meaningless statistics. This would also explain why the Central Forestry Commission—which is the apex body for the State forestry establishments—persists in claiming that the "area under forests" is substantially higher than that reported in the official land use statistics published by the Ministry of Agriculture. It is interesting to note that this matter came to the attention of the National Commission on Agriculture as far back as 1976. While the NCA did not go into the reasons behind the discrepancy, it did advise that it should be reconciled. However, no such reconciliation has been carried out so far, with the result that while the latest available land use statistics mention the "area under forests" to be around 67 m.h., the Central Forestry Commission continues to claim that it is around 75 m.h.

Since neither of these figures bears any relation to reality, this long-standing discrepancy is by itself of little practical significance. What is, however, more than a little disturbing is the fact that our forest establishment should have taken so little interest in the most basic of all management functions—the drawing up of an accurate inventory of One's resources and assets and keep-

ing it up to date. This indifference to a matter of primary importance has cost us dearly because it has undoubtedly helped in hiding from the public and even the official view the fact that our forest resources have suffered heavy and sustained depletion over a long but unknown period of time. It has thus created an unjustified sense of complacency and prevented the forestry sector from receiving the kind of serious attention it actually deserved. For if, as the figures suggested, there was no serious depletion of the "area under forests" the question of creating man-made forests on a large scale simply did not arise. This, in turn, explains why no big allocations were made for the forestry sector all these years and why the rate of afforestation over the last 32 years has averaged only around 0.18 m.h. per annum.

Indifference of the forestry service

It is easy enough to appreciate, in the light of these circumstances, why forestry has been the subject of so much neglect and why there has been so little understanding of its problems. For, all said and done, no one can be more loyal than the King and our forestry establishments could have transmitted a sense of concern and urgency to the Government, the media and the public at large only if they had experienced it themselves. Their indifference towards the subject is indeed the basic reason why the 1952 policy has remained a dead letter and is today being blamed implicitly, if not explicitly, for its imperfections when the real blame lies with our failure to implement it. This also explains why forestry is so little regarded that in the 6th plan it has been allotted less than Rs. 700 crores* out of a total allocation of nearly Rs. 25,000 crores for the rural sector comprising of Agriculture, Irrigation and Flood Control, Rural Development and Special Areas Programmes. This is also the reason why forestry offences are still treated rather casually. Let us face it, in the eyes of those who count forestry is not yet a matter of consequence in the national scheme of things.

* A crore of rupees is 10,000,000 rupees.

ARE WE DESTABILISING WORLD CLIMATE? The Lessons of Geophysiology

by James Lovelock

Few books have cast more light on the functioning of the living world than atmospheric chemist Jim Lovelock's *Gaia: A New Look at Life on Earth* (1979). Its main theme — now known as the Gaia hypothesis — is that the biosphere is a "quasi-living entity that has the capacity for global homeostasis". This means that it is capable by its own coordinated efforts to maintain the stability of its interrelationship with its environment — hence, among other things, the great climatic stability without which life would be very difficult if indeed possible.

It took 3,000 million years for Gaia and its atmospheric environment to develop those features that assure this great stability, but what happens when, with modern development, we systematically transform Gaia, in particular by cutting down the forests with which she was once covered? What happens too when, as a result of our agricultural and industrial activities, we systematically transform the chemical composition of the atmosphere? How far can we go in this direction without causing a climate 'flip' which might make life very difficult for us on this planet?

This is an extract from Jim Lovelock's lecture at the conference organised by the United Nations University on Climatic, Biotic and Human Interactions in the Humid Tropics: Vegetation and Climate Interactions in Amazonia, in Brazil, February 1985.

Notions that the Earth is some kind of living system have a long history, in the last century Dumas and Boussingault described the cycling of elements like carbon and nitrogen between life and the environment and laid the foundations for the science of biogeochemistry. The first scientific expression of the idea that the sum of the biota might be more than just a catalogue of species was that of Vernadsky who coined the term 'Biosphere' for the region of the earth where life could be found¹. This new science was extensively developed by Sillen, Redfield and Hutchinson and most recently by Bolin & Cook, McElroy, Garrels, Broecker, and Whitfield.^{2, 3, 4, 5, 6, 7, 8}

Geophysiology developed in the late 1960s as an unintentional by-product of the space exploration programme of NASA. It arose during attempts to design experiments to detect life on other planets particularly Mars. For the most part these experiments were geocentric and based on the notion of landing a miniaturised biological or biochemi-

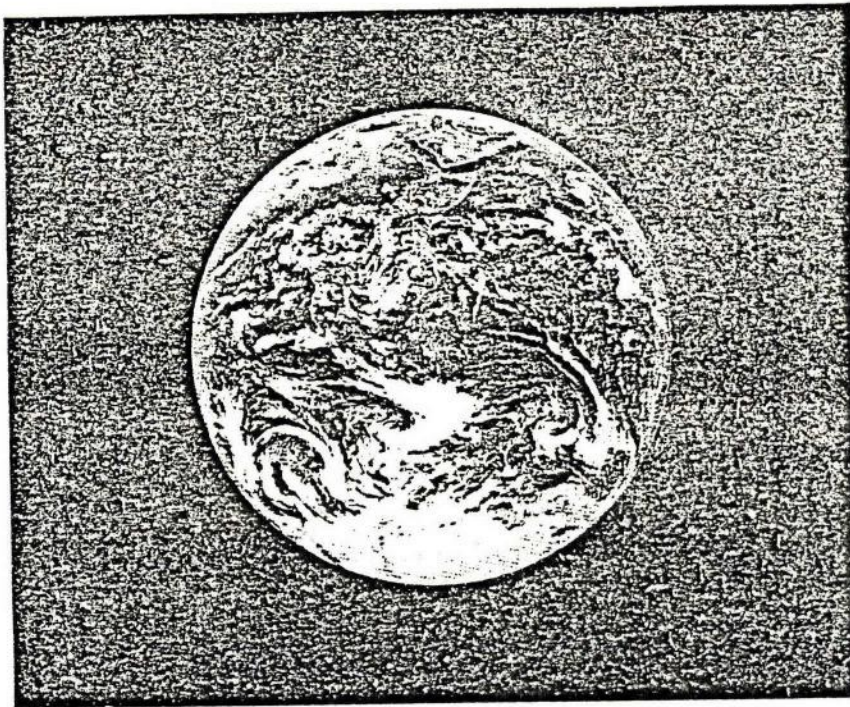
cal laboratory on the planet and using it to recognise life by the well known techniques available to life scientists on Earth. Hitchcock and Lovelock took the opposing view that not only were such experiments likely to fail because of their geocentricity but also that there was a more certain way of detecting planetary life whatever its form might be⁹. This alternative approach to life detection came from a systems view of planetary life. In particular if life can be taken to constitute a global entity it suggests that its presence would be revealed by a change in the chemical composition of the planet's atmosphere. The change in composition would be compared with that of the abiological steady state of a lifeless planet. The reasoning behind this idea was that the planetary biota would be obliged to use any mobile medium available to them as a source of essential nutrients and a sink for the disposal of the products of their metabolism. Such activity would render a planet with life as recognisably different from a lifeless one. At that time a fairly detailed compositional analysis was available for the Mars and Venus atmos-

pheres from infra red astronomy and it revealed both planets to have atmospheric compositions not far departed from chemical equilibrium and therefore they were probably lifeless. By contrast the Earth's atmosphere viewed in this way was seen to be vastly departed from equilibrium with oxidising and reducing gases coexisting in what was clearly an unstable state that was nevertheless maintained steady by life. In the infra red the Earth radiates its signature of life so clearly as to be recognisable from well outside the solar system. The success of this approach to life detection forced our attention back to the Earth and to the nature of the system that could hold so unstable an atmosphere in a steady state that was even more remarkably just right for life.

In the early 1970s Lynn Margulis and I¹⁰ introduced the Gaia hypothesis. It postulated the Earth to be a self regulating system comprising the biota and their environment and with the capacity to maintain the climate and chemical composition at a steady state favourable for life.

Most earth scientists today would accept that the atmosphere is a

James Lovelock is a well known atmospheric chemist and is author of the book "Gaia, A New Look at Life on Earth."



Gaia theory suggests that we inhabit and are part of a quasi-living entity that has the capacity for global homeostasis. This is the basis of geophysiology and if this theory is correct then we *cannot* model the consequences of perturbations, such as those caused by our own actions, as if the world were a passive system like the space ship earth.

biological product and this is a tribute to the success of biogeochemistry. But most would disagree that the biota in any way 'control' atmospheric composition, or any of the important variables (such as global temperature and surface redox potential) which depend on the atmosphere. The principal objection to Gaia or the geophysiological approach is that it is teleological. Namely that the regulation of climate or chemical composition on a planetary scale would require some kind of forecasting or clairvoyance on the part of the biota. Yet, I believe that this objection is wrong and that geophysiological regulation requires neither foresight nor planning. It is, in fact, a simple consequence of Darwinian natural selection. The evolution of the species is not independent of the evolution of the environment. The two evolutionary processes are in fact tightly coupled. Life and its environment evolve together as a single system so that not only does the species that leaves the most progeny tend to inherit the environment but also the environment that favours the most progeny is itself sustained. What then is the mechanism of geophysiological regulation?

Let us accept for the moment that the biota can profoundly influence its environment. The converse is also self-evidently true; that is, organisms are affected by the environment. To take atmospheric composition as an example, plants and animals are obviously dependent upon the oxygen, carbon dioxide and nitrogen of the air but they also produce all three of these gases. In other words life and its environment are two parts of a close coupled system where these two components are arranged in a feedback loop (figure 1a). Perturbations of one will affect the other and this in turn will feed back on the original change. The feedback may be negative so as to oppose the change or positive so as to enhance it but it will not in general be non-existent. It is important to distinguish between the amplified active feedbacks of a geophysiological system (figure 1a) and the passive feedback of the systems considered by the climatologist or biogeochemist (figure 1b). The geophysiological systems are much more powerful and can adjust their operating points as the system evolves. The latter are by comparison puny and the operating point is commonly set

at a fixed and immovable point by the chemical and physical constraints of the system.

What properties does this close coupling between life and its environment confer on the whole system? Does it explain the homeostasis that is observed?

Contemporary geophysiology and the humid tropics

Gaia theory suggests that we inhabit and are part of a quasi-living entity that has the capacity for global homeostasis. This is the basis of geophysiology and if this theory is correct then we cannot model the consequences of perturbations, such as those caused by our own actions, as if the world were a passive system like the space ship earth.

It has been said by politically inclined critics that the gaia hypothesis is a fabrication; an argument developed to allow industry to pollute at will, since mother Gaia will clean up the mess. It is true that a system in homeostasis is more forgiving about disturbances. But this is only when it is healthy and well within the bounds of its capacity to regulate. When such a system is stressed to near the limits of regulation even a small disturbance may cause it to jump to a new stable state or even fail entirely. In these circumstances pollution, changes in land use or in the ecology of the continental shelves, could be the recipes for disaster global in scale.

It could be that the regulation of the Earth's climate is not far from one of these limits¹¹. Thus if some part of climate regulation is connected with the natural level of CO₂ then clearly we are close to the limits of its regulation. This is because CO₂ cannot be reduced much below the level observed for the last glaciation, about 180 ppm, without seriously limiting the rate of growth of the more abundant C₃ type plants. If we perturb the Earth's radiation balance by adding more CO₂ and other greenhouse gases to the atmosphere or reduce its capacity to regulate by decreasing the area of forests or both of these together then we could be surprised by a sudden jump of both CO₂ and temperature to a new and much warmer steady state; or by the

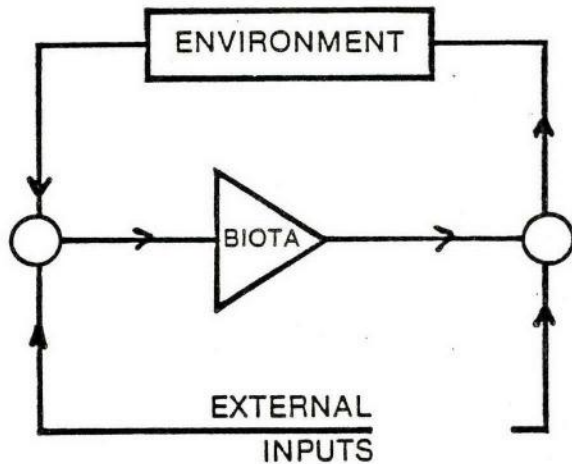


Figure 1a. A diagram drawn from control theory to illustrate as a single system the active feedback between the biota and its environment.

In the diagram the biota is represented as an amplifier connected to a sensor that recognises any departure from the operating point of the system. Physical or chemical variables, such as temperature or oxygen concentration, coming from the environment or from external inputs, such as the sun or pollution, are summed and compared with the operating point of the system. If there is a difference the biota responds by active feedback so as to oppose it and to keep the system in homeostasis. The system also has the capacity to evolve thus moving the operating point to a new steady value. This form of systems evolution is called homeorhesis.

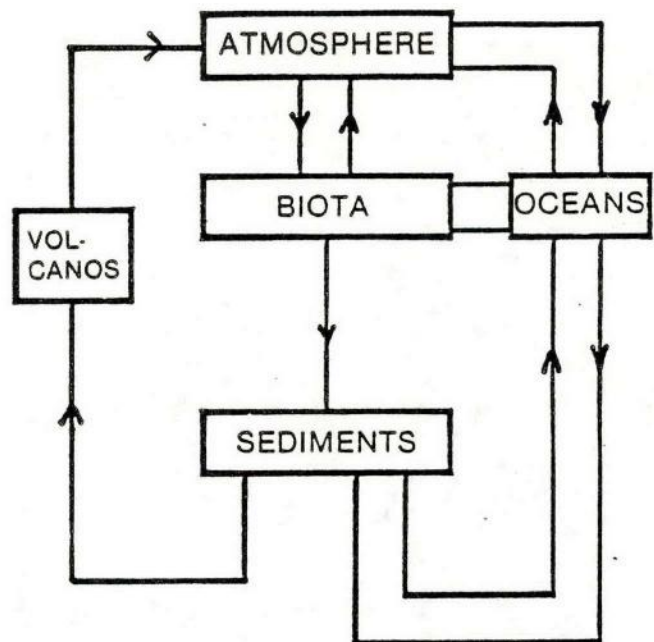


Figure 1b. A diagram taken from biogeochemistry to illustrate the mass and energy transfer between the biota and its environment. In biogeochemistry the system is treated as a set of linked but separate parts. A change in one part, say the atmosphere, can alter the conditions of another part, such as the biota or the oceans, but the feedback between them, whether negative or positive, is taken to be passive rather than active and responsive. In biogeochemical systems the evolution of the biota and the evolution of the environment are usually considered as separate and uncoupled processes.

initiation of periodic fluctuations between that state and our present climate.

The anomalously low abundance of CO₂ on Earth when compared with the other terrestrial planets and especially the fact that the mean temperature of the Earth is on the cool side of the optimum for regulation, suggests strongly that the biota is regulating the climate by pumping CO₂ from the air. The common feature of most of our pollutions and of our exploitation of the land surface seems to be unintentionally to thwart this natural process.

How then does all of this bear on our special interest in the humid tropics? I think that it does so in several ways: First of all it reinforces the general conviction from conventional modelling that large scale changes of land use in the tropics will not be limited in their effects to those regions only and geophysiology reminds us that the climatic effects of forest clearance are likely at least to be additive to those of CO₂ and other greenhouse gases.¹² Even the most intricate

climate models of the present type can not predict the consequences of these changes unless the biota is included in the model in a way that recognises its very active presence and its preference for a narrow range of environmental variables. Putting the biota in a box with inputs and outputs as in a biogeochemical model does not do this. By analogy, the most detailed knowledge of the biochemistry of oxidative metabolism says nothing about how we sustain our personal thermostasis in the hot or cold environments that we encounter.

Most climatologists agree that forests tend to increase the cloudiness of the atmosphere above them and that the clouds alter the climate of forest regions both in terms of temperature and rainfall^{12, 13}. The geophysicist would see in addition that the active process of evapotranspiration by the forest trees could be coupled with the climatology so as to maintain the region in a state of homeostasis within that climate range preferred by the trees.

There is as yet no answer to the

question: What is the area of land of a region of the humid tropics that can be developed as open farm land or as silviculture without significantly perturbing both the regional and the global environment? It is a question like that of asking: What is the proportion of skin area that can be burnt without suffering a significant systems failure. This second question has been answered by the direct observations of the consequences of accidental burns; so far as I am aware it has not been modelled. It may be that detailed geophysiological modelling can answer the environmental question, certainly the simple models illustrated were very well behaved; but if human physiology is a guide, empirical conclusions drawn from a close study of the local climatic consequences of regional changes of land use are more likely to yield the information we seek.

In some ways the ecosystem of, for example, a forest in the humid tropics is like a human colony in Antarctica or on the Moon. It is only self supporting to a limited extent and its continued existence depends

upon the transport of nutrients and other essential ingredients from the world. At the same time ecosystems and colonies try to minimise their losses by conserving water, heat or essential nutrients; to this extent they are self regulating. The tropical rain forest is well known to keep wet by modifying its environment so as to favour rainfall. Traditional ecology had tended to consider ecosystems in isolation. Geophysiology reminds that all ecosystems are interconnected. This is like the way that in an animal the liver has some capacity for the regulation of its internal environment and its liver cells can be grown in the isolation of a tissue culture. But neither the animal nor its liver can live alone; they depend upon their interconnection.

We do not know if there are vital ecosystems on the Earth although it would be difficult to imagine life continuing without the anoxic ecosystems of the sediments. The forests of the humid tropics do not significantly add to the worlds oxygen budget not to the exchange of essential elements through the atmosphere. Their intensive biosynthesis is recycled inside their boundaries. Where they may be significant on a global scale is in their effects on climate through evapotranspiration and the effect of their presence on the regional albedo. The transfer of nutrients and the products of weathering down tropic rivers are obviously part of their interconnection and may also have a global significance.

If evapotranspiration or the additions of the tropical rivers to the oceans are vital to the maintenance of the present homeostasis, then their replacement with an agricultural surrogate or a desert not only would deny those regions to their surviving inhabitants but might threaten the rest of the system as well. We do not yet know whether the tropical forest systems are vital to the present planetary ecology. They might be like the temperate forests that seem to be expendable without serious harm to the system as a whole; temperate forests have suffered extensive destruction during glaciations as well as during the recent expansion of agriculture.

It is true that a system in homeostasis is more forgiving about disturbances. But this is only when it is healthy and well within the bounds of its capacity to regulate. When such a system is stressed to near the limits of regulation even a small disturbance may cause it to jump to a new stable state or even fail entirely. In these circumstances pollution, changes in land use or in the ecology of the continental shelves, could be the recipes for disaster, global in scale.

It would seem therefore that the traditional ecological approach of examining the forest ecosystem in isolation is as important to our understanding as is the consideration of its interdependence with the whole system. We are, so far as geophysiology is concerned, very much in the natural history phase of information gathering.

To a scientist familiar with the orderly disciplined conduct of investigation and research the empirical approach just described must seem messy if not gaudy. Insight into the potential value of physiology for the understanding of global problems can come from reading Riggs book "Control theory and physiological feedback mechanisms", particularly those sections concerned with temperature regulation and with systems failure.¹⁴ The recent paper by Holling relates the physiological approach to contemporary problems.¹⁵

If it turns out that Gaia theory provides a fair description of the Earth's operating system then most assuredly we have been visiting the wrong specialists for the diagnosis and cure of our global ills. If we want the answers to such questions as: How stable is the present system? What will perturb it? Can the effects of perturbation be reversed? And can the world maintain its present climate and composition without the humid tropics in their present form?

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MULTI-LATERAL DEVELOPMENT BANKS

Their role in destroying the global environment

by Bruce M. Rich



The World Bank and other MDBs have an enormous influence on Third World development policies, and unfortunately it has consistently used this influence to encourage the most socially and ecologically destructive projects which must inevitably contribute to the growing global impoverishment and famine.

Thus it finances highly capital-intensive projects which replace traditional work-intensive economic activities, forcing displaced local peasants onto marginal land in ecologically sensitive areas. It finances projects causing large-scale deforestation, projects involving the setting up of massive cattle ranches on poor soils in previously forested areas, in Rich's words "one of the worst and most wasteful of all conceivable development alternatives for tropical forest regions."

It finances projects involving the spraying of vast areas with massive amounts of hard pesticides that are often banned in western countries, projects involving the construction of big hydropower and perennial irrigation schemes which require the removal of large populations onto infertile land, with no proper compensation, and which must inevitably lead to widespread waterlogging and soil salinization and to the spread of waterborne diseases.

What is more, conditions imposed in loan agreements on national government to protect the inhabitants of the areas devastated by such schemes are never seriously implemented and are thus little more than window-dressing.

The Scale and Environmental Importance of Multi-lateral Development Banks' (MDB) Activities

No single international or bilateral institutions have more influence on development financing and policy in the Third World than the MDBs, especially the World Bank.¹ In 1983, the four MDBs lent out over 20 billion dollars to fund projects in developing countries, nearly three times the amount committed for economic development assistance by the largest bilateral aid agency, the US Agency for International Development.² In 1983 the World Bank alone made loan commitments of over 15.3 billion dollars to fund 301 projects in over 80 countries.^{3,4} Net disbursements from ongoing loan commitments in 1983 totalled 4.5 billion dollars for the World Bank and 1.73 billion dollars for the IDB.⁵ In the same year total net disbursements of development assistance to the Third World from all bilateral and multilateral sources was 34.34 billion dollars.⁶ The net disbursements of the four MDBs accounted for more than 20 per cent of all development assistance in 1983, and represented more than 12 per cent of the total financing of the 55.8 billion dollars current account deficit of the ninety principal developing countries.⁷ Within the US domestic foreign assistance programme, expenditures for the MDBs increased from 16 per cent of total US outlays in 1970 to 25 per cent in 1980 and have remained at approximately that level through 1983.⁸

Over half of MDB loans in recent years have gone to support projects in the environmentally sensitive areas of agriculture, rural development, dam and irrigation schemes and roadbuilding.⁹ For example, in 1983 25.5 per cent of World Bank lending was in the agriculture and rural development sector, 15.5 per cent for transportation projects, principally roads, and 12.2 per cent for power projects.¹⁰ In the same year 16.1 per cent of IDB lending was for the agriculture sector, 24 per cent for mining and industry, 5.6 per cent for transportation and 31.8 per cent for energy, mainly hydroelectric projects.¹¹

The projects and policies of the MDBs have a much greater impact on the ecological stability and environmental future of the Third World than even the huge dollar amounts of their annual loan commitments indicate. For one thing, funds lent by the MDBs are for the most part complemented by even greater sums provided by recipient countries. The funding of many projects is further supplemented by co-financing arrangements with other development agencies and with private banks.¹² For every dollar the World Bank lends for a project, more than two additional dollars are raised from other sources.¹³ The IDB attracts three extra dollars through co-financing arrangements for every dollar it lends. The IDBs cumulative lending for all projects since 1960 was 25 billion dollars in 1983, but this represented a total project cost of over 91 billion dollars.¹⁴ The ratio of total project cost to lending is similar for the two other smaller MDBs.¹⁵ Thus, the total cost of MDB funded projects in 1983 was over 60 billion dollars.

The policy influence of MDB loans is also increased by increasing portions going for extension, research, training, technology transfer, planning and other

forms of institution building.¹⁶ Loan conditions and stipulations can be extremely specific and often have policy impacts that go far beyond the implementation of a single project.¹⁷

Many countries directly modify and orient their development policies and priorities for entire sectors in response to the suggestions and pressures of the MDBs.¹⁸ An important element in this policy influence is the 'country and sector work' of the Banks¹⁹, that is, the general policy documents which the MDBs produce as background material to help identify priorities in lending.²⁰ The influence of the World Bank is particularly important in this regard, and the combination of Bank policy documents and high level dialogues with host country officials has a profound and increasingly important effect on the development priorities of numerous countries.^{21, 22}

This kind of direct policy leverage is becoming increasingly important in MDB operations, especially with regard to the World Bank, where so-called 'non-project' lending²³ has taken the form of structural adjustment and sector loans that seek to promote policy changes in whole sectors, such as agriculture.²⁴ Current and former Bank officials have commented on the superior leverage of structural adjustment lending, which enables the Bank to promote structural alteration of entire national economies.²⁵ Over the past two years, the Bank has committed ten per cent of its loans for structural adjustment and sector programmes.²⁶ This is the maximum amount of non-project lending currently allowed by the Bank's Articles of Agreement.²⁷

Adverse Environmental Impacts of MDB Projects

The adverse environmental impacts of development projects in the Third World, including those financed by the MDBs, have been documented for over a decade.²⁸ Environmental problems resulting from multilateral bank activities are often particularly severe because of the large scale, capital intense nature of many projects. Although much of the published data on MDB projects necessarily examines projects that were planned as long as a decade or more ago.²⁹ Congressional oversight hearings in 1983 and 1984 brought to light substantial evidence of serious ecological problems and damage associated with MDB projects that are currently being implemented.³⁰ Categories of projects with the most serious impacts also correspond to the most important lending sectors of the MDBs: agriculture and rural development, energy and transportation.

Agriculture in General

The single gravest global environmental impact of MDB projects may be the contribution of their agricultural policies and projects to accelerating deforestation of the tropics.³¹ This is occurring in two major ways. First, the MDBs are helping to promote and implement general agricultural policies which are capital rather than labour-intensive and which have

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displaced large masses of rural farmers and the poor in the Third World from better lands suitable for agriculture into agriculturally marginal areas such as tropical moist forests.³² Second, the MDBs are continuing to finance projects which directly contribute to deforestation, for example jungle colonisation schemes.³³

In September, 1984, a special oversight hearing by the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment on MDB agricultural projects and deforestation in Latin America, cast considerable light on the interconnections between 'Green Revolution' agricultural policies promoted by the Banks, individual projects, and deforestation.³⁴

Cattle Projects

Over the past twenty years the MDBs have financed cattle projects on a large scale, especially in Central and South America.³⁵ These projects have contributed markedly to accelerating deforestation, both indirectly and directly. In many areas, large, consolidated cattle ranches have replaced smaller, subsistence oriented farming on soils suitable for perennial agriculture, contributing greatly to land concentration and the migration of the uprooted rural population to tropical forest areas.³⁶ In other regions, pristine tropical forest has been converted on a massive scale to cattle pastures.³⁷ Ironically, even small farmer plots in cleared tropical forest areas are often converted to pasture after two or three years because of declining yields on the poor soils.³⁸

A substantial body of scientific literature has emphasised that livestock development is one of the worst and most wasteful of all conceivable development alternatives for tropical forest regions.³⁹ In Latin America pastures occupy huge areas of land with low or very low concentrations of cattle per hectare—in tropical forest areas as low as one or two cattle per hectare, as opposed to semi-arid, ecologically suitable natural pasture lands where concentrations of fifteen head per hectare are the norm.⁴⁰ Worse, pastures in former tropical forest areas often become wasteland after a few years because of declining soil nutrients, invasions of toxic weeds and soil compaction. Finally, livestock projects generate very little employment compared with most other investment alternatives.

In many countries in Central America and elsewhere MDB financed agricultural credit loans—often times only for cattle ranching—have been the decisive factor in furthering livestock development. In Costa Rica, for example, nearly half of all agricultural credit through the late 1970s went for livestock.⁴¹

According to one estimate, the total investments (including government matching funds) that World Bank and IDB projects channelled into livestock projects in Latin America in the period 1970-77 alone was on the order of 5-7 billion dollars, or about 10-14 billion in 1984 dollars. No single commodity in the Third World has ever received such extraordinary outside support as livestock in Latin America.⁴²

In spite of the by now preponderant evidence of the environmental unsoundness and economic waste-

fulness of cattle projects—especially in Latin America—the development Banks are continuing to finance them on a substantial scale.⁴³

Agricultural Settlement and Colonisation Projects

The environmental and economic justification for the forest colonisation projects the MDBs continue to finance is even more dubious. A decade ago, a study of twenty-four colonisation projects in Latin America noted that:

Few spheres of economic development have a history of, or a reputation for, failure to match that of government-sponsored colonisation in humid tropical zones (in Latin America). Horror stories abound about expensive ventures that resulted in colonies where few if any settlers remained after several years. The evidence is irrefutable, and failure can be attributed only to the institutions responsible for selecting the area and the colonists, planning and executing the development programme, and subsequently maintaining or abandoning the infrastructure and services in the region.⁴⁴

A survey conducted by USAID in 1980 of six settlement projects in the Peruvian Amazon revealed settler desertion and abandonment rates ranging from 26 per cent to 92 per cent; three of the six projects had been virtually abandoned by their intended 'beneficiaries'.⁴⁵ The major ecological factor in the abysmal performance of such jungle settlement schemes is the preponderantly poor quality of soils in tropical moist forests. Perhaps as much as 90 per cent of tropical moist forest soils are completely unsuited for any kind of permanent annual agriculture.⁴⁶ The only people that have evolved sustainable agro-ecosystems in these areas are the indigenous, tribal peoples that inhabit many of the still intact rainforests.⁴⁷ Regrettably, the MDBs are doing little to investigate, preserve and utilise this knowledge and much, through ill conceived agricultural projects, to accelerate its destruction and loss for all time.⁴⁸ In the words of one anthropologist,

with the extinction of each indigenous group, the world loses millenia of accumulated knowledge about life in, and adaptation to tropical ecosystems. This priceless information is forfeited with hardly a blink of the eye: the march of development cannot wait long enough to find out what it is destroying.⁴⁹

Since 1960 six per cent of IDB lending has gone for agricultural settlement schemes in tropical forest regions.⁵⁰ The World Bank and IDB are currently implementing a number of recently approved settlement schemes in tropical forest areas with generally poor soils. In 1982 the World Bank approved a 42.7

What is now occurring in the Polonoeste region is an ecological, human and economic disaster of tremendous dimensions. Almost none of the environmental and Amerindian components have been implemented, and the rate of deforestation in the Polonoeste Programme area is the highest in the Brazilian Amazon, and increasing explosively.

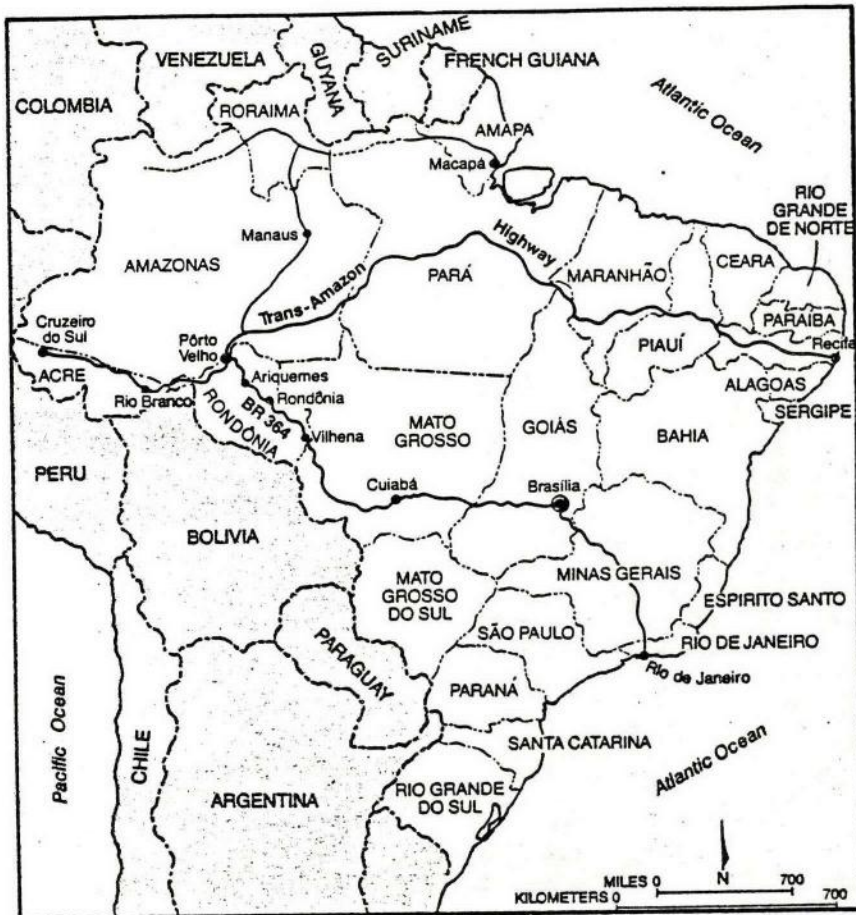


PHOTO: DEFENDERS



The Amazonian Rainforest supports an incredibly diverse range of living things and cultural forms.

million dollar loan (total project cost: 122.9 million dollars) to Brazil for rural development and agricultural settlement in Maranhao state in the northeast Amazon; this project risks worsening the deforestation and ecological destruction caused by a previous Bank-financed project in the same region, the Alto Turi Settlement Project. The IDB approved two loans totalling 46 million dollars in 1982 for a jungle road building and agricultural settlement project in the Pichis Valley in the Peruvian Amazon. The soils in this region are so bad that the World Bank itself refused to fund any agricultural development in the area.⁵¹

The World Bank is imbroiled in controversy concerning its ongoing financing of two mammoth settlement programmes in Indonesia and Brazil which have been characterized as ecological debacles.⁵² The Bank is providing 350 million dollars in loans to help finance the Indonesia transmigration programme.⁵³ The goal is to move millions of people from the densely populated inner islands, mainly Java, to the mostly still forested outer islands such as Borneo and Sumatra. It is no accident that Java is so densely populated, since its volcanic soils are extremely rich, whereas the outer islands have soils typical of tropical moist forests: infertile, and generally unsuited for small farmer annual cropping.⁵⁴ The adverse environmental impacts of transmigration of settlers onto such poor soils have been enormous, including large scale deforestation, erosion, silted reservoirs and flooding.⁵⁵ Although the World Bank has justified its role by claiming that it is trying to make transmigration environmentally more

sound⁵⁶, the programme is ecologically disastrous in its very conception. Critics have pointed out that the main reason that governments promote such settlement schemes are political⁵⁷; moreover, "the (Transmigration) Programme, like the lesser schemes of other rainforest countries, could not exist or continue without outside funding."⁵⁸

The World Bank's biggest, most recent, and most disastrous involvement in forest colonisation in the tropics is its financing of the Brazil Northwest Development Programme (Polonoroeste), for which the Bank has approved six loans since 1981 totalling 443.4 million dollars. The total cost of this mammoth Amazon colonisation, settlement consolidation and road construction scheme approaches 1.6 billion dollars. Polonoroeste exemplifies all of the uncertainties and failures of previous tropical forest colonisation schemes in the Amazon.⁵⁹

The Bank's Polonoroeste investment involves the paving of a 1500 kilometer highway through the heart of the southwestern Amazon basin, construction of feeder and access roads, and construction of 39 rural settlement centres to consolidate and attract tens of thousands of settlers in an area of Amazon forest three quarters the size of France.⁶⁰ The Polonoroeste Programme area encompasses the entire Brazilian state of Rondonia and a part of Mato Grosso. Over 6500 Amerindians belonging to about 34 tribal groups are thought to live in the area. The exact number of Indians is unknown, since some parts of the Polonoroeste region are still so untouched that there are



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A typical scene of destruction as development advances in the Amazon.

thought to be tribes who have had no contact with the outside world and human history.⁶¹

Partly in response to international controversy and pressure⁶², the World Bank conditioned its participation in the programme on adequate demarcation and protection of over 15 Indian Reserves, and implementation of health measures to protect the Indians. The Bank also provided for setting aside two Biological Reserves, a National Park, four Ecological Stations (which would also be protected natural areas), and national forest areas. In addition, one of the loan agreements between the Bank and the Brazilian government contained specific provisions in which the Brazilian government pledged that Polonoeste settlements would not occur on unsuitable soils or soils of unknown quality, or menace the numerous areas to be protected.⁶³

The Bank justified its role as primarily one of consolidating and stabilising existing settlements in an area already open for colonisation, as well as ensuring protection of the environment and of the thousands of indigenous people inhabiting the region.⁶⁴ However, 54 per cent of the World Bank's total investment of 443.4 million dollars went for paving the 1500 kilometer highway leading to the region, which, given the promotion of colonisation by the Brazilian government, many predicted would lead to the accelerated migration and deforestation that is now occurring.^{65, 66}

What is now occurring in the Polonoeste region is an ecological, human and economic disaster of tremendous dimensions.⁶⁷ Almost none of the environmental and Amerindian components have been implemented, and the rate of deforestation in the Polonoeste Programme area is the highest in the Brazilian Amazon, and increasing explosively.⁶⁸ If present trends continue, the entire Brazilian state of Rondonia, an area the size of Great Britain, will be deforested by 1990.⁶⁹ Rather than being 'consolidated,' as was the intention of the Bank, settlers are abandoning their cleared land since it cannot support perennial agriculture; in many instances they are selling it to large landowners for cattle ranching, a use which numerous past experiences in the Amazon have shown will also be unsustainable.⁷⁰ Intended protected natural areas and Indian reserves have been invaded by spontaneous settlement, now out of control, and in one such area, the Lourdes Indian Reserve, the threatened tribe recently took a dozen settlers hostage in a desperate attempt to force the government to protect its lands.⁷¹

A recent article in the journal *Foreign Affairs* described the scenes of massive ecological devastation in the Indonesia Transmigration and Polonoeste projects:

Visiting such areas it is hard to view without emotion the miles of devastated trees, of felled, broken and burned trunks, of branches, mud, and

bark crisscrossed with tractor trails—especially when one realises that in most cases nothing of comparable value will grow again on the area. Such sights are reminiscent of photographs of Hiroshima, and Brazil and Indonesia might be regarded as waging the equivalent of thermo-nuclear war upon their territories.⁷²

Pesticides

The MDBs play an important role in the financing of pesticide production and use in the Third World, mainly through loans for agricultural credit and agro-industry development. In addition, many MDB rural development projects have an 'agricultural inputs' component, under which both fertilisers and pesticides are financed. The World Bank, which has the most detailed and systematic statistics of the four MDBs, keeps no separate figures on how much it actually lends for pesticides; one rough estimate is about ten per cent of total agricultural lending.^{73, 74} For the Bank's Fiscal Year 1984, this would amount to 346.4 million dollars.

Over the past decade the World Bank has lent India 955 million dollars to create a pesticide and fertiliser industry.⁷⁵ The World Bank financed Indian pesticide industry has concentrated on production of substances which are banned or heavily restricted for use in developed countries such as DDT and BHC.⁷⁶ Most of this production is for domestic use, often in MDB financed agricultural projects.^{77, 78} As a consequence, "Indian farmers and health officials use 77 per cent of all the DDT manufactured in the world, 94 per cent of all the BHC and 21 per cent of the other persistent organochlorines like lindane—as well as 64 per cent of the world's malathion".⁷⁹

The green revolution agricultural systems promoted by the World Bank and other MDBs in India and elsewhere have involved intensive use of pesticides, the price of which has been heavily and systematically subsidised in many MDB agricultural projects.⁸⁰ Besides undermining incentives for governments to pursue other, less pesticide intensive systems of pest management, in project after project farmers and governments have been caught in the classic pesticide 'treadmill,' whereby increasingly heavy doses of chemicals are used in futile attempts to cope with declining crop yields caused by pesticide resistant blights and infestations.⁸¹

The adverse environmental impacts of transmigration of settlers onto such poor soils have been enormous, including large scale deforestation, erosion, silted reservoirs and flooding. Although the World Bank has justified its role by claiming that it is trying to make transmigration environmentally more sound, the programme is ecologically disastrous in its very conception.

A classic example of environmental and economic collapse resulting from heavy use of pesticides promoted by aid agencies is now occurring in the Sudan's main cotton producing area, the Gezira. This

is an area where the World Bank has poured in hundreds of millions of dollars over the past decade to promote increased agricultural production.⁸² The consequences of ecologically unsound pest management now threaten the economy of the entire country:

Agricultural experts are not optimistic about the future of Gezira cotton. Many believe that the cotton industry is at the brink of disaster and will collapse unless drastic measures are taken . . . A chief obstacle is failure of the existing pest control scheme that is based exclusively on chemical insecticides. The farmers are spending large amounts of money—25-30 per cent of the total production expenses—for chemical control of the insect pests but are getting very poor results . . . The profit margin (for sale of cotton) in 1979-80 was . . . considerably less than the foreign currency required for purchase of the imported insecticides. Costs of cotton insect control in the Gezira increased at the alarming rate of six-fold between the seasons of 1972-73 and 1980-81 yet, cotton yields declined (from 1970-1975 to 1975-81) by . . . 38 per cent . . . Unacceptable residues of DDT and other persistent, organochlorine insecticides now occur in water, mother's milk, livestock, fish and wildlife.⁸³

To deal with the threatened collapse of the Sudan's most important single export, the World Bank provided still another loan of 80 million dollars (total project cost: 262.7 million dollars) to increase production levels and improve agricultural services, as well as a loan of 50 million dollars (total cost: 146.3 million dollars) to finance purchase of agricultural inputs, mainly pesticides and herbicides.⁸⁴ The latter loan is mainly to finance still greater applications of pesticides for a single growing season in an attempt to keep the cotton sector from collapsing while research is undertaken to develop an Integrated Pest Management System for the area.⁸⁵

Some scientists maintain that the pesticide financing practices of the MDBs are also contributing to the accumulation of dangerous levels of pesticide residues in Third World countries. For example, "among Indian women, such residues (in breast milk) are now nearly the world's highest—for DDT, eleven times greater than in the US or Sweden; for BHC, the figure is 9.2 times."⁸⁶

Worse, there is growing evidence that the MDBs and other aid agencies have inadvertently contributed to a world wide resurgence in malaria through their agricultural projects and pesticide practices. Greatly increased use of pesticides associated with production of cotton and high yielding 'green revolution' food grains—crop systems promoted extensively by the MDBs—has had the effect, in the opinion of some researchers, of creating pesticide resistant breeds of mosquitos which are responsible for the massive resurgence of malaria which has occurred in India, Central America and other regions over the past decade.⁸⁷ In the Gezira, for example, "uses of DDT and malathion in cotton have increased the incidence of malaria . . . These materials, applied by aircraft, have drifted from cotton into mosquito breeding habitats, giving rise to genetically resistant strains of malaria mosquitos."⁸⁸

Few spheres of economic development have a history of, or a reputation for, failure to match that of government-sponsored colonization in humid tropical zones (in Latin America). Horror stories abound about expensive ventures that resulted in colonies where few, if any, settler remained after several years. The evidence is irrefutable, and failure can be attributed only to the institutions responsible for selecting the area and the colonists, planning and executing the development programme, and subsequently maintaining or abandoning the infrastructure and services in the region.

Water Projects

Most of the energy lending of the MDBs has gone for large hydroelectric schemes, and a substantial part of agriculture lending has financed irrigation systems. The large scale ecological alterations that such water management programmes entail have had in many instances severe environmental and public health impacts.⁸⁹ The World Bank financed nearly six billion dollars worth of hydro projects in the period 1980-82 and nearly one billion dollars for irrigation and drainage in 1982 alone.⁹⁰ Large scale environmental problems caused by hydro and irrigation projects often can only partially be mitigated. Such impacts include: 1) displacement of large numbers of people through flooding, including vulnerable indigenous tribes; 2) inundation of areas, often tropical forests, of great biological and scientific significance; 3) salinisation and waterlogging of irrigated lands; 4) siltation and sedimentation of reservoirs and channels through deforestation of adjacent watersheds; 5) spread of water-borne disease vectors, including malaria, schistosomiasis and onchocerciasis (river blindness).⁹¹

Witnesses at the 1983 House hearings on the MDBs and the environment provided numerous examples of MDB projects where grave impacts in the above described categories were not taken adequately into account.⁹² In some instances information in the testimony of witnesses was inaccurate, but for the most part the Banks were forced to acknowledge their participation and inadequate planning in most of the projects discussed at the hearings and in the statements of the witness.⁹³ In October, 1984, a representative of the Treasury Department stated at still another hearing on the MDBs and the environment that the Treasury Department had found "substantial corroboration" of the testimony of environmental and indigenous peoples groups in 1983.⁹⁴

One of the gravest impacts not only of MDB water projects but of MDB projects in general concerns the forced resettlement of hundreds of thousands of people. Although all the MDBs finance projects that entail forced resettlement, the impacts of World Bank projects are the most significant in this regard. Projects approved by the World Bank in the period 1979-1983 resulted in the involuntary resettlement of at least 400,000 to 450,000 people on four continents.⁹⁵ The Bank has official internal policies concerning

incorporation of adequate resettlement and compensation plans in its projects, as well as a provision on involuntary resettlement in its publicly available Environmental Policies and Procedures.⁹⁶ However, an internal review prepared by the Bank revealed that these policies are not being implemented in a substantial number of projects.⁹⁷

The scale of the forced displacement caused by some World Bank projects can be truly mammoth. For example, the Subernarekha Irrigation Project, for which the Bank approved a credit to India of 127 million dollars in 1982, will displace some 64,000 people, about half of whom are tribal minorities.⁹⁸ Irrigation projects the World Bank is planning to finance involve even larger numbers: the Pakistan-Kalabagh Irrigation project may cause the forced resettlement of over 120,000 people.⁹⁹

Environmental Policies and Procedures of the MDBs

The World Bank has been the leader among all multilateral organisations in making policy statements and commitments at the highest level to give adequate attention to environmental concerns. The Bank's public commitment to environment was reaffirmed by its current president, A W Clausen in 1981 shortly after he took office.¹⁰⁰ The Bank's environmental policies and procedures merit special attention, both because of the much larger scale of its operations, and because they are by far the most developed and complete of the MDBs.

The Bank was a pioneer among all multilateral and bilateral development agencies in setting up a post of Environmental Advisor in 1970, two years before the Stockholm Conference, and establishing an Office of Environmental Affairs (now the Office of Environmental and Scientific Affairs—OESA) in 1973.¹⁰¹ From the very beginning, the official mandate of the office was "to review every project for its consequences to the environment."¹⁰²

Currently OESA has five staff positions, but only one has responsibility for reviewing the prospective environmental impacts of most of the Bank's 315 new and hundreds of ongoing projects.¹⁰³ Among nearly 6000 employees, there is only one professionally trained ecologist.

The World Bank has prepared a series of environmental guidelines¹⁰⁴, but there are no procedures and regulations to ensure their systematic use and early

According to one estimate, the total investments (including government matching funds) that World Bank and IDB projects channelled into livestock projects in Latin America in the period 1970-77 alone was in the order of 5-7 billion dollars, or about 10-14 billion in 1984 dollars. No single commodity in the Third World has ever received such extraordinary outside support as livestock in Latin America.

Livestock development is one of the worst and most wasteful of all conceivable development alternatives for tropical forest regions.

integration into project design. Moreover, the existing guidelines deal almost entirely with the impacts of industrial and processing activities, whereas most of the Bank's lending is in agricultural development, and financing of infrastructure such as dams, irrigation systems and roads.

The Bank has continually claimed over the past decade that proposed projects are systematically reviewed by the OESA early in the project cycle for their prospective environmental impacts.¹⁰⁵ Most recently, in response to inquiries of the Treasury Department and the House Banking Subcommittee on International Development Institutions and Finance, it stated that "every project proposed for financing comes to the attention of OESA early in the project cycle . . . (and that) by the time that a proposed project loan reaches the stage of being negotiated with the borrower, the environmental assessment will have been largely completed."¹⁰⁶

There is no conceivable way, however, that the staff of the OESA could adequately review all projects with significant environmental impacts¹⁰⁷, especially given the fact that four of the five staff members are assigned to tasks which are peripheral to the main body of Bank lending. In reality, full, thorough environmental assessments are not performed by the Bank as a matter of course, even for projects with important environmental impacts.¹⁰⁸ In fact, before May, 1984 the Bank's sole mandatory environmental procedures called for review by the OESA of projects at the end of the appraisal stage, before loan negotiations—long after projects had been identified and prepared.¹⁰⁹ This is much too late a stage in the project cycle to change environmentally destructive projects in any significant way. In fact, the lack of both staff and mandatory environmental procedures meant that in the early phases of the project cycle projects were reviewed on what amounted to a catch as catch can basis.¹¹⁰

In May, 1984 the Bank published a new set of environmental policies and procedures which for the first time were incorporated into the Bank's Operations Manual, the collection of internal regulations which is given to every staff member.¹¹¹ The procedures set forth blanket principles concerning projects such as

(a) (The Bank) endeavours to ensure that each project affecting renewable natural resources . . . does not exceed the regenerative capacities of the environment;

(b) will not finance projects that cause severe or irreversible environmental deterioration, including species extinctions without mitigatory measures acceptable to the Bank;

(c) . . .

(d) will not finance projects that displace people

acceptable to the Bank as outlined in separate notes on involuntary resettlement, and on tribal peoples . . .¹¹²

The real significance of the new policy statement lies in the fact that it marks the first incorporation of environmental concerns into the Bank's operating procedures. The question remains of how the Bank with its current levels of environmental staffing can realistically implement these procedures.

The Bank's country, economic and sector policy work can have even greater environmental implications than single projects.¹¹³ This is because many of the basic decisions about the nature and kinds of projects the Bank will finance are made at the policy making phase in Bank operations and are embodied in strategy documents such as Country Program Papers (CPPs) and Country Economic Memoranda.¹¹⁴ The new environmental procedures of the Bank state that "where appropriate, country economic and sector work should assess the ability of environmental systems and the natural resource based to sustain present and proposed levels of economic development."¹¹⁵

Again, a major question is how the Bank can implement this general commitment to incorporate environmental concerns into country and sector work. In fact, this commitment already was stated in a somewhat weaker form in the Bank's previous environmental policies and procedures.¹¹⁶ Among the Bank's Sector Policy Papers, only the Forestry Paper addresses in detail environmental and resource management concerns¹¹. In fact, the Bank's Fishery



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A mother and her children of the Nagarote Nambiquara tribe, one of dozens of tribes in the Polonoroeste area vulnerable to the influx of settlers. Pleas to Brazil's government for protection of Indian lands have gone virtually unheeded.

Sector Policy Paper was publically criticised by environmental groups for failing to address essential resource management concerns.¹¹⁸ Country Economic Memoranda have a macroeconomic focus and do not as a rule address sustainable stewardship of natural resources.¹¹⁹

The final phase of the Bank's project cycle involves project evaluation, which is performed by an independent Operations Evaluation Department (OED).¹²⁰ These evaluations are known as project performance audits, and the Bank currently reviews about 57 per cent of all completed projects.¹²¹ OED has no environmentally trained people on its staff.¹²² In fact, it sends drafts of project performance audits for environmental review to the already overburdened OESA.¹²³

The Inter-American Development Bank has no internal focus of environmental responsibility apart from an Environmental Management Committee formed in 1984 to discuss implementation of the 1980 New York Declaration.¹²⁴ Nor does it employ any professionally trained environmental staff, apart from a geographer hired in 1983 to work as a soils specialist.¹²⁵ Like the World Bank, the IDB has prepared a series of environmental checklists for various sectors¹²⁶, but no procedures or requirements exist to ensure they are integrated, used or even looked at by staff in designing and appraising projects.¹²⁷ In 1979, the IDB Board of Directors approved an Operational Policy on Environmental Management.¹²⁸ In very general terms this Environmental Policy document states that the IDB will finance general environmental projects, technical assistance and institution building activities in the environmental and natural resources area, and "seek to determine" if proposed projects fulfil criteria of environmental soundness and minimise adverse environmental impacts.¹²⁹ The lack of any procedures to ensure environmental planning and assessment, and the lack of an environmentally trained professional staff make this general policy commitment practically meaningless.¹³⁰

References

1. *Id.* In a survey by McKinsey and Company of the 900 largest development projects begun in the Third World during the decade of the 1970s, the World Bank was identified as the single most important participant, financing 93 "macroprojects." K J Murphy, *Macroproject Development in the Third World* 16 (1984.)
2. World Bank, Annual Report 1983 at 13; Inter-American Development Bank, Annual Report 1983 at 5; *Foreign Assistance and Related Programmes Appropriations for 1984: Hearings Before the Subcomm. on Foreign Operations and Related Agencies of the House Comm. on Appropriations, Part 4*, 98th Cong., 1st Sess. 70 (1983) (statement of M Peter McPherson).
3. The Bank's Fiscal Year 1984, which runs from July 1 to June 30.
4. World Bank, Annual Report 1983 at 13, 126-127 (1983) (hereinafter cited as World Bank 1983).
5. World Bank 1983, *supra* note 4 at 13; Inter-American Development Bank, Annual Report 1983 at 13 (1983) (hereinafter cited as IDB 1983).
6. World Bank, World Development Report 1984 at 252-253 (1984) (hereinafter cited WDR 1984).
7. WDR 1984, *supra* note 6, at 38-39.
8. Sanford, J E Multilateral Development Banks: Background Data about US Policy 7, 8 (1980) S. Rep No 98-245, 98th Cong., 1st Sess., 14, 18 (1983).

9. World Bank 1983, *supra* note 4, at 132; IDB 1983, *supra* note 5 at 33; Asian Development Bank Annual Report 1981 at 2-4 (1981); African Development Bank, African Development Fund Annual Report 1981 at 34 (1981).
10. World Bank 1983, *supra* note 4, at 132.
11. IDB 1983, *supra* note 5, at 33.
12. World Bank 1983 at 18; Stern, *Prospects of Development Financing in the 1980s*, 32 AM U Law Rev 146, 147 (1982).
13. World Bank 1983, *supra* note 4, at 13; World Bank, Annual Report 1984 at 18 (1984) (hereinafter cited as World Bank 1984).
14. IDB 1983, *supra* note 5, at 12-13.
15. African Development Bank, African Development Fund, *supra* note 9, at 29-30; Asian Development Bank, *supra* note 9, at 26.
16. A favourite tactic of the World Bank has been the establishment of autonomous government authorities such as national development finance banks, agricultural credit institutions, and energy and area development agencies to implement its projects. Fatouros, *The World Bank in The Impact of International Organisations on Legal and Institutional Change in the Developing Countries* 52-61 (J B Howard Ed 1977) (hereinafter cited as Howard Ed). In fact, one case study of the World Bank's involvement in Colombia revealed that in the period 1949-72 36 of the Bank's 51 loans went to autonomous agencies in several sectors that the Bank either established or was instrumental in strengthening. Howard Ed. 2-3. See Ulloa, *Colombia and the World Bank* in Howard Ed. 1977 at 81-150. This particular kind of institution building had profound impacts on the political and social evolution of the entire country, including weakening "the political party system and minimising) the roles of the legislature and judiciary." Howard Ed 4. In fact, in the case of Colombia,

Given the unequal power of the Bank and the borrowing government and the Bank's technical expertise and technocratic bias, an international decision making process evolved which, at the international level, gave the Bank some of the powers of a surrogate government and, at the national level, built up a powerful segment of the administrative arm of government but bypassed non-technocratic governmental decision making, including the legislative and the judiciary branches.
17. See Fatouros, in Howard, Ed. *supra* note 16, at 29-35. See generally Bello & Elinson, *supra*, note 16; C Payer, *supra*, note 16. For examples of World Bank loan stipulations in Kenya, see B S Hurni, *The Lending Policy of the World Bank in the 1970s* 36-39 (1980).
18. For a case study of the policy influence of the World Bank in the Philippines, see Bello & Elinson, *supra* note 16; for a case study of the influence of the IDB in Costa Rica, see Dewitt, *The Inter-American Development Bank and Policy Making in Costa Rica*, 15 J of Developing areas 67-82 (1980); see generally C Payer, *supra* note 16. Sanford, *supra* note 8, at 3-15. Department of the Treasury, *United States Participation in the Multilateral Development Banks in the 1980s* (1982).
19. The African Development Bank is an exception in this instance: it does not systematically prepare country economic memoranda or sector papers. Department of the Treasury, *supra* note 18, at 130.
20. Department of the Treasury, *supra* note 18, at 130-132; C Payer, *supra* note 16, at 72-86; Fatouros, in Howard Ed, *supra* note 16, at 31-32; R L Ayres, *supra* note 16, at 31-41.
21. The most important of these documents include Country Economic Memoranda, which analyse macroeconomic concerns for each borrower, Sector Policy Papers, publically available documents which set out the Bank's policy and lending priorities in various aspects of economic activity, and Country Programming Papers, which are the Bank's long term plans for lending in a particular country.
22. Department of the Treasury, *supra* note 18, at 130-132; C Payer, *supra* note 16, at 72-87; R L Atres, *supra* note 16, at 31-41. In fact, the World Bank's 1983 Annual Report explicitly maintains that

(the Bank's) role as a partner in the dialogue with governments on overall economic policy and sectoral strategies, and as a source of technical assistance and

advice is as important as its role as a lender. The deterioration in the economic climate in many of the Bank's developing member countries has increased the importance, as well as the advisability, of this advisory function.

- World Bank 1983, *supra* note 4, at 10. For a skeptical view of the efficacy of the World Bank's Country Programme Papers, see A Van De Laar, *The World Bank and the Poor* 223-231 (1980).
23. Article III. 4 (vii) of the World Bank's Articles of Agreement stipulates that loans made by the Bank "shall, except in special circumstances, be made for the purpose of specific projects..." Articles of Agreement of the International Bank for Reconstruction and Development, *opened for signature*, December 27, 1945, 60 Stat 1440 (1946 TIAS No 1502, 2 UNTS 134, amended Dec 16, 1965, 16 UST 1942, TIAS No 5929 (hereinafter cited as World Bank, *Articles of Agreement*). A 'project' is "a discrete investment programme specified as to character, location and time." Chadenet & King, *What is a World Bank Project?*, 9 *Finance and Dev* 4-5 (1972), cited in A Van De Laar, *supra* note 22, at 48.
24. Allen, *The Recent Shift in United States Policies Toward the International Monetary Fund and the World Bank*, 16 *Vand J Of Transnat'l L* 29-21 (1983) The policy leverage that the World Bank can exercise through structural adjustment lending (SAL) goes to the heart of a country's development priorities:
Sal is defined as a series of discrete lending operations (possibly three or four) over a period of approximately five or six years, to provide quick disbursing balance-of-payments support to a country that is prepared both to formulate and to reach agreement with the Bank on a structural adjustment programme. Sal is conceived as comprising three components: first, a statement of structural objectives to be achieved over an approximately five to ten year period—for instance, increasing non-traditional exports by a given percentage... second, a statement of the measures which will be taken over an approximately five year period to achieve the objectives... third, a monitorable set of actions to be taken by a government either before approval or the Sal operation by the Bank's Board or during the... disbursement period of the Sal operation.
- S Please, *The Hobbled Giant: Essays on the World Bank* 29 (1984).
25. Stern, *Prospects of Development Financing in the 1980s*, 32 *Am U L Rev* 153 (1982); S Please, *supra* note 24, *passim*; Rowen, *World Bank at Crossroads*, *Wash. Post*, Sept 23, 1984, at G1, G5-G6.
26. S Please, *supra* note 24, at 36.
27. The Bank's Board of Executive Directors interpreted Article III 4 (vii) as setting an annual limit of ten per cent to non-project lending. *Id.*
28. See eg M T Farvar & J D Milton (Editors), *The Careless Technology* (1972) (this is a collection of fifty case studies of ecologically destructive development projects, many funded by the MDBs); Appelbaum, *Comment, Controlling the Environmental Hazards of International Development*, 5 *Ecology L Q* 321, 321-337.
29. Many of the adverse environmental impacts of a project may take years to appear; by the time data has been collected, analysed and published in a scholarly format it may be more than twenty years after the initial planning phases. Eg D Hart, *The Volta River Project* (1980) (This large World Bank hydroelectric scheme on Ghana's Volta River was planned in the late 1950s and implemented in the 60s and 70s. It displaced one per cent of the country's population, resulted in endemic onchocerciasis (River Blindness) and caused, by conservative estimates, the permanent disablement of at least 80,000 people through the spread of the parasitic water born disease schistosomiasis. *Id.*)
30. *Environmental Impact of Multilateral Development Bank-Funded Projects: Hearings before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs*, 98th Cong, 1st Sess. (1983) (hereinafter cited as 1983 *Environmental Hearings*); *The Multilateral Development Banks and Health; Hearing before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking, Finance and Urban Affairs* 98th Cong, 2nd Sess. (1984) (hereinafter cited as 1983 *Health Hearing*); *Draft Recommendations Regarding Environmental Concerns Associated with Multilateral Development Bank Activity: Hearings before the Subcomm. on International Development Institutions and Finance of the House Comm. on Banking,*

Finance and Urban Affairs 98th Cong, 2nd Sess. (1984) (hereinafter cited as 1984 *Draft Environmental Recommendations Hearings*); *Environmental Research and Agricultural Development Projects in Humid Tropical Forest Regions in Latin America: Hearing before the Subcomm. on Natural Resources, Agriculture Research and Environment of the House Science and Technology Comm.* 98th Cong, 2nd Sess. (1984) (hereinafter cited as 1984 *Agricultural Development Hearing*).

31. 1983 *Environmental Hearings*, *supra* note 30, at 88-89, 102-107 (statement of Barbara J Bramble); 1984 *Agricultural Development Hearing*, *supra* note 30, (statements of Bruce M Rich; Barbara J Bramble; Jorge E Ilueca; Jose Lutzenberger and Brent Millikan). See Guppy, *Tropical Deforestation*, 62 *Foreign Aff* 928-965 (1984).
32. 1984 *Agricultural Development Hearing*, *supra* note 30, (statements of Bruce M Rich; Jorge E Ilueca; Jose Lutzenberger and Brent Millikan). See Guppy, *supra* note 31, at 937-947. See also Bello & Elinson, *supra* note 16, at 88-99; S George, *How the other half dies* 220-227 (1977). For a discussion of Green Revolution social impacts in Mexico and World Bank projects, including increased landlessness of the rural population, see C Hewitt De Alcantara, *The Modernising Mexican Agriculture: Socioeconomic Implications of Technological Change 1940-70* (1976).
33. For a scathing condemnation of the World Bank's funding of two gigantic jungle colonisation schemes in Indonesia and Brazil, see Guppy, *supra* note 31.
34. 1984 *Agricultural Development Hearings*, *supra* note 30.
35. See eg Feder, *Agricultural Resources in Underdeveloped Countries: Competition Between Man and Animal*, 14 *Econ and Political Weekly* 1345-1366 (1979)
36. *Id.*; Nations and Komer, *Rainforests and the Hamburger Society*, 25 *Environment* 12, 14, 16 (1983).
37. Parsons, *Forest to Pasture: Development or Destruction?* 24 *Revista De Biologia Tropical* 121-138 (1976)
38. *Id.*; Nations & Komer, *supra* note 36, at 14.
39. See eg Goodland, *Environmental Ranking of Development Projects in Brazil*, 7 *Environmental Conservation* 9-26 (1980); Fearnside, *Cattle Yield Prediction for the Transamazon Highway*, 4 *Interciencia* 220-225 (1979); Fearnside, *Development Alternatives in the Brazilian Amazon: An Ecological Evaluations* 8 *Interciencia* 65-78 (1983); Feder, *supra* note 35; Parsons, *supra* note 37.
40. Feder, *supra* note 35, at 1351, 1336n 26.
41. Parsons, *supra* note 37, at 126. Parsons goes on to state that "such development oriented international organisations as... (the) IBD seem to foresee a kind of mixed farming as the optimal ultimate use... for (much of) the high rainfall Central American forests... There is a vision, it seems, of an isthmus converted to cropland and grass from the Pacific to the Atlantic. In Nicaragua a model for this is the 70,000 ha. Colonia Rigoberto Cabezas project on the La Gateada Nueva Guinea road south of the Rama road, recently funded by an 80 million dollar IBD loan. *Id.*, at 127.
42. Feder, *supra* note 35, at 1349.
43. A brief review of World Bank and IDB lending in Latin America over the past three years shows that these institutions are continuing to prepare and approve large livestock loans which can only contribute to the pressures to convert the remaining pristine tropical forest areas of the region. For example, in its past fiscal year the World Bank approved a loan of 9 million dollars (total project cost: 25.5 million dollars) to Panama for the third in a series of Bank financed livestock projects, and a loan of 25 million dollars (total project cost: 121.1 million dollars) to Paraguay for that country's seventh Bank financed livestock project. The Bank approved loans in 1983 and 1981 to Paraguay for 40 million dollars and 30 million dollars, respectively (total project costs: 72 million dollars and 60 million dollars), to provide agricultural credit, extension and technical assistance with a substantial emphasis on livestock development. It approved loans of 130 million dollars in 1983 (total project cost: 239 million dollars) and 40.6 million dollars in 1982 (total project cost: 83.9 million dollars) to Peru for agricultural credit, research and extension, again with significant livestock components. Agricultural credit loans to Mexico in 1982 for 175 million dollars and in 1981 for 325 million dollars also had significant livestock components. Total investment for these two projects alone was 1.69 billion dollars.
- In 1983, the Inter-American Development Bank approved loans of 35.8 million dollars and 5.3 million dollars to Costa Rica for livestock development and animal health projects, as well as

- a 130 million dollars farm and livestock credit loan to Mexico and a 30 million dollars agricultural research loan to Venezuela with a substantial livestock component. Loans of 32 million dollars to Bolivia for agricultural credit in 1982, and in 1981 of 24 million dollars to Costa Rica, 36.5 million dollars to the Dominican Republic, and 20 million dollars to Guatemala (for livestock health programmes), all had substantial or predominant livestock components.
44. M Nelson, *The Development of Tropical Lands: Policy Issues in Latin America* 265 (1973), quoted in A Van De Laar, *supra* note 22, at 178.
 45. N M Bunin, "Colonisation Systems Analysis: Review of Colonisation Projects in the Peruvian Selva," Annex C, Vol I, Project Synthesis Paper, Central Selva Natural Resources Management Projects, USAID Project No 527-0240 (1981).
 46. See eg Guppy, *supra* note 31, at 932-937; R J Goodland & H S Irwin, *Amazon Jungle: Green Hell to Red Desert?* 28-36 (1975).
 47. See eg R J Goodland & H S Irwin, *supra* note 46, at 36-48; Nations & Komer, *Central America's Tropical Forests: Positive Steps for Survival* 12 AMBIO 232-238 (1984).
 48. For adverse impacts of MDB projects on indigenous peoples, see 1983 *Environmental Hearings*, *supra* note 30, at 440-644; 1984 *Health Hearing*, *supra* note 30, 152-185 (Survival International (USA) statement with attachments entitled "The Impact of World Bank Policies on Indigenous Peoples").
 49. D A Posey, *Indigenous Ecological Knowledge and Development of the Amazon*, in E F Morgan Ed, *the Dilemma of Amazonian Development* 225-257 (1983).
 50. Inter-American Development Bank, response to request of US Executive Director for comments on statements presented at environmental hearings of the House Banking Subcommittee on International Development Institutions and Finance (See 1983 *Environmental Hearings*, *supra* note 30.) 8 (August 12, 1983) (hereinafter cited as IDB Response).
 51. A World Bank/FAO team visited the Pichis Valley and adjacent jungle areas in the Spring of 1981 and assessed the agricultural potential of the region as follows:

97 per cent of the area is at present under forest . . . The soils are mostly highly acid . . . and are low in nutrients . . . there is a high proportion of sloping land . . . Under the climatic and topographical conditions of the projects area (highway) maintenance costs are likely to be high . . . A forestry project in the area (would be) financially marginal . . . soils are of low fertility . . . and consequently limit the forest's natural regeneration capacity . . . An increased flow of spontaneous settlers would aggravate the conflict over land tenure with native communities and have a disastrous effect on the area's ecosystems . . . The mission debriefed with the Government of Peru and warned of the low potential of the area proposed for development.

FAO/World Bank Cooperative Programme Investment Centre, Report of the Peru Selva Central Reconnaissance Mission 3-4 (June 16 1981) (confidential FAO/World Bank document).

In spite of this highly negative assessment by FAO and the World Bank of the development prospects for the Pichis Valley, the IDB has cited its involvement there as a model and precedent in environmentally sound development. IDB Response, *supra* note 50, at 8. Of the total project costs, however, 65.3 per cent are for jungle road construction, 14.9 per cent for agricultural and forestry development, and only 0.3 per cent for an "Environmental Dimension Programme." Inter-American Development Bank, Loan . . .
 52. See eg Guppy, *supra* note 31, at 939-944.
 53. Caufield, *Indonesia's great exodus* New Scientist (May 17 1984) at 26.
 54. In the Island of Kalimantan—where the government plans to 'transmigrate' four million people—less than two per cent of the soils are thought to be permanently cultivable. Guppy, *supra* note 31, at 942-943.
 55. Caufield, *supra* note 53, at 25.
 56. World Bank, Response to Statements of Environmental Organisations sent by the US Executive Director 9-11 (January 11, 1984) (following the 1983 Hearings of the House Banking Subcommittee on the MDBs and the Environment (see 1983 *Environmental Hearings*, *supra* note 30.), the Subcommittee requested the Treasury Department to obtain detailed responses from the US MDB Executive Directors to the statements of environmental organisations presented at the hearings) (hereinafter cited as World Bank Response).
 57. In the case of the Transmigration Programme, for example, one of the government's main priorities is "Javanisation" of the ethnically diverse—and less politically reliable—outer islands: in addition, such settlement projects allow governments to avoid confronting potentially explosive social issues such as grossly unequal land tenure systems on a country's good agricultural land. See eg Guppy, *supra*, note 31, at 939-944; Caufield, *supra* note 53, at 27.
 58. Guppy, *supra* note 31, at 944. 70. US Treasury Department Office of Multilateral Development Banks, Personal Communication (September 5, 1984). The World Bank's Polonoeste loan commitments represent nearly one half of one per cent of Brazil's titanic foreign debt, the largest of any country.
 59. World Bank, Brazil: Intergrated Development of the Northwest Frontier 5 (1981).
 60. *Id* at i-vi, 1-3.
 61. *Id* at 31; personal communication, Steven Schwartzman, anthropologist, October, 1984.
 62. See eg D Maybury-Lewis, J W Clay, D Price, D Moore, B Mindian & C Junqueira, in the Path of Polonoestes: Endangered Peoples of Western Brazil (1981).
 63. International Bank for Reconstruction and Development, Loan Agreement No. BR2060, Sections 4.05 & 3.13 (December, 1981)
 64. World Bank Response, *supra* note 56, at 7-9.
 65. US Treasury Department Office of Multilateral Development Banks, *supra* note 58.
 66. Fearnside, *Deforestation in the Brazilian Amazon: How Fast is it Occurring?*, 7 *Interiencia* 82-88 (1982).
 67. See eg Eckholm, *World Bank Urged to Halt Aid to Brazil for Amazon Development*, NY Times, Oct 17, 1984, at 9, col 1. In October, 1984 30 environmental and indigenous peoples' human rights groups in the US, Brazil and Europe sent a letter to the President of the World Bank protesting the threats to the environment and indigenous peoples created by Polonoeste and requesting the Bank to regain some control of its enormous investment in the region. *Id* See also Guppy, *supra* note 31.
 68. See eg 1984 *Agricultural Development Hearings*, *supra* note 30 (statements of Jose Lutzenberger, Brent H Millikan and Bruce M Rich).
 69. Fearnside, *A Floresta Vai Acabar?*, 2 *Ciencia Hoje* 43-52.
 70. Millikan, *Relatorio Final: Dianostico de dez Nucleos Urbanos de Apoio Rural (NUARs)*, Avalicao do PDRI-Ro/Polonoeste Fundacao Instituto de Pesquisas Economicas (FIPE) 88-89 (1984); 1984 *Agricultural Development Hearings*, *supra* note 30, statement of Brent H Millikan, 9 (1984).
 71. Steven Schwartzman, anthropologist, Washington, DC, personal communication (October 6, 1984).
 72. Guppy, *supra* note 31, at 943. In addition to the extraordinarily risky nature of tropical settlement projects, their cost per settler family, or 'beneficiary', seems truly outlandish. The average investment per 'beneficiary family' for eight World Bank settlement projects implemented during the 1970s was, in 1975 dollars, 8901.25 dollars, or more than 18,000 dollars a family in current dollars. World Bank, *Agricultural Land Settlement* 56 (1978). Incentives and investment per settler in the Bank financed Brazil Polonoeste settlement Programme are estimated to total over 12,000 dollars, and there is documentary evidence that many are poorer and worse off than before. Guppy, *supra* note 31, at 942; see Cowell, "The Decade of Destruction," parts II and III, Central Television UK (1984) (film in four parts). One cannot help but wonder if the families intended as beneficiaries of these schemes would have been better off in most instances if the World Bank had simply given them these thousands of dollars, which could have been used to purchase the good agricultural land they had no access to or to set up small business enterprises. At the same time, the tremendous ecological destruction that results from such projects would not have occurred.
 73. Personal communications, World Bank advisors for irrigated crops, procurement, and tree crops, Operations Policy Staff, Agriculture and Rural Development Division, 1983.
 74. Estimate of the author, based on personal communications, *supra* note 70, and on review of World Bank Annual Reports and Project Appraisal documents.
 75. 1983 *Health Hearings*, *supra* note 30, at 84 (statement of Robert F Wasserstrom).
 76. *Id*.
 77. *Id*; India is the single largest cumulative borrower of the Bank by far (19.8 billion dollars, as opposed to second place Brazil with 9.94 billion dollars), and was also the biggest borrower in 1984. Agriculture, in turn, accounted for about 40 per cent of Bank lending to India in 1984. World Bank, 1984 Annual Report, 210-212, 214-215, 220 (1984).
 78. *Id*.
 79. 1983 *Health Hearings*, *supra* note 39, at 84-85 (testimony of Robert F Wasserstrom).
 80. *Id*, at 85.

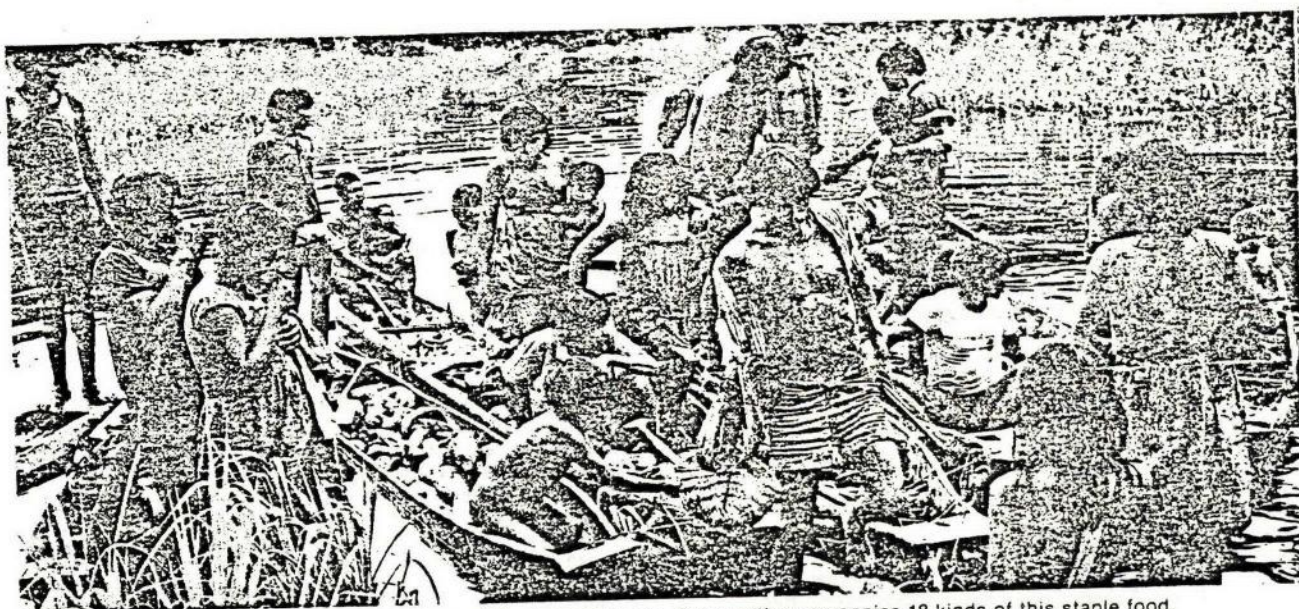


PHOTO DEFENDERS

Manioc is transported by Indians of the Amazon basin. Some natives recognise 18 kinds of this staple food.


81. See eg Bello & Elinson, *supra* note 16, at 80-84; See generally D Bull, A Growing Problem: Pesticides and the Third World Poor (1982).
82. As of 1983, the Bank had made gross loan commitments to the Sudan of 792.1 million dollars, 54 per cent for the agriculture sector.
83. Consortium for International Crop Protection, Comments on Pest Control in the Gezira Scheme of Sudan with Special Reference to the Proposed Use of Temik, in 1983 *Environmental Hearings*, *supra* note 30, at 350-354.
84. World Bank 1983, *supra* note 4, at 108; World Bank, Report and Recommendations of the President of the International Development Association to the Executive Directors on a Proposed Credit of SDR 46.4 million to the Democratic Republic of the Sudan for the Agricultural Rehabilitation Programm-II at 19 (May 23 1983) (confidential document for official use only).
85. Personal communications, *supra* note 70. The report to the Executive Directors of the Bank succinctly understates the pesticide treadmill which billions of dollars of agricultural assistance have lead the Sudan into with the following words: "Although extensive use of chemicals would continue to pose long-term risks, it would not be commercially feasible to produce cotton without chemical pest control." World Bank, *supra* note 81, at 18.
86. 1984 *Health Impacts Hearing*, *supra* note 30, at 86-91 (statement of Robert F Wasserstrom). See also Chapin & Wasserstrom, *Agricultural production and malaria resurgence in Central America and India* 293 *Nature* 181-185 (1981).
87. Chapin & Wasserstrom, *supra* note 83.
88. Consortium for International Crop Protection, *supra* note 80, at 354.
89. See eg Hunter, Rey & Scott, *Man-Made Lakes and Man-Made Diseases*, 16 *Soc. Sci. Med.* 1127-1145 (1982); 1983 *Environmental Hearings*, *supra* note 30, at 35-50 (statement of Brent Blackwelder); Madely, *Big Dam Schemes-Value for Money or Non-sustainable Development?*, 7 *Mazingira* 16-25 (1983).
90. 1983 *Environmental Hearings*, *supra* note 30, at 100 (statement of Barbara J Bramble).
91. *Id.*, at 40 (statement of Brent Blackwelder).
92. *Id.*, at 44-46, 96-98, 504-512 (statements of Brent Blackwelder, Barbara J Bramble and Rudolph C Ryser).
93. See World Bank response, *supra* note 56, *passim*.
94. 1984 *Draft Environmental Recommendations Hearings*, *supra* note 30, statement of James B Conrow 1.
95. World Bank, *Social Issues Associated with Involuntary Resettlement in Bank-Financed Projects 1* (1984) (internal document). Witnesses at the 1983 *Environmental Hearings* referred to a number of MDB projects with grave resettlement impacts, of which the most notorious was the planned Chico River hydroelectric scheme in the Phillipines. 1983 *Environmental Hearings*, *supra* note 30, at 507-510 (statement of Rudolph C Ryser); Bello & Elinson, *supra* note 16, at 56-57. The original four dam complex, for which the World Bank was helping to prepare feasibility studies, would have displaced some 100,000 Bontoc and Kalinga tribespeople from their ancestral homelands. The tribespeople erupted in armed revolt against the proposed projects, turning the region into a battleground and forcing the Bank to withdraw most of its planned participation. Bello & Elinson, *supra* note 16, at 56-57.
96. The Bank's official internal operating procedures are known as the Operations Manual. The Operations Manual is not available to the general public. Sections of the Operations Manual are known as Operations Manual Statements (OMS). In early 1980 the Bank promulgated an OMS 2.33 on Involuntary Resettlement. The Bank published in May, 1984 an update of its "Environmental Policies and Procedures" in which it stated that the Bank "will not finance projects that displace people or seriously disadvantage certain vulnerable groups without undertaking mitigatory measures acceptable to the Bank as outlined in separate notes on involuntary resettlement, and on tribal peoples." World Bank, *Environmental Policies and Procedures 4* (May 1984).
97. World Bank, *supra* note 93, at 2.
98. *Id.*, Annex 2, at 36.
99. *Id.*, at 9.
100. He stated that "(sustainable development requires vigorous attention to resources management and the environment," "for sustainable development and wise conservation are, in the end, mutually, reinforcing—and absolutely inseparable—goals." A W Clausen, *Sustainable Development: The Global Imperative* 10, 19 (1981) (Fairfield Osborn Memorial Lecture, 1981); text available from World Bank Office of Environmental and Scientific Affairs.
101. Lee, *Environment in the World Bank—Policies and Practices*, 16 *Water Science Technology* 337-346 (1984). The Office was known as the Office of Environmental and Health Affairs from 1975-1983.
102. World Bank Response, *supra* note 56 at 1.
103. The Director of OESA is involved mainly in administrative duties and in external relations; one staff member is on loan to the Bank's Economic Development Institute (which prepares training courses for administrators from developing countries), and the two others deal with industrial pollution and Bank financed Development Finance Corporations. These two categories of projects have accounted for less than 10 per cent of Bank lending in recent years. The most environmentally sensitive lending categories are agriculture, energy and transportation, which account for more than half the Bank's annual lending.
104. World Bank, *Environmental Guidelines* (1983).
105. Declaration on the Human Environment and Declaration of Principles. UN Conference on the Human Environment, 1972, Stockholm, Sweden, in *Defence of the Earth: The Basic Texts on Environment* (1981) (United Nations Environment Programme Executive Series).
106. World Bank Response, *supra* note 56 at 1. The project cycle has three main phases prior to loan negotiation: identification, preparation, and appraisal. After the loan agreement is signed

the project enters the implementation phase. About 60 per cent of completed projects are subject to an independent evaluation by the Bank's Operations Evaluation Department. See W C Baum, *The Project Cycle* (1982) (a World Bank publication).

107. In the words of a special report prepared by the House Banking Subcommittee on International Development Institutions and Finance: "Given the magnitude of the World Bank's operations, an environmental office with a staff of five cannot possibly be expected to adequately provide for all aspects of environmental issues facing the Bank." House Comm. on Banking, Urban Affairs and Finance, Subcomm. on International Development Institutions and Finance, *Draft Recommendations Regarding Environmental Concerns Associated with Multilateral Bank Activity 1* (September 1984) (draft document to be published in late 1984 as special Committee Report).
108. 1983 *Environmental Hearings*, *supra* note 30, at 68 (statement of Bruce M Rich)
109. *Id.*
110. *Id.*
111. See discussion in *supra* note 94.
112. World Bank, *supra* note 94, at 4.
113. See notes 19-22.
114. See notes 21 and 22.
115. World Bank, *supra* note 94, at 5.
116. Lee, *supra* note 101, at 340.
117. Compare World Bank, *Forestry Sector Policy Paper* (1978) with World Bank, *Fishery Sector Paper* (1982), World Bank, *Agricultural Land Settlement Issues Paper* (1978) and World Bank *Rural Development Sector Policy Paper* (1975).
118. See *Foreign Assistance and Related Programmes Appropriations for 1984: Hearings before the Senate Appropriations Comm. Subcomm. on Foreign Operations* 98th Cong. 2nd Sess. (1984) (statement of Bruce M Rich). High level Bank officials acknowledged in a meeting with environmental representatives that the Fishery Sector Policy Paper was seriously inadequate in its treatment of sustainable management of the resource. *Id.*
119. See eg 1983 *Environmental Hearings*, *supra* note 30, at 69-70 (statement of Bruce M Rich). For example, the Bank's Country Economic Memorandum on Belize fails to mention or address any issues concerning the outstanding natural resource of the country: the earth's second largest barrier coral reef. *Id.*
120. Lee, *supra* note 101 at 344.
121. World Bank, *supra* note 13, at 56.
122. 1983 *Environmental Hearings*, *supra* note 30, at 72 (statement of Bruce M Rich).

123. World Bank Response, *supra* note 56, at 4-5.
124. See 1983 *Environmental Hearings*, *supra* note 30, at 63-64 (statement of Bruce M Rich); 1984 *Draft Environmental Recommendations Hearings*, *supra* note 30, at —; (Draft Recommendations Regarding Environmental Concerns Associated with Multilateral Bank Activity); United Nations Environment Programme. *Draft Summary Record*. The 5th session of the Committee on International Development Institutions on the Environment, Luxembourg 1984. (Unpubl. document available at UNEP offices New York and Washington.) 125. 1983 *Environmental Hearings*, *supra* note 30, at 63 (statement of Bruce M Rich). In its response to the Treasury Department the IDB asserted that 63 professionals and specialists in "environment related areas" such as "water supply and sanitation; integrated urban development; education; electric energy; science and technology; forestry; fisheries; irrigation; watershed management; erosion sedimentation control; livestock activities and pasture management; agricultural and rural development . . ." etc. IDB Response, *supra* note 50, at 2. At issue, however, was not the number of staff working in environmentally sensitive fields, but the number of environmentally trained staff with specific responsibilities for ensuring the ecological soundness of projects in these environmentally sensitive areas. The IDBs position is the "staff members are directed by the Bank to take a 'holistic' approach and to introduce the environmental dimension into each project activity." *Id.*
126. These checklists concern the sectors of transportation, mining, industry, agriculture, and socio-cultural impacts. They are available from the IDBs Office of External Relations. The IDB checklists address in a more comprehensive fashion the prospective adverse impacts of IDB project lending than the checklists of the World Bank do with respect to that institution's activities: the World Bank's checklists, for example, virtually fail to address the impacts associated with agriculture projects. Since neither set of checklists appears to be used, a discussion of their respective merits is currently of purely theoretical interest. See discussion at the end of this section on the IIED Environmental Guidelines study.
127. 1983 *Environmental Hearings*, *supra* note 30, at 63-64 (statement of Bruce M Rich).
128. IDB Response, *supra* note 50, at 1; Inter-American Development Bank, *Operating Policy on Environmental Management* (1979) (internal IDB memorandum for official use only).
129. Inter-American Development Bank, *supra* note 128.
130. 1983 *Environmental Hearings*, *supra* note 30, at 63-66 (statement of Bruce M Rich). Compare

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THE WORLD BANK'S POLONOROESTE PROJECT: A social and environmental catastrophe

by José Lutzenberger

The author is a leading agronomist and Brazil's most famous and most committed environmentalist. This is his testimony before the Subcommittee on Natural Resources, Agriculture Research and Environment, of the House Committee on Science and Technology, September 19, 1984. In it he shows that the deforestation of Rondonia cannot, as is generally assumed, be attributed to the need for more land to feed the growing population. The colonists who are clearing the forests are there because their land in the South has been taken away from them in order to create vast government-backed plantations geared to the export of cash crops to earn foreign exchange for development. What is more, the land they left behind is very fertile while the land they obtain in Rondonia can yield but two or three crops at best before being turned into a desert.

Lutzenberger also insists that World Bank projects such as the proposed Polonoroeste project are highly destructive while conditions imposed to safeguard the Indians "are blatantly flouted".

The author calls on the World Bank, on behalf of the environmental groups of Brazil, to reconsider the Polonoroeste Project and in general its policy on Rondonia.

I have been asked to talk about the development programme in Western Amazonia called the Polonoroeste Project, which is partly funded by the World Bank. This is a \$1.6 billion project, of which the Bank's share is \$443 million. The main part of the loan is for a central highway and the rest is for feeder roads and the infrastructure for planting settlers in the forest. I will begin by describing very briefly its context—the social policy behind it.

Many development projects are publicised as dealing with great economic and social problems like famine, disease, lack of good water, and the Polonoroeste scheme is often projected as dealing with a similar sort of problem—the westward migration of Brazil's agricultural poor. What is seldom pointed out is that, unlike famine or disease, the migration into Amazonia is deliberately promoted and encouraged by our government. INCRA, our land agency, has been—and is at the moment—putting paid advertisements on television, enticing farmers from other parts of Brazil to go to Rondonia. Some of their newspaper and magazine advertisements show aerial views of primeval forest with captions saying, "We are making the largest agricultural reform in the world". But the settlement schemes are conceived precisely in order not to have to face social justice in other parts of Brazil, in order not to carry out agrarian reform and to change agricultural policies in other regions. I would now like to submit for the record a publicity brochure of the Rondonia State Government encouraging mig-

ration to Rondonia which says, "Good land, appropriate land . . . these lands offer excellent possibilities for the expansion of agricultural productivity."

In considering the Polonoroeste project, it is important to be aware that the principal social and political objective is to transfer our agricultural poor—mainly from the northeast and south of Brazil—to the Amazon. The largest block of migrants come from the South where I live. It is a region of good soil, originally settled by German, Italian and Polish immigrants, and it produced a relatively healthy, permanently sustainable peasant agriculture in the last century which flowered into the fifties of this century. It is now in total decline. Government policies for the last thirty years have deliberately gone against the interests of the peasants. The government has promoted only cash crops, monoculture for export, especially soybean plantations. It also promoted "modern inputs": heavy and sophisticated machinery, synthetic-mineral fertilisers, and pesticides. In many instances huge estates have bought up the small holdings and enormous soybean plantations were set up, some of them covering thousands of hectares.

José Lutzenberger is an agronomist and engineer who spent a number of years working for the large agrochemical company BASF, but who quit his job and began a vigorous and successful campaign against the activities of the agrochemical industry. In his own state of Porto Alegre in Brazil he was elected agronomist of the year by his fellow agronomists. He runs his own soft-technology landscaping company and is President of AGAPAN, the State association for the protection of the natural environment.



PHOTO: CENTRAL INDEPENDENT TV

Dr José Lutzenberger (left), Brazil's best-known environmentalist, visits a rubber tapper village in Rondonia.

It is calculated that there are at least 2,500,000 landless poor in Brazil today, and the Polonoroeste project is designed as a safety valve for the political and social pressures caused by them. There is in fact no shortage of land in the South except the shortages created by the concentrations of land holdings. The Polonoroeste project is a method of decreasing the risks and increasing the security of the large landowners. And it does this by removing some of the rural poor from the regions where they were born and dumping them in the Amazon. What is worse, it transfers them from rich soils, in a subtropical climate, which can recuperate relatively quickly, to poor tropical soil where deforestation does permanent damage.

This is the social and agricultural context of the Polonoroeste project, which is thirty per cent funded by the World Bank. The project's stated aim is "to ensure growth of production in harmony with preoccupation for the preservation of ecosystems and natural resources." The exact opposite is happening. Devastation of the forest in Rondonia is uncontrolled, production is not being secured in the settlements.

It seems paradoxical, but the soils under the lush tropical rain forest are the poorest in the world. Permanently high temperatures and high rainfall leach away all the mineral nutrients. The clay fraction of the soil, where there is one, is also degraded to the point where it can hold almost no mineral nutrients. Therefore, the rain forest holds all its nutrients in its biomass. When the forest is cut down and burnt, and the heavy downpours wash away the ashes, most of the nutrient capital of the forest is gone. The rivers take it to the ocean. Since the soil has no holding capacity, conventional fertilisers are of little use, and high transportation costs also make them too expensive.

As depicted in Adrian Cowell's film "Decade of Destruction" (*The Ecologist* Vol 14, No 1), the land is cut up by straight roads and is divided by our land agency INCRA, according to checkerboard-like patterns blindly conceived on the drawing board. Some plots are on relatively good soil, others are on almost pure sand or on rock outcroppings. Some are totally or partially

on slopes too steep to plough, thus guaranteeing erosion from the start, others may be totally flat or rolling. One plot may cut across the meanders of the same brook several times, thus forcing the farmer to build several bridges. Another plot may have access to no water at all. This is a bad way to treat any terrain, but for tropical forests with fragile soils it can be disastrous.

It is quite common to see settlers give up their clearings after the first meagre harvest. They have to make new clearings every year. Then, when the whole plot is cleared, they move on again. The Polonoroeste project has only been operating for a few years, but there are already examples in Rondonia, where entrepreneurs have bought up half a dozen or a dozen plots, so the process of the concentration of agriculture and the building up of big estates, which drove the poor off the land in the South and Northeast, is already beginning in Rondonia. In many cases, the farmers are grandsons of colonists who cleared the forest in my home state of Rio Grande do Sul. A second wave moved on to clear the great forests in Paraná in the 1950s. Now the same is happening in Rondonia.

In addition, because cattle raising is the simplest method of holding land with a small labour force, the plots that are bought up are usually turned into poor pasture. The productivity of extensive cattle-raising on these pastures is ridiculously low—30 to 60 kg per hectare per year, as compared to ten times that much in temperate climates. The forest itself, before it was cut down, produced much more food per hectare in the form of tropical fruit, game, and the fish life it sustained in the streams.

A particularly sad aspect of what is happening in Rondonia is that ecological and social damage always go together. The forests that the settlers are cutting down are not empty. The humans already living in them, Indians, rubber tappers and caboclos—our word for jungle dweller—have an interest in the preservation of the forest. And the destruction of the forest uproots the only people who have learned to live in relative harmony with it.

The Indians are pitilessly destroyed culturally, if not physically. And yet there is so much we could learn from them. Their knowledge of the ecology of the forest, their skills in knowing how to use it are lost even before we can register them. The loss of these cultures is just as irreversible as the loss of a species. A species is the result of millions of years of irreversible organic evolution. An indigenous culture is the result of thousands of years of living in harmony with the ecosystem.

The caboclos—they are usually of mixed stock, Indian, and white—are the natural successors of the Indians. They live in the forest, surviving on shifting agriculture and as hunter-gatherers. Their lifestyle is quite compatible with the survival of the forest as long as their population does not increase too much. Their small clearings have cassava, some fruit trees, a few chickens or pigs, sometimes a cow, only to complement the diet they take out of the forest, tropical fruit, game, and fish. At the present population density they do not overexploit. Fish and game survive. (If they

were left alone, there would be plenty of time for the working out of methods of dealing with the forest on a level of more intensive, but sustainable productivity.)

Finally, there is the seringueiro, or rubber tapper, who bleeds rubber from the wild rubber trees in the jungle. He has an income equal or superior to that of the metal worker in the automobile industry in Sao Paulo. And he has almost no expenses, because most of his food is free. It comes from the forest and his small crops. During the last world war the Central Government, which then called the seringueiro "o soldado da borracha" (the soldier of rubber) promised him title to the land on which he worked. This would have been very easy to implement. Each seringueiro needs no more than 200-500 ha. Of course, the promise was seldom fulfilled. We know of only one programme where some tappers were given 250 ha. In general, when they are displaced by colonisation projects they get no more than 25 ha. Invariably, they sell the land and end up in slums or as day labourers.

Why can we not leave Amazonia to the Amazonians? Indians, caboclos, seringueiros are compatible with the survival of the forest. Their lifestyle could easily be improved socially and ecologically by teaching them better cropping and collecting or fishing methods, storage methods, and hygiene. But almost nothing is being done in that direction. The reason is that there is no financial advantage to be gained from leaving these people in the jungle, while immense political advantages are to be gained from transferring the agricultural poor from the south and northeast of Brazil to Amazonia.

On behalf of the Brazilian environmental movement, and on behalf of many cooperating citizen groups, I ask whether the World Bank should be providing thirty per cent of the money for a project which:

1. Makes it easier and socially safer for the powerful to maintain huge estates in the Northeast and to promote cash crop monocultures for export in the South.
2. Substitutes unsuitable forms of agriculture for the tropical forest.
3. Drives out of the forest the only people who have developed a sustainable way of using it.

If the World Bank wishes to help us with our problems, why does it not invest more in projects which help fix the agricultural poor on their own lands in the South and Northeast? And why does it not invest in research to improve the economy of the caboclos and seringueiros who already live in the forest?

Some very interesting research along that line is being done at INPA, the Amazonian Research Institute. Researchers there are showing that permaculture—trees such as breadfruit, jackfruit, and many other tropical fruit trees, coconut and numerous native palm trees—can produce up to ten times as much energy and protein per ha with less work, no new clearings, than can the traditional crops.

The life of the rubber tapper could also be made much easier and more productive by increasing the density of rubber trees in the forest. This requires no fertiliser, no herbicides, and the forest is not felled. There are a few successful examples of this type of

work, mainly through private initiative, but the government shows no interest in them. At present, Brazil imports two-thirds of its natural rubber needs. But by increasing the density of the trees we could easily have enough natural rubber to export.

What really needs to be done is not being done. In the Amazon we now need research on how to recuperate the soils already degraded, on how to do that with locally obtainable resources, organic soil management, insoluble mineral nutrients obtained from regional rocks or with raw phosphate from the Northeast. We must also set up schemes to protect the remaining Indian cultures and to help the already existing population. Not a single hectare of remaining forest need be cleared if we really decided to tackle these staggering problems. Why not finance this kind of meaningful work?

In the South, we must save our fertile soils, that could feed us and that can help feed the world, if we learn how to handle them on a sustainable basis. There is, in fact, no shortage of land in Brazil, but today's levels of productivity are extremely low and they are bought at the expense of future productivity. These soils respond extremely well to organic management. Productivity then goes up steeply and erosion goes down, so do pests and diseases.

In the Northeast, in Central Brazil, in the South, we face tremendous tasks, and Brazil has enough space to allow the big and the small to live side by side.

What is seldom pointed out is that, unlike famine or disease, the migration in Amazonia is deliberately promoted and encouraged by our government. INCRA, our land agency, has been —and is at the moment—putting paid advertisements on television, enticing farmers from other parts of Brazil to go to Rondonia.

We have a formidable job before us. If we learn to handle it we can bring back all the stranded migrants. Perhaps the World Bank can help us with a really rational job, instead of helping our government help the landlords who are strong enough to help themselves.

Finally, I would like to ask why the World Bank bothers to write conditions into its loan agreements, and then does nothing when those conditions are blatantly flouted, such as the clauses about Indian reserves, virtually none of which have been demarcated in the Polonoroeste region.

In the case of the more environmental conditions, it is obviously impossible to reverse the type of destruction already carried out in Rondonia. But at present, the last large area of untouched forest—the Guaporé Valley—is about to be opened up by the BR 429 road. According to Rondonia's Ministry of Transportation, the last 100 km of road should be through in November. And yet this road blatantly flouts two conditions in the World Bank's loan agreement. In section 3.13 of the Phase I loan agreement (for the "Agricultural Development and Environmental Protection Project"—loan number 2060 BR) it is agreed: "To discourage the agricultural exploitation of areas which have been determined to be

unsuitable for agricultural development or of areas whose suitability for agricultural development has not yet been determined." Why, therefore, does the Bank not object to the colonisation of Settlement Projects Bom Principio, Terra Firme, Conceicao, Porto Murтинho, Surpresa, Cena Grande, Sao Domingos, Monte Cristo, and Sao Miguel when the soil survey maps describe most of this soil as unsuitable for small farmer agriculture?

Secondly, the loan agreement for the first phase, Agricultural Development and Environmental Protection Project (Loan No 2060 BR) states in section 4.05:

"The Borrower and the Bank agree that the strengthening of the measures to protect the indigenous Amerindian population in the programme area is essential to the successful carrying out of the project. To this end, the Borrower shall take all necessary measures to put into effect promptly the special project for protecting the interests of the Amerindian communities located in the programme area."

In the light of that clause, how can the Bank not object to a road/which is going through an area regularly hunted by unknown Indians who have killed colonists and rubber tappers in the area in 1981 and 1983. The regional head of the government Indian agency, Apoena Meirelles, confirmed this in a recent press interview when he said that all new INCRA projects should first have a Certidao Negativo (a no objection agreement) from the Indian Agency confirming that there were no Indians in the area. When he was asked if this meant that the BR 429 road was—with reference to the Indians—proceeding blindly, he replied, "Completely blindly."

On behalf of the environmental groups of Brazil, I call on the Bank to stop the road and re-think its policy on Rondonia.

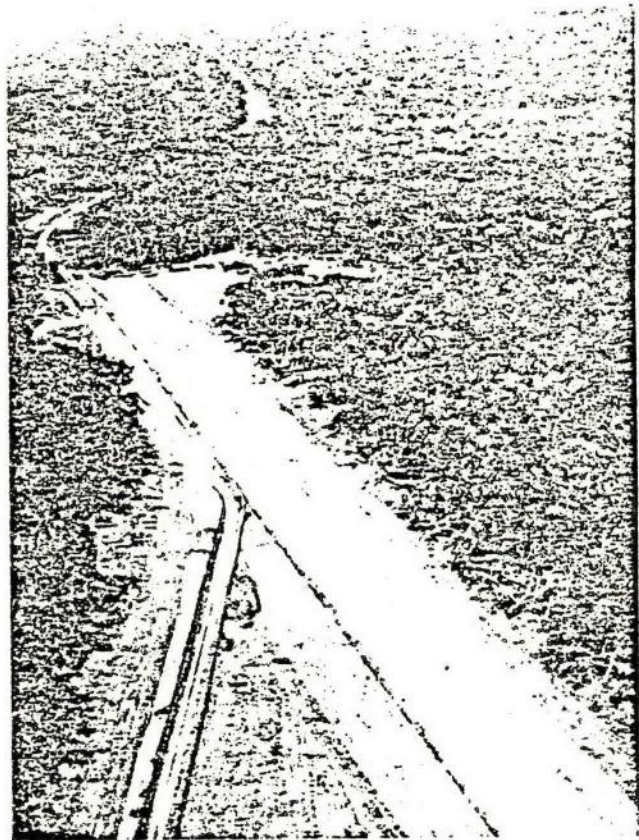


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The main road opening up the forest of Rondonia in Western Brazil. Rondonia is the fastest developing part of the Amazon basin with 70-80,000 migrants arriving every year.



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THE WORLD BANK vs NATIVE PEOPLES: A Consultant's View

by David Price

The author, an anthropologist, was consulted by the World Bank as to the likely effect of the Polonoroeste project on the local Indian population. In this, his testimony at the hearings on the environmental policies of multilateral development banks, held by the U.S. House of Representatives Subcommittee on International Development Institutions and Finance, June 29, 1983, he shows that the World Bank's concern for the welfare of the Indians is not a genuine one and that that institution is determined to implement its project regardless of its effects on the native population.

My experience as a consultant to The World Bank has led me to question the sincerity of that institution's commitment to safeguard the welfare of people affected by the projects it supports.

I was invited to advise the bank of the consequences that a large-scale development programme could be expected to have on a native population. The project, called *Polonoroeste*, was to be implemented in Western Brazil, in an area of more than 158,000 square miles—about the size of the state of California. It involved the building of a 1000-mile all-weather highway with feeder roads, and various measures designed to increase economic productivity in the region. The expected cost of the project was 1.25 billion US dollars, a third of which would be loaned by The World Bank. I was asked to apprise the bank of how such a project would affect Amerindians living in the area, and what might be done to ameliorate its negative impact.¹

My expertise was founded on several years of work in the region. I first went to western Mato Grosso as a doctoral candidate at the University of Chicago to conduct anthropological research among the Nambiquara Indians. I remained from 1967 through 1970, during which time I got to know Indians in various parts of the Nambiquara region, and became concerned with their welfare. After receiving my degree and teaching for two years in the United States, I spent a year as a visiting professor at the University of Brasilia, and went to the Nambiquara for further fieldwork during the summer intercession. The Brazilian federal organ responsible for Indians, called the National Indian Foundation (or FUNAI, for short), then contracted me to mount a programme to assist the Nambiquara. With the help of three young Indian agents whom I recruited, I organised health care, initiated a programme of education, and mediated disputes with Brazilian settlers. I also lobbied for the creation of reasonable and adequate reservations. After

two years, the FUNAI reversed its policy of hiring professional anthropologists and let me know that my contract would not be renewed. I spent another year teaching in Brazil, and then returned to the United States and took up residence in Ithaca, NY.

I was contacted by The World Bank in 1980, during the course of negotiations with the Brazilian government that eventually led to the funding of Project Polonoroeste. Several aspects of my relationship with the bank led me to question its motives.

First, the bank seemed reluctant to consult me at all. I was not asked to come to Washington until June 1980, eight months after the bank had been informed that there were native peoples in the area of the proposed project. During this time, four anthropologists with experience in other parts of Brazil informed the bank that I was more familiar with conditions in the project area.²

Second, the bank made important concessions to the Brazilian government concerning the treatment of indigenous peoples in the project area before receiving the benefit of my expertise. When I went to Washington on 11 June 1980, to explain the complexities of Brazilian Indian policy as it related to the peoples of western Mato Grosso, I found that the bank had already agreed that a) any programme of assistance to the Indians in the area would be conducted solely by the FUNAI; b) the FUNAI would accept no funding from The World Bank for such a programme; and c) the evaluation and monitoring of such a programme would be done by full-time staff members of The World Bank and the FUNAI, without the aid of outside authorities such as professional anthropologists.³

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Third, the bank renegotiated the third condition and sent me to Brazil to assess the adequacy of the FUNAI's plan of assistance only after I had learned that it was ignoring the threat to native people and had begun working to mobilise public opinion.⁴

Fourth, the support provided during my trip to Brazil was inadequate for the investigation I had been asked to carry out. I offered to retain a missionary pilot with a thorough knowledge of the area to be surveyed, but was told that The World Bank would take care of all logistical matters. In fact, adequate transportation was only made available after I had demonstrated that I would—and could—survey the area without it.⁵

Fifth, circulation of my report was narrowly restricted. After returning from Brazil, I prepared and submitted a 48-page document detailing the results of my investigations and making recommendations.⁶ I was surprised to learn, several weeks later, that no one in The World Bank had seen this report except the two staff members who had accompanied me to Brazil and the chief of the Latin America and Caribbean Regional Office.⁷

Sixth, a report of the three-person mission in which I had participated,⁸ which was supposed to include my findings and recommendations, systematically suppressed and distorted them. I had been charged with evaluating a) the FUNAI's plan to safeguard the Indians of the Polonoeste area⁹ and b) the agency's competence to carry out this plan. The FUNAI's proposal was completely divorced from reality—so puerile and fanciful that I could not help but wonder whether the agency really intended it to be taken seriously, or simply believed that The World Bank would not care whether it was realistic. As for the FUNAI's competence, available evidence suggested that it had recently been taken over by military men with a background in intelligence and security, and more than 50 staff members who were conscientiously committed to the welfare of the Indians had been systematically weeded out.

The official report of the three-person mission suppressed these strongly negative conclusions, and suggested that a few minor shortcomings should not impede the progress of negotiations. I vigorously protested what I saw as a deliberate distortion of my findings, but nevertheless, this document was made the basis of a section on "Amerindians" in The World Bank's comprehensive evaluation of the Polonoeste project,¹⁰ which was published in June 1981.

Since this comprehensive evaluation is a public document, which presents The World Bank's position in the light of all the technical expertise at its disposal, it merits serious study. I have examined the section on "Amerindians" with particular care. I will not mention what appear to be honest errors, but in several respects it would appear that information has been purposely manipulated.

First and foremost, there is a constant confusion of *de jure* and *de facto* levels of analysis. To the uncritical reader, the section would appear to be a descriptive account, dealing with the present condition of the Indians and the FUNAI. But the information pre-

sented frequently describes *what is supposed to be the case*, and completely ignores *what is really the case*. Selected aspects of Brazilian Indian law are summarised, but there is no comment on how the law is applied in practice.¹¹ The FUNAI's Mobile Health Teams are described *as they are supposed to be* (para 4.11, 4.40), but there is only a brief note on the actual inadequacy of FUNAI health care in another part of the report (para vii).¹² A paragraph describes how landowners are supposed to get certification from the FUNAI stating that there are no Indians on their property before initiating development activities (para 4.19), but not a word of the scandalous way in which such certification has been given out.¹³ There is a description of the procedure by which reservations are supposed to be created (4.20-4.22), although I pointed out in my report that this procedure had never been used. A paragraph describes the legal position of squatters and the compensation they are supposed to receive when removed from reservations, but there is not a word about the prolonged struggle and low rate of success that has actually characterised attempts to remove them (2.24).¹⁴

An anthropologist who mixed up what the natives say *should be the case* with *what is the case in practice* would be scorned by professional colleagues. Yet here this error occurs again and again. It is hard to believe that World Bank analysts made this mistake through ignorance; but it is even more distressing to conclude that they made it intentionally.

One cannot help but feel that the World Bank is much more concerned with images than with the welfare of the native minorities. It admits that Project Polonoeste will hurt the Indians and it supports a decentralization of the FUNAI while asserting that the success of a project in the Polonoeste area will depend on "exceptionally strong central management".

Several other points in the "Amerindian" section deserve special mention:

■ The World Bank evaluation supports a recent FUNAI plan to decentralise.¹⁵ In my report, I had urged that information from people who actually work with Indians should be taken into account by policy makers in Brasilia. But "the delegation of more decision-making authority to the regional and local levels" (para 4.14) would not accomplish this end. On the contrary, it would leave policy makers more susceptible to local pressures and make it possible for specific atrocities to be seen as local miscarriages of justice, rather than the consequence of national policy.

■ It is pointed out that when the corrupt Indian Protection Service was disbanded and replaced by the FUNAI, 238 former employees were dismissed and 134 were "charged formally with crimes" (para 4.06). This makes it appear that Brazil has cleaned up its act. But so far as I know, none of the people charged was ever convicted.

■ To "minimise possible conflicts" between the FUNAI and sister agencies, a FUNAI representative is to sit on their boards (para 4.08, footnote 1). The welfare of the Indians does not require that conflicts with sister agencies be minimised, however, but that the FUNAI be made more immune from their pressure. ■ The training of new Indian agents is said to have been discontinued "for lack of funds" (para 4.10). It is more likely that the programme was dropped because it was selecting for and producing a class of competent, informed, and committed Indian agents which the blasé and self-interested administrative staff found hard to deal with.¹⁶

■ Many FUNAI problems are attributed to a "chronic shortage of funds" (para 4.13). One could, no doubt, find beneficial uses for more money. But the real problem is not so much a shortage of funds as the ways in which existing funds are used.¹⁷

■ One of the FUNAI's problems is said to be a "lack of continuity in management" (para 4.15). Shortly after The World Bank expressed interest in the welfare of the Indians, a duly appointed president of the FUNAI, who was considered moderate and pro-Indian, was forced out of office and replaced with a strong-arm reactionary.¹⁸

■ It is suggested that the boundaries between the FUNAI's administrative districts should be redrawn so as to conform more closely to Brazilian political divisions (para 4.16). The needs of the Indians would be better served if they were redrawn so as to conform to the divisions between native ethnic groups.¹⁹

■ The phrase "some (tribal groups) may be related as evidenced by certain language affinities" (para 4.27) is a confusion of language and polity. To assume that Indians who speak the same language are politically affiliated is somewhat like assuming that all Spanish speakers belong to the same nation.

■ The World Bank favours the rapid "pacification" of the Uru-eu-wau-wau, an independent Indian group in Rondônia, since settlement projects are slated for areas near their lands (para 4.30). But since we do not know which lands the Uru-eu-wau-wau actually use, the settlement projects may, in fact, be *within* them, in violation of Brazilian and international law.

■ It is asserted that most of the Indians in Mato Grosso near the Cuiabá-Porto Velho road are at "relatively advanced states of acculturation," as evidenced by the fact that they "engage in mechanised agriculture" (para 4.35). I think no competent anthropologist would agree with the general conclusion, nor with the use of "mechanised agriculture" as a criterion of acculturation. Many mission villages and model Indian posts have taught an Indian to drive a tractor, and he is customarily put through his paces for visitors. This is not evidence that the Indians "engage in mechanised agriculture," however.

■ In my report, I made detailed criticisms of FUNAI plans for education, agriculture, and infrastructure. The World Bank report makes no use of my analysis, and summarises the FUNAI plans without comment (para 4.41, 4.42, 4.44).

■ I included in my report an allegation that one of the top men in the FUNAI had been positively identified



Uru Eu Wau Wau Indians. In the foreground is the wife and child of the chief who figured in Adrian Cowell's film 'Decade of Destruction'.

PHOTO: CENTRAL INDEPENDENT TV

as a former political torturer. In response, The World Bank suggests that the FUNAI needs to improve its image (para 4.46).

One cannot help but feel that The World Bank is much more concerned with images than with the welfare of the native minorities. It admits that Project Polonoeste will hurt the Indians (para xx), and it supports a decentralisation of the FUNAI while asserting that the success of a project in the Polonoeste area will depend on "exceptionally strong central management" (para 1.04). The statement that reforms in the FUNAI "would most likely need to be implemented gradually over the long-term" (para 4.46) makes it clear that it does not expect the FUNAI to clean up its act before it will fund the project.

Apart from the shortcomings of the section on "Amerindians," The World Bank's evaluation of the Polonoeste project contains serious internal contradictions;²⁰ numerous statements suggest that the data used for feasibility studies were inadequate;²¹ Brazilian agencies responsible for implementing the project are repeatedly said to be lacking in competence;²² and while it is admitted that the project will entail very serious risks, a carefully phrased paragraph makes it clear that any negative consequences are the responsibility of the Brazilian government, and not The World Bank.²³

Since the bank understands that the Polonoeste project is based on inadequate information and is to be conducted by incompetent agencies, at considerable risk to the population and the environment, one might

wonder why it would consider funding the project. A clue may be found in an introductory paragraph which points out that the expected return would aid in "improving the national balance of payments" (para 2.01).

A comparison of the official version of the document with a preliminary version prepared in December 1980 reveals several changes in figures relating to expected profits, although the reasons for these changes are not explained in the text. For example, the expected average annual growth rate for the region is raised from 12 per cent to 13 per cent (para xvii); and the total value of coffee, rice, timber, cocoa, and rubber to be produced in the region by 1989 is raised from 1.2 billion US dollars to 1.6 billion US dollars (para 7.63). The effect of these unexplained changes is to make the project seem more worth the risk.

On 3 December 1981, the World Bank announced that it had agreed to fund the Polonoeste project. A year and a half later, no rational system of reservations had yet been established, and health care was still inadequate, despite the continuing efforts of the three Indian agents.

In January 1982, Brazilian newspapers announced that the FUNAI would demarcate reservations in the area I had studied for The World Bank. Designed in accordance with my recommendations, the proposed reservations would include a part of the traditional territory of every native group in the area, but would displace very few Brazilian settlers. One of the reservations was positioned so as to protect the watershed, by preventing massive deforestation on the steep slopes where the region's streams rise. The state of Mato Grosso vigorously opposed the creation of these reservations, and the press announced that the plan had been abandoned. Under pressure from pro-Indian activists, the president of the FUNAI denied that the agency had backed off, but demarcation has yet to begin.²⁴

In order to give the Indians of the Polonoeste region better health care, the FUNAI opened a new regional office in the little town of Vilhena. Such an office had been part of the plan I evaluated for The World Bank. I suggested in my report that other measures would be more effective, and I wrote that a regional office "would create jobs and provide a market for products manufactured by Brazilian industry, (but) it is not at all clear that it would benefit the Indians." According to a letter from an acquaintance who lives in the area, "rivers of money" are being "thrown away" on a gratuitous building programme, but the employees of a clinic attached to the regional office rendered little assistance during a recent malaria epidemic. The writer asserts that they "think of nothing but their paychecks" and "don't give a damn about the Indians." At that time, the clinic housed "four nurses, a doctor, a medical technician, a cook, a chambermaid, a doorman, a chauffeur, and TWO PATIENTS!"

So long as the major objective of development projects is financial gain, little can be done to protect the environment or the people they affect. If, on the other hand, development projects were undertaken to

Thus, there is a tendency for the World Bank to become hermetic and monolithic—a law unto itself. If the rest of the world could see what goes on inside the World Bank, it might conduct its business more scrupulously.

improve people's living conditions in a sustainable manner, neither environmental degradation nor an abridgement of human rights would result.

Perhaps this suggestion is utopian. But even under present conditions, the damage caused by economic development projects could be held in check. In July 1981 The World Bank's Office of Environmental Affairs published a set of guidelines that spell out, in meticulous detail, measures that could be implemented to safeguard the rights of indigenous people.²⁵ These guidelines have now been adopted as bank policy, and this should enable staff members charged with evaluating future projects to view relevant evidence in a more enlightened way.

The World Bank might be more cautious about the consequences of its initiatives if it could be held more closely accountable. Since it is a multinational organisation funded from a variety of sources, no one country can control it. Staff members, who are drawn from an international technocratic elite and travel on United Nations passports, may feel a greater loyalty to the institution that permits them a luxurious lifestyle than to their countries of origin. Thus, there is a tendency for The World Bank to become hermetic and monolithic—a law unto itself. If the rest of the world could see what goes on inside The World Bank, it might conduct its business more scrupulously.

Finally, World Bank personnel would be better able to evaluate proposed projects if fact-finding missions were longer, less luxurious, and brought them closer to their object of study. Under current practice, staff members and consultants visit countries where projects are to be implemented for very short periods, during which they stay in the best hotels and consult with members of the local elite. If the World Bank really wants to help "the poorest of the poor", its staff members should go to where the poor people live, stay long enough to gain their confidence, and ask them what they need.

Notes

- 1 A detailed discussion of Project Polonoeste and its consequences for the native population may be found in *Cultural Survival Newsletter* 4(4): 1-6, and *In the Path of Polonoeste: Endangered Peoples of Western Brazil*, Occasional Paper No 6. Cambridge, MA: Cultural Survival, Inc. 1981.
- 2 The four anthropologists are David Maybury-Lewis, then chairman of the Department of Anthropology at Harvard University and president of the board of directors of Cultural Survival, Inc; Anthony Seeger, then professor of anthropology at the Museu Nacional, Rio de Janeiro (now at Indiana University); and Waud Kracke, professor of anthropology at the University of Illinois, Chicago Circle Campus.
- 3 I also found that I had been invited to present my evidence at a time when the chief of the Latin America and Caribbean Regional Office was away on vacation.

- 4 I learned in a telephone conversation with a World Bank staff member that nothing was being done to protect the native people from the threat of Polonoeste. I then attempted to initiate a letter-writing campaign and drew up a petition to the president of the bank that was signed by several Native Americans.
- 5 When the promised transportation failed to materialise, I persuaded a rancher to fly my travelling companion from the FUNAI and myself to the next ranch: from there we were taken to an Indian village by pick-up truck; when it got stuck in the sand, I walked through the night to get help. My companion, who was dressed inappropriately for such conditions, then returned to civilisation. Later in the day a pick-up truck caught up with me whose driver had instructions to take me wherever I wanted to go.
- 6 "The Brazilian Capability for Protecting the Native Population in the Guaporé Valley from the Effects of Project Polonoeste."
- 7 I wrote a letter to the president of The World Bank strenuously objecting to the suppression of my report. The letter was referred to the Latin America and Caribbean Regional Office.
- 8 "Protecting Indian Interests in the Guaporé Valley of Mato Grosso," drafted by D Mahar, dated 18 November 1980.
- 9 "Projeto de Apoio às Comunidades Indígenas de Área de Influência da Rodovia Cuiabá-Porto Velho."
- 10 *Brazil: Integrated Development of the Northwest Frontier*. Washington, DC: Latin America and Caribbean Regional Office, The World Bank, 1981.
- 11 Indian law (inadequately summarised in paragraphs 4.02-4.05) contains so many ambiguities and internal contradictions that it can be used to support a very broad range of pragmatic decisions.
- 12 I found that Mobile Health Teams had a propensity to vaccinate only those Indians who happened to live near the highway, and records were so poorly kept that it was often difficult to know who had been vaccinated. A published account describes pseudo-vaccinations given with ineffectual serums. (Jean Chiappino, *The Brazilian Indigenous Problem and Policy: The Aripuana Park*. AMAZIND/IWGIA Document No 19. Copenhagen: International Work Group for Indigenous Affairs, 1975).
- 13 The FUNAI had given more than 20 Negative Certificates to landowners with property in the Guaporé Valley, which is the homeland of the Nambiquara Indians. This information had been widely publicised, and the bank could not possibly be ignorant of it.
- 14 The FUNAI has found it extremely difficult to remove squatters from Indian posts in the south of Brazil. It took nine years of struggle to remove one settler from a Nambiquara reservation. The removal of settlers from the Surui reservation was agonisingly slow, despite repeated threats of violence.
- 15 Decentralisation was a major initiative of the repressive and anti-Indian directorate of the FUNAI which had recently come to power. The World Bank supports this policy in paragraphs 4.14, 4.17 and 4.46.
- 16 Adhemar Ribeiro da Silva, whom partisans of the Indian cause considered to be one of the better presidents of the FUNAI, attempted to reinstate the training programme. This supports the contention that the reasons for its discontinuance were more political than economic. I discussed this matter in the seminar I presented at The World Bank on June 11.
- 17 Money is often spent in ways that benefit members of Brazilian society more than Indians, and funding is discontinuous, so that no consistent programme (such as health care) can be maintained. These points were discussed in my report.
- 18 On November 1, 1979, Adhemar Ribeiro da Silva was forced to resign and was replaced by Colonel Joao Carlos Nobre da Veiga.
- 19 As a result of present disregard for the boundaries between ethnic groups, a Nambiquara village called Mameleto was administered from Porto Velho, rather than Cuiabá, as are the rest of the Nambiquara. The Indian agent in charge of allied villages was refused permission to care for the Mameleto. Only four years after establishing permanent contact with Brazilian society, they were nearly extinct.
- 20 "Further research (is) needed before sustained annual cropping can be recommended as an appropriate form of land use" (para. ii), but "The principal conclusion of the present report is that the Northwest has the potential to become an important agricultural and timber-producing region . . ." (para. xviii). The bank admits a "rudimentary knowledge of (the area's) soils, forests, and population" (para. 1.04), but calls it "an area with . . . considerable agricultural potential" (para. 2.10). "Because the Indian groups are thought to be aggressive, squatters have avoided entering the interdicted lands" (para. 4.31), but "squatters remain within Indian reserves. The most visible case is the Sete de Setembro reserve, where approximately 90 squatter families (who arrived after the reserve was demarcated) have been identified" (para. 4.32).
- 21 "The available statistical information on the Northwest is limited, often outdated, and of questionable quality" (para. 1.05). "The available information (on rural education) is sketchy" (para. 3.24). "The dearth of health statistics for the Northwest makes it virtually impossible to evaluate current conditions precisely" (para. 3.26). "It is . . . difficult to describe accurately the situation of the Indians in the Northwest . . . Information sources . . . disagree in their presentation of the facts" (para. 4.26). "At present, the nature and extent of the various soils occurring in the Northwest is not precisely known" (para. 7.03). "Little is known about the distribution of land tenure arrangements by type" (para. 7.25).
- 22 "INCRA (National Institute for Colonization and Agrarian Reform) has been unable to fully accommodate the huge flow of migrants entering Rondônia" (para. iv). "The National Indian Foundation (FUNAI) has . . . been unable to prevent invasions of Indian lands or to provide adequate medical care" (para. vii). Success of Polonoeste may be affected by "the weak managerial capacities of some potentially important executing agencies" (para. 1.04). "Regional health manpower and infrastructure is (sic) inadequate" (para. 3.30). "IBDF (Brazilian Institute of Forestry Development) is presently considered to be a weak institution, lacking in funds and human resources to carry out its broad responsibilities in the forest use area" (para. 5.19). "INCRA has yet to meet the minimum requirements for establishing an effective settlement system in the territory" (para. 6.14). "INCRA performance in road building has been erratic" (para. 6.22). "Extension staff often have to wait for farmers to come to them, rather than vice versa" (para. 7.41).
- 23 The prevention of serious environmental degradation "will require the development of comprehensive land-use zoning and the rigorous enforcement of environmental legislation" (para. 5.09), but "IBDF is presently considered to be a weak institution, lacking in the funds and human resources to carry out its broad responsibilities in the forest use area" (para. 5.19). "Polonoeste is directed . . . at increasing the productivity . . . of the region's . . . population" (para. viii), but "it is too early yet to know whether soil correctives can permit annual crops to be grown indefinitely on an economically viable basis" (para. 7.08). "There is a substantial risk of replicating in the Northwest the highly skewed distribution of income and wealth, chronic migration, and environmental degradation observed elsewhere in Brazil" (para. 1.02). "Failure to institute measures dealing with the regularisation of land ownership, environmental protection, Indian rights, and land-use planning could very well jeopardise the future development of the region" (para. 7.61). "The execution of this programme will entail a higher-than-normal degree of risks" (para. xix). "Perhaps the greatest risk is that the administration of Polonoeste, and those of the executing agencies, may be unable to fully control and monitor the future occupation and development of the Northwest. Thus the government (of Brazil) should be prepared to accept some of the negative effects frequently associated with accelerated development in frontier areas. Included among these negative effects are likely to be: (i) continued conflicts over land-related issues, including some invasion of Indian lands; (ii) some indiscriminate deforestation and unsound farming practices; and (iii) instances of general lawlessness" (para. xx).
- 24 See "Reserves for the Nambiquara," *Cultural Survival Quarterly* 6(1): 28-29.
- 25 *Economic Development and Tribal Peoples: Human Ecologic Considerations*. Washington, DC: The World Bank Office of Environmental Affairs, 1981.

CORRESPONDENCE WITH DR CLAUSEN PRESIDENT OF THE WORLD BANK WASHINGTON DC, USA



The leaders of a number of key environmental organisations have sent letters to Mr Clausen pointing out how terribly destructive are many of the projects that he continues to finance.

In the following pages, we are reproducing two such letters, the first on the Polonoroeste project in Brazil, the second on large-scale forestry projects in general.

We are also publishing the answer received to the former letter. As our readers will see for themselves, Mr Clausen did not regard the letter of sufficient importance to answer it himself, but delegated the task to one of his assistants.

The tone and content of the letter reflect only too tragically the total indifference of the President of the World Bank to the social and ecological disruption and the terrible human misery caused by the projects that he insists in financing.

The Polonoroeste Project

Dear Mr Clausen,

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Programme (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the programme lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Programme was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of

measures to protect the environment and Amerindian population of the Programme area, there are strong indications that the Bank has lost control over—or will not take effective measures to control—the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitants and irreplaceable biological diversity are threatened as never before.

In spite of this evidence—and in disregard of the terms of the Loan Agreement for Phase I of the Programme—the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Programme) was to help Brazil maintain development momentum in the face of the lingering

world recession, it violated basic principles of sound management by accelerating funding for a programme which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Programme account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso—and of the thousands of indigenous people and non-Indian settlers dependent on these resources—rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

- 1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon*

STOP PRESS . . . The World Bank has just announced that they are reconsidering their financial commitment to the Polonoroeste Project on environmental grounds.

to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.

2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Programme area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case—the Lourdes Reserve—armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonisation or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.
4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Programme Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads—state highways 370, 377, 383—which will criss-cross the Guapore Biological Reserve and the Rio Branco

Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.

6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organisations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the US Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with the concern of a number of US environ-

mental organisations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the US Treasury Department "to press the issue of the environment with the Bank". Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the US Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programmes such as Polonoroeste. These programmes which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Tech-

nology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonoroeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Programme
Natural Resources Defence Council
Thomas B. Stoel, Jr, Director
International Programme
Natural Resources Defence Council
Barbara Brambe, Director
International Programme
National Wildlife Federation
Jack Lorenz, Director
Izaak Walton League of America
Michael Bean, Director
Wildlife Project
Environmental Defence Fund
Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute
Fran Lipscomb, Director of
International Issues
National Audubon Society
Liz Raisbeck, Legislative Director
Friends of the Earth
Shelton Davis, Executive Director
Anthropology Resource Centre
Kenneth I. Taylor,
Executive Director
Survival International, USA
David Maybury-Lewis
Executive Director
Cultural Survival, and Professor,
Department of Anthropology,
Harvard University
Dr Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia (Brazilian
Anthropological Association)
Deputado (Deputy) List Vieira
Lider do Partido dos Trabalhadores e

Presidente da Comissao Especial de
Estudos Ecologicos a Assembleia
Legislativa do Estado do Rio de Janeiro
(Leader of the Labour Party and President
of the Special Commission on Ecological
Studies, Legislative Assembly of the State
of Rio de Janeiro)

Nancy Oestreich Lurie, President
American Anthropological Association
Helio Saboya, President,
Ordem dos Advogados do Brasil (Brazilian
Bar Association) Seccional do Rio de
Janeiro

Willi Hoss
Gaby Gottwald
Julius Kriscan
Dr Erika Hicckel
Gert Jansen
Marie-Louise Beck-Oberdorf
Antje Vollmer
Walter Schwenninger
Jurgen Reents
Roland Vogt
Hans Verheyen
(Members of the west German Bundestag)

Roque Sevilla Larrea, President
Fundacion Natura, Quito,
Ecuador

Anil Agarwal, Chairman
Environmental Liaison Centre, Nairobi,
Kenya; and Director, Centre for Science
and Environment, Delhi, India

Helena Norberg-Hodge, Co-Director,
Ladakh Ecological Development Group,
Leh, Ladakh, India

Georg Henriksen, Director
International Working Group for
Indigenous Affairs (IWGIA), Copenhagen,
Denmark

Gesellschaft fur Bedrohte Volker
Gottingen, West Germany

Ben Whittacer, Director
Minority Rights Group, London, United
Kingdom

Marcus Colchester, Survival International,
United Kingdom

Bruce Albert, Survival International, France
Beate Engelbrecht, Incom Indios, Basel,
Switzerland

Jeremy Swift, Chairman, The Anti Slavery
Society for the Protection of Human
Rights, London, United Kingdom

Henrik Persson, Chairman
Fourth World Association of Sweden,
Solna, Sweden

Flavio Lewgoy, President
Associacao Gaucha de Protecao ao
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Jose Lutzenberger, Ecologist
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Ambiente Natural (AGAPAN) (Association
for the Protection of Nature of Rio Grande
do Sul), Porto Alegre, Brazil

Julio M. G. Gaiger, President
Associacao Nacional de Apoio ao Indio
(ANAI) (National Indian Support
Association), Porto Alegre, Brazil

Ordep Serra, President
Associacio Nacional de Apoio ao Indio
(National Indian Support Association),
Bahia, Brazil

Aracy Lopes da Silva, Presidente
Comissao Pro Indio/Sao Paulo, Brazil

Magda Renner, President
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of Rio
Grande do Sul), Porto Alegre, Brazil

Monitor the Destruction? Yes. Stop it? No.

Dear Mr Rich,

I am writing to thank you for your letter and attached document to Mr Clausen, dated 12 October 1984, regarding the Northwest Region Integrated Development Programme (Polonoroeste). As you are aware, Polonoroeste is a carefully planned regional development programme, which seeks to stabilise and maximise the economic development of the region, while minimising the risks to the regional ecology and Amerindian populations. We very much share the concerns you have noted in your letter. We have discussed them in detail with the Brazilian authorities and are encouraged by those discussions to believe that effective action will be taken. We recognise, however, that close monitoring will be necessary and we will therefore continue to follow the situation very carefully. If and when appropriate, and consistent with our ongoing reviews of programme implementation, we will recommend to the Government needed modifications to the design and implementation of the programme so that its long-term objectives can be achieved.

You can be sure that the Bank is continuing to monitor the situation closely, and that your concerns will be considered as Polonoroeste continues.

With best regards,
Sincerely yours,

Roberto Gonzalez Cofino
Chief, Brazil Division of The
World Bank, Latin America and
Caribbean Regional Office.
Washington, DC.

The Destruction of Tropical Forests

Dear Mr President,

I am writing you on behalf of the Tropical Forest Working Group about the World Bank's moist tropical forest policies and programmes. You may recall that the Tropical Forest Working Group is an organisation which joins together the principal global environmental and conservation organisations and some two hundred scientists, technicians, and resource specialists of several

nationalities dedicated to the good management of the world's tropical forests. The Working Group has, among other things, worked with international financial institutions and national aid giving organisations on matters concerning the world's tropical forests. For several years we have followed with sympathy and attention the World Bank's evolving forestry policies and programmes. We are writing to you because we believe that the point has been reached where the general principles set down in the Bank's "Environmental Policies and Procedures" should be spelled out as regard exactly what the Bank will do and will not do in moist tropical forest and rain forest areas (which for the purposes of this letter we are including under the phrase moist tropical forest).

Our decision to write to you about moist tropical forests does not mean we are less interested in other aspects of management of the forests of the tropics, notably the management of tropical watersheds and, most particularly, the fuelwood problem of the dry tropics. These are most important problems towards the solution of which the World Bank has assumed quite laudable leadership. Rather we chose to address moist tropical forest problems because we believe this is an area of rural development in which the Bank has been less successful. We would cite some of the Bank's recent experiences in the Amazon Basin in this regard.

As a matter of basic principle, we believe that the land under the remaining moist tropical forest must be treated as marginal land as far as sustained agriculture is concerned. Much of the world's tropical forests underlain by good volcanic or alluvial soils were cut long ago and the land put to agricultural uses. Today, most of the land under the remaining moist tropical forests on all three continents have acid, infertile soils which have proven largely unsuitable for sustained annual cropping and often difficult for planting of perennials. Under these conditions, achievement of sustainability in large scale colonisation projects concentrating in agricultural development becomes very difficult.

With this in mind, we believe that it is very important for the

guidance of Bank officials as well as for the officials of countries seeking Bank loans for the development of moist tropical forest areas that you spell out exactly what you mean with regard to moist tropical forest areas by paragraph nine of "Environmental Policies and Procedures of the World Bank". We particularly urge you to elaborate on the meaning of subparagraph B—"(The Bank) will not finance projects that cause severe or irreversible environmental deterioration, including species loss, without mitigating measures acceptable to the Bank."

We urge the Bank to:

1. Announce that it has stopped support for cattle ranching projects which require the clearing of moist tropical forests. Cattle raising on areas of acid, infertile forest soils has proved to be practically never sustainable, even with government subsidy. Even then it provides less employment for the poorest than other land uses. If governments want to destroy tropical forests for cattle raising programmes, let them finance such projects themselves. The Bank should not do this directly or indirectly, and should so state publicly and clearly. We recognise that the Bank is doing less of this kind of lending but believe that a declaration to this effect would be valuable.
2. Announce that it will not finance road building through prime tropical forest areas, except to provide access to areas of sustainable agriculture such as perennial tree crops, and then only if there is no practical alternative. This is the principal way that large forested areas are open to destructive slash-and-burn practices. Admittedly, at times the value of a project or programme accessible only by road through moist tropical forests may be so great that the presumption against paying for or actually building roads through prime tropical forest should be overcome. But there should be a presumption against Bank support for such programmes. And if undertaken, every effort should be made to design a system which avoids or mitigates damage to the forests and then to insist that these mitigating measures be put into place at an early stage and

before further elements of the project are financed by the Bank.

3. Announce that it will not finance hydro-electric projects which flood large areas of tropical forests. The Bank should have a presumption against financing projects which will flood large areas of prime tropical forest areas for hydro-electric projects. The benefits must very strongly lie in the direction of hydro-electric development before this presumption is abandoned, and careful watershed management must accompany any such project agreed upon.

We urge the World Bank to incorporate all these points in a new statement on tropical forests which will make clear the Bank's support for the preservation of the world's great tropical forests—and the reasons for this support, its opposition to careless destruction of these forests, its support for efforts, policies and programmes dedicating a vital minimum of such areas to preservation of unique genetic resources, and its view that tropical forest areas with weak soils should only be cleared when it is clear that agricultural production is sustainable without heavy use of artificial fertilisers. We also urge you to outline other types of projects the Bank is willing to finance which will result in better management of tropical forest areas.

Mr President, we recognise that the Bank faces difficult problems in refusing loans for development in tropical forest areas. Yet every time there is a failure of a project in tropical forest areas financed by one of the international financial institutions or bilateral aid agencies, this not only damages the rapidly deteriorating tropical forest ecosystem but also results in misery for the world's poor which the Bank is dedicated to helping. We urge you to give this problem renewed and urgent attention. We stand ready to support you in these efforts.

Knowing of his interest in this subject, we are taking the liberty of sending a copy of this letter to your Senior Vice President for Operations, Ernest Stern.

Very truly yours,
Robert O. Blake, Chairman
The Tropical Forestry Working
Group, Washington D.C.



Books

Questioning Scientific Progress

THE DOUBLE-EDGED HELIX. SCIENCE AND THE REAL WORLD. Liebe F Cavalieri, Columbia University Press, New York, 1981. This book is part of the 'Convergence' series, edited by Ruth Nanda Anshen. 193 pages including index.

In the introduction to *The Double-Edged Helix*, Ruth Nanda Anshen tells us why she created the 'Convergence' series of which this title is a part. She realised how serious are the problems confronting our society today. "We are living", she writes, "in a period of extreme darkness. There is moral atrophy, destructive radiation within us, as we watch the collapse of values hitherto cherished—but now betrayed. We seem to be face to face with an apocalyptic destiny. Science now begins to question its premises and tells us not only what is, but what ought to be."

Anshen sees science and technology as being particularly implicated in the destructiveness of modern society—the division between science and ethics being clearly intolerable. Science must tell us "not only what is but what ought to be". The reductionist method is particularly at fault:

"The scientific method, the technique of analysing, explaining and classifying, has demonstrated its inherent limitations. They arise because, by its intervention, science presumes to alter and fashion the object of its investigation. In reality, method and object can no longer be separated. The outworn Cartesian, scientific world view has ceased to be scientific in the most profound sense of the word, for a common bond links us all—man, animal, plant, and galaxy—in the unitary principle of all reality. For the self

without the universe is empty."

The presumed objectivity of science which leads it to create "an unreconcilable dichotomy between the observer and the participant" is also intolerable. "For in the end we would know everything but understand nothing, not being motivated by concern for any question."

Cavalieri's book, the second in this series, very much reflects this philosophy. In its preface, Cavalieri notes the high social price that often has to be paid for scientific innovation. "We must ask ourselves whether a continuing process of scientific discoveries and technological applications is what we need for the advancement of mankind. We already have an abundance of goods (whether or not they are equitably distributed), yet evidence abounds that we are experiencing a generalised malaise throughout the industrialised nations of the world, which strongly suggests that we do not need more hardware but that we should utilise more humanely what is already at hand."

One of the problems of course is that science is the hand-maiden of government. "Science is, however, of necessity committed to its sources of support: government (including the military) and industry. They themselves are inextricably intertwined to form what some call the corporate state, the single most important determinant of modern industrialised society, characterised by a primary drive for self-perpetuation and expansion. The corporate state controls the economy, and in so doing it mandates, directly or indirectly, the direction and growth of science and technology. Economic necessity thus presses the public to accept indiscriminately the technological system as a whole, in spite of its antisocial tendencies."

As a result science has become "an affair of state, and the pursuit of science has become a political and ethically charged activity." It is for this reason that Jacob Bronowski proposed that science be 'disestablished'. This is unlikely to occur, however, since the public has been brainwashed into believing that science is benign. "Mass advertising has been used to submerge and camouflage the negative aspects of technology and create the illusion that we can have it both ways—endless benefits with negligible cost or risk. The technological dilemmas have been masked."

Cavalieri stresses this ethical

aspect of science and shows just how the principle of neutrality of science which is insisted on by most scientists—is quite untenable today. In particular, the development of recombinant DNA technology "presents scientists with a new and uniquely powerful means for altering living cells according to their design." The megalomaniac euphoria (Cavalieri doesn't use this term) of scientists involved in this field is reflected in a statement by the Nobel Laureate David Baltimore who supposedly once remarked, "We can outdo evolution". Cavalieri warns of a forthcoming backlash. "Someday, as the nuclear, ecological, and now genetic hazards and threats grow larger, this unease is likely to erupt with destructive force as a full-scale anti-scientific and anti-intellectual movement."

The Risks of Genetic Engineering

In the last decade anti-science movements have already been of concern to scientists and discussed at scientific meetings. Recombinant DNA technology can only lead to disasters. Of course scientists involved will always insist there is an infinitesimal chance that such a disaster will occur. This is the view, for instance, of Dr Holliday of the National Institute of Medical Research in London. According to his calculations, "the probability of one individual dying of cancer from recombinant DNA is one in 100 billion; the probability of a second individual dying is one in 10 trillion; and the probability of a cancer epidemic is one in 100 trillion."

Such calculations are meaningless. Incidents in other fields of high technology have occurred even though the possibility of their occurrence is considered to be minuscule. In that respect, it is worth quoting at length from Cavalieri:

"The case of the Oak Ridge Research Reactor accident is one example of how misleading probability calculations can be. In this accident there were seven sequential failures, each involving redundancy of three parallel elements, for a total of twenty-one failures, the absence of any one of which would have prevented the incident. Three of the seven were personnel failures: an experienced operator threw wrong switches in three separate rooms; another operator failed to report finding any of these errors; and so forth. The others were design or instal-

lation errors in a reactor with an outstanding performance record. The probability of the event was calculated to be 10^{-20} (that is, one in 100 billion billion). The event "was almost unbelievable," but it happened. Again, in the complex nuclear reactor accident that occurred in 1970 at Dresden II, the most generous assessment of the probabilities of the separate events could not raise the overall probability above something like 10^{-18} (one in a billion billion). Yet, here again, it happened . . ."

" . . . Dr Holliday's calculation that the probability of occurrence of a cancer epidemic is one in 100 trillion (10^{-14}) seems reassuring. He also calculated that "If 10 scientists in each of 100 laboratories carried out 100 experiments, the least serious accident would occur on the average once in a million years." This also seems reasonable in terms of acceptable risks, yet I hasten to add that the probabilities of the nuclear accidents were far, far smaller, and far more accurately determined; nevertheless, they occurred. And that is not reassuring."

Hooked to Technology: the problems of control

One of the reasons why accidents are bound to occur is that "familiarity breeds contempt from precautions." One researcher who spent 95 days in a laboratory engaged in recombinant DNA research reported all sorts of transgressions of good laboratory practice. But the major problem is that once a technology has been adopted it becomes very difficult to control for the economy becomes dependent on it. Today, it would be difficult, for instance, to get rid of the motor car or even to abolish the use of nitrogen fertiliser or synthetic organic pesticides. To do so would mean transforming our lifestyles and completely reorganising our society. We can no longer examine critically the technology on which we have become dependent; it is taken for granted, and we seek to rationalise its continued use no matter how strong the evidence as to its undesirability. "Herein," Cavalieri writes, "lies the most serious danger of recombinant DNA technology. Eventualities that seem too outrageous at the moment even to warrant discussion are liable to become accepted, as necessary evils, after the new technique has become an integral part of the system and thus an economic necessity. This

danger cannot be avoided unless we are willing to recognise the fundamental syndrome and anticipate, as best we can, the potential hazards and abuses of recombinant DNA. Only then can we hope to prevent this powerful new discovery from slipping out of our control."

The Road to Disaster

Cavalieri is concerned too with the minute fraction of the total budget for recombinant DNA research that has been devoted to an assessment of hazards and the development of safer procedures. "The implicit assumption has always been that recombinant DNA technology will proceed, using what ever methods are available, regardless of the outcome of any risk-assessment experiments."

He also describes the way in which the recombinant DNA lobby within the scientific community has been able to water down—and finally kill—any legislation proposed to control its activities. In the long run, says Cavalieri, this lobby will have the effect of discrediting the scientific community. The lobby has pleaded 'freedom of inquiry' but what is really at stake is "the freedom-of-technology."

Already all sorts of projects are underway and many of them could lead to disasters. The point is well made by Cavalieri:

"Let us consider one imminent application of genetic engineering. There is a strong impetus to design a bacterium capable of consuming oil inadvertently spilled by faulty oil tankers on the oceans of the world; on the bacterium under way at General Electric. When an appropriate organism has been developed and high oil interests are clamoring for it, who will decide whether it is safe to pour carloads of these bacteria into the oceans? Is there sufficient knowledge to be able to predict all the consequences? Will the oil companies or General Electric be strongly motivated to preserve the ecology of the oceans, which belong to all of us?"

"When released, the oil-eating bacteria will no doubt perform their task as designed, with great success. Any incentive to take precautions against oil spills will decline. Meanwhile, the release of vast quantities of one organism, and its petroleum and other breakdown products, will constitute an assault on ocean ecology. One need not know details about specific chemicals; the sheer mass

of, material, repeatedly applied, will be enough to disturb the equilibrium of aquatic life. The oil pollution problem will not be eliminated; it will simply be transmitted into another kind of pollution, the consequences of which cannot be fully tested in advance because we do not know enough about the complex inter-relationships of life in the ocean to set up an adequate test system. But the unique aspect of the problem is this: if the newly-designed bacteria should find an unforeseen ecological niche, there could be long-range and almost certainly irreversible consequences, which might not become evident immediately. Thus the success of the oil-eating enterprise is inseparable from a number of monumental risks. In fact this is a fundamental characteristic of many modern technologies: their very success spawns new problems—the hazards of success. While this and other revolutionary new projects are gestating, we should be preparing a mechanism for independent review and assessment of proposed applications of recombinant DNA technology, particularly with respect to their future impact on human beings and their environment."

Accommodating Destruction

Cavalieri knows, however, that these arguments will not prevail. "Even if it could be proved in advance that the use of oil-eating or drug producing bacteria would have catastrophic consequences, this would very likely not prevent them from becoming a commercial reality—as long as the disaster was not expected to be instantaneous and massive." Most depressing is the fact that dangerous high technology is largely required to provide technological fixes to the problems created by the irresponsible use of other technologies which we are unwilling to forego:

"Thus we try to find a technique for curing lung cancer while we continue to manufacture and advertise cigarettes, and we develop oil-eating bacteria to clean up oil spills instead of redesigning oil tankers or re-examining our energy-intensive and wasteful economy or making a serious effort to shift to renewable and ubiquitous energy sources. Many of the benefits expected from recombinant DNA technology are similar to this. Technological fixes have become

such a familiar class of activities, such an integral part of everyday life, that they are hard to distinguish from solutions to problems arising from real human needs. The cancer problem is a stark case in point. The 1.2 billion dollars spent on cancer research in 1977 represents in large part a search for some means to patch up the damage caused by environmental factors, including industrial carcinogens and agents such as food additives. Members of Congress and the National Institute of Health feel justified in this approach; they think they are giving the taxpayer his due. The real solution—to eliminate or reduce environmental factors that cause cancer—is largely neglected. A leading cancer expert, Sir Richard Doll, has said that “most if not all cancers have environmental causes and can in principle be prevented.” But it seems to be taboo even to think about such a rational approach, because it implies an attack on our way of life. Because of the insidious assumption that environmentally caused cancer is an immutable fact of life, the search for a cancer cure is not recognised by most people as a technological fix but as a humanistic activity.”

Cavalieri considers that if the lack of responsibility shown by the chemical industry in other fields is anything to go by then the outlook is indeed grim. He provides a number of very convincing illustrations, especially in the field of pesticides. In one chapter, he describes in detail the way the recombinant DNA lobby actually succeeded in eroding proposed controls on its activities.

“The Guidelines now exist in name only. It is an open secret that the demise of the Guidelines was engineered by several influential members of the Recombinant DNA Advisory Committee, in spite of the new experimental evidence showing that several types of risk are considerably greater than had been supposed when the Guidelines were first drawn up. For example it has been shown that bacteria containing recombinant DNA remain alive in humans 500 times longer than had previously been estimated, and that a recombinant containing cancer virus DNA can produce tumors in mice. The British journal *Nature* published a commentary on the serious implications of these

experiments, which should have lead to an intensification of risk-assessment studies rather than a weakening of the Guidelines.”

DNA and Eugenics

Another worrying aspect of recombinant DNA is its potential in the field of eugenics. Its use for what may be apparently beneficial genetic procedures, as Cavalieri points out, “creates an atmosphere in which genetic procedures in general become an accepted solution to many sorts of problems”—problems which are basically social and political. To deal with them at a genetic level enables us to *accommodate* the social and political trends that give rise to the problems—but not to overcome them. Cavalieri provides an interesting case in point:

“In the United States over the last few years, approximately one million school children per year have been given drugs, usually amphetamines, by the school systems, in order to curb what is deemed disruptive behaviour in the classroom. It is claimed that these children are all suffering from a medical syndrome, minimal brain dysfunction, which has no basis in fact—no organic correlate. Now clearly there are some cases of children with organic problems where this treatment may well be important. But in the overwhelming majority of cases the problems are a reflection of the current state of our crowded schools, overburdened teachers and families, and other social problems rather than something wrong with the kids. Imagine, as biochemical psychiatry is providing more and more information on the biochemical basis of mental states, the construction of a gene that will help to produce a substance in human cells which will change the mental state of individuals. Then, instead of feeding the kids a drug every day, we just do some genetic surgery and it's over.”

Worse still is the use of recombinant DNA procedures for breeding people who can tolerate specific pollutants. This means seeking to accommodate industrial pollution rather than suppress it. It is apparently already argued in the scientific literature and elsewhere “that occupational diseases, caused by pollutants in the workplace can be ascribed not to the pollutants themselves, but to the fact that some individuals are genetically more

susceptible to the pollutants than other individuals.” It is then argued that the solution to the problem lies not in getting rid of the pollutants but, rather, in “simply not hiring those individuals who are thought to carry genetic susceptibility.” Already, a Dow Chemical plant in Texas has begun a large-scale genetic screening programme of its workers, whilst women of child-bearing age are required to be sterilised if they wish to be employed in General Motors plants. “It is a genetic cop-out to allow industries to blame the disease on the genetically different individual rather than on their massive pollution of the workplace and the atmosphere,” comments Cavalieri. “This is the epitome of ‘blaming the victim.’”

Apparently in the petro-chemical industry, genetic screening is on the increase and likely to become a standard means of detecting “defective genes in workers who are then labelled hypersusceptible.” It is this hyper susceptibility which is then blamed for diseases generated by the pollutants they are exposed to in the workplace. Presumably it will be practiced to employ only those who “have less defective genes”, which confer on them some sort of immunity to the pollutants in question.

Human ‘in vitro’ fertilisation, which produced the test tube baby in Britain, seems to be the first step in the direction of developing genetic engineering procedures which will permit the breeding of workmen with genetic resistance to industrial pollutants. “Who knows what new and useful human characteristics could be developed by research in this area?” asks Cavalieri. Perhaps that is a question it would be better not to ask.

Edward Goldsmith

Defending the World against the Nukes

SIZEWELL REPORT. Martin Ince. Pluto 1984. £3.95.

THE PLUTONIUM BUSINESS. Walter Patterson. Wildwood House, 1984. £11.50

With so much written on nuclear power I still find it amazing that a market apparently exists for more of such works—at least for public consumption. Having, like Ince and Patterson, traipsed off into the Suffolk countryside to attend the Sizewell B PWR Public Inquiry both as observer and witness I can report that in general the members of the public who attend the inquiry are so few as to be counted on the fingers of one hand.

Does that mean that the public's interest in nuclear power and the Sizewell issue is non-existent? In reality I can hardly believe that to be true; indeed many in Britain object to nuclear power generated by whatever species of reactor, as can be gleaned from various surveys and polls that have been carried out over the past few years. Even before the two-year long inquiry began, a door to door survey in the Leiston-cum Sizewell area, and hence among those most directly affected by the Sizewell B PWR project, indicated a vast majority opposed to any such development. Unfortunately the reams of evidence and transcripts emanating daily from the Sizewell Inquiry are virtually unintelligible to anyone but those who have made some aspect of the debate—whether economics, need, safety, health hazards, waste disposal, plutonium proliferation—their own particular area of study.

That is where Ince's book comes in. His purpose is to encapsulate the essence of the debate over Sizewell B into a manageable book, so that those who care to be informed can be so without tears. The question then is, does the book succeed? As Ince makes clear on many occasions when he refers to his own interventions in the debate, as a witness for the Town and Country Planning Association (TCPA), he is an objector to the proposal to build a PWR at Sizewell. He apparently objects less to a gas-cooled reactor, an AGR for instance, or to a heavy water reactor such as the CANDU reactor preferred by the Canadians, but in the main he remains opposed to nuclear power. Given his commitment, one could hardly expect Ince to have written a review of the inquiry that would have been favourable to the CEGB's case. Yet from my own experience of the inquiry, I would claim that Ince has been fair in presenting the objectors' arguments as standing up remarkably well in the face of ruthless cross-examination by some of Britain's top QCs, both in terms of ability and salary. My reservation about the book lies in Ince, perhaps because of his own involvement, having tended to concentrate on certain of the objectors' evidence, namely that of the TCPA, while wholly ignoring or dealing only cursorily with that of other groups who put in as much effort and time. As a consequence the book totally misses out a vital part of the debate on low dose radiation and the terribly important issue as to whether the leukemia clusters now coming to light around various nuclear installations are a consequence of radiation effects or are just part of some irritating statistical coincidence.

My other main problem with the book is its denseness; it requires a lot

of concentration to read through the economic section and retain a clear idea as to what the debate is about. I personally would have preferred a clear, concise laying out of the CEGB's economic and need case for Sizewell, as well as for a programme of PWRs, before interjecting various of the objectors' arguments. For instance, the essence of the CEGB economic case lay in the net effective cost of introducing new stations into the generating system, and the savings that would supposedly accrue from displacing one kind of fuel-burning power station, whether uranium- or fossil-fuel burning, with another. Presented in that way, it can be made clear as Professor Jeffery did, and he barely gets a mention, that the extent of the putative savings brought about through introducing the PWR depend critically on the cost of coal and oil during the early years of the PWR's expected lifetime. In effect, the CEGB has organised its evidence on future price increases in fossil fuels so that the heaviest and swiftest rises in price coincide with those early years—and that in the face of present understandings with the National Coal Board that, inflation adjusted, the price of NCB coal actually remains steady. The TCPA evidence on fossil fuel prices, that put so well by Professors Odell and Prior for instance, then follows on, adding sound fact to Jeffery's theoretical analysis.

On the other hand, Ince starts off his book well, the first three chapters, giving a sound introduction to the political background underlying the inquiry. It is perhaps inevitable too that the book should end a little abruptly insofar as it has been published well before the end of the inquiry, but it may be that Ince has a follow-up book in mind in which he tries to predict the outcome of the inquiry or at least give some idea as to which side really won the debate. If he doesn't write it, then somebody else should.

Walt Patterson's book is written with his usual competence, but in fairness to Ince, *The Plutonium Business* was probably a much easier book to put together, the issue being basically a single one and furthermore one that because of the weapon's connection is likely to arouse greater interest. In my mind the most important message coming out of Patterson's book is that reprocessing spent reactor fuel can have little commercial justification, and that the real justification lies in the business of weapon making. Indeed, Britain's magnox reactors were devised as dual purpose machines that would generate both plutonium and electricity, the electricity being used as a means to offset the costs of plutonium production. Critics of the French Super Phoenix fast reactor also point out

that a main reason for French commitment to the fast reactor lies in the production of excellent quality weapons-grade plutonium in the blanket region surrounding the reactor core.

In essence *The Plutonium Business* is a world history of that part of the nuclear fuel cycle which leads to the separation of plutonium from the spent fuel. Once it had been realised during World War 2 that plutonium made excellent fissile material and that the easiest and cheapest way to produce it was in a reactor, its future was determined. In fact the countries that first made and tested plutonium bombs, namely the USA, the USSR, Britain and France, were in something of a bind. Either they had to admit that plutonium served little purpose other than to provide explosive material for bombs, and hence to hope fruitlessly that other countries would not tumble to their secrets, or they had somehow to persuade the rest of the world that proliferation was a bad thing—better to leave weapon making among those who had responsibly started it—and that the alternative was to turn swords into ploughshares and plutonium into power.

Sure enough, with plenty of government prompting, the civilian use of nuclear power came into being from the early 1950s on. But countries such as Brazil, Argentina, Japan, South Africa, Pakistan, India, to name a few, all appeared keen to lay their hands on the entire fuel cycle technology, including uranium enrichment and reprocessing spent fuel, and suspicions could not help but be aroused that they had other, less civilian-minded uses of atomic energy in mind. India's plutonium device, exploded in 1974, was a salutary reminder that non-proliferation could not be expected to last whilst the nuclear arms race continued. Not that India described its plutonium device as a weapon—just an explosion for peaceful purposes.

As Patterson points out "The plutonium business is not a business. It is an obsession—perhaps the most dangerous obsession to which anyone has ever succumbed." He then adds, backed by substantial evidence, that despite the dangers and crippling economic losses—all swept under the carpet by adulating governments—the plutonium people are determined to get the world caught up in a plutonium economy, with batteries of fast reactors and their satellite reprocessing plants. With hundreds of tons of plutonium circulating through the system, the chances for theft, sabotage, and holding entire populations to ransom, will become legion. There is a madness there, but like the arms race, perpetuated by very sane, rational men. Patterson

never overstates the case, the facts speak for themselves. If we leave the plutonium people to their devices, it may well be a case of "stop the world, I wanna get off".

Peter Bunyard

The inevitability of Nuclear Accidents

CATASTROPHIC NUCLEAR ACCIDENT HAZARDS—A Warning for Europe. Report by Richard E. Webb. August 1984. Unpublished manuscript in search of a publisher.

Should a nuclear reactor burst apart and breach the containment then the effects of the fall-out could be devastating; far more so than that resulting from the fall-out of an atomic bomb. But what are the chances of such an event happening? Dr Webb is a nuclear reactor physicist who has spent the last few years as a member of a West German study group at the Max Planck Institute, looking at the safety of West Germany's SNR-300 fast reactor. He is convinced that government agencies such as the US National Regulatory Commission have missed out on all the potential causes of major accidents within reactors, and that the probabilities of a serious accident occurring and breaching the containment are considerably higher than accepted by the nuclear industry and its governmental watchdogs. Since hundreds of thousands of square miles of land could be at risk, then not even one major such accident could be tolerated. The risk is therefore not one that should even be contemplated, and to continue with nuclear power under such circumstances, is nothing short of folly.

"According to my research, analyses and calculations," says Webb, "severe reactor eruptions and explosions are potentially possible which could result in the release of absolutely enormous quantities of radioactive materials into the atmosphere in the form of smoke . . . For example, assuming a credible 75 per cent release of the radiation from one pressurised water reactor eruption, a land area of about 250,000 square kilometres—the size of West Germany—could have to be evacuated and abandoned for over 30 years, with serious living restrictions for 30 years over an additional 250,000 square kilometres . . .

"In the case of the plutonium-fuelled fast breeder reactor, such as the SNR-300 reactor nearing completion at Kalkar, West Germany, and the Super-Phoenix reactor in France, nuclear explosion accidents are potentially possible which could vapourise and release into the atmosphere virtually all of the radioactive materials in the reactor core, including tons of plutonium . . . A

nuclear eruption of the SNR-300 reactor potentially could force evacuation and abandonment of as much as 400,000 square kilometres of land just to plutonium fallout alone."

Much of Webb's report is given to describing the various ways in which loss of coolant accidents in light water reactors could unleash a concatenation of events—despite built-in safety devices—that would have the potential, in his own words, "to blow off the containment dome, which weighs about 3,000 tonnes, and propel it upwards to a height of 170 metres." Such an explosion could be brought about through the build-up of hydrogen from the interaction between the zirconium-alloy lining of over-heated fuel and steam. It should be remembered too that the TMI accident involved hydrogen release and an explosion, but insufficient to cause more than a heavy thump.

Webb believes that the nuclear industry is caught in a classic Catch-22 situation. In order to prove that its predictions were right concerning the consequences of major accidents to reactors, it would have to perform scaled-up meltdown experiments; yet the risks of carrying out such experiments would be unacceptable. No other major engineering system has remained so untested when it comes to determining ultimate safety. In fact, the only small-scale test conducted in 1954, in which molten fuel produced by a nuclear excursion reacted with water, resulted in an unexpectedly large explosion, steam mixed with nuclear material being flung high into the air. That experiment, never repeated on that scale, was called BORAX.

How much land would be considered uninhabitable, or unfarmable would clearly depend on what exposure to radiation would be acceptable. Webb gives good reasons why he selects 10 rems over 30 years; that level being about double background. When it comes to the potential to contaminate the countryside, nothing short of nuclear war, compares in Webb's opinion with the fast reactor. It is his opinion too, that certain mechanisms, such as neutron-streaming cut-off, have not been taken properly into account, by those in the business of predicting what safety precautions are necessary to meet the worst possible accident.

One scenario described in detail by Webb involves fuel melting and interaction of the molten fuel with sodium vapour to produce an explosion which compacts the fuel so that it itself undergoes an explosive nuclear excursion. The explosion would be sufficient to breach the containment completely with a release of much of the plutonium—there being some 5 tonnes in the core of a 1300 MW fast reactor such as Super Phoenix. Webb

estimates that the explosive force could be sufficiently great so as to propel the reactor vessel closure plug to a height of about two kilometres. That force would clearly be sufficient to breach any containment.

In his conclusion Webb stresses the importance of 'upper-bounding analyses', and suggests that once some sort of consensus is reached as to the 'fullness, accuracy and reasonableness of the analysis' then at least the public would know what it might be in for if it continues with nuclear power. The public may well prefer alternatives. Webb's report seems to me to be extremely important, and one I rather wish the inspector and his advisers, at the Sizewell Public Inquiry, would have had the chance to see.

Peter Bunyard

The atomic "brotherhood"

NUCLEAR INC. Mark Hertsgaard. Pantheon Books, New York. £14.05.

To the English reader, the most interesting insights of this book are perhaps those imparted unconsciously. Hertsgaard's portrait of the American nuclear commercial, industrial, governmental complex—the 'Atomic brotherhood'—is a portrait of the essence of American industrial society. In tracing the development of Nuclear Inc, he traces the changes in the US industrial structure that it typifies, the change from competitive to monopoly capitalism.

The history chapters are good, exclusively American. The military and naval beginnings of Westinghouse's and General Electric's interest, the rush to build Shippingport for prestige reasons, a PWR because it was immediately available (there are some parallels with the UK), the 'glory years' of the '60s and early '70s, the desperate competition that led to the turnkey contracts and the shambles over the Westinghouse uranium. Hertsgaard's approach to Carter's non-proliferation policy is to show that its roots lay in his concern to preserve US international military authority—not an altruistic interpretation. This was in direct conflict with the export interests of the nuclear industry: because of the author's access to first-hand accounts of meetings at the highest level, the frustrations and misunderstandings of those years are convincingly told.

The book's strength is in this access to the leaders of the industry, and their story is touching and disturbing in its simple convictions. "In the minds of nuclear executives, what is at stake in the struggle over nuclear power is not just the profitability of their own corporations, but the future of American capitalism, technological society and

indeed Western civilisation." The industry refused to acknowledge TMI as a serious setback, it continues to be subsidised from corporate profits (GE sells 600 million dollars worth of nuclear goods and services each year, which is two per cent of its business). At root it is driven by messianic faith, fundamentalist and simplistic in the American tradition. In no other way, than by nuclear power, can America obtain or retain an adequate degree of fuel invulnerability, in no other way can economic growth continue.

Faith in the continuance of economic growth is at the heart of American industrial society: nuclear power is the essence of that faith because it claims to be able to enable that growth. The nuclear industry is therefore not capable of recognising changes in the faith of society, or of understanding criticisms of it. By its nature, it must be conservative. 'Nuclear Inc' deals with the industry as it is, spends little time on how it might be, even less on how it should be. The book's contribution is to clearly and dispassionately identify the values, preconceptions and aspirations which underpin the Atomic Brotherhood, and the considerable extent to which they are shared by American society as a whole. It is a very American book, written in the tradition of liberalism that we sometimes forget exists.

John Valentine

Green Politics

SEEING GREEN: THE POLITICS OF ECOLOGY EXPLAINED By Jonathon Porritt, Oxford: Basil Blackwell, 1984, 249 pages. £3.95

"I must ask why, oh why are you out there directly underwriting or indirectly condoning the perpetuation of soul-destroying, life-destroying industrialism?" This is the challenge of Jonathon Porritt, leading spokesman for the Ecology Party and recently named Director of Friends of the Earth in Britain. He sees his audience as "primarily those already working in politics or in the environmental movement", but it is really those interested in combining the two that he is most concerned with. What does it mean when ecology becomes politics? And what is the role of the Ecology Party in our current system? And why should ecology become a concern for all of us?

This last question is one that will be quite familiar to readers of this magazine. Porritt's review of the reasons is adequate, ripe with familiar quotations that have become slogans of the environmental movement. Our present system is symbolised by the cold words of J M

Keynes: "For at least a hundred years we must pretend that fair is foul and foul is fair, for foul is useful and fair is not." The foolhardiness of this is in turn exemplified in Nicholas Humphrey's parable of Ajax the tortoise, who sought refuge in a warm, ever growing pile of wood, only to be burned to a crisp on Guy Fawkes day. We hear again the ever-appropriate words of Chief Seattle: "What befalls the Earth befalls the children of the Earth," and the Earth-as-organism scientific conformation provided by Jim Lovelock's Gaia hypothesis. The book is a pastiche of brief bits of eco-wisdom, and if it is not common ground already, Porritt provides a list of essential reading to get newcomers onto the path toward greenhood.

As such an overview volume it is a good beginning, if a bit haphazard, but it is on the specifically political issues that the book stands out. No one has described the role of ecology in the sphere of conventional politics as simply or as clearly before. First, Porritt contradicts the common sentiment that eco-activists are uninterested in the alteration of power structures. "As far as the Ecology Party is concerned, that's just humbug." The business of the party is the usurpation of power from those "who hang on to that power only through the ruthless exploitation of people and planet." Such a goal is seen as being beyond both class and polarised party distinctions, and should be made the practical concern of every human being. Compared to conventional parties, the most radical assumption of the Ecology Party may be that the survival of the party itself is not a prime consideration: "It's obvious to us that within the next generation all politicians and all parties will have to become more or less ecological in their outlook . . . The Ecology Party in its present form should only have a limited lifespan." (Porritt). What better application of ecological values of change directed towards stability than this? Thus the party at present serves mainly as a pressure group, a means of spreading the message, taking advantage of the massive media coverage of elections rather than the hope of winning many votes. The party offers no encompassing ideology, but rather a direction in which to proceed. The apparent idealism of a maxim like "only connect" is not meant to be read as an answer, but merely a place to begin, a way of thinking that will lead to practical redirection of our society.

Still the book is a bit short on these practical suggestions and heavy on theory, a theory that is not without its inner contradictions. Part of the problem is the rigid dividing of viewpoints between "Politics of Industrialism" and "Politics of Ecology". Industrialism is said to be

"deterministic", ecology "flexible", but clearly there is a certain amount of determinism in this wisdom of the Earth. We are free to do as we please only if it is conducive to ecological harmony. And the new society is meant to be one that is "cooperatively based, communitarian", yet founded on "inner-directed motivation and personal growth". The notion of individualism within the ecological society emerges as a paradox which is never quite resolved by Porritt. "Each of us should find our own way of living and seeing green". By trying to appeal to everyone, Porritt sounds a bit like—dare I say it?—a politician. Who can be sure our own ways will be conducive to cooperation if our motivation is entirely inwardly directed? He quotes Theodore Roszak who suggests that "the needs of the planet and the needs of the person have become one". What does that mean exactly?

If we are to take the words "man and nature are one" as anything other than idle novelty, we must realise that "diversity" in nature does not often imply diversity in the habits and way of life of a single species. Can we be as individualistic as we would like and still be totally within nature? Perhaps.

Maybe this is why the World Conservation Strategy decided to postulate that man "is both apart from nature and a part of nature". Given the present state of world affairs as a guide, this is indeed true. This "sitting the fence on a crucial issue" as Porritt calls it may very well be an easy way out of having to make changes, but it may also be the result of thinking realistically. By his very goal of broadest appeal, Porritt will be quickly accused of sitting the fence between left and right, standing on the ladder between upper and lower. For green politics to prove to the world that it truly stands "in front of", not "above" politics, it must turn its attention to more practical and immediate matters as well as long-term ideals. This remains a step to be taken. This book is a fine beginning, for those who want an introduction to the movement or those who need a quick summary of the situation. It is interesting to note that Jonathon Porritt first became concerned with ecology when he read an article on education in a 1975 issue of *The Ecologist*. We are proud to count such an active and articulate individual among our readers.

David Rothenberg

**We need an ecological
metaphysics**

ENVIRONMENTAL PHILOSOPHY.
Edited by Robert Elliot and Arran
Gare, Open University Press, 1983.
£8.85.

This book brings together twelve essays written by philosophers from Australia, N. America and the United Kingdom. The essays represent a diversity of viewpoints, from Robin Attfield's cautious apologia of orthodoxy and defence of Western philosophical and religious traditions to J. Baird Callicott's dismissal of the latter and his somewhat wild advocacy of the animist view of nature adhered to by the American Indians. The twelve essays are grouped together under three main headings—practical suggestions for environmental policy, contributions to environmental ethics, and discussions of what changes are necessary in our attitudes to the natural environment.

One encouraging thing about the book is that it clearly shows how far environmental philosophy has come in the last decade—since 1974, when John Passmore's *Man's Responsibility for Nature* opened up the question of our relationship to nature as a serious area of philosophical concern. It is gratifying to see that Passmore's intellectual and political conservatism is echoed by none of the contributors, and is more than once subjected to detailed criticism. And yet, at the same time, there is no really cogent radicalism to be found in *Environmental Philosophy*. Almost all the contributors display an implicit deference towards many of the metaphysical assumptions that underpin mainstream philosophising. The otherwise excellent essay by Rolston, for example, on the objectivity of values in nature, loses much of its force through his trusting acceptance of the Popperian faith in the inevitability of scientific progress towards objective truth. Again, the sensitive and persuasive paper by Mary Anne Warren on 'The Rights of the Non-human World' is weakened by her non-critical adherence to the doctrine of ethical hedonism.

Of the two attempts to outline a radical metaphysical basis for a new environmental ethic, Callicott's spirited advocacy of animism fails to make the required transition from anthropology to a defensible and philosophically coherent thesis; while Stephen Clark's essay on 'Gaia and the Forms of Life' is a badly argued, unexceptional piece, remarkable only for its extremist statement of a quasi-panteistic eco-mysticism.

If environmental philosophy is to have the requisite impact, it must undertake the task of metaphysical reconstruction. In this book we see on the one hand some able thinkers who are tackling important questions but lack the boldness of thought these questions call for, and on the other hand thinkers who are bold to the point of recklessness and thus condemn themselves not to be taken seriously. The undoubted virtue of *Environmental Philosophy* is that it gives the reader a good idea of the current state of this new branch of philosophy, but the impression one has is of a discipline that hasn't yet found its feet. What do the environmental philosophers think they are doing? One answer—which inspires me with hope for the future of environmental philosophy—is indicated in the final essay by Richard Routley, on the 'Roles and Limits of Paradigms'. For him the task of environmental philosophy is to explain the old and to articulate and elaborate the new paradigms upon which our thought and action in relation to nature are modelled. In taking on this task, environmental philosophers would have to become metaphysicians first and foremost: only then will they become a force to be reckoned with.

Jeremy Naydler.

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DIARY DATES

MAN'S ROLE IN CHANGING THE GLOBAL ENVIRONMENT. International Conference, University of Venice, Fondazione Cini 21-26 October 1985. Details from Università Degli Studi Di Venezia, Ufficio Culturale, Dorsoduro 3246, 1-30123 Venezia, Italy.

The BRIGHTON MIND, BODY, SPIRIT FESTIVAL, Brighton Metropole, 25-27 May 1985. Details from New Life Designs Ltd, 159 George St, London W1H 5LB (Tel: 01-723 7256)

UNIQUE FARMING AND WILDLIFE EXPERIENCE. Stay on a farm and help with the milking etc. Open to anyone over the age of 18. Dates: 22-25 July at Cheshire College of Agriculture, Reaseheath, Nantwich, Cheshire.

RSPCA Mallydams Wood Field Study Centre and Wildlife Sanctuary will hold an **OPEN DAY** on 1 September. Further information from Nigel Ford, BA, Peter James Lane, Fairlight, Hastings, Sussex.

International Conference on **THE NATURE AND TEACHING** of Environmental Studies

and Science in Higher Education. The third in a series of international conferences on Environmental Education September 9-12, 1985. Details from Conference Secretary c/o Dept of Geography and History, Sunderland Polytechnic, Forster Building, Chester Road, Sunderland, Tyne and Wear, UK.

FOR SALE

KILKHAMPTON, CORNWALL. Retreat from the world to our cottage set in a sunny two acre glade at the end of a grassy track. Outbuildings, well water (unpolluted). Would convert to one dwellinghouse, providing complete privacy and opportunity for partial self-sufficiency. Inspection welcomed. All reasonable offers considered. Contact Mrs E. Masterman, Thuborough House, Sutcombe, Holsworthy, N. Devon (tel: 040 926 235), U.K.

HOLIDAYS AND COURSES

SOUTH FRANCE CAMPING, Cycling, Swimming, Lazing, Alternative Communities, Mediaeval Towns, Vegetarian Food, £197 inclusive. SAE Lavender Cottage, 2 Mersea Road, Peldon, Essex CO5 7QE.

CENTRE FOR ALTERNATIVE TECHNOLOGY, short residential courses through April and May on topics such as Windpower, Self-Build, Healing Herbs, Organic Gardening. For more details, also our Summer Courses, send an SAE to Lesley Bradnam, CAT, Machynlleth, Powys, Wales. Tel: 0654 2400.

Mountain Ventures Alpine ALPINE ACTIVITY HOLIDAYS 1985

For Summer Walking, Adventure & Mountaineering Holidays based in Chamonix and Zermatt or for details of our High Level Alpine Trekking including the famous Haute Route, write or phone for our brochure:

MOUNTAIN VENTURES LTD (E)
Brecon House, Greenhill Road,
Liverpool L18 7HQ
tel: 051-724 2732



A STUDY TOUR IN RURAL DEVELOPMENT. Students are invited to one week courses in July and September in the Reading/Oxford area to find answers to the question "Is famine relief enough?" Organised by Oxfam, Christian Aid and United Nations Association supporters. Details from D S Stafford, MA, 10, Highfield Close, Wokingham, Berks RG11 1DG. UK.

CONSERVATION WORKING HOLIDAYS at the Foothills of the Pyrenees. Summer: July and August. A project to create a Permaculture Hamlet—Farm and Training Centre. We can only offer you the site for camping (secluded in the forest, access by dirt roads) while participating in this ecological venture. Please write (SAE) to: Ass. Las Encantadas, Ferme La Garrigue, 11300 Festes jt Andre, France.

Third International Course on **ENVIRONMENTAL TOXICOLOGY AND ECO-TOXICOLOGY,** sponsored by The World Health Organisation and the International Programme for Chemical Safety. A residential course at Heriot-Watt University, Riccarton Campus, Edinburgh from 6-13 September 1985. Further details from Jim Neil, Unilink, Heriot-Watt University, Riccarton, Edinburgh, UK. EH14 4AS (031-449 5111, Ext 2330)

CALL FOR PAPERS

The 7th **WORLD CLEAN AIR CONGRESS,** Sydney, Australia 25-29 August 1986 invites individuals to submit abstracts in French or English, 200 words, by May 1985 to: The Secretary General, National Society for Clean Air, 136 North Street, Brighton BN1 1RG.

SITUATION VACANT

VOLUNTEER wanted as Gardener/ Horticulturalist for Ashram Acres Unlimited as member of a team. Interested? Please write to Ms Ute Jaeckel, Sparkbrook Ashram Community Service Project, 23, 25, Grantham Road, Sparbrook, B11 1LU, UK.

CLASSIFIED ADVERTISEMENTS MUST BE PREPAID

To: The Ecologist Advertisement Dept., Worthvale Manor Farm, Camelford, Cornwall PL32 9TT.
Please insert the following advertisement in the next issues.
Cheque/P.O. to *The Ecologist* enclosed.
(Word rate 15p per word. Minimum charge £3.00. Box No. £1.00)

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.....

Name: (Block letters please)

Address:

Date: Signed:

The environment isn't committing suicide, it's being murdered.

There's a lot of talk about saving nature.
Greenpeace does something about it.

Action by Greenpeace has led to a ban on
commercial whaling, effective 1986.

Action by Greenpeace has curbed the
brutal slaughter of seal pups.

Action by Greenpeace has thwarted the
dumping of radioactive waste at sea.

Action is needed now to stop millions of
gallons of toxic liquids from poisoning the seas.

To stop the slide towards environmental
genocide.

Greenpeace offers effective campaigning
against these threats to us all.

By initiatives that make sense. Through
peaceful but uncompromising direct action.

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the guts to stand up and be counted.

Join us. The returns are worth it.

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Send your donation and see for member-
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Street, London N1 8LL.

The logo consists of the word "GREENPEACE" in a bold, stylized, blocky font. The letters are white with a thick black outline, set against a dark rectangular background.

Typewritten
Character
Must Fall
Completely in
Box!

PAGE

OF

OFFICIAL DEPT/DIV
ABBREVIATION

MESSAGE NUMBER

TEST NUMBER
(FOR CASHIER'S USE ONLY)

1 1 OF 1

EXC

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START
HERE

MR. CARLOS LANGONI, CONFEDERACAO NACIONAL DO COMERCIO, RIO DE
JANEIRO, RJ, BRAZIL
REYURTEL REGARDING POSSIBLE MEETING ON NOVEMBER 6. REGRETTABLY
MY SCHEDULE FOR THE FIRST HALF OF NOVEMBER IS HOPELESSLY
OVERCOMMITTED AND IT WILL NOT BE POSSIBLE FOR ME TO MEET WITH YOU.
I AM SURE YOU UNDERSTAND THE CONSTRAINTS ON MY TIME AND PLEASE
ACCEPT MY BEST WISHES FOR A USEFUL VISIT TO THE BANK. REGARDS,
A. W. CLAUSEN, WORLD BANK

END
OF
TEXT

PINK AREA TO BE LEFT BLANK AT ALL TIMES

INFORMATION BELOW NOT TO BE TRANSMITTED

CLASS OF SERVICE: TELEX		TELEX NO.: 391-2121879CNAC	DATE: 10/30/85
SUBJECT:	DRAFTED BY: <i>for</i> VRSouthworth:ejn	EXTENSION: 73585	
CLEARANCES AND COPY DISTRIBUTION:	AUTHORIZED BY (Name and Signature) <i>for</i> A. W. Clausen <i>Roy Southworth</i>		
	DEPARTMENT: EXC		
	SECTION BELOW FOR USE OF CABLE SECTION CHECKED FOR DISPATCH		

10/29/85

Roy,

Mr. Langoni is a former Governor of Central Bank of Brazil and resigned in 1984 after clashing with the Finance and Planning Ministers on certain targets to be negotiated with IMF.

He is now Professor of Economics at the Getulio Vargas Foundation post-graduate school of Economics in Rio. He attended the S.I.D. meeting in Rome together with Mr. Clausen. He is well known in Latin America and in certain academic circles in the States.

Nevertheless, I don't think it is necessary for Mr. Clausen to see him, unless he is willing to do so.

Batfage

Tom:
The region
also recommends
seeing
him.
Nov. 10.85

JB: I found out what Langoni's mode du employ is. Apparently he is currently Professor of Economics at the Giargo Varga Foundation post-graduate school of Economics. He currently has no official title with regard to the government itself. However, he does a lot of consulting on the side.

Please remember that we have to advise Mr. Clausen's office on how to respond to Mr. Langoni's request for a meeting with AWC.

JOY

Roy:

Spoke to Mr. Keith Jay, VPERS; he advises that Mr. Langoni is coming to the Bank to participate in a colloquium for EDs - evening of November 6, and November 7 & 8.

June

JWS0505
EXC
REF: TCF VR

2121879CNAC BR

1241

REF: RR', 2685/85

ATTN: DR. CLAUSEN
PRESIDENT WORLD BANK

ERS/K Jay

I WILL BE IN WASHINGTON ON NOVEMBER 6 INVITED BY THE WORLD BANK.
I WOULD APPRECIATE IF I COULD VISIT YOU TO EXPLAIN DETAILES
PROJECT TO CONVERT DEBT INTO EQUITY THROUGH MUTUAL FUNDS.
REGARDS, CARLOS LANGONI

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NNNN

To Pte
Collaboration for EDU
+ 6th, 7 + 8th.

JW80505
EXC
REF: TOP VR

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1241
REF. NR: 2685/85

ATTN: DR. CLAUSEN
PRESIDENT WORLD BANK

I WILL BE IN WASHINGTON ON NOVEMBER 6 INVITED BY THE WORLD BANK.
I WOULD APPRECIATE IF I COULD VISIT YOU TO EXPLAIN DETAILS
PROJECT TO CONVERT DEBT INTO EQUITY THROUGH MUTUAL FUNDS.
REGARDS: CARLOS LANGONI

21218790NAC BR6666

=10170752

NNNN

OFFICE OF THE PRESIDENT

1982 OCT 11 11 15:22

RECEIVED

Handwritten notes:
I will be in Washington on November 6 invited by the World Bank.
I would appreciate if I could visit you to explain details project to convert debt into equity through mutual funds.

Handwritten notes:
bank
meeting
ED

Handwritten: F251

JARRON
EXT
REF. 117 118

STATIONING BR

REF. MK. 282482

ATTN: DR. CLAUSEN

PRESENT WORK BOOK

I WILL BE IN WASHINGTON ON NOVEMBER 8 TRAVEL BY THE WORLD BANK
I WOULD APPRECIATE IF YOU WOULD VISIT YOU TO EXPLAIN DETAILS
PROJECT TO CONVERT DEBT INTO EQUITY THROUGH MUTUAL FUNDS
REMARKS: CAN US LABOR

STATIONING BR


-1013022

MNR

OFFICE OF THE PRESIDENT

1985 OCT 17 PM 12: 55

RECEIVED

ROUTING SLIP		DATE:
NAME		ROOM NO.
Mr. Southworth		
	APPROPRIATE DISPOSITION	NOTE AND RETURN
	APPROVAL	NOTE AND SEND ON
	CLEARANCE	PER OUR CONVERSATION
	COMMENT	PER YOUR REQUEST
	FOR ACTION	PREPARE REPLY
X	INFORMATION	RECOMMENDATION
	INITIAL	SIGNATURE
	NOTE AND FILE	URGENT
REMARKS: 		
FROM:	ROOM NO.:	EXTENSION:
Judith Maguire		75324

September 26, 1985

Mr. Milton Safren
159 Farm Lane
Westwood, MA 02090

Dear Mr. Safren:

Thank you for your letter to Mr. Clausen regarding the potential environmental consequences of World Bank projects. Like you, we are very concerned about this issue. We have discussed with Bank management the House Banking Subcommittee's recommendations about measures that might be taken to prevent such environmental problems. We believe that the Subcommittee's recommendations have been carefully thought out, and expect them to have a positive impact on Bank work in this important area.

I would like to assure you that we carefully review all World Bank projects for possible environmental problems, particularly those projects involving tropical rain forests. We have followed the Northwest Development Project in Brazil extremely closely to assure ourselves that the Bank has taken all possible steps to guarantee that the difficulties which have arisen will be satisfactorily addressed. We believe that the Bank and the Brazilian authorities have established a basis for accomplishing this.

As you requested, I am enclosing a copy of the Environmental Policies and Procedures of the World Bank, and a copy of our 1985 Annual Report where reference is made to Environment and Development in pp. 71-74. Should you have any other questions, you can contact Dr. James Lee, the World Bank's Special Advisor on environmental issues.

Once again, thank you for your interest in assisting the World Bank to carry out its developmental tasks effectively.

Sincerely,

Hugh W. Foster
U.S. Alternate Executive Director

Enc.
bcc: Mr. Southworth
#1256

THE WORLD BANK

ROUTING SLIP

Date
Sept. 11, 1985

OFFICE OF THE PRESIDENT

Name	Room No.
Ms. Maguire	D-825

XX	To Handle	Note and File
	Appropriate Disposition	Prepare Reply
	Approval	Per Our Conversation
	Information	Recommendation

Remarks

*Called Mita 9/26 -
will let us know.*

Judy:

This is a threatening letter.
Could you please handle?

Roy Southworth

From

1256
159 Farm Lane
Westwood, MA 02090
6 September 1985

A. W. Clausen, President
World Bank
1818 H Street, NW
Washington, DC 20433

Dear Mr. Clausen:

I enclose a copy of a letter which I have sent to Senator Robert W. Kasten, Jr. asking that the World Bank not be allowed to finance projects that are environmentally destructive.

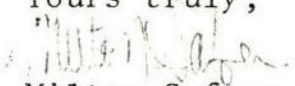
As undoubtedly you do, I also read The Wall Street Journal and hardly a week passes without a shudder by anyone aware of the Bank's lending activities. A world-wide financial catastrophe impends. An environmental catastrophe is also impending. As a conservative Republican I intend to voice my feelings to legislators who may prevent the Bank from continuing it's destructive loans.

Will you kindly advise what guidelines the Bank has to stop environmental destruction. I intend to forward your answer to both my elected representatives and to local newspapers so that we have an answer to what the Bank is doing. Should you choose not to answer I shall advise my representatives and newspapers as well as to that. Certainly the Bank can prevent the destruction of forests by refusing financing certain loans.

Do you have a policy to assist protection of rain forests?

Thank you for your attention.

Yours truly,


Milton Safren

MS/sez

159 Farm Lane
Westwood, MA 02090
5 September 1985

Senator Robert W. Kasten, Jr.
Senate Office Building
Senate Appropriations Sub-Committee
Washington, DC

Dear Senator Kasten:

As a fellow conservative who like you wishes to see our government's money preserved instead of spent, I am asking that the World Bank not be allowed to lend money for use by other nations to destroy rain forests and natural resources. This destruction is a circle of waste that spins from destroying trees to destroying land to destroying animal life and to destroying irreplaceable fauna.

We as Americans are primarily financing the World Bank. Enough has been written about the vast waste created by the World Bank and loans that can never be repaid. We can at least ask - no let's demand it - that the World Bank not be allowed to destroy what remains of rain forests in Central and South America.

I therefore ask your continued support in this regard and that your office monitor and if necessary stop World Bank financing.

Yours truly,

Milton Safren

MS/sez

cc: A. W. Clausen, President
World Bank
1818 H Street, NW
Washington, DC 20433

September 20, 1985

Dear David:

I've heard from several sources about the fine job you did in moderating the September 4 meeting on Polonoeste with representatives of various environmental groups.

You know full well, of course, just how explosive and potentially damaging this issue has become. But because of your efforts and those of your staff, particularly Maritta Koch-Weser, the situation has been largely defused. You can take considerable pride in the professional and patient manner in which you handled this difficult problem. I appreciate your efforts, David.

Warm regards.

Sincerely,



A. W. Clausen

Mr. A. David Knox
Vice President
Latin America and the Caribbean
Regional Office
Room A-907

bcc: Mr. E. Stern
Mrs. F. Stone

VRS:sbp

September 20, 1985

Dear Maritta:

Just a note to let you know how pleased I am about the outcome of the recent meeting on Polonoroeste with representatives of various environmental groups. Several attendees reported that the meeting went extremely well for the Bank and that you did an excellent job in explaining our role in Polonoroeste. Your efforts have helped to defuse a sensitive and potentially damaging situation for the Bank. You can be proud of the professional and disciplined way in which you handled this issue. Congratulations, Maritta, for a job well done.

Warm regards.

Sincerely,



A. W. Clausen

Mrs. Maritta Koch-Weser
Projects Department,
Agriculture Division B
Latin America and the Caribbean
Regional Office
Room C-807

bcc: Mr. D. Knox
Mrs. F. Stone

VRS: sbp

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J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

United States Senate

COMMITTEE ON APPROPRIATIONS
WASHINGTON, DC 20510

*Copies to Messrs. Stern (chr),
Knox, Stortsen and Mr. Hallen*

August 20, 1985

Mr. W. A. Clausen
President
World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Tom:

Many thanks for your phone call yesterday. I appreciate the work you are doing to protect the environment and native peoples of Brazil.

As I said, it is my hope that you can delay releasing any additional funds to the Polonoreste project until we have met to discuss the remedial actions that have been completed. It is important that no funds be released until we have thoroughly gone over the steps taken in Brazil to protect the environment and native Indian populations.

In addition, I believe it is important for independent authorities from the disciplines of anthropology and environmental science be provided with a similar explanation of progress made in recent months. Specifically, it is my expectation that Ms. Bramble, and Messrs. Rich, Blackwelder, and Maybury-Lewis be consulted before further dispersment is initiated.

Best regards,



Robert W. Kasten, Jr.

1008

102 91 51 613-18
10/13

UNITED STATES DEPARTMENT OF JUSTICE

FEDERAL BUREAU OF INVESTIGATION

TO : DIRECTOR, FBI (100-441100)
FROM : SAC, NEW YORK (100-100000)
SUBJECT: [Illegible]

[Extremely faint and mostly illegible typed text, likely the body of a letter or report.]

Best regards,

[Handwritten signature]

Robert W. [Illegible]

OFFICE OF THE DIRECTOR

1985 AUG 21 PM 3:09

RECEIVED

THE WORLD BANK
Washington, D. C. 20433
U. S. A.

A. W. CLAUSEN
President

August 20, 1985

Dear Senator Kasten:

I appreciate talking with you last evening about the Northwest Region Integrated Development Program (POLONOROESTE) in Brazil.

You will recall from our discussions last May, the Government of Brazil and the Bank had reached agreement on a detailed action program aimed at correcting the imbalances which have occurred in the implementation of this project. Until satisfactory progress had been made towards meeting the conditions of these loans, the Government had agreed to refrain from submitting applications for withdrawals under any of the loans extended in support of POLONOROESTE.

The purpose of my call was to inform you that the Brazilian authorities have now undertaken a series of actions which we regard as essential for the achievement of the objectives of the Program and that we are satisfied with the progress made. In view of these actions taken, we are now informing the Brazilians that the submission of withdrawal requests for disbursements under these loans may be resumed.

As you know, our staff met with Mr. Echols from your office last week to discuss this matter in detail and the attached note was prepared to briefly summarize the current status of the Program.

Both the Brazilian authorities and our own staff are very much aware of the need for continued close supervision of the implementation of the action plan to ensure that the Program's objectives are achieved.

As discussed, Bill Stanton will be in touch with your staff here in Washington and the U. S. Executive Director's office to help arrange a briefing for some of the groups who have shown keen interest in this program and who met with you and us last May.

I want to assure you that we fully share your concerns regarding this complex development program and we will continue to take the necessary steps, together with the Brazilians, to ensure that our shared objectives can be realized.

Sincerely,



The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
United States Senate
Washington, D. C. 20510

BC: Messrs. Stern, Knox, Stanton;
U.S. Executive Director's
Office

Enclosure

Bilderberg Meetings

Had been told! 8-19-85

meeting had gone
well.

~~Stem - Donaldson.~~

- Carter released
in September.

~~#~~

Porter Boy

Contingent upon!

Bilderberg Meetings

Alex -
expressions to me,

wanted to wait.

DONALDSON -
#

physicians reserved.
#

But moved he nullified
Brief the
environmentalist

Held it
was full
of good
will

Can't wait until
September

(Alex Ecker!)

But if you asked
me to bring some
of the environmentalist

groups. — we'll
do it & do it as ^{fast as we can}
Bill Stanton # 400
Haw

URGENT

August 18

Tom:

We spoke about this last night.

The attached note is what we gave the US ED's office and was the basis of the briefing for Kasten's staff guy.

I think all you need to say to the Senator is

- . you wanted to contact him personally because you know of his interest in this
- . we have briefed his staff ← ECCLES
- . the Government of Brazil has completed all the steps we asked them to take and the last one was taken on July 10.
- . We have checked these out and there is no further basis for us to hold up disbursements
- . We have taken steps to assure intensified supervision of these issues and a regular internal review to make sure this stays on track.

Bill Stanton will follow
w.p.
Walter

I have authorized a telex to Brazil for Monday evening informing them of the resumption of disbursements. We need to be sure that the Senator doesnot feel that he has a voice in the decision making process. You are informing him as a matter of courtesy since he is out of town. Some of his people suggested we wait till September - but we cannot. Our own credibility is at stake and there is no reason to wait. I realize the bill will be considered after the recess but there is no assurance as to whn that process might finish.

Ernie

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CONFIDENTIAL
AUG 27 2013

WBG ARCHIVES

UPDATE ON THE NORTHWEST REGION INTEGRATED DEVELOPMENT PROGRAM
(POLONOROESTE)

1. This note provides an update on developments in the Northwest Region Integrated Development Program (POLONOROESTE) since early April 1985 when a note summarizing the problems affecting the program and outlining the remedial measures which the Bank proposed to discuss with the Brazilian Government was sent to the Executive Directors for the US, Germany and Brazil (Attachment 1).
2. The earlier report noted the decision of the Government to refrain from submitting applications for withdrawals under any of the Bank loans in support of POLONOROESTE until it had completed certain actions for the protection of Amerindians and taken measures to ensure the achievement of original program objectives (para. 10). The Government has now made satisfactory progress towards meeting these conditions.

Amerindian Protection

3. Since early April 1985, the Government has taken appropriate measures to ensure the greater protection of Amerindian communities in the Northwest Region:
 - (a) The Sarare and Vale do Guapore Reserves for the Nambikwara group have been legally established by Presidential Decrees published in the Diario Oficial on April 30, 1985;
 - (b) The borders of the areas to be established as reserves for the Zoro and Uru-eu-wau-wau groups have been delimited and defined. This will permit fuller protection of these areas. The boundaries of the Zoro area which were established in 1978 by Decree No. 81.587/78 have been confirmed as final in February 1985 by the Government. The Presidential Decree defining the limits of the Uru-eu-wau-wau area was published in the Diario Oficial on July 10. The physical demarcation of the Zoro and Uru-eu-wau-wau areas, which is the final step toward their being legally established as reserves, is scheduled to start this year; and,
 - (c) The Lourdes Indigenous Park, demarcated in 1976, has had all 62 squatter families removed and relocated to other settlement areas as of June 1985.

As pointed out in the earlier note, the National Indian Foundation (FUNAI) has received a quantum increase in its budget for 1985/86, with much of the increase to finance an expansion in the agency's protection, health and land demarcation activities.

Action Program

4. The Government and the Bank reached agreement on April 16, 1985 on a detailed Action Program aimed at correcting the imbalances which have occurred in the implementation of POLONOROESTE. As outlined in the previous note (para. 9), this program puts greater emphasis than before on the non-infrastructureal components of POLONOROESTE [particularly environmental and forestry protection, protection of Amerindian communities, services for small farmers and malaria control], on the strengthening of the management and coordination of POLONOROESTE, and on measures to reduce immigration into the Northwest region. The Government has made a substantial reallocation within the 1985/86 budget for POLONOROESTE to support these priorities. Other specific corrective measures which the Government and the Bank have agreed would be carried out during the first three months of the Action Program have also been satisfactorily completed. These include the creation of permanent in-house environmental management units in the State Government of Rondonia and in the federal agency coordinating the implementation of POLONOROESTE (SUDECO); the formulation and initial implementation of environmental and forestry management plans; and the full staffing and training of forest protection units to protect national forests, national parks and other ecological reserves in the region. The Bank will supervise closely the future implementation of the Action Program. W

Attachment

August 14, 1985

BRIEFING NOTE ON THE
NORTHWEST REGION INTEGRATED DEVELOPMENT PROGRAM
(POLONOROESTE)

1. In recent months, environmental groups, principally in the U.S. but increasingly in other Bank member countries as well, have intensified their criticism of the Northwest Region Integrated Development Program (POLONOROESTE) in Brazil. This criticism has often been accompanied by the suggestion that the Bank, as the major and only external lender to POLONOROESTE, should press the Brazilian Government for substantial improvements in the implementation of the program. The attached letter to Mr. Clausen, which was signed by various groups and individuals and sent under the aegis of the U.S.-based Natural Resources Defense Council, Inc. (NRDC), best illustrates the nature of the criticisms and questions that are being raised about POLONOROESTE. This note assesses the validity of these criticisms and questions, and provides information which can be used as a basis for a response. It is divided into three parts: the first provides some background discussion of POLONOROESTE; the second provides comments on each of the observations/suggestions in the NRDC letter; and the third discusses what the Bank is doing, in the context of its continuing dialogue with the Brazilian authorities, to help improve the implementation of POLONOROESTE so that its original objective of balanced and controlled development of the Northwest region can be achieved.

Background

2. POLONOROESTE encompasses an area of 410,000 sq km (about three quarters the size of France) in Rondonia and western Mato Grosso, which has one of the highest concentrations of fertile soils in the entire Brazilian Amazon region. In 1979, when the Brazilian Government first proposed to pave the 1500 km highway from Cuiaba to Porto Velho, the area was under virtually uninterrupted forest cover, and had a total population of no more than a million. Less than five percent of the forest area had been cleared. In the 1970s several promising INCRA colonization schemes had been developed, but these suffered from a lack of road infrastructure, agricultural support services, health and education facilities. The region was linked to the rest of the country by the unpaved BR-364 highway, which was impassable during parts of the year.

3. In 1980, the Bank undertook a comprehensive, multidisciplinary study of the region which would be opened up by paving the BR-364 highway and also reviewed the performance of colonization schemes elsewhere in the Amazon. Its report, "The Integrated Development of Brazil's Northwest Frontier," provided the intellectual underpinnings for the Bank's strategy for assisting the development of the Northwest region. This report stressed the importance of achieving sustainable and socially beneficial agricultural development in the Northwest region. Emphasis was placed on promoting perennial crops and other measures conducive to sustained

agriculture, and on limiting agricultural development to areas with high soil potential. Other areas were to remain untouched as biological, ecological or Amerindian reserves, or to be managed as forest reserves or National Forests (except certain areas already designated for large-scale farming). The study emphasized the need for further research into the many unknowns of the region and for environmental monitoring.

4. The Bank is supporting POLONOROESTE through five separate projects, which were designed to be implemented as integral elements of a single regional development program. Three of them were approved simultaneously towards the end of 1981. They were: (a) the NW I Highways Project (Loan 2062-BR, \$240 million), which involves the paving of the main highway across the region (BR-364), construction of some of the feeder roads extending away from that highway and road maintenance institution-building; (b) the NW I Health Project (Loan 2061-BR, \$13 million), which aims at malaria control in the whole state of Rondonia, development of further health services in the Rondonia settlement areas and research into health-related topics; and, (c) the NW I Agricultural Development and Environmental Protection Project (Loan 2060-BR, \$67.0 million) which dealt with all other components of the proposed strategy in the region, except rural development activities in Mato Grosso which are being financed separately through the second phase of the program approved in 1982 (Loan 2116-BR, \$26.4 million), and the establishment of new settlements in Rondonia, which are being financed through the third phase approved in 1983 (Loan 2353-BR, \$65.2 million). Including a supplemental loan for the NW I Project (US\$22.8 million approved in December 1983), total lending for the program amounts to \$434.4 million. (In addition, some feeder roads in the project area have been built with funds from the third Feeder Roads Project, Loan 2224-BR).

5. A fundamental objective of POLONOROESTE was to steer continuing migration away from Amerindian land and the more ecologically fragile areas and to discourage agricultural practices which, on a large scale, would damage even the richer soils of the region. The strategy to achieve this objective consisted of: (a) providing the farmers with the funds (mainly agricultural investment credit), services (health, extension and marketing) and infrastructure which would make intensive, perennial cropping and forestry development more economically attractive options than extensive annual cropping or ranching, which are virtually the only options available to unassisted farmers; (b) channelling new settlers to areas of proven agricultural potential, refraining from providing access to areas of lesser or unknown potential, and monitoring the integrity of and preventing squatting in the latter areas as well as in Amerindian and biological reserves; and, (c) promoting research into the many unknowns of the local environment, monitoring the impact of the economic activities on the forest, water and climate of the region (for corrective action as required), and establishing and consolidating a number of national forests and parks, ecological stations and Amerindian and biological reserves. In view of the observed institutional weaknesses, an amount of US\$10 million

was budgeted for program coordination and staff training. The loan agreements also put special emphasis on the Special Project for Amerindian protection and overall program monitoring and evaluation.

Implementation of POLONOROESTE

6. The initial year of program implementation showed satisfactory progress. However, as noted by subsequent supervision missions, and more recently, by the mid-term program review mission which visited Brazil in November/December 1984, increasingly serious imbalances in the program have developed for a number of reasons, including the fact that the institutional capacity to manage and coordinate this complex, integrated program has not developed as expected; differences in implementation capacity of the various agencies; and, inadequate financial and staffing support for key program components. As a result, many components of POLONOROESTE are facing difficulties, and are either not reaching or are departing significantly from their original objectives, particularly environmental and Amerindian protection, forestry development, and small farmer agricultural development on a sustainable basis. While a number of individual component targets are being achieved, particularly in infrastructure construction, overall performance relative to the program objective of balanced and controlled regional development has been deficient.

7. The observations in the attached NRDC letter about the present POLONOROESTE situation are generally in line with those of the Bank supervision missions. This coincidence of views is not surprising since the NRDC made use of reports prepared by consultants responsible for the evaluation of POLONOROESTE, which were partly financed by the Bank loans. The following provides comments on some of the NRDC's observations/suggestions, including an updating of where things now stand.

- o New Settlement Along the BR-429 Highway. The construction of the BR-429 highway which would provide access from the Bank-financed BR-364 highway to the southwestern part of the state of Rondonia has in fact already attracted many illegal settlers. Systematic surveillance and patrol activities along the BR-429 highway need to be undertaken to keep the problem from worsening. Basically, as is the original program strategy (para. 5), new settlement along BR-429 as well as in all other areas with unsuitable soils should be stopped. The basic question is how to contain the overall flow of migration and to channel it to areas with suitable soils. Specific proposals in this regard have been prepared by the mid-term review mission and will be discussed with the new Government shortly.
- o Immediate Demarcation and Protection of Amerindian Land and Provision of Health and Other Services. Despite chronic problems in the implementation of the Special Project for Amerindian protection, substantial accomplishments have also been made. Nineteen Amerindian areas are now demarcated, and a step away

from being decreed as reserves by the President of the Republic. The assistance provided by FUNAI, the Brazilian National Indian Foundation, to the Nambikwara Indians in the much-discussed Guapore Valley in Mato Grosso has been substantially upgraded through the creation of additional Indian posts and health services. FUNAI's FY85/86 approved budget is almost 500% larger than the actual FY84/85 budgetary allocation (from US\$1.3 million to US\$7.7 million) with much of the increase to finance an expansion in the agency's protection, health and land activities. Overall, because of the Special Project, the lands and physical survival of the Amerindians have been effectively protected and the quality of assistance provided to most of them in the POLONOROESTE area is unsurpassed elsewhere in Brazil.

- o Measures to Deal with Deforestation, Land Speculation and Conversion to Cattle. Dealing effectively with these problems requires an overall shift in priorities in the current implementation of POLONOROESTE, with considerably more emphasis than before on the provision of services and financing to small farmers and the protection of the environment, and lower priority to infrastructure construction. Measures to enhance the feasibility and economic attractiveness of perennial cropping and forestry development and to redistribute idle land in areas of good soils suitable for perennial crops need to be considered, along with improved deforestation monitoring, more effective policing of illegal deforestation, development of protection plans for national forests, and more intensive research on alternative cropping systems appropriate to the soils in the region. Specific proposals have been developed by the mid-term review mission and will be discussed with the Government shortly.

- o Adequate Protection and Management of Biological Reserves, the National Park, Ecological Stations, and the National Forests. The NRDC observation is not completely up to date: (i) one of the National Forests (the Jamari National Forest) has been legally established since September 1984; (ii) the Guapore and Jaru biological reserves have also been established; (iii) an agreement between FUNAI and IBDF, the Brazilian Institute for Forestry Development, for the protection of the Paacas Novos National Park and the nearly coincident Uru-eu-wau-wau reserve has been signed; and, (iv) four ecological stations of SEMA, the Special Secretariat for the Environment, have been constructed and equipped. It is true, however, that the management and implementation of the forestry, environmental protection and ecological research components of POLONOROESTE require considerable improvement, and that the so-called "protected areas" are not now receiving the protection that was originally envisaged.

- o Redesign or Cancellation of State Highway 370, 377 and 383 in Rondonia. There are no current plans to build the roads and their inclusion on some older maps was a holdover from a general road network planning exercise carried out in the late 1970s.
- o Adjustment of the POLONOROESTE Loan Agreements and the Funding of Special Projects to Strengthen FUNAI, IBDF, and Government Agencies Providing Services to the Settlers. Clearly, a shift in priorities within POLONOROESTE would have to be supported by a major reallocation of the undisbursed Bank loans (about US\$199 million) and government counterpart funds, with adjustments in the loan agreements, if required. Direct Bank financing for the Amerindian component, which previously did not receive direct Bank financial support, could be considered if the Government wants it.
- o Halt Nationwide Advertising Promoting Migration to the POLONOROESTE Region. The impact of such advertising is limited. Most of the migrants had never seen, listened to or read such advertisements. In fact, migration to the area has been going on since the late 1960s, in response to a combination of various "push" (e.g., lack of secure access to land and limited employment and income opportunities in region of origin) and "pull" factors (e.g., availability of land, high employment and income expectations). While the relative importance of these various factors is not clear, a strategy to effectively control the flow of migration would have to address both sides of the problem (see next point below). Specific proposals for weakening the attraction of the "pull" factors have been developed by the mid-term review mission and will be discussed with the Government soon.
- o Exercise Maximum Leverage, Including Reconsideration of Planned Lending for Other Agricultural Projects. Conditioning the Bank's agricultural lending for other parts of Brazil on the resolution of POLONOROESTE issues is likely to be counterproductive as this lending supports projects which help to reduce the pressure for migration into the Northwest region.

Action Program

8. The problems affecting POLONOROESTE, particularly the inadequate implementation of the Special Project for Amerindian protection, were discussed intensively with various levels of the previous Brazilian administration. As a result, several measures were taken, including the completion of an action plan and all legal steps preparatory to the eviction of squatters from the Lourdes reserve, the delimitation and preparation of demarcation plans for the reserves of the Uru-eu-wau-wau and Zoros groups, and, as noted above, the signing of an agreement between FUNAI and IBDF for the protection of the Pacaas Novos National Park.

9. The Bank has already initiated discussions on POLONOROESTE with the administration which took office on March 15, 1985. As already noted, specific proposals to improve the implementation of POLONOROESTE, based on the recommendations of the mid-term program review, have been prepared and will be discussed with the new Government soon. For this purpose, a Bank mission is tentatively scheduled to visit Brazil in early April. The proposals cover: (i) the reorganization and strengthening of present institutional and coordination arrangements and upgrading of staff capabilities; (ii) temporary moratorium on all construction not related to the protection of environmental, forest and Amerindian reserve lands, malaria control activities and measures absolutely essential to the consolidation of previous infrastructure investments; (iii) improved funding arrangements to ensure the timely availability of financial resources required by the program; (iv) measures to reduce immigration into the Northwest region; (v) forestry and environmental protection, and, (vi) Amerindian protection. The Bank's intention is to reach agreement in principle with the Government on the broad action program by mid-April, leading to a final agreement on the specific timetable and operational details of the action program by mid-May.

10. The new administration has indicated its intention to complete the actions for Amerindian protection which were initiated by the previous administration, and to take the measures needed to ensure the achievement of original program objectives. In the meantime, the Government has decided to refrain from submitting applications for withdrawals under any of the Bank loans in support of POLONOROESTE.

March 27, 1985

Development News—Daily Summary



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Monday, August 19, 1985.

NEWS ITEMS (From the wires of AFP, AP-DJ and IPS*)

NEW DELHI: Clausen Calls for Higher Credit Flow to India. World Bank President A.W. Clausen, noting that the Bank's resources are limited, urged India to borrow money from commercial banks to complement assistance received from international institutions. Mr. Clausen, speaking to journalists at the close of a five-day visit to India, noted that India's credit was good and that he foresaw no short-term difficulties in the repayment of its foreign debt. He called India's seventh development plan, which began this year, "ambitious" but not unrealistic. Mr. Clausen said that IFC would become more active in India alongside the World Bank and IDA. (AFP)

WASHINGTON: World Bank to Resume Financing for Project in Brazil. The World Bank is to resume financing for a project to help develop the west of Brazil, according to a Bank spokesman. The project was suspended in March under pressure from the U.S. for ecological reasons. Bank Senior Vice President Ernest Stern has decided to spend \$256.1 million remaining in the budget on financing a new road and on loans for local farmers. (AFP) ?

VIENNA: Siazon is New Head of Industrial Development Organization. Domingo Siazon of the Philippines was selected Friday as Director General of the U.N. Industrial Development Organization, which supports industrialization programs in developing countries. When asked about his priorities, Siazon said, "everyone agrees that the poorest of the poor have to be given particular consideration in the allocation of resources." Siazon was chosen under new rules forced by a three-day deadlock when the Board could not decide among three candidates. The board agreed to discard a rule requiring a two-thirds majority for election, in favor of a simple majority requirement. The decision must be approved by a plenary session. (AP-DJ)

WASHINGTON: IMF Approves Three-Year Program for Chile. The IMF Friday approved a three-year loan program for Chile totalling about \$850 million. Approval followed Chile's success in gaining commitments from its commercial bank creditors to provide \$1.2 billion in new loans to the country this year and next. The IMF program includes an extended facility of \$750 million SDRs over three years plus 70.6 million SDRs in loans aimed at compensating Chile for a decline in export revenues. (AP-DJ)

DAR ES SALAAM: Mwalimu Mwinyi to Succeed Julius Nyerere. Vice President Ali Hassan Mwinyi was nominated as successor to retiring President Julius Nyerere at the ruling party conference. Mr. Mwinyi received the votes of 99.14% of the delegates to the conference. (IPS)

Agence France Presse, Associated Press-Dow Jones, Inter Press Service

WORLD PRESS DIGEST (From IPS)

STOCKHOLM: Garcia Formalizes Peru's Existing Debt Situation. An editorial (8/8) in Svenska Dagbladet commented on the announcement by Peru's President Alan Garcia that his country intends to use no more than 10% of its annual export revenues for the servicing of its \$14 billion debt. According to the editorial, the announcement has caused concern in international banking circles, but in reality is only a formalization of the situation, since Peru already owes \$450 million in unpaid interest. In fact, the editorial went on, the whole of Latin America has been applying a masked moratorium in practice since the Mexican crisis of 1982, since creditor banks are forced by the IMF and the central banks of the industrial countries to grant new loans to their Latin American debtors only to enable them to pay for the interest on old loans.

IMF Criticizes Industrialized Country Protectionism. Dagens Nyheter reported (8/15) that an internal IMF report asserts that the political unwillingness of the U.S. and other industrialized countries to counteract increasing protectionist trends is threatening the equilibrium of international trade and, therefore, international economic recovery.

BONN: Where the Development Aid Banks Will Put Their Money. Klaus C. Engelen reports (8/19) from Frankfurt in Handelsblatt that the Washington-based Development Bank Associates Consulting Group has prepared an analysis of loans and projects planned by 25 development banks for the period 1985-89. Saying that the loans amount to an estimated \$183.7 billion, the story reports that the study says the World Bank accounts for 78% of the earmarked loans, followed by the IDB, ADB and the AfDB. Engelen quotes the study as saying that the largest beneficiary of loans will be Asia with a share of as much as 41% followed by Latin America with 32% and Africa 16%--the remaining 11% will be shared by Europe, the Middle East and North Africa.

U.S. PRESS DIGEST

Chilean Economy in Decline. The WP features (8/18, p. G1) a story on the path of Chile's economy since 1981, which "is reeling from three years of recession. Through it all, the country has been a model debtor, making its bank payments on time for the past three years." The article goes on to note that "after making its foreign payments, the country has little left over to invest in new projects that would produce growth and employment." The story points out that "last month in a complicated arrangement that involved a World Bank guarantee, Chile's bank creditors agreed to lend the country \$1.085 billion."

Caribbean Nations Seek Access to Sugar Market. The WP (p. A13) reports today on efforts by ten Central American and Caribbean countries in increasing sugar exports to the United States "in what they say is a desperate effort to save their economic and social structures from crumbling despite millions in U.S. aid." The story notes the drop in world sugar prices and the competition from corn sweeteners as contributing factors.

Focus on Population Issues. The NYT (8/17, p. A5) reports that the visit of Pope John Paul II to Kenya "is expected to highlight the controversy over his strong opposition to contraception and sterilization." The story notes Kenya's 4% annual population growth which "the government argues...is potentially catastrophic. The WP magazine (8/18, p. 8) has a profile of economist Julian Simon, a strong critic of global family planning programs, while WP (8/18, p. B1) reports on life in Calcutta, India.

*** IMPORTANT**

8-2-85

Called.

Jackie.

- ① will do nothing until
later part of September
- ② will keep me
posted on this. - so I'm
not surprised!

★

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE: August 1, 1985
TO: Mr. A. W. Clausen
THROUGH: Mr. Jose Botafogo G. *[Signature]*
FROM: William J. Stanton *[Signature]*
EXT: 722173
SUBJECT: POLONOROESTE Projects in Brazil

Helen
8-2-85
my Polonoroeste
file!
A

1. Senator Kasten's office called me today to say that they had heard that the Bank was about to notify Brazil that the evidence of compliance they had submitted was satisfactory to the Bank and that the suspensions of applications for withdrawals would be lifted. The Senator's office asked us to send copies of the evidence of compliance. At the same time, Ms. Jane Hallow of the U.S. Executive Director's office called me to say that Treasury also was asking for the evidence of compliance.
2. According to information from the Brazil Division, they are satisfied that the country has complied with the Bank's requests. The subject is now in the process of review at the senior management level.
3. I have just explained to Mr. van der Meer, who is acting Vice President for David Knox, that the projects should not be signed off until an explanation can be given to the Senator and to a couple of environmentalists whom we met. At the meeting in your office, you asked all parties to keep in touch on this subject. I am afraid that Senator Kasten's office would consider it a breach of our word if we were to proceed without telling him anything. On the other hand, I agree we should put nothing in writing. It is a courtesy we are extending.
4. The U.S. ED's office strongly agrees that we should tell Kasten our findings before we resume business.
5. I discussed the subject with Shahid Husain. He has agreed not to do anything further at least until I return from vacation in two weeks. He sees problems in informing others of our decision before we sign off. *A*

August 1, 1985

Mr. Southworth:

Per your request, attached please find the copy of Mr. van der Meer's memorandum and cable to Mr. Stern on the POLONOROESTE Program which is being reviewed for approval by Management. Attached also is a copy of the briefing note given to the U.S., German and Brazilian EDs early in April on this matter.



George Papadopoulos

Attachments

cc: Messrs. Husain
van der Meer, LCP
Gue, LC2
Quijano, LAC
Ms. Donovan, SVPOP

OFFICE MEMORANDUM

DATE: July 29, 1985

TO: Mr. Ernest Stern

FROM: ^{Bert} Suitbertus M.L. van der Meer, Acting Vice President, LCNVP

EXTENSION: 75901

SUBJECT: BRAZIL - Resumption of Disbursements on the Northwest Development Program (POLONOROESTE) Loans (Loans 2060-BR, 2060-1-BR, 2061-BR, 2116-BR and 2353-BR)

1. This is to inform you of the status of the conditions stipulated in our letter to Finance Minister Dornelles of March 15, 1985 for the resumption of disbursements on the referenced loans (Attachment 1), and to get your clearance of the attached telex notifying the Government about the resumption of disbursements on these loans. As of today, the status of the Government's compliance with these conditions is as follows:

- (a) final legal establishment of the Nambikwara reserves. The presidential decrees establishing these reserves have been signed and published in the Diario Oficial of April 30;
- (b) final definition of the Uru-eu-wau-wau reserve. The Interministerial Working Group formed by the Ministries of Interior and of Agrarian Reform and Development reached agreement on the limits of the area to be set aside as reserve for the Uru-eu-wau-wau group on June 11. However, due to some minor technical problems, the presidential decree defining the limits of this reserve was signed only recently and published in the Diario Oficial on July 10;
- (c) removal of squatters from the Lourdes Indigenous Park. All squatters have either been removed or relocated to settlement areas being financed under Northwest III (Loan 2353-BR); and,
- (d) agreement with the Bank by May 15, 1985 on a detailed Action Program to improve the implementation of POLONOROESTE. This is contained in the letter of Finance Minister Dornelles and Interior Minister Costa Couto to the Bank of April 16, 1985 (Attachment 2). Although there are some minor delays, we are generally satisfied with the progress being made in the implementation of the agreed Action Program and are monitoring it closely.

2. Considering that all conditions for the resumption of disbursements have now been satisfactorily met, I recommend that disbursements on the referenced loans be resumed immediately. If you agree, I will send the attached telex to the Brazilian Government.

c/w & cc: Messrs. Goldberg, LEGVP; Malone, LCPAB; Saez, LEGLC; Barahona, LOALE; Gonzalez Cofino, LC2BR;

RRuivivar:ac

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-SUBJECT: POLONOROESTE LOANS NOS. 2060-BR, 2060-1-BR, 2061-BR,
-2061-BR, 2062-BR, 2116-BR, AND 2353-BR

-DRAFTED BY: RRUIVIVAR EXT: 75901

-AUTHORIZED BY: MR. VAN DER MEER

-C/W AND CC: MESSRS. STERN, SHIHATA

-CC: MESSRS. GOLDBERG, LEGVP; VAN DER MEER, VAN GIGCH, LCP; GUE,

-GONZALEZ COFINO, TCHEYAN, LC2; MARTINUSEN, MS. KOCH-WESER,

-LCPAB; SHIELDS, LCPT1; DENNING, PHND3; COLLELL, MS. MOLARES,

-LEGLC; BARAHONA, LOALE

391 611142 =

-SUA EXCELENCIA, SENHOR FRANCISCO DORNELLES

-MINISTRO DA FAZENDA

-BRASILIA, DF, BRASIL

391 611146 =

-INFO SUA EXCELENCIA, SENHOR JOAO SAYAD

END
OF
TEXT

SIGNATURES:

DRAFTED BY: RRuivivar

AUTHORIZED BY: van der Meer

READY FOR

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-MINISTRO DO PLANEJAMENTO

-BRASILIA, DF, BRASIL

391 611787 =

-SUA EXCELENCIA, SENHOR RONALDO COSTA COUTO

-MINISTRO DO INTERIOR

-BRASILIA, DF, BRASIL

391 611146 =

-EMBAIXADOR GILBERTO VELLOSO

-SECRETARIO

-SUBIN

-BRASILIA, DF, BRASIL

391 611142 =

-MINISTRO ALVARO ALENCAR

-COORDINATOR

-OFFICE OF INTERNATIONAL AFFAIRS

-MINISTRY OF FINANCE

-BRASILIA, DF, BRASIL

391 611616 =

-DR. ANTONIO CANALE

-SUPERINTENDENTE

-SUDECO

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OF
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(Modified -- 1/85)

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-BRASILIA, DF, BRASIL

BT

WASHINGTON DC JULY 29, 85

IN REFERENCE TO POLONOROESTE LOANS NOS. 2060-BR, 2060-1-BR, 2061-BR, 2062-BR, 2116-BR AND 2353-BR, WE ARE PLEASED TO LEARN FROM THE TELEX OF MAY 24, 1985 FROM AMBASSADOR VELLOSO, SECRETARY OF SUBIN/SEPLAN, AND MORE RECENTLY, FROM BANK SUPERVISION MISSIONS IN BRAZIL, ABOUT THE IMPORTANT STEPS WHICH THE GOVERNMENT HAS TAKEN TO IMPROVE THE IMPLEMENTATION OF POLONOROESTE. CONSIDERING THE PROGRESS MADE, WE ARE EQUALLY PLEASED TO INFORM YOU THAT EFFECTIVE IMMEDIATELY, THE BANK WILL ACCEPT AND PROCESS (A) WITHDRAWAL APPLICATIONS IN RESPECT OF ELIGIBLE EXPENDITURES MADE AFTER MARCH 12, 1985 UNDER THE REFERENCED LOANS; (B) REQUESTS FOR REIMBURSEMENTS FOR ELIGIBLE EXPENDITURES TO COMMERCIAL BANKS; AND (C) CLAIMS FOR REPLENISHMENT OF ANY OF THE SPECIAL ACCOUNTS ESTABLISHED UNDER THE REFERENCED LOANS IN RESPECT OF ELIGIBLE EXPENDITURES MADE AFTER MARCH 12, 1985. WE HOPE THAT THE RESUMPTION OF DISBURSEMENTS UNDER THE REFERENCED LOANS WOULD FACILITATE THE GOVERNMENT'S EFFORTS TO IMPLEMENT THE ACTION PROGRAM FOR POLONOROESTE ACCORDING TO THE AGREED TIMETABLE. BEST REGARDS.

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SUITBERTUS M.L. VAN DER MEER, ACTING VICE PRESIDENT, LATIN
AMERICAN AND CARIBBEAN REGION, INTBAFRAD

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The World Bank
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street, N.W.
Washington, D.C. 20433
U.S.A.

(202) 477-1234
Cable Address: INTBAFFRAD
Cable Address: INDEVAS

March 15, 1985

Exmo. Sr. Ministro da Fazenda
Francisco Oswaldo Neves Dornelles
Ministerio da Fazenda
Esplanada dos Ministérios, Bloco 5, 5º andar
70.048 Brasilia, DF, Brasil

Re: Northwest Region Integrated Development Program (POLONOROESTE)
- Loan 2060-BR (Agricultural Development and Environmental
Protection Project)
- Loan 2060-1-BR (Supplemental Agricultural Development and
Environmental Protection Project)
- Loan 2061-BR (Health Project)
- Loan 2062-BR (Highway Project)
- Loan 2116-BR (Mato Grosso Rural Development Project)
- Loan 2353-BR (New Settlements Project)

Dear Mr. Minister:

We would like first of all to take this opportunity to congratulate you on your appointment as Finance Minister of the new Government of Brazil, and we look forward to working closely with you on matters of mutual interest to the Government and the World Bank.

One such matter which we believe requires your immediate attention is the above-referenced Northwest Region Integrated Development Program (POLONOROESTE). As you are aware, in our letter of October 30, 1984 to former Finance Minister Galveas, the Government was formally notified that unless certain actions to improve the implementation of the Special Project for Protection of Amerindians under POLONOROESTE had been carried out by February 28, 1985, we would have no choice but to suspend disbursements on all referenced loans. On March 1, at the request of Minister Tarcisio Marciano da Rocha of the Ministry of Finance, we agreed to an extension of the deadline to March 6, 1985 (Attachment 1). At about the same time, during your discussions with me in Brasilia, you asked that the incoming Government be given an additional month or so to complete the required actions on the Amerindian issue. This request for a further extension was reiterated on March 13, 1985 by Ambassador Botafogo, SUBIN/SEPLAN, who has also informed the Bank that pending completion of these measures, the Government would refrain from submitting applications for withdrawals under any of the referenced loans with the exception of expenditures already incurred or services contracted as of March 12, 1985 (Attachment 2).

I am pleased to inform you that, given the unusual circumstances due to the political transition, and in response to your request for postponement, the Bank has decided to defer formal suspension action in respect of any of the referenced loans. In line with the Government's request, however, an "informal suspension" will be in effect after March 12, 1985 up to May 15, 1985. During this period, the Government would refrain as of midnight March 12, 1985 from presenting withdrawal applications to the Bank on account of eligible expenditures under the above-referenced loans or requesting the Bank to enter into new qualified or unqualified agreements to reimburse after that date. The exceptions that we would be prepared to accept are: (i) withdrawal applications received by the Bank on or before April 12, 1985 in respect of payment for goods shipped or delivered or for work performed or for any other expenditures made on or before March 12, 1985, under contractual or procurement arrangements approved by the Bank; and (ii) request for reimbursements to commercial banks holding qualified agreements to reimburse issued by the Bank on or before March 12, 1985. In addition, the Government should also refrain from submitting claims for replenishment of any of the Special Accounts established under the referenced loans in respect of expenditures made after March 12, 1985.

Conditions for Resumption of Disbursements

For disbursements to resume, the Government would have to complete by April 15, 1985, the various actions concerning Amerindian protection listed in our telex of March 1, 1985 to Minister da Rocha. In this connection, we should also point out that in our October 30 letter to former Finance Minister Galveas, we expressed our concern about the other problems affecting the implementation of POLONOROESTE. The Bank's mid-term program review which was conducted in November-December 1984 with the cooperation of various Government agencies, has confirmed that there are serious problems in the implementation of the non-infrastructure components of POLONOROESTE, and that a large number of the covenants under the legal agreements for the referenced loans are not being met (Attachment 3). Many aspects of the program are also having difficulties and are either not reaching or are departing significantly from their original objectives, especially environmental protection, forestry development, small farmer agricultural development and Amerindian protection. The overall conclusion of the mid-term review is that while POLONOROESTE has achieved some individual subproject targets, it is not reaching its overall program objective of balanced and controlled regional development.

Because of the broad range of problems faced by POLONOROESTE and in order to ensure satisfactory compliance with existing commitments, it will also be necessary, as a second condition for the resumption of disbursements, that the Government and the Bank agree not later than May 15, 1985 on a comprehensive and detailed action program to improve the implementation of POLONOROESTE. A realignment of program priorities will no doubt be required, with greater emphasis on the non-infrastructure components whose implementation has seriously lagged. This would have to be supported by improved institutional and coordination arrangements, as well as a revision of the FY85/86 program budget in conformity with the new priorities.

March 15, 1985

In order to be able to reach final agreement by May 15, 1985 on a detailed action program, we suggest that discussions between the Bank and concerned Brazilian agencies be initiated as soon as possible with a view to agreeing in principle on the broad content of the action program by April 15, 1985. For this purpose, and with your agreement, we would like to send a Bank mission to Brazil during the first week of April.

Specific suggestions for the content of the proposed action program, based on the recommendations of the mid-term review, are given in Attachment 4. The mission will also be prepared to provide further details on the background and specific content of each of the suggested measures listed in that attachment.

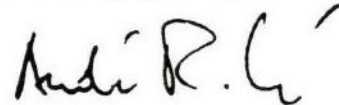
Conclusion

In closing, I would like to restate what we see are the next steps leading to the improved implementation of POLONOROESTE and to the resumption of disbursements under the referenced loans by May 15, 1985 or earlier. The first would be the completion by April 15, 1985 of the already identified actions on Amerindian protection. The second would be to achieve agreement in principle by April 15, 1985 on the broad program of action for improving the implementation of POLONOROESTE, leading to a final agreement on the specific timetable and operational details of the action program not later than May 15, 1985. In the absence of satisfactory achievement of these objectives by the indicated dates, or if the Government would fail to refrain from presenting the withdrawals or requests referred to above, the Bank would have no choice but to formally suspend disbursements on all referenced loans and take in due course such other remedial actions as may be warranted. We would appreciate it if you could confirm receipt of this letter and your agreement with its terms.

Owing to their interest in the matter, I am sending a copy of this letter to Messrs. Joao Sayad, Minister of Planning; Ronaldo Costa Couto, Minister of the Interior; Alvaro Alencar, Coordinator, Coordinating Office for International Affairs, Ministry of Finance, Henri Guitton, General Coordinator, SUBIN/SEPLAN; and Rene Pompeo, Superintendent, SUDECO.

Thank you for your attention.

Sincerely yours,



André R. Gué

Acting Vice President
Latin America and the Caribbean Region

Attachments

1 2 LC20R

URGENT URGENT URGENT

**ADDRESSED SUA EXCELENCIA ERNANE GALVEAS, MINISTRO DA FAZENDA.
COPIES FOR INFORMATION TO SUA EXCELENCIA ANTONIO DELFIN NETTO,
MINISTRO DE ESTADO CHEFE DA SECRETARIA DE PLANEJAMENTO DA
PRESIDENCIA DA REPUBLICA, SUA EXCELENCIA MARIO DAVID ANDREAZZA,
MINISTRO DO INTERIOR, DR. RENE POMPEO, SUPERINTENDENTE, SUBECO,
SRA MARITTA KOCH-WESER, FURNAS OFFICE, BRASILIA, AND EMBaixADOR
JOSE BOTAFOGO GONCALVES, SECRETARIO, SUBIN-SEPLAN.**

**REFERENCE: POLONOROESTE LOANS (NOS. 2060-BR, 2061-BR, 2062-BR,
2116-BR AND 2353-BR)**

**THIS CONFIRMS OUR AGREEMENT WITH DR. TARCISIO MARCIANO DA ROCHA
OF THE MINISTERIO DA FAZENDA TO EXTEND THE DATE OF THE
GOVERNMENT'S RESPONSE TO MY LETTER OF OCTOBER 30, 1984 ON THE
REFERENCED LOANS FROM FEBRUARY 28, 1985 TO MARCH 6, 1985, IN
ORDER TO GIVE THE CONCERNED AGENCIES MORE TIME TO COMPLETE THE
MEASURES THAT HAVE ALREADY BEEN INITIATED. WE WOULD HOPE THAT BY
THAT DATE, THE FOLLOWING ACTIONS WOULD ALREADY HAVE BEEN TAKEN
COLON**

2 2 LC2BR

A) PUBLICATION IN THE DIARIO OFICIAL OF THE PRESIDENTIAL DECREE ESTABLISHING THE NABIKWARA RESERVES COLON

B) FINAL DEFINITION OF THE URU-EU-WAU-WAU RESERVE COLON

C) COMPLETION OF A REVISED PLAN, WITH TIMETABLES SATISFACTORY TO THE BANK, FOR THE COMPLETE REMOVAL OF SQUATTERS FROM THE LOURDES RESERVE BY THE END OF MARCH 1985 COLON AND

D) COURT NOTIFICATION OF ALL INDIVIDUAL SQUATTERS WHO ARE SCHEDULED TO BE REMOVED OVER THE NEXT 1-2 WEEKS.

WE WOULD ALSO LIKE TO BE OFFICIALLY INFORMED BY MARCH 6, 1985 OF THE FINAL DEFINITION OF THE ZOROS RESERVE AND THE CORRESPONDING PLAN OF DEMARCATION.

BEST REGARDS, A. DAVID KNOX, VICE PRESIDENT, LATIN AMERICA AND CARIBBEAN REGION, INTBAFRAD.

telex

See Book of Six

March 1, 1985

BRAZIL-Lms. 2060, 2061, 2062, 2116, 2353-GR

RRulviversidad

76223

c/ubcc: Messrs. Tcheyan, LC2BR
Malone, AERBB

A. David Knox, Vice President, LDMP

LAC II

LC2BR

BOOK OF SIX (SEE ATTACHED TEXT)

- 1) SUA EXCELENCIA ERNANE GALVEAS, MINISTRO
MINISTERIO DA FAZENDA
BRASILIA (DF) BRASIL TELEEX: 611142MMFA BR
- 2) SUA EXCELENCIA ANTONIO DELFIN NETTO, MINISTRO
MINISTERIO DE ESTADO CHEFE DA SECRETARIA DE PLANEJAMENTO
BRASILIA (DF) BRASIL TELEEX: 611146RNPL BR
- 3) SUA EXCELENCIA MARIO DAVID ANDREAZZA, MINISTRO
MINISTERIO DO INTERIOR
BRASILIA (DF) BRASIL TELEEX: 611787MINT BR
- 4) DR. RENE POMPEO, SUPERINTENDENTE
SUDECO
BRASILIA (DF) BRASIL TELEEX: 611616SDCO BR
- 5) SUA EXCELENCIA EMBAIXADOR JOSE BOTAFOGO GONCALVES
SECRETARIO, SUBIN/SEPLAN
BRASILIA (DF) BRASIL TELEEX: 611146RNPL BR
- 6) SUA MARITTA KOCH-MESER
FURNAS - CENTRAIS ELETRICAS S.A.
70070 BRASILIA, DF, BRASIL TELEEX: 611223

telex

March 1, 1985

~~BRZIL-Lns-2060,2061,2062,2116,2353-BR~~

~~Rilulvuerdad~~

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ZCZC L2AP1287 WUI024

LC2BR

Attachment 2

REF : TCP FCA

WUI024

611928SPPR BR

TELEX NR 1520/85

13.03.85

OP.LOPES

AO SENHOR
DR. ROBERTO GONZALEZ COFINO
BRAZIL DIVISION
THE WORLD BANK
WASHINGTON - DC

REF: POLONOROESTE - EMPRESTIMOS NRS 2060 BR, 2061 BR, 2062 BR, 2116 BR, ET 2353 BR.

TENDO EM VISTA NECESSIDADE DE PERMITIR AO NOVO GOVERNO QUE ORA SE INICIA UM RAZOAVEL ESPA/O DE TEMPO A FIM DE IMPLEMENTAR EM SUA TOTALIDADE AAS A/DES PREVISTAS NOS PROGRAMAS ACIMA, COMUNICAMOS QUE O GOVERNO BRASILEIRO VAI SE ABSTER E SOLICITAR DESEMBOLSOS CONTRA OS RESPECTIVOS EMPRESTIMOS, AA EXCE/AO DOS GASTOS JAH EFETIVADOS OU SERVI/OS CONTRATADOS. ATEH O DIA 12.03.85. CDS SDS JOSEH BOTAFOGO GON/ALVES - SECRETARIO DA SUBIN.

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MID-TERM REVIEW FINDINGS

1.01 The findings of the mid-term review of the Northwest Program (Loans 2060-BR, 2116-BR and 2061-BR) are based on information gathered by FIPE, SUDECO and two World Bank missions between April and November 1984. As already stated in its Aide Memoire of December 6, 1984, the missions found that many aspects of the Program were out of control and were either not reaching, or were departing significantly from their original objectives, particularly protection of the environment, forestry development, small farmer agricultural development on a sustainable basis and assistance to Amerindian communities. While the Program has reached some individual subproject targets it has not reached its overall Program objectives.

A. Implementation of the Program in Rondonia

1.02 The mid-term review has shown that while the Program has to some degree been beneficial to the Northwest region it has been implemented in an unbalanced manner by emphasizing infrastructural development rather than institution building, services to farmers and protection of the environment and the Amerindian population. This failure to synchronize implementation has caused serious problems. For example, the paving of the main 1,500 km highway, BR-364 linking Cuiaba to Porto Velho has been virtually completed. Immigration has been stimulated by that paving and by ~~of~~ publicity about the infrastructure and services as well as propaganda implying that all newcomers would be given a substantial plot of their own. As a result the influx of settlers has reached a level which is almost impossible to manage with the limited institutional and financial resources of Rondonia. At the same time, suitable agricultural land has grown scarce. About 120,000 people were officially recorded as having immigrated into Rondonia in the first nine months of 1984 (i.e. prior to the completion of the highway), and the influx has further accelerated since then.

1.03 Migration and speculation have in turn, led to widespread deforestation (often in expectation of services which did not follow) and resulted in increased social tensions, greater incidence of diseases, (particularly malaria), squatting on reserves and areas which are not suitable for sustained cultivation or grazing. The opening of roads by the State Government into areas inadequate for settlement and the failure to study the redistribution of the larger plots, given out by INCRA to earlier settlers (100 ha) and private companies (3,000 ha, in the region of Pimenta Bueno) on the better soils of the region, have added to these problems. This has resulted in an underutilization of better soils and existing infrastructure and there has also been little progress in the research and development of techniques for the cultivation of perennial crops. Pressure on the forests was further increased by private interests in mining activities and covert selective logging of the more valuable species. Logging activities have hampered road maintenance efforts already made difficult by the poor quality of construction (which was not adequately supervised by CODARON and DER-RO) and a general lack of maintenance stemming from the considerable delay in the upgrading of DER-RO; some higher-standard feeder roads are already very difficult to pass during the rainy season.

1.04 Under Phase I, 20 NUARs have been built and 5 more are under construction, out of an initial objective of 39. Some 2,500 km of access roads (out of 3,900 km) have also been built, but their distribution among NUAR areas has been unequal (for reasons that are not clear) and the utility of some NUARs has been reduced by the poor planning of connecting strips between parallel access roads. Construction of schools and health posts has proceeded in parallel with the construction of NUARs, but the recruitment and training of their staff have suffered delays, and attendance has been hampered by the poor road planning.

1.05 In the absence of designs for small units meeting the requirements of tropical areas, no new crop storage space has been built in Rondonia, and existing storage space has not been used by small farmers because of what they view as inappropriate regulations which CIBRAZEM has been unwilling to modify.

1.06 No agricultural investment credit has been available to area farmers. Extension agencies, trained mainly to assist farmers in obtaining credit and in cultivating tree crops, have not developed the ability to assist small farmers deprived of credit.

1.07 Under Phase III, the development of the Urupa and Machadinho new settlement areas in Rondonia, based on better site selection and road designs following ridge-lines, has started at a quick pace. However, soil aptitude surveys and subsequent adjustment of new settlement lay-outs are behind schedule and agreements on phased measures to transfer these settlements to state administration, although required as a condition for Bank disbursement, have not yet been finalized between INCRA and the State authorities Government.

1.08 The movement towards sustainable cropping systems, which the program was expected to generate, has not yet developed very far because of: (a) the suspension of PROBOR-credit lines for rubber and the delays in the establishment of the new credit lines for other tree crops; (b) improperly trained extension staff and limited outreach of extension work; (c) health problems of farmers and lack of hired man-power; (d) a late focus on research into other Amazonian crops, started only under the third phase of the program; (e) extensive attacks of leaf blight disease on once-promising cocoa when phyto-sanitary treatments were considerably reduced by farmers in view of the low world prices for cocoa; (f) exceedingly large plots in early settlement areas not conducive to intensive farming; (g) the dissolution of CODARON, which has hampered the supply of planting material; (h) inadequate coordination between INCKA and SUDHEVEA for the zoning of rubber areas; and (i) inadequate coordination between INCRA and IBDF for the zoning of block forest reserves.

B. The environment and forestry

1.09 Progress in environmental activities has been weak, mainly due to the inadequate resources of IBDF, and the absence of any implementing

capacity at the state levels. Plans for the Jamari National Forest, officially established under the Program for sustainable commercial management, have been developed without due consideration to mining operations under way in the same area. A second National Forest (Gleba Goncalves Dias) awaits its official establishment and subsequent inventory and management planning. Forestry control posts have been established in the numbers originally planned, but have failed to provide the corresponding services because of understaffing. The Guapore and Jaru Biological Reserves have been officially established but measures to ensure their proper management are only incipient. Only in the wake of the mid-term review, an interim (1 year) agreement has been reached between IDBF and FUNAI, necessary for their joint management of the Pacaas Novos National Park and the coinciding Uru-eu-wau-wau Reserve. Four ecological stations of SEMA have been constructed and equipped but measures to enhance their use by universities and other researchers have yet to be fully developed. While results have been recently forthcoming from the various environmental research and monitoring components entrusted by CNPq to a number of regional or national research institutions, other agencies involved with field activities have not become acquainted with these results and therefore fail to use them for monitoring and planning purposes.

C. The Amerindian Special Project

1.10 This project, which is being implemented in parallel to the Northwest Program, suffers from very serious land protection and funding problems. However, some results have been achieved: Most importantly (i) nineteen Amerindian areas are now demarcated, as a necessary first step towards their Decrees as Reserves by the President of the Republic; and (ii) FUNAI assistance among the Nambikwara Indians of the Guapore Valley in Mato Grosso has been substantially upgraded through the creation of the 'Ajudancia' in Vilhena, additional Indian Posts and a mobile health unit. It is a positive sign that the Nambikwara population has increased significantly over the project years.

1.11 The original FUNAI project has gradually evolved in accordance with increasing knowledge about the Indians of the region, who are estimated today at about 11,000, compared with the earlier estimate of 5,700. Indian land demarcation needs have correspondingly exceeded earlier expectations and a number of newly identified groups are not yet attended at all by FUNAI. Urgent action under the Special Project which is solely funded out of counterpart funds, but defined in US Dollar terms, has suffered throughout the program years from sharp shortfalls in funding in real as well as in nominal terms, and from a lack of qualified staff (largely due to the national hiring freeze).

D. The Health Project

1.12 The alarmingly high incidence of malaria in Rondonia, particularly in the areas settled most recently, creates a situation in which settlers are so incapacitated by sickness that they are unable to use effectively even the minimal technical assistance and social services being provided.

Furthermore, the delivery of such services is also made difficult by the prevalence of the disease and the risk of contagion to program staff in the field.

1.13 The main project objectives still remain the ones stated at appraisal:

- (a) To extend malaria protection from 360 thousand to 1.1 million people in the state of Rondonia, by strengthening SUCAM's management and operations with staff, equipment, vehicles, insecticides and drugs.
- (b) To provide an adequate network of basic health services in the project area by constructing, equipping, and staffing 50 health posts, 39 health centers, and 3 referral health centers.
- (c) To strengthen the regional research capability, especially for malaria and health status studies.

1.14 The mid-term review of key indicators has shown an irregular performance of the main project components and generally slow project progress. Malaria control and the training of health manpower are experiencing serious managerial and operational difficulties. Also, construction and equipment targets are behind schedule because of administrative problems. However, implementation of the research component has substantially improved.

1.15 From 1980 to mid 1983, indicators suggested a continuous improvement of the malaria situation: Annual parasite incidence dropped from 120 to 87 per thousand population; but, thereafter it increased to 107 at the end of 1983 and to 127 in mid 1984. Only 41% of programmed houses were sprayed in the first semester of 1984 as compared with 90% in the first semester of 1979. The main factors explaining this worsening of the malaria situation are: (a) the uncontrolled migration to Rondonia of susceptible people with no knowledge or protective measures against malaria; (b) the increased density of mosquito population due to growing numbers of breeding places in newly opened colonization lands; (c) increased indoor exposure due to lack of protection (such as DDT sprayed walls, mosquito nets, etc.), and increased outdoor exposure, especially during agricultural and mining (garimpo) activities; (d) an enhanced reservoir of malaria, due to a high number of ill treated cases and to parasite resistance (35%) to treatment; and (e) managerial operational problems in malaria control activities. SUCAM has been slow in contracting consultants to develop alternative approaches to malaria control as agreed in February 1984, SUCAM has also been inefficient in obtaining government import licenses and in procuring anti-malaria drugs and DDT; SUDECO has not been helpful in these matters. The SUCAM regional directorate in Porto Velho (SUCAMRO) is extremely weak, as a consequence of poor SUCAM efforts to attract capable managers to work in Rondonia.

E. Mato Grosso Rural Development Project (NW II)

1.16 Unlike the projects in Rondonia, the second phase project in Mato Grosso is operating in an area already settled with a wide diversity of farm sizes and types, a high incidence of land tenure problems and a higher standard of existing infrastructure and services. In many areas a rural exodus is occurring rather than an influx. Production of basic foodcrops is falling and the production of large-scale mechanized cash crops and livestock is spreading rapidly. The main wave of migration has already passed through and is now moving north and westwards to neighboring states, leaving large areas deforested and depleted of fertility.

1.17 The project's objective was to raise income and living standards for 17,500 families farming less than 200 ha each, by providing: agro-ecological zoning, rural extension, research, input supply, crop drying and storage facilities, municipal road improvements, education, rural water supply and health facilities. More intensive assistance was to be given to 10,000 of the least-developed small farmers in the project area.

1.18 Although, as in the case of Rondonia, the construction components have generally advanced faster than the provision of the corresponding services, progress of the access road component has been poor. The bulk of expenditures for this component represents the purchase of construction equipment which has been passed on by CODEMAT to the municipalities, who execute the works with little overall planning or coordination and with insufficient attention to the needs of the project's small farmer target population. Although they are also well behind schedule, other construction activities (schools, health centers, storage and water supplies) have been making some progress but have not been matched by recruitment and training of staff, provision of supplies and delivery of services to the target group. Much like the access roads, these new facilities have also been sited in accordance with local political interests and are relatively inaccessible to the clustered pockets of small farmers.

1.19 Lack of credit, insecurity of land tenure and the inadequacy and inaccessibility of supporting services and inputs still remain the chief constraints to small farmer development, and in spite of its objectives the Project has so far done little to remove them.

1.20 INCRA's progress in land tenure regularization in Mato Grosso proved difficult to monitor because of the local INCRA office's reluctance to make corresponding data available, but it is clear that titling of small farms is lagging far behind appraisal estimates.

F. Institutional Issues

1.21 A lack of commitment, at both federal and state levels to most Program components and especially to the social and environmental ones, has resulted in considerable institutional deficiencies. Coordination has been very weak at all levels. The absence of institutional upgrading is due in part to the lack of authority of practically all agencies to recruit new staff. It is also due to their failure to date to adequately define their functions within the program and develop a corresponding training Program.

State level coordination problems were in the case of Rondonia exacerbated by the abolishment of CODARON in 1984. Originally CODARON had been viewed as the agency for the development of most agricultural services and infrastructure and its abolishments left program coordination in Rondonia in a vacuum.

1.22 Managerial deficiencies and their negative impacts can be observed at various levels. The effectiveness of federal level Program coordination suffered from: the division of financial and technical coordination responsibilities between SEPLAN and SUDECO; the large number of agencies involved in program implementation; the weak staffing and hierarchical position of the Northwest Program Coordination Unit within SUDECO; inadequate structures within the executing agencies to carry out the Program; and the lack of independence of program evaluation activities (FIPE). These factors explain in great part major problems which occurred in carrying out the program as well as delayed transfers of funds to executing agencies, weak monitoring, evaluation and planning, and inadequate documentation of project expenditures and progress. Similarly, at the the state level, weaknesses in SEPLAN-RO (and CODARON during the period between the departure of its original president and its total abolishment) resulted in: a poor definition of NUAR administration responsibilities; inadequate planning of infrastructure, especially with respect to the respective NUAR and access road location; inadequate coordination of services to be provided out of NUARs; and an inability of state authorities to plan a proper transition of administrative responsibilities from INCRA to the state of Kondonia in new settlement areas.

1.23 Finally, the Program, like many other projects in Brazil, has been hindered by a chronic, though uneven, shortage and delay in the provision of budget funds in spite of the Bank's Special Action Program. While the paving of BR-364 was achieved faster than originally estimated, all other project components received late and insufficient financing.

G. Compliance with Loan Covenants

1.24 In connection with the mid-term review findings, we would like to draw your attention to the following loan conditions, in addition to covenants relating to the Amerindian Special Project, which have not been complied with:

- (a) The government has not taken the necessary measures to discourage occupation of agriculturally unsuitable or reserved areas (Loan Agreement 2060-BR; Section 3.13);
- (b) INCRA has not studied land tenure use conditions and regulations in earlier settlement areas as a preliminary step to a redistribution of large plots (Loan Agreement Section 4.04);
- (c) Individual project agencies have not taken the necessary measures to ensure proper monitoring of their activities (Loan Agreement Sections 3.04, 3.15);

- (d) The dissolution of CODARON, without acceptable arrangements to replace it, has made it impossible to implement properly most program activities in Rondonia (Loan agreement Section 3.01; Project Agreement Section 2.12);
- (e) Credit has not been made available to project beneficiaries (Loan Agreement Section 4.01);
- (f) Warehouses have not been constructed (Loan Agreement Section 3.01);
- (g) Research results have not been regularly publicized (Loan Agreement Section 3.05);
- (h) IBDF did not comply with its obligations to complete salvage logging studies by December 31, 1982 (Loan Agreement Section 4.03) and carry out forestry development studies prior to June 30, 1983 (Loan Agreement Section 3.06); and
- (i) INCRA has not provided information on its land tenure improvement activities in Mato Grosso, and the local INCRA unit has hampered outside efforts to monitor and supervise its activities (Loan Agreement Section 3.11); INCRA has not provided maps of its titling operations in the Settlement Consolidation areas of Rondonia (Loan Agreement Section 3.15).
- (j) While SUDECO's obligation to staff and maintain its program coordination unit has been met in principle, the unit remains qualitatively and quantitatively inadequate, lacks budgetary control and the necessary authority to effectively coordinate the executing agencies. The fact that SUDECO has had little say in the financial planning of the program has made coordination of program agencies even more difficult. Progress reports have been scarce and, until recently, of poor quality. The Central Secretariat of Internal Control of SEPLAN (SECIN) has reported that data provided to them do not allow the proper auditing of program accounts.

1.25 Finally, we would also like to draw attention to the fact that serious problems are holding up the implementation of the more recent Northwest III loan, which was not subject to the mid-term review (e.g. failure by INCRA and the Government of Rondonia to set up proper arrangements for a phased take-over by the state of forestry and agricultural services in new settlement areas; the suspension of PROBOR credit lines for all new rubber plantations since January 1984; and, failure to properly select, protect and manage block forest reserves).

Conclusions and recommendations

1.26 In view of its diagnosis of the present situation, which is consistent with the monitoring and evaluation done by SUDECO/FIPE, the mid-term review mission recommends:

- (a) A major reallocation of funds to provide a greater share of resources for protective activities, including forestry, environmental and Amerindian services, and a smaller share for physical infrastructure and other activities which encourage further immigration to the Region.
- (b) A moratorium on all further new construction not related to protective activities under the Program until the existing situation is consolidated, the existing facilities properly utilized and further construction plans revised to better serve those areas needing protection.
- (c) Much greater emphasis on improving conditions in existing settled areas, including more planting of perennial crops, and much less emphasis on new settlement, most of which is occurring on poor soils with little hope of lasting benefits to the settlers in the absence of credit and technical assistance to establish the perennial crops.
- (d) A strengthening of the institutional structure to provide more effective decision making, coordination and control and an improved mechanism for allocating the human and financial resources needed to implement the program.

It is the purpose of the Action Program, as proposed in Attachment IV to follow-up on these recommendations and to arrive at a definition of their implications in terms of both, broader Program strategy adjustments and more immediate operational requirements.

E-1075/85 April 23, 1985
Portuguese (Brazil)
LAC JCB:jb

Mr. André Gué
Acting Vice President
Latin America and the Caribbean Region

Brasilia, April 16, 1985

Re: Northwest Region Integrated Development Program (POLONOROESTE)

- Loan 2060 BR (Agricultural Development and Environmental Protection Project)
- Loan 2060 I BR (Supplemental Agricultural Development and Environmental Protection Project)
- Loan 2061 BR (Health Project)
- Loan 2062 BR (Highway Project)
- Loan 2116 BR (Mato Grosso Rural Development Project)
- Loan 2353 BR (New Settlements Project)

Dear Sir:

In response to the World Bank's letter of March 15, concerning the arrangements for regularizing the execution of POLONOROESTE, I now provide the following information:

Despite the fact that this country is still going through the difficult circumstances of political transition, the Brazilian Government is making every effort to remove the problems that have arisen.

1. We therefore ask the Bank to agree to the following deadlines, now proposed by the Government, with regard to Amerindian issues.

- (a) Presidential Decrees establishing the Sararé and Vale do Guaporé Reserves will be published in the Official Gazette by April 25, 1985, giving suitable deadlines for implementation of the pertinent measures;
- (b) The definitive borders of the Uru-Eu-Wau-Wau Reserves will be decided by May 6, 1985.

With respect to removal of the squatters from the Parque Indígena at Lourdes, the Government has taken the necessary steps and the squatters are

now in process of being transferred. Nine of the 53 families in the area have been removed, and 11 others are preparing to leave of their own free will, after the harvest.

This is an awkward situation, and the Government is monitoring it closely, bearing in mind the need to allocate suitable areas for resettlement.

Action is being taken in this area by FUNAI, the Rondônia Government (Planning and Social Promotion Departments), INCRA, the Federal Police, the Federal Courts, and the State Military Police. Notice has legally been served on all squatters.

2. The attached Work Program for 1985/86 corresponds to the Bank's recommendations in terms of realignment of priorities; the draft program budget reflects the various reorientations.

Once the Bank approves the financial timetable, it will be possible for the relevant Portaria to be signed right away.

However, not until the Portaria has been signed will it be possible to advance the PIN funds for the first quarter (April-May-June) of the 1985/86 budget, in accordance with the expenditure schedules for the Operating Plans, priority going to FUNAI, IBDF, and SUCAM.

3. With respect to the proposed Action Program (Annex III to the letter of April 15, 1985):

(a) Program Coordination (item 1.01):

a.1 The Federal Government agrees:

- By May 31, to submit a plan for institutional reorganization of the central coordinating unit;
- By May 31, to submit a diagnostic study of the coordinating units at the level of the federal executing agencies in the States of Rondônia and Mato Grosso;
- By May 31, to submit a draft Environmental Protection Plan for the program area.

a.2 The Government of Rondônia agrees:

By May 30 [sic]. to submit the necessary adjustments for replacement of the activities formerly assigned to CODARON;

By April 30, to submit a viable solution for NUAR administration;

By April 30, to submit an alternative solution for the creation of a renewable natural resources institute.

(b) Funding (item 1.02):

- b.1 The Federal Government agrees not to support within the Program any new construction work not related to environmental and forest protection, protection of Amerindian Reserve lands, malaria control, or infrastructure essential to consolidation of previous investments.
 - b.2 The Federal Government proposes to release by April 30 the tranches of the 1984/85 budget, and by May 15 to advance the first quarterly tranche for 1985/86.
 - b.3 The Federal Government proposes to submit by April 30, 1985 a proposal for the creation of a revolving fund, to be financed out of the special account for each agreement.
 - b.4 The Federal Government proposes to set up a Task Force by April 30, 1985 to study the issue of rural credit in the program area.
- (c) Reduction of Immigration (item 1.03):
- c.1 The Federal Government and the Government of Rondônia have for some time placed an embargo on further publicity regarding the program area.
 - c.2 The Federal Government, in liaison with the Government of Rondônia, will set up a working group, involving INCRA and IBDF, to study and propose measures regarding squatting in forest areas. The deadline for completion of the study is June 30, 1985.
 - c.3 The Federal Government will negotiate with the Rondônia Government with a view to the presentation, by May 15, 1985, of a work program for surveillance and patrolling of the area of influence of the BR-419 highway.
 - c.4 INCRA proposes to prepare studies by August 31 and September 30, 1985, respectively, for the early settlements (lots of up to 100 ha), and for the lots distributed at Pimenta Bueno (up to 2,000 ha).
- (d) Forestry and Environmental Protection (items 1.04, 1.05, 1.06, 1.07, and 1.08).
- d.1 IBDF will maintain a dialogue with RADAMBRASIL with a view to making a remote-sensing program fully operational by May 31.
 - d.2 The Rondônia Government proposes, by May 31, to supplement the staff of the forest police units of the State Military Police.
 - d.3 The Federal Government proposes to set up a working group involving IBDF and INCRA to establish criteria, by June 30, for the creation, protection, and administration of block forest reserves.

d.4 IBDF proposes, by June 30, to draw up the forest management plans for the Jamari Reserve and the Urupá and Machadinho block forest reserves.

d.5 IBDF proposes, by June 30, to hire consultants to study salvage logging, the wood industries, and marketing possibilities.

(e) Amerindian Special Project (item 1.09):

e.1 The Federal Government has already set up a working group comprising IBDF, FUNAI, and the Rondônia Government to prepare the joint protection plan for the Uru-Eu-Wau-Wau and Pacaás Novos areas.

e.2 Negotiations will be held with a view to obtaining authorization to hire personnel for FUNAI in the areas of health and support for the indigenous communities.

e.3 Since funds are to be made available (see item b.2), FUNAI proposes:

- By May 31, to contract services for protection, surveillance, and border upgrading works;
- By May 31, to start all demarcation activities scheduled for the current fiscal year;
- To include the 14 Amerindian groups identified during project execution.

4. With respect to the supplementary measures necessary to satisfactory execution of the program, the Ministry of the Interior:

(a) Will study the possibility of setting up a procedure for advances through exchange agreement (contrato de câmbio) for those loan agreements that are presently outside this system, namely 2061 BR (Health), 2062 BR (Highways), and 2353 BR (New Settlements).

(b) Will negotiate with BNDES with a view to obtaining funds from FINSOCIAL for FUNAI and SUCAM, with a view to providing financial support for their respective actions.

5. Lastly, with respect to possible difficulties regarding completion of the works and services budgeted for 1984/85, we request:

(a) Maintenance of the disbursement percentage of 67.5% (Loan Agreements 2060 BR and 2116 BR), in accordance with the Bank's Special Assistance Program up to May 31, since the 1984/85 tranches will be released by April 30 and the expenditures already incurred or planned are budgeted on the basis of that percentage.

(b) An increase in the disbursement percentage for Loan 2061 BR, bringing this up to 65%, to accelerate execution of the malaria control program, a high-priority component.

- (c) A letter from the Bank regarding the possibility of using the funds already placed in special accounts, to cover budgetary expenditures in 1984/85.

Very truly yours

/s/ Francisco Oswaldo Neves Dornelles
Minister of Finance

/s/ Ronaldo Costa Couto
Minister of the Interior

WORLD BANK OUTGOING MESSAGE FORM Cable, Telex
IMPORTANT - PLEASE READ INSTRUCTIONS BELOW BEFORE TYPING FORM

TEXTNAME: POLONOROESTE

PAGE 1 OF 3

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OINFO

-SUBJECT: POLONOROESTE LOANS NOS. 2060-BR, 2060-1-BR, 2061-BR,
-2061-BR, 2062-BR, 2116-BR, AND 2353-BR

-DRAFTED BY: RRUIVIVAR

EXT: 75901

-AUTHORIZED BY: MR. A. DAVID KNOX

-C/W AND CC: MESSRS. STERN, GOLDBERG

-CC: MESSRS. SHIHATA, LEGVP; KNOX, VAN DER MEER, VAN GIGCH,

-LCP; GUE, GONZALEZ COFINO, TCHEYAN, LC2; MARTINUSEN,

-MS.KOCH-WESER, LCPAB; SHIELDS, LCPT1; DENNING, PHND3; COLLELL,

-MS. MOLARES, LEGLC; BARAHONA, LOALE

391 611142 =

-SUA EXCELENCIA, SENHOR FRANCISCO DORNELLES

-MINISTRO DA FAZENDA

-BRASILIA, DF, BRASIL

391 611146 =

-INFO SUA EXCELENCIA, SENHOR JOAO SAYAD

END
OF
TEXT

SIGNATURES:

DRAFTED BY:

RRUIVIVAR:ac

AUTHORIZED BY:

Mr. A. David Knox

READY FOR

TRANSMISSION:

(Inputter's Initials)

TRANSMITTED BY:

AColbert

DATE: 8/20/85

DELIVERY NOTICES RECEIVED?

yes

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PAGE 2 OF 3

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2 MESSAGE
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-MINISTRO DO PLANEJAMENTO
-BRASILIA, DF, BRASIL
391 611787 =
-SUA EXCELENCIA, SENHOR RONALDO COSTA COUTO
-MINISTRO DO INTERIOR
-BRASILIA, DF, BRASIL
391 611146 =
-EMBAIXADOR GILBERTO VELLOSO
-SECRETARIO
-SUBIN
-BRASILIA, DF, BRASIL
391 611142 =
-MINISTRO ALVARO ALENCAR
-COORDINATOR
-OFFICE OF INTERNATIONAL AFFAIRS
-MINISTRY OF FINANCE
-BRASILIA, DF, BRASIL
391 611616 =
-DR. ANTONIO CANALE
-SUPERINTENDENTE
-SUDECO

END
OF
TEXT

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PAGE 3 OF 3

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-BRASILIA, DF, BRASIL

BT

WASHINGTON DC AUGUST 20, 1985

IN REFERENCE TO POLONOROESTE LOANS NOS. 2060-BR, 2060-1-BR,
2061-BR, 2062-BR, 2116-BR AND 2353-BR, WE ARE PLEASED TO LEARN
FROM VARIOUS TELEXES FROM AMBASSADOR VELLOSO, SECRETARY OF
SUBIN/SEPLAN, AND FROM BANK SUPERVISION MISSIONS WHICH VISITED
BRAZIL OVER THE LAST FOUR MONTHS, ABOUT THE IMPORTANT STEPS
WHICH THE GOVERNMENT HAS TAKEN TO IMPROVE THE IMPLEMENTATION OF
POLONOROESTE. CONSIDERING THE PROGRESS MADE, WE ARE PLEASED TO
INFORM YOU THAT EFFECTIVE IMMEDIATELY, THE BANK WILL ACCEPT AND
PROCESS WITHDRAWAL APPLICATIONS IN RESPECT OF ELIGIBLE
EXPENDITURES UNDER THE LOANS. WE HOPE THAT THE RESUMPTION OF
DISBURSEMENTS WOULD FACILITATE THE GOVERNMENT'S EFFORTS TO
IMPLEMENT THE ACTION PROGRAM FOR POLONOROESTE ACCORDING TO THE
AGREED TIMETABLE. BEST REGARDS. A. DAVID KNOX, VICE PRESIDENT,
LATIN AMERICAN AND CARIBBEAN REGION, INTBAFRAD

END
OF
TEXT
→

June 20, 1985

Dear Mr. Brunelli:

Thank you for your letter concerning the Polonoroeste project, which was awaiting my return from a trip overseas. I have passed it on to Mr. N. F. Potter, who represents Canadian interests on our Board of Directors. His office will be in touch shortly on the issues you have raised.

Sincerely,



A. W. Clausen

Mr. Gilio Brunelli
Department of Anthropology
University of Montreal
P. O. Box 6128, Branch "A"
Montreal, P.Q., H3C 3J7

cc: Mr. N. F. Potter
Executive Director

bcc: Mr. E. Stern
Mr. Gonzalez-Cofino
Mrs. M. Koch-Weser
Mr. Culpeper

VRS:sbp

(Log #849)



UNIVERSITÉ DE MONTRÉAL
DEPARTEMENT D'ANTHROPOLOGIE

June 1/1985

A.W. CLAUSSEN
President, The World Bank
1818 H. Street, N W.
Washington, DC 20433
ETATS UNIS

c.c. to Maritta Koch-Weser

Dear Sir,

I am an anthropologist working at "Université de Montréal" (Canada) and last year I spent few months doing field research among Zoro Amerindians in Aripuana county (Mato Grosso, Brazil). As you know, that region of Mato Grosso is part of an integrated development project known as Polonoroeste, sponsored and partly financed by your institution.

I spent with Zoro Amerindians enough time to have a good understanding of their situation and be able to evaluate their living condition and to really appreciate the life perspectives for these people. I have seen a lot of money of Polonoroeste (so World Bank) origin being spent there and I am sure that it was of no profit for the Amerindians themselves. The money was just wasted. Worse than that, I do think that money has been spent against the Amerindians welfare and against their possible future as an ethnic group.

As anthropologist and human being I am deeply concerned and worry about a lot of issues on Zoro Amerindians present and future situation. I consider your institution is partly responsible of what is going on down there.

I want to share with you some of my concerns. I hope that you will listen and will do all you can in order to improve the overall situation and to insure a better future for Zoro Amerindians.

----- LAND -----

The interdicted area where Zoro are now obliged to live has not been demarcated yet and does not have any formal and legal title as an Indian reservation. It is a matter of survival for Zoro Amerindians that their area be demarcated and legally instituted as reservation as soon as possible. Squatters are already moving forward in the South-East corner and there is an illegal route across the eastern part of their territory. That route must be closed and a wide path-way must be open all around the Zoro territory, and warnings must be placed here and there to indicate that an Indian reservation extends inward. The Surui and Gaviao wars, in the same Polonoroeste area, have shown to everybody that no route and no squatter should be allowed to operate within Indian boundaries or else Indian lands will be taken over and Amerindians will be obliged to fight, to kill, and to be killed. What a price!

There is another more complicated problem. In the late 1950's governmental Mato Grosso Institute for Land sold, without even know where they were located, large portions of northern Mato Grosso to private homesteaders. It happens that those lands are exactly Zoro aboriginal lands. Those sales have no legal value according to the Brazilian Constitution of 1969 and they can never be enforced according to the 6001 law of December 1973 (Estatuto do Indio) but the rights to the land tha Mato Grosso Institute for Land issued must be estinguished in order to allow FUNAI to settle that area for Zoro Amerindians. It must be done now. Although according to 6001 law, those lands may never belong to anybody else other than Zoro Amerindians, recent episodes of corruption,

misjudgement, and violence allow us to believe that it is of primary importance to clean up every single doubt on Zoro Amerindian rights to ownership of their land. Unfortunately I have seen nothing of that being done and the FUNAI outpost head at Zoro village did not even know where the Zoro's interdicted area boundaries lie.

I know that recently you have withheld World Bank money exactly because of the non-delimitation of Amerindians areas, but I believe that now a more positive step must be taken in order to insure that Amerindians will not be obliged, once more, to pay the price of the development that your institution has helped to bring about in that area. With the only and specific purpose of delimiting Amerindian areas money must be provided and we all know that the total amount for such operation is of insignificant value for an huge institution as yours.

----- HEALTH -----

Zoro used to have a high-developped vegetal medicine by which they cured their health problems and diseases. FUNAI brought in Western medicine and started a vaccination program. It created big hopes among Zoro Amerindians and led them to withdraw from their own traditional medicine. Unfortunately, people whom FUNAI brought and brings in as medical attendant or-nurse have no specific training in working with Indian people. Western drugs and other medical implements are very scarce at FUNAI outpost and their storage is hazardous. Vaccination campaigns lacks of programmes and follow-up. There are no record of drugs or vaccinations administered. Traditional vegetal medicine is constantly denigrated and its practice is labelled as savage by FUNAI staff.

During my fieldwork two Zoro children died of malaria. I am positively sure that their lives could have been saved if more accurate and timely intervention had taken place. They have been left to die by the outpost head.

All of that can be improved without too much effort. Bring in well-trained nurses and able to cooperate with Indian medicine and, mostly, leave the Zoro to make the decisions about their own health and life.

----- ECONOMICS -----

Zoro used to make their living out of hunting, gathering, and small-scale farming. They were scattered over a large territory upon which they depended for their food, tools, anything. They were autonomous. They are not so any more. They have been forced to united in a single village, where, under the order of the FUNAI outpost head, they area obliged to work in the field 8 hours per day, 5 days a week. Huge clearings have been done in the forest and enormous plantations of corn, manioc, rice, sugar cane, banana, beans and other less important crops are cultivated. Crops harvested are piled up in storage room only to be left go rotten. In fact, there is no route leading to Brazilian villages where the surplus could eventually be sold out. I am very happy because such a route does not exist but I can not understand what those enormous productions are for.

Men working in the fields can not go hunting nor do any other kind of subsistence activity. By plane FUNAI regularly brings in a lot of food from outside, including canned fish, dried meat, spaghetti and stuff like that, at enormous costs. These foods are for Zoro Amerindians! It is unbelievable but not once during our three months period of stay there has any field crop, other

than rice, been cooked and served at FUNAI cuisine. Indians are fed with food brought from outside meanwhile their crops piled up overripe and go rotten. Zoro are eager of manioc: not once they could have it at FUNAI cuisine. Instead they had Portuguese canned fish along with Italian spaghetti.

FUNAI controls everything that come in at Zoro village in order to force Amerindians to work in the fields. Those who do not obey to the outpost head's orders will not receive soap, clothes, hammocs, kettles, beads, deodorants (sic!), flash-lights, hooks, ammunitions, and stuff like that. Note that all those things should be given to the Indians as gifts, according to the rules, but they are not.

I believe that no FUNAI intervention is necessary in economic area, and therefore it should not be allowed to take place. Let the Indians organize their subsistence activities as they always did and they will be able to get production enough to live with and to have surplus for exchange of Western goods. FUNAI intervention is authoritarian and inefficacious, a real tragedy for Zoro Amerindians.

----- EDUCATION -----

There were no schools at Zoro village, but I know-since September 1984 that there was a project to build up a school ready to operate for Spring 1985. There is no need for such a thing. Nothing we can teach about to Zoro Amerindians can really serve them. They have no communication with Western society so they do not need to learn Portuguese. They already know everything they can make use of, why should they know more than that? Their knowledges in botanic, zoology,

geography are superior of ours. Should we teach them philosophy or computer science? As far as their overall situation is still like now, no school is needed at Zoro village.

Secondly, in which language will they be taught? There is no white person able to speak and to write Zoro language. Experiences made everywhere in the world have shown more than enough that the only way to teach indigenous peoples is one made by bilingual teachers and that at least the first 3/4 years they should be taught in their own indigenous language.

Building a school and putting a teacher in now is just one more way to speed the process of cultural disintegration under which Zoro are going from the very moment of their approach to FUNAI explorers few years ago. I do not see any reasonable justification for a school now at Zoro village. If money has been set apart for improving Zoro culture, it should be utilized for preserving their culture and not for destroying it.

----- FUNAI AGENTS -----

In fact, after their surrender to white people Zoro Amerindians have undergone an accelerated process of acculturation speeded by FUNAI agents and New Tribes missionaries. As a result, in September 1984, Zoro did not live any more in communal, traditional longhouses, did not drink manioc or maize beer, did not dance or feast. All of them are now dressed, attend evangelic services five times a week, are ashamed of their own history, tradition, culture, abandon traditional healing and take Western drugs.

FUNAI outpost head's dream is to shape them out as to be in any possible way like Brazilian peasants, and he, more than any other FUNAI agent, is

working hard on it. For example, he does not allow Zoro to speak their own language in his presence and never he address to them otherwise than in a kind of miserable Portuguese. Zoro keep silent. Unfortunately they have no choice but to agree. Zoro do not know Western society and they think that the only way to be accepted by Brazilians is to become such as FUNAI outpost head shows to them.

Rarely in my work as anthropologist across South America I have witnessed such a low quality of white personnel in Indian businesses. FUNAI agents at Zoro village have no habilities, no preparation, no training for work with Indian people and, nonetheless, they have been given an overwhelming power over the Indians. It is an enormous mistake. Indians are not children. They know how to take care for themselves and they always did. FUNAI agents should not be allowed to withdraw from Zoro their responsibility for their living. As I said two children died just because of the FUNAI outpost head. We denounced that, but he is still at his post.

The health attendant had made application for three places. FUNAI called him first and so, without any training nor instruction, he left a Brasilia-based hospital and fled to Zoro village. Is this serious?

There are people in Brazil able to cope with Indians. Bring them to Zoro village or else let the Indians alone and free.

----- finally -----

Dear sir I wanted you to know this unbelievable tale because we know you have strenght and power enough to ask FUNAI and Brazilian authorities to respect the indigenou peoples and their history. Amerindians are an important chapter of Polonoroeste accords but nobody seems to care. Their lans are not being demarcated, their cultures are not respected. Zoro, like Gaviao, Surui,

Cinta Larga, Arara, Nambikwara and other ethnic groups are at a turning point of their history upon which depends their very survival as peoples. Please make all you can to help them. I made few suggestions as they seem to me the most important things to do right now and, among them, I want to emphasize, once more the vital importance of DEMARCATING THEIR LANDS and respecting their autonomous way of life. Cutting of money is not a solution: I ask that the money you have to be spent for the Amerindians, be really used for their profit.

I thank you very much for your attention and, before ending, I want you to know that I am ready to continue this dialogue with you, if need be, and as far as Amerindians are concerned I am ready to help in everything.

Sincerely yours,



Gilio Brunelli

R1

United States Senate

WASHINGTON, D.C. 20510

May 30, 1985

cc: Mr. Anderson
6/06

636

The Honorable A. W. Clausen
President
The World Bank
Washington, D.C. 20433

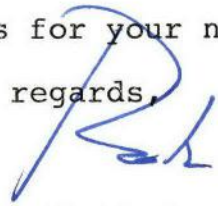
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Dear Tom:

Thank you so much for your note of May 23rd. I was delighted to have a chance to visit the Bank and found the meeting most helpful. I appreciate your cooperation on this and look forward to keeping in touch with you on the subjects we discussed.

Again, many thanks for your note.

Best regards,



Robert W. Kasten, Jr.

RWK/gw

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OFFICE OF THE PRESIDENT

May 23, 1985

Dear Bob:

Just a note to say how pleased we were to have the opportunity to discuss our operations, and particularly our environmental policies, with you yesterday. We were especially impressed with the pleasant and constructive manner in which you addressed this sometimes emotional subject.

On a personal note, it was good to have you visit the Bank for the first time. Needless to say, you are always welcome, and I hope you will not hesitate to call on me in the future on any matter concerning our institution.

Thank you again for coming.

Sincerely,



A. W. Clausen

The Honorable
Robert W. Kasten, Jr.
United States Senate
110 Hart Senate Office Building
Washington, D. C. 20510

JWStanton:MH

OFFICE MEMORANDUM

DATE: May 21, 1985

TO: Mr. A.W. Clausen
THRU: Mr. Jose Botafogo G.
FROM: J. William Stanton, VPE

EXT: 72173

SUBJECT: BRAZIL: POLONOROESTE Development Project
Proposed Schedule for Meeting with
Environmentalists - May 22 at 11:30 a.m.

1. INTRODUCE BANK PERSONNEL
2. PURPOSE OF MEETING IS TO DISCUSS THE CONCERNS OF THE ENVIRONMENTAL GROUPS IN A POLONOROESTE DEVELOPMENT PROJECT IN BRAZIL
3. SEEMS THAT A STARTING POINT WOULD BE TO EXPLAIN OUR OVERALL POLICY AND DEAL W/ ENVIRONMENTAL ISSUES. ENVIRONMENTAL IMPACT STUDIES
4

JWS

△

1. It is expected that Senator Kasten and Jim Bond would meet you in your office between 11:15 and 11:20. Messrs. Burnham, Stern and Botafogo will attend this pre-meeting. It is hoped that at this meeting we can have an opportunity to thank the Senator for his outstanding legislative accomplishment in securing both the authorization and appropriation for IDA-7.

2. The meeting might offer an opportunity to express to Kasten the Bank's view that this type of meeting is highly irregular and that the usual course of events would have the Executive Director from the country, in this case the U.S. E.D., handle the subject. However, it is also best to keep in mind that, for Bank interests, Senator Kasten is the most influential man in Congress and, as such, it is important that he leave the meeting with a positive feeling towards the Bank.

3. While Kasten is in your office, the participants will assemble in your conference room. It is expected that you will open the meeting by introducing those Bank personnel who are present. At that point you might invite Senator Kasten to introduce his guests and make any remarks he feels appropriate.

4. You might lead off the discussions by a giving a short history of the project. Mr. van der Meer has prepared an excellent briefing paper for you. It could be pointed out that the delay in responding, and what seemed like "inadequate" responses from the Bank, was due to the fact that, at that time, efforts were being made to resolve many of the problems pointed out in the environmentalists' letter; but the delicate nature of the negotiations between the government of Brazil and the Bank dictated at that time that we keep those discussions confidential. You might point out that this is Bank policy - the confidential relationship between a government and the Bank - and you strongly support this policy. As a result of a mid-year review, though, the government and the Bank agreed that, until May 15, the government would not submit disbursements to the Bank, and the Bank would not disburse any additional loan funds.

5. The purpose of the meeting is to discuss eight points raised by the environmentalists in their letter to the Bank. For this discussion, the meeting should be turned over to Mr. van der Meer to

TRANSITION GOVERNMENT NEWS ILLINOIS

*DIRECTOR: PROSEUS
DEPARTMENT: LATIN AM LNDG
V ACTION
VICKI PERI*

allow the operations staff to provide as much detail as the group wants. Mr. Burnham has alerted Mr. Stern that the conversation could take a more "general" turn in that the group may be more interested in Bank policy in general rather than just in Brazil, and, in such an instance, Mr. Stern and Mr. Husain would then take over. If, however, you see from the beginning that it is general Bank policy that the group is really interested in, then you might want to track this line of thought rather than be specific about Brazil. I would not even begin with your history of the project if this is apparent.

6. The Senator's office has informed us that he has a 12:30 commitment on the Hill.

bcc: Mr. Burnham
cc: Messrs. Stern, Husain, van der Meer
Attachment
JWS/jv

- DEPERSONALIZATION
- SPECIALIZATION
- GREEN BLIGHT
- ENERGY WASTE
- POPULATION

SOME PROJECTS ARE GOING IN THE REVERSE DIRECTION.

MORE STAFF & MONEY REORGANIZATION w/ IN THE BANK

HOW DO WE MONITOR?

WHAT CAN THE WORLD BANK DO IN BUREAUCRACY

PILORONASTE

TONGANO ROAD PROJECT - would fragments settlements. WHAT HAPPENS when we joints a project w/ good intentions. Land Titling + DEMARCATION.

BLACK WELDER

ENERGY Sector - Audio programs THAT US. MADE. INCREASE EFFICIENCY -

General Concerns

DISCUSSION OF BRAZILIAN ENVIRONMENTAL SITUATION

Wednesday, May 22, 11:30 a.m.

BANK STAFF

Resettlement Projects

UNITED STATES EXECUTIVE DIRECTOR

★ Mr. James Burnham

OPERATIONS COMPLEX

★ Mr. Ernest Stern, Senior Vice President, Operations

★ Mr. Shahid Husain, Vice President, Operations Policy Department

Latin America and Caribbean Region

★ ^{Beat} Mr. Suitbertus van der Meer, Acting Vice President

*Director Projects Department
↳ AC Region*

Mr. Roberto Gonzalez-Cofino, Division Chief, Brazil Country Programs

Mr. Nils Tcheyan, Senior Loan Officer, Brazil Country Programs

Ms. Maritta Koch-Weser, Monitoring and Evaluation Sociologist
Specialist, Agriculture B Division

EXTERNAL RELATIONS

★ Mr. Jose Botafogo G., Vice President

Mr. J. William Stanton, Senior Adviser

GUESTS

Senator Robert Kasten, Chairman, sub-Committee on Foreign Operations

Mr. James D. Bond, Foreign Operations Appropriations sub-Committee

Alex Echols, Senator Kasten's staff

Mr. Bruce Rich, Natural Resources Defense Council

Ms. Barbara Bramble, National Wildlife Federation

Mr. Brent Blackwelder, Environmental Policy Institute

Prof. David Maybury-Lewis, Dept. of Anthropology, Harvard University

STAFF POSITIONS

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CONFIDENTIAL
AUG 27 2013
WBG ARCHIVES

**BRIEFING NOTE ON THE
NORTHWEST REGION INTEGRATED DEVELOPMENT PROGRAM
(POLONOROESTE)**

1. In recent months, environmental groups, principally in the U.S. but increasingly in other Bank member countries as well, have intensified their criticism of the Northwest Region Integrated Development Program (POLONOROESTE) in Brazil. This criticism has often been accompanied by the suggestion that the Bank, as the major and only external lender to POLONOROESTE, should press the Brazilian Government for substantial improvements in the implementation of the program. The attached letter to Mr. Clausen, which was signed by various groups and individuals and sent under the aegis of the U.S.-based Natural Resources Defense Council, Inc. (NRDC), best illustrates the nature of the criticisms and questions that are being raised about POLONOROESTE. This note assesses the validity of these criticisms and questions, and provides information which can be used as a basis for a response. It is divided into three parts: the first provides some background discussion of POLONOROESTE; the second provides comments on each of the observations/suggestions in the NRDC letter; and the third discusses what the Bank is doing, in the context of its continuing dialogue with the Brazilian authorities, to help improve the implementation of POLONOROESTE so that its original objective of balanced and controlled development of the Northwest region can be achieved.

Background

2. POLONOROESTE encompasses an area of 410,000 sq km (about three quarters the size of France) in Rondonia and western Mato Grosso, which has one of the highest concentrations of fertile soils in the entire Brazilian Amazon region. In 1979, when the Brazilian Government first proposed to pave the 1500 km highway from Cuiaba to Porto Velho, the area was under virtually uninterrupted forest cover, and had a total population of no more than a million. Less than five percent of the forest area had been cleared. In the 1970s several promising INCRA colonization schemes had been developed, but these suffered from a lack of road infrastructure, agricultural support services, health and education facilities. The region was linked to the rest of the country by the unpaved BR-364 highway, which was impassable during parts of the year.

3. In 1980, the Bank undertook a comprehensive, multidisciplinary study of the region which would be opened up by paving the BR-364 highway and also reviewed the performance of colonization schemes elsewhere in the Amazon. Its report, "The Integrated Development of Brazil's Northwest Frontier," provided the intellectual underpinnings for the Bank's strategy for assisting the development of the Northwest region. This report stressed the importance of achieving sustainable and socially beneficial agricultural development in the Northwest region. Emphasis was placed on promoting perennial crops and other measures conducive to sustained

agriculture, and on limiting agricultural development to areas with high soil potential. Other areas were to remain untouched as biological, ecological or Amerindian reserves, or to be managed as forest reserves or National Forests (except certain areas already designated for large-scale farming). The study emphasized the need for further research into the many unknowns of the region and for environmental monitoring.

4. The Bank is supporting POLONOROESTE through five separate projects, which were designed to be implemented as integral elements of a single regional development program. Three of them were approved simultaneously towards the end of 1981. They were: (a) the NW I Highways Project (Loan 2062-BR, \$240 million), which involves the paving of the main highway across the region (BR-364), construction of some of the feeder roads extending away from that highway and road maintenance institution-building; (b) the NW I Health Project (Loan 2061-BR, \$13 million), which aims at malaria control in the whole state of Rondonia, development of further health services in the Rondonia settlement areas and research into health-related topics; and, (c) the NW I Agricultural Development and Environmental Protection Project (Loan 2060-BR, \$67.0 million) which dealt with all other components of the proposed strategy in the region, except rural development activities in Mato Grosso which are being financed separately through the second phase of the program approved in 1982 (Loan 2116-BR, \$26.4 million), and the establishment of new settlements in Rondonia, which are being financed through the third phase approved in 1983 (Loan 2353-BR, \$65.2 million). Including a supplemental loan for the NW I Project (US\$22.8 million approved in December 1983), total lending for the program amounts to \$434.4 million. (In addition, some feeder roads in the project area have been built with funds from the third Feeder Roads Project, Loan 2224-BR).

5. A fundamental objective of POLONOROESTE was to steer continuing migration away from Amerindian land and the more ecologically fragile areas and to discourage agricultural practices which, on a large scale, would damage even the richer soils of the region. The strategy to achieve this objective consisted of: (a) providing the farmers with the funds (mainly agricultural investment credit), services (health, extension and marketing) and infrastructure which would make intensive, perennial cropping and forestry development more economically attractive options than extensive annual cropping or ranching, which are virtually the only options available to unassisted farmers; (b) channelling new settlers to areas of proven agricultural potential, refraining from providing access to areas of lesser or unknown potential, and monitoring the integrity of and preventing squatting in the latter areas as well as in Amerindian and biological reserves; and, (c) promoting research into the many unknowns of the local environment, monitoring the impact of the economic activities on the forest, water and climate of the region (for corrective action as required), and establishing and consolidating a number of national forests and parks, ecological stations and Amerindian and biological reserves. In view of the observed institutional weaknesses, an amount of US\$10 million

was budgeted for program coordination and staff training. The loan agreements also put special emphasis on the Special Project for Amerindian protection and overall program monitoring and evaluation.

Implementation of POLONOROESTE

6. The initial year of program implementation showed satisfactory progress. However, as noted by subsequent supervision missions, and more recently, by the mid-term program review mission which visited Brazil in November/December 1984, increasingly serious imbalances in the program have developed for a number of reasons, including the fact that the institutional capacity to manage and coordinate this complex, integrated program has not developed as expected; differences in implementation capacity of the various agencies; and, inadequate financial and staffing support for key program components. As a result, many components of POLONOROESTE are facing difficulties, and are either not reaching or are departing significantly from their original objectives, particularly environmental and Amerindian protection, forestry development, and small farmer agricultural development on a sustainable basis. While a number of individual component targets are being achieved, particularly in infrastructure construction, overall performance relative to the program objective of balanced and controlled regional development has been deficient.

7. The observations in the attached NRDC letter about the present POLONOROESTE situation are generally in line with those of the Bank supervision missions. This coincidence of views is not surprising since the NRDC made use of reports prepared by consultants responsible for the evaluation of POLONOROESTE, which were partly financed by the Bank loans. The following provides comments on some of the NRDC's observations/suggestions, including an updating of where things now stand.

- o New Settlement Along the BR-429 Highway. The construction of the BR-429 highway which would provide access from the Bank-financed BR-364 highway to the southwestern part of the state of Rondonia has in fact already attracted many illegal settlers. Systematic surveillance and patrol activities along the BR-429 highway need to be undertaken to keep the problem from worsening. Basically, as is the original program strategy (para. 5), new settlement along BR-429 as well as in all other areas with unsuitable soils should be stopped. The basic question is how to contain the overall flow of migration and to channel it to areas with suitable soils. Specific proposals in this regard have been prepared by the mid-term review mission and will be discussed with the new Government shortly.
- o Immediate Demarcation and Protection of Amerindian Land and Provision of Health and Other Services. Despite chronic problems in the implementation of the Special Project for Amerindian protection, substantial accomplishments have also been made. Nineteen Amerindian areas are now demarcated, and a step away

from being decreed as reserves by the President of the Republic. The assistance provided by FUNAI, the Brazilian National Indian Foundation, to the Nambikwara Indians in the much-discussed Guapore Valley in Mato Grosso has been substantially upgraded through the creation of additional Indian posts and health services. FUNAI's FY85/86 approved budget is almost 500% larger than the actual FY84/85 budgetary allocation (from US\$1.3 million to US\$7.7 million) with much of the increase to finance an expansion in the agency's protection, health and land activities. Overall, because of the Special Project, the lands and physical survival of the Amerindians have been effectively protected and the quality of assistance provided to most of them in the POLONOROESTE area is unsurpassed elsewhere in Brazil.

- o Measures to Deal with Deforestation, Land Speculation and Conversion to Cattle. Dealing effectively with these problems requires an overall shift in priorities in the current implementation of POLONOROESTE, with considerably more emphasis than before on the provision of services and financing to small farmers and the protection of the environment, and lower priority to infrastructure construction. Measures to enhance the feasibility and economic attractiveness of perennial cropping and forestry development and to redistribute idle land in areas of good soils suitable for perennial crops need to be considered, along with improved deforestation monitoring, more effective policing of illegal deforestation, development of protection plans for national forests, and more intensive research on alternative cropping systems appropriate to the soils in the region. Specific proposals have been developed by the mid-term review mission and will be discussed with the Government shortly.

- o Adequate Protection and Management of Biological Reserves, the National Park, Ecological Stations, and the National Forests. The NRDC observation is not completely up to date: (i) one of the National Forests (the Jamari National Forest) has been legally established since September 1984; (ii) the Guapore and Jaru biological reserves have also been established; (iii) an agreement between FUNAI and IBDF, the Brazilian Institute for Forestry Development, for the protection of the Paacas Novos National Park and the nearly coincident Uru-eu-wau-wau reserve has been signed; and, (iv) four ecological stations of SEMA, the Special Secretariat for the Environment, have been constructed and equipped. It is true, however, that the management and implementation of the forestry, environmental protection and ecological research components of POLONOROESTE require considerable improvement, and that the so-called "protected areas" are not now receiving the protection that was originally envisaged.

- o Redesign or Cancellation of State Highway 370, 377 and 383 in Rondonia. There are no current plans to build the roads and their inclusion on some older maps was a holdover from a general road network planning exercise carried out in the late 1970s.
- o Adjustment of the POLONOROESTE Loan Agreements and the Funding of Special Projects to Strengthen FUNAI, IBDF, and Government Agencies Providing Services to the Settlers. Clearly, a shift in priorities within POLONOROESTE would have to be supported by a major reallocation of the undisbursed Bank loans (about US\$199 million) and government counterpart funds, with adjustments in the loan agreements, if required. Direct Bank financing for the Amerindian component, which previously did not receive direct Bank financial support, could be considered if the Government wants it.
- o Halt Nationwide Advertising Promoting Migration to the POLONOROESTE Region. The impact of such advertising is limited. Most of the migrants had never seen, listened to or read such advertisements. In fact, migration to the area has been going on since the late 1960s, in response to a combination of various "push" (e.g., lack of secure access to land and limited employment and income opportunities in region of origin) and "pull" factors (e.g., availability of land, high employment and income expectations). While the relative importance of these various factors is not clear, a strategy to effectively control the flow of migration would have to address both sides of the problem (see next point below). Specific proposals for weakening the attraction of the "pull" factors have been developed by the mid-term review mission and will be discussed with the Government soon.
- o Exercise Maximum Leverage, Including Reconsideration of Planned Lending for Other Agricultural Projects. Conditioning the Bank's agricultural lending for other parts of Brazil on the resolution of POLONOROESTE issues is likely to be counterproductive as this lending supports projects which help to reduce the pressure for migration into the Northwest region.

Action Program

8. The problems affecting POLONOROESTE, particularly the inadequate implementation of the Special Project for Amerindian protection, were discussed intensively with various levels of the previous Brazilian administration. As a result, several measures were taken, including the completion of an action plan and all legal steps preparatory to the eviction of squatters from the Lourdes reserve, the delimitation and preparation of demarcation plans for the reserves of the Uru-eu-wau-wau and Zoros groups, and, as noted above, the signing of an agreement between FUNAI and IBDF for the protection of the Pacaas Novos National Park.

9. The Bank has already initiated discussions on POLONOROESTE with the administration which took office on March 15, 1985. As already noted, specific proposals to improve the implementation of POLONOROESTE, based on the recommendations of the mid-term program review, have been prepared and will be discussed with the new Government soon. For this purpose, a Bank mission is tentatively scheduled to visit Brazil in early April. The proposals cover: (i) the reorganization and strengthening of present institutional and coordination arrangements and upgrading of staff capabilities; (ii) temporary moratorium on all construction not related to the protection of environmental, forest and Amerindian reserve lands, malaria control activities and measures absolutely essential to the consolidation of previous infrastructure investments; (iii) improved funding arrangements to ensure the timely availability of financial resources required by the program; (iv) measures to reduce immigration into the Northwest region; (v) forestry and environmental protection, and, (vi) Amerindian protection. The Bank's intention is to reach agreement in principle with the Government on the broad action program by mid-April, leading to a final agreement on the specific timetable and operational details of the action program by mid-May.

10. The new administration has indicated its intention to complete the actions for Amerindian protection which were initiated by the previous administration, and to take the measures needed to ensure the achievement of original program objectives. In the meantime, the Government has decided to refrain from submitting applications for withdrawals under any of the Bank loans in support of POLONOROESTE.

Natural Resources Defense Council, Inc.

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212 949-0019

Western Office

25 KEARNY STREET

SAN FRANCISCO, CALIF. 94104

415 431-0501

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Clausen:

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Program (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the program lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Program was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of measures to protect the environment and Amerindian population of the Program area, there are strong indications that the Bank has lost control over - or will not take effective measures to control - the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitats and irreplaceable biological diversity are threatened as never before.

In spite of this evidence -- and in disregard of the terms of the Loan Agreement for Phase I of the Program -- the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Program) was to help Brazil maintain development momentum in the face of the

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Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740

lingering world recession, it violated basic principles of sound management by accelerating funding for a program which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Program account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso -- and of the thousands of indigenous people and non-Indian settlers dependent on these resources -- rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.
2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.

4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological Reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.
6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the U.S. Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with

the concern of a number of U.S.-environmental organizations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the U.S. Treasury Department "to press the issue of the environment with the Bank. Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the U.S. Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programs such as Polonoroeste. These programs which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonocoeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological

design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Program
Natural Resources Defense Council

Thomas B. Stoel, Jr., Director
International Program
Natural Resources Defense Council

Barbara Bramble, Director
International Program
National Wildlife Federation

Jack Lorenz
Director
Izaak Walton League of America

Michael Bean, Director
Wildlife Project
Environmental Defense Fund

Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute

Fran Lipscomb
Director of International Issues
National Audubon Society

Liz Raisbeck
Legislative Director
Friends of the Earth

Shelton Davis, Executive Director
Anthropology Resource Center

Kenneth I. Taylor
Executive Director
Survival International, U.S.A.

David Maybury-Lewis
Executive Director
Cultural Survival, and
Professor, Department
of Anthropology, Harvard
University

Dr. Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia
(Brazilian Anthropological
Association)

Deputado (Deputy) List Vieira
Lider do Partido dos Trabalhadores e Presidente
da Comissao Especial de Estudos Ecologicos a
Assembleia Legislativa do Estado do Rio de
Janeiro (Leader of the Labor Party and
President of the Special Commission on
Ecological Studies, Legislative Assembly of
the State of Rio de Janeiro)

Nancy Oestreich Lurie
President, American
Anthropological Association

Helio Saboya
President, Ordem dos Advogados do
Brasil (Brazilian Bar Association)
Seccional do Rio de Janeiro

Willi Hoss
Gaby Gottwald
Julius Krischan
Dr. Erika Hickel
Gert Jansen
Marie-Louise Beck-Oberdorf
Antje Vollmer
Walter Schwenninger
Jurgen Reents
Roland Vogt
Hans Verheyen
(MEMBERS OF THE WEST GERMAN BUNDESTAG)

Roque Sevilla Larrea, President
Fundacion Natura
Quito, ECUADOR

Anil Agarwal, Chairman
Environmental Liaison Center
Nairobi, Kenya; and
Director, Center for Science
and Environment
Delhi, INDIA

Helena Norberg-Hodge
Co-Director
Ladakh Ecological Development Group
Leh, Ladakh, INDIA

Georg Henriksen, Director
International Working Group
for Indigenous Affairs (IWGIA)
Copenhagen, DENMARK

Gesellschaft fur Bedrohte Volker
Gottingen, WEST GERMANY

Ben Whittaker, Director
Minority Rights Group
London, UNITED KINGDOM

Marcus Colchester
Survival International
UNITED KINGDOM

Bruce Albert
Survival International
FRANCE

Beate Engelbrecht
Incm Indios
Basel, SWITZERLAND

Jeremy Swift, Chairman
The Anti Slavery Society for
the Protection of Human Rights
London, UNITED KINGDOM

Henrik Persson
Chairman
Fourth World Association of Sweden
Solna, SWEDEN

Flavio Lewgoy, President
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
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Porto Alegre, BRAZIL

Jose Lutzenberger, Ecologist
Associacao Gaucha de Protecao ao Ambiente
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Julio M. G. Gaiger, President
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ao Indio (ANAI) (National Indian Support
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Porto Alegre, BRAZIL

Ordep Serra
President,
Associacao Nacional de Apoio ao Indio
(National Indian Support Association)
Bahia, BRAZIL

Aracy Lopes da Silva
Presidente
Comissao Pro Indio/Sao Paulo
BRAZIL

Magda Renner
President
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of
Rio Grande do Sul)
Porto Alegre, BRAZIL

May 20, 1985

Dear Senator Kasten:

I am looking forward to our 11:30 a.m. meeting on Wednesday morning. Since this will be your first visit to the Bank during my tenure, I wonder if you could join me in my office for a few minutes prior to the meeting -- at around 11:20 a.m.? I would like to have a chance to privately express our appreciation for the key role you played last year in securing both the authorization and the appropriation of IDA-7.

Attached is a list of personnel from the Bank who, in addition to myself, will be present at the meeting.

Sincerely,



A. W. Clausen

The Honorable
Robert W. Kasten, Jr.
United States Senate
110 Hart Senate Office Building
Washington, D. C. 20510

Enclosure

JWS:MH

DISCUSSION OF BRAZILIAN ENVIRONMENTAL SITUATION

Wednesday, May 22, 11:30 a.m.

UNITED STATES EXECUTIVE DIRECTOR

Mr. James Burnham

OPERATIONS COMPLEX

Mr. Ernest Stern, Senior Vice President, Operations

Mr. Shahid Husain, Vice President, Operations Policy Department

Latin America and Caribbean Region

Mr. Suitbertus van der Meer, Acting Vice President

Mr. Roberto Gonzalez-Cofino, Division Chief, Brazil Country Programs

Mr. Nils Tcheyan, Senior Loan Officer, Brazil Country Programs

Ms. Maritta Koch-Weser, Monitoring and Evaluation Sociologist
Specialist, Agriculture B Division

EXTERNAL RELATIONS

Mr. Jose Botafogo G., Vice President

Mr. J. William Stanton, Senior Adviser

May 20, 1985

TED STEVENS, ALASKA
LOWELL P. WEICKER, JR., CONNECTICUT
JAMES A. MCCLURE, IDAHO
PAUL LAXALT, NEVADA
JAKE GARN, UTAH
THAD COCHRAN, MISSISSIPPI
MARK ANDREWS, NORTH DAKOTA
JAMES ABDNOR, SOUTH DAKOTA
ROBERT W. KASTEN, JR., WISCONSIN
ALFONSE M. D'AMATO, NEW YORK
MACK MATTINGLY, GEORGIA
WARREN RUDMAN, NEW HAMPSHIRE
ARLEN SPECTER, PENNSYLVANIA
PETE V. DOMENICI, NEW MEXICO

JOHN C. STENNIS, MISSISSIPPI
ROBERT C. BYRD, WEST VIRGINIA
WILLIAM PROXMIRE, WISCONSIN
DANIEL K. INOUE, HAWAII
ERNEST F. HOLLINGS, SOUTH CAROLINA
LAWTON CHILES, FLORIDA
J. BENNETT JOHNSTON, LOUISIANA
QUENTIN N. BURDICK, NORTH DAKOTA
PATRICK J. LEAHY, VERMONT
JIM SASSER, TENNESSEE
DENNIS DeCONCINI, ARIZONA
DALE BUMPERS, ARKANSAS
FRANK R. LAUTENBERG, NEW JERSEY
TOM HARKIN, IOWA

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, DC 20510

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

May 16, 1985

Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

I very much appreciated your response to my earlier letter in which I called upon the World Bank to provide a group of highly respected environmentalists a more thorough and responsive answer to some very legitimate concerns they expressed to the Bank in a letter to you dated October 12, 1984.

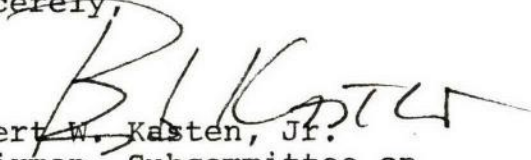
Your suggestion that a meeting be arranged with these individuals to discuss their concerns is very appropriate. As I know Bill Stanton has indicated to you, I have waited to reply to your letter until such time as I could suggest the individuals for that meeting, which I understand is now scheduled for 11:30 a.m. on May 22nd in your office. In addition to myself and James D. Bond of the Foreign Operations Appropriations Subcommittee staff, and Alex Echols of my personal staff, accompanying me to the meeting will be: Mr. Bruce M. Rich of the Natural Resources Defense Council; Ms. Barbara Bramble of the National Wildlife Federation; Mr. Brent Blackwelder of the Environmental Policy Institute; and Prof. David Maybury-Lewis of the Department of Anthropology of Harvard University.

In order that our discussions have the fullest impact and make the best contribution possible to solving the environmental concerns we are interested in, I believe it is important that in addition to yourself the Senior Vice President for Operations, Mr. Ernest Stern; the Vice President, Operations Policy, Mr. S. Shahid Husain; the Regional Vice President for Latin America and the Caribbean, Mr. A. David Knox, participate in the meeting. This is also a matter I know was earlier discussed with Mr. Stanton.

Mr. A. W. Clausen
May 16, 1985
Page Two

I thank you for your personal cooperation in this matter, and I look forward to seeing you on May 22nd.

Sincerely,


Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

RWK:jdb

THE WORLD BANK
Washington, D. C. 20433
U. S. A.

A. W. CLAUSEN
President

February 21, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator Kasten:

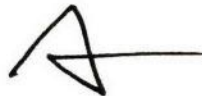
This letter refers to your request of January 24, 1985 that we in The World Bank address more directly the concerns expressed by various groups and individuals through the Natural Resources Defense Council, Inc. (NRDC) in regard to The World Bank-supported Northwest Region Integrated Development Program (POLONOROESTE).

I would like to confirm the earlier response of our Latin America and Caribbean Regional Office to the NRDC that we take very seriously the fact that the measures to protect the Amerindian population and the environment envisaged in the POLONOROESTE are not being fully taken. Our concerns have been expressed on a number of occasions to the Brazilian authorities. They have assured us of their Government's determination to take the necessary steps to protect the Amerindian population and the environment in the Northwest of Brazil. We have since continued to work very closely with the Brazilian authorities to work out the detailed measures required but with the clear understanding on both sides that the problems had to be resolved quickly.

We have kept James B. Burnham, United States Executive Director in The World Bank, informed of the status and implementation problems of the POLONOROESTE projects. Mr. Burnham will be in touch with you on the details of what is being done and the current status of the discussions.

Let me assure you that we share your concerns about POLONOROESTE and that we shall try to do the utmost, in the context of our continuing dialogue with the Brazilian authorities, to ensure that POLONOROESTE succeeds in achieving its original objectives.

Sincerely,



✓ CC: James B. Burnham

✓ BC: Messrs. Stern, Stanton, Blinkhorn, Collell, Batstone

February 5, 1985

Dear Senator Kastan:

I am in receipt of your letter about our response to the various environmental groups on the consequences of projects financed by the Bank in Brazil. We are working on a reply to the issues you raised and will be back to you with our reply shortly.

Sincerely,



A. W. Clausen

The Honorable
Robert W. Kastan, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

bcc: Mr. E. Stern
Mr. D. Knox
Mr. S. Husain
Mr. Wm. Stanton

VRS: sbp

(Log #122)

TED STEVENS, ALASKA
LOWELL P. WEICKER, JR., CONN.
JAMES A. MC CLURE, IDAHO
PAUL LAXALT, NEV.
JAKE GARN, UTAH
THAD COCHRAN, MISS.
MARK ANDREWS, N. DAK.
JAMES ABDNOR, S. DAK.
ROBERT W. KASTEN, JR., WIS.
ALFONSE M. D'AMATO, N.Y.
MACK MATTINGLY, GA.
WARREN RUDMAN, N.H.
ARLEN SPECTER, PA.
PETE V. DOMENICI, N. MEX.

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ROBERT C. BYRD, W. VA.
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WALTER D. HUDDLESTON, KY.
QUENTIN N. BURDICK, N. DAK.
PATRICK J. LEAHY, VT.
JIM SASSER, TENN.
DENNIS DE CONCINI, ARIZ.
DALE BUMPERS, ARK.

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

January 24, 1985

122
Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

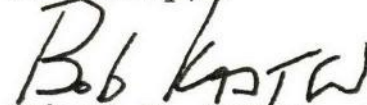
I am enclosing a copy of a letter which was sent to you some time ago, together with the response to that letter by your Latin America and Caribbean Regional Office.

The letter to you was an effort by a number of serious and respected groups and individuals who are interested in the environmental affects of World Bank development projects. I believe they raised a number of legitimate concerns and suggested some reasonable approaches to alleviate those concerns. The response from the World Bank was at best a brush-off, but frankly, more correctly described as an insult.

As you know better than anyone else, securing support for U. S. contributions to multilateral development institutions is difficult at best. That the World Bank would respond in such a cavalier fashion to groups and individuals who would otherwise support their programs is most difficult to understand.

The questions and concerns raised in the October 12th letter to you are legitimate and deserve a credible and responsive answer. I, therefore, put these questions and concerns to you and ask that you respond to me as Chairman of the Foreign Operations Appropriations Subcommittee.

Sincerely,



Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

Enclosures

RWK:jdb

November 7, 1984

Mr. Bruce M. Rich
Attorney, International Program
Natural Resources Defense Council, Inc.
1350 New York Avenue, N.W. - Suite 300
Washington, D.C. 20005

Dear Mr. Rich:

I am writing to thank you for your letter and attached document to Mr. Clausen, dated October 12, 1984, regarding the Northwest Region Integrated Development Program (POLONOROESTE). As you are aware, POLONOROESTE is a carefully planned regional development program, which seeks to stabilize and maximize the economic development of the region, while minimizing the risks to the regional ecology and Amerindian populations. We very much share the concerns you have noted in your letter. We have discussed them in detail with the Brazilian authorities and are encouraged by those discussions to believe that effective action will be taken. We recognize, however, that close monitoring will be necessary and we will therefore continue to follow the situation very carefully. If and when appropriate, and consistent with our ongoing reviews of program implementation, we will recommend to the Government needed modifications to the design and implementation of the program so that its long-term objectives can be achieved.

You can be sure that the Bank is continuing to monitor the situation closely, and that your concerns will be considered as POLONOROESTE continues.

With best regards,

Sincerely yours,



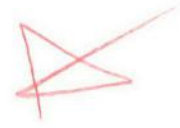
Roberto Gonzalez Cofino
Chief, Brazil Division
Latin America and Caribbean
Regional Office

cleared with & cc: Messrs. Martinusen, LCP; Blinkhorn, IPA
cc: Messrs. Clausen
Knox
Gué, LC2DR
Goodland, PPDES
Ms. Koch-Weser, AGRME

NOTcheyan: cgm

OFFICIAL FILE COPY

October 15, 1984



Dear Mr. Rich:

This note is to acknowledge receipt of your letter and memoranda concerning the Brazil Polomoroeste Program. I have passed this material on to my colleagues responsible for our program in Brazil and they will be in touch with you shortly.

Sincerely,

A. W. Clausen

Mr. Bruce M. Rich, Attorney
International Program
Natural Resources Defense
Council, Inc.
1350 New York Avenue, N.W.
Suite 300
Washington, D.C. 20005

bcc: Mr. Ernest Stern
Mr. Andre Gue
Mr. Peter Riddleberger

VRS: sbp

(Log 1103 & 1104)

Natural Resources Defense Council, Inc.

1350 NEW YORK AVENUE, N.W.

SUITE 300

WASHINGTON, D.C. 20005

202 783-7800

New York Office

122 EAST 42ND STREET

NEW YORK, N.Y. 10168

212 949-0049

Western Office

25 KEARNY STREET

SAN FRANCISCO, CALIF. 94108

415 421-6561

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

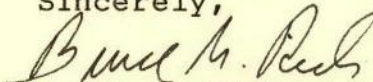
Dear Mr. Clausen,

The signatories of the enclosed letter and memoranda wish to call the attention of the Bank to the need to address serious problems in the Bank financed Brazil Polonoroeste Program. The letter is a public document, and as such is being widely distributed.

Because of the large number of signatories, I have been asked to serve as the intermediary for the Bank's response.

Thank you very much for your attention to this matter.

Sincerely,



Bruce M. Rich, Attorney
International Program

New England Office: 850 BOSTON POST ROAD • SUDBURY, MA. 01776 • 617 237-0472

Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740



OFFICE OF THE PRESIDENT

1984 OCT 15 PM 12: 28

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Natural Resources Defense Council, Inc.

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415 421-6561

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Clausen:

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Program (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the program lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Program was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of measures to protect the environment and Amerindian population of the Program area, there are strong indications that the Bank has lost control over - or will not take effective measures to control - the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitats and irreplaceable biological diversity are threatened as never before.

In spite of this evidence -- and in disregard of the terms of the Loan Agreement for Phase I of the Program -- the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Program) was to help Brazil maintain development momentum in the face of the

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Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740



lingering world recession, it violated basic principles of sound management by accelerating funding for a program which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Program account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso -- and of the thousands of indigenous people and non-Indian settlers dependent on these resources -- rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.
2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.

4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological Reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.
6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the U.S. Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with

the concern of a number of U.S. environmental organizations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the U.S. Treasury Department "to press the issue of the environment with the Bank. Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the U.S. Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programs such as Polonoroeste. These programs which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonoroeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological

design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Program
Natural Resources Defense Council

Thomas B. Stoel, Jr., Director
International Program
Natural Resources Defense Council

Barbara Bramble, Director
International Program
National Wildlife Federation

Jack Lorenz
Director
Izaak Walton League of America

Michael Bean, Director
Wildlife Project
Environmental Defense Fund

Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute

Fran Lipscomb
Director of International Issues
National Audubon Society

Liz Raisbeck
Legislative Director
Friends of the Earth

Shelton Davis, Executive Director
Anthropology Resource Center

Kenneth I. Taylor
Executive Director
Survival International, U.S.A.

David Maybury-Lewis
Executive Director
Cultural Survival, and
Professor, Department
of Anthropology, Harvard
University

Dr. Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia
(Brazilian Anthropological
Association)

Deputado (Deputy) List Viera
Lider de Partido dos Trabalhadores e Presidente
da Comissao Especial de Estudos Ecologicos
Assembleia Legislativa do Estado do Rio de
Janeiro (Leader of the Labor Party and
President of the Special Commission on
Ecological Studies, Legislative Assembly of
the State of Rio de Janeiro)

Nancy Oestereich Lurie
President, American
Anthropological Association

Helio Saboya
President, Associacao dos Adevogados do
Brazil (Brazilian Bar Association)
Secional do Rio de Janeiro

Willi Hoss
Gaby Gottwald
Julius Kriscan
Dr. Erika Hickel
Gert Jansen
Marie-Louise Beck-Oberdorf
Antje Vollmer
Walter Schwenninger
Jurgen Reents
Roland Vogt
Hans Verheyen
(MEMBERS OF THE WEST GERMAN BUNDESTAG)

Roque Sevilla Larrea, President
Fundacion Natura
Quito, ECUADOR

Anil Agarwal, Chairman
Environmental Liaison Center
Nairobi, Kenya; and
Director, Center for Science
and Environment
Delhi, INDIA

Helena Norberg-Hodge
Co-Director
Ladakh Ecological Development Group
Leh, Ladakh, INDIA

Georg Henriksen, Director
International Working Group
for Indigenous Affairs (IWGIA)
Copenhagen, DENMARK

Gesellschaft fur Bedrohte Volker
Gottingen, WEST GERMANY

Ben Whittaker, Director
Minority Rights Group
London, UNITED KINGDOM

Marcus Colchester
Survival International
UNITED KINGDOM

Bruce Albert
Survival International
FRANCE

Beate Engelbrecht
Incom Indios
Basel, SWITZERLAND

Jeremy Swift, Chairman
The Anti-Slavery Society for
the Protection of Human Rights
London, UNITED KINGDOM

Flavio Lewgoy, President
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
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Porto Alegre, BRAZIL

Jose Lutzenberger, Ecologist
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
Protection of Nature of Rio Grande
do Sul) Porto Alegre, BRAZIL

Julio M. G. Gaiger, President
Associacao Nacional de Apoio
ao Indio (ANAI) (National Indian Support
Association)
Porto Alegre, BRAZIL

Ordep Serra
President,
Associacao Nacional de Apoio ao Indio
(National Indian Support Association)
of Bahia, BRAZIL

Magda Renner
President,
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of
Rio Grande do Sul)
Porto Alegre, BRAZIL

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1994 OCT 15 PM 12:28

OFFICE OF THE PRESIDENT

OFFICE MEMORANDUM

DATE: May 16, 1985

TO: Mr. A. W. Clausen
(through Mr. Ernest Stern) *ES.*FROM: Suitbertus M. L. *pm* van der Meer, Acting Vice President, LAC

DECLASSIFIED

CONFIDENTIAL

AUG 27 2013

WBG ARCHIVES

EXTENSION: 75906

SUBJECT: BRAZIL - Briefing for Your Meeting with Senator Kasten (Chairman,
Subcommittee on Foreign Operations, Committee on Appropriations)
Regarding the Northwest Region Integrated Development Program

1. On May 22, at 11:30 a.m. you will be meeting with Senator Robert W. Kasten, Jr. to discuss the Bank's involvement in Brazil's Northwest Region Integrated Development Program (POLONOROESTE). As you know, Senator Kasten wrote to you last January, seeking a more comprehensive response to an earlier letter which was sent to the Bank by the Natural Resources Defense Council Inc. (NRDC), dated October 24, 1984. The purpose of this note is to provide you with the background to POLONOROESTE, to inform you of its current status, and to set out some points which you may want to make during the meeting. In addition to myself, Messrs. Stanton, Gonzalez Cofino, Lee, Tcheyan and Mrs. Koch-Weser, will attend the meeting. Mr. Stanton has sent you separately a list of those persons invited by Senator Kasten. (A copy of Senator Kasten's letter, the NRDC letter, and a summary of answers to the specific question raised by the NRDC which would be given by Bank staff in the meeting are attached for your information.)

Background

2. In 1980, the Bank undertook a general economic survey of the Northwest Region. It concluded that the region has high potential for economic development based on agriculture. However an uncontrolled and spontaneous settlement process which could become harmful to the regional ecology had begun in the late 1960s when the BR-364 dirt highway was built. The development of services and other support infrastructure which were required to achieve the economic development potential of the region, and provided for by POLONOROESTE, would also attract migrants, thereby increasing pressure on the environment. The report set out a strategy to steer continuing migration away from fragile and/or ecologically exceptional areas of the region (including Amerindian areas) and encourage agricultural practices which would preserve its long-term agricultural potential. The strategy consists of: (a) providing farmers with investment credit, services and infrastructure which would make intensive, perennial cropping and forestry development more attractive than traditional practices of extensive annual cropping or ranching; (b) channelling new settlers to areas of proven agricultural potential, limiting access to areas of lesser or unknown potential, and preventing squatting in these areas as well as in Amerindian and biological reserves; (c) monitoring the impact of economic activities on the forest, water and climate of the region (for corrective action as required); and (d) establishing and consolidating a number of natural parks, ecological stations and Amerindian reserves. Bank support of POLONOROESTE totals US\$434.4 million, provided through five separate projects and one supplemental finance loan, approved between 1981 and 1984.

Program Implementation and Current Status

3. Program implementation began in mid-1981. In September, 1984, paving of the BR-364 was completed, one year ahead of schedule. However, a mid-term review of the Program, carried out from April 1984 - November 1984 showed that the Program has placed too much emphasis on infrastructural development and not enough on institution building, services to farmers, and protection of the environment and Amerindian population. As a result, the key agricultural and environmental objectives of the program were not being achieved. In addition, specific action on five reserves provided for under the Special Project for Protection of Amerindians had not been carried out. As a result, the Government agreed not to send disbursement applications to the Bank, at least until May 15, 1985, and the Bank agreed also to postpone, until at least that date, any formal suspension of the loans. Substantial progress has been made in resolving these difficulties, and the informal suspension has been continued for about two weeks, at which time the Government will officially inform the Bank of progress made.

4. We can report that, to date, the Government has taken substantial actions to remedy the main issues raised by the Bank. Prospects for implementation of the Special Project are now satisfactory. An Action Program which had been discussed with the Government as the result of the mid-term review was fully accepted in terms of proposed objectives and time frame. The Action Program provides for a set of implementation measures to bring the various elements of the Program into better balance. To this end, the FY85/86 Program budget has been revised to give priority to non-infrastructural elements.

Points You May Wish to Make

5. The delegation with Senator Kasten has been sharply critical of the Bank's involvement in POLONOROESTE, arguing that the Government did not fulfill its agreements with the Bank, and that the Bank had not enforced its agreements, and particularly environmental issues, vigorously enough. You may wish to make the following general points to the delegation regarding the Bank's role in POLONOROESTE.

(a) The Program was planned and negotiated with the Government over a two-year period. It was based on a careful assessment of the region's economic potential and the accompanying risks to the regional environment and Amerindians. The Bank's analysis was published, and distributed to the public in a report entitled "The Integrated Development of Brazil's Northwest Frontiers" in 1981;

(b) The Bank and the Government reached a set of comprehensive agreements for Program and project implementation. Overall, they provide for balanced regional development, while attempting to minimize the risks to the environment. These agreements were negotiated over two years, and it should be recognized that in areas of dynamic growth there will continue to be tension between

May 16, 1985

those who would pursue development strategies based on high short-term returns, and those who would pursue strategies aimed at long-term returns. The Bank monitored carefully development of the Program, focusing in 1982 on assuring that the institutional and administrative framework for carrying it out were in place. In 1983 and 1984, supervision focused on agricultural, environmental and Amerindian issues. During this period, the Bank became increasingly concerned about the imbalance of infrastructural vs. non-infrastructural components. This concern was raised repeatedly with the Government. We are encouraged by the continued positive response of the Government -- as indicated by their adoption of the Action Program -- and believe that the imbalances in implementation will be remedied;

(c) The easiest course of action for the Bank would have been to reject the project, thereby avoiding any criticism and "playing it safe". This would not, however, have prevented irreversible environmental degradation and harm to the tribal people from occurring as a result of continuing uncontrolled settlement. Bank participation required these issues to be considered in Program planning and execution, and the measures that were incorporated were appropriate and balanced; and,

(d) We look forward to the support of environmentalist groups in pursuing such issues in Bank projects. It should be clearly understood, however, that in negotiating delicate issues with member countries, the negotiations benefit from the confidentiality the Bank maintains regarding its discussions by avoiding politicization of issues which slows progress in problem solving. Likewise, the Bank makes every effort to maintain an open dialogue and uses graduated responses, rather than policeman-like measures, to remedy problems.

Cleared by Messrs. Stanton, Lee, Blinkhorn

Attachments

NTcheyan:ac

Substance of Replies to be Provided by Bank Staff to NRDC Questions

We expect questions raised in a letter by the National Resources Defence Council (NRDC) to Mr. Clausen of October 12, 1984. The issues raised in this letter have subsequently also been publicly raised by NRDC staff on other occasions. This Attachment lists the 8 measures NRDC recommended to the Bank, and substantive responses to the comments.

Measure 1: The Bank should:

"Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undermarked lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060-BR."

We can point out:

- the Bank projects do not include financing for the BR-429 highway, nor for the proposed settlements. (The only highway financing is for the BR-364.)
- the already existing Bom Principio settlement was established two years ago, without World Bank financing. We have insisted that this action contravenes our broader agreements with Government, in as far as soils unsuitable for sustained agriculture are involved.
- the Government has since abandoned three other originally proposed settlement sites after soil studies showed they were not suitable for sustained agriculture.
- plans for the BR-429 highway have been downgraded and will be "all weather" transitable only to Bom Principio and not to Costa Marques as originally planned.
- the Uru-Eu-Wau-Wau and Pacaas Novos National Park limits are being defined and a joint FUNAI/IBDF area (larger than the one originally proposed) will be demarcated this year. FUNAI and IBDF have prepared a joint protection plan for this area, which forms part of a wide effort to upgrade the monitoring and protection of reserve lands.

Measure 2: "Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed

by the Brazilian Indian Agency , FUNAI, but which is largely un-implemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.

We can point out:

(a) with regard to the Special project in general:

- it is not correct that Section 4.05 of Loan Agreement BR-2060 has not been carried out. The Special Project has been very effective in upgrading the protection and demarcation of areas; it has considerably improved preventive and curative health care and field level FUNAI assistance and some groups (such as the Nambikwara) show relatively high demographic growth rates reversing previous trends.
- it is true that - largely due to inflation rates over the program years, so far only the equivalent of about US\$7 million have been disbursed by 1984 out of a total of US\$26 million Special Project funds. To correct for this shortfall, about US\$7 million have been allocated for 1985/86 alone and they will be used principally to complete demarcation works and to further upgrade land protection and health.
- implementation of the Special Project has been evaluated independently, in the field and on an annual basis by a team of 8 recognized anthropologists and 2 physicians, under the coordination of FIPE/University of Sao Paulo.

(b) with regard to land demarcation in particular:

- the majority of Amerindian reserves were already demarcated before the onset of the Program; all remaining areas have since been demarcated, or are in the process of being demarcated with the exceptions of (a) two more recent "frentes - de - atracao" (Uru-Eu-Wau-Wau and Zoros); for which the first full anthropological studies have only been completed in 1984 and (b) an estimated additional 14 groups most of whom were only discovered in 1984 and who were unknown at the outset of the Program. Studies on the definition of areas for these groups are scheduled for the 1985 dry season.
- while physical demarcation is almost complete for the Program area 17 of the already demarcated reserves are still awaiting the ratification of their final Decrees by the President of the Republic.

(c) with regard to protection in particular:

- a combination of measures have been taken to upgrade the protection of Amerindian lands against illicit squatting, rubber tapping, woodlogging and mining, which pose a constant threat to the integrity of Indian Lands and probably will continue to do so for some time.

- under the project, field level FUNAI staff have been increased (largely with medical staff) and equipped to report on any invasions noticed by the Indians or themselves in Reserve Areas.
- the Brazilian Government agrees that it is important to withdraw squatters systematically, not only as a corrective measure, but also as a disincentive to other potential invaders. Two prominent cases are the removal of squatters from the "7th. of September Reserve" in 1981 and, currently, from the Lourdes Reserve in 1984/85 (cited by NRDC, above).
- reserve borders are upgraded where possible in permanent ways to become more clearly identifiable; signposts and watchposts have been set up at critical access points, and clearings and the planting of special "indicator" trees around Reserves are being made.
- plans for periodic on-the-ground patrols, overflights and legal assistance go into effect this year.
- over 200 additional workers will be hired to assist (together with the Indians and FUNAI field staff) in protection activities.
- the Program has developed a highly effective regional satellite imagery program for the monitoring of changes in forest cover to detect, among others, any illicit land clearings inside Amerindian Reserve areas.

Measure 3: The Bank should:

"Promote concrete measures to deal with accelerating indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers."

We can point out:

- these issues have been our concern since project preparation and a host of project financed measures are underway to avert environmental damage, among them support and extension services. With regard to the latter, we would like to clarify that support and extension services have been a lesser problem compared to (a) the lack of credit, which was not made available by Government for investment in tree crops; and (b) the serious health problems, particularly malaria, which affect farmers in the area.
- we agree that land speculation is undesirable and consider the creation of appropriate conditions for small farmer development as the most viable way of preventing land concentration, speculation, and conversion of agricultural land to pasture.

- the program sponsors environmental protection programs via IBDF, SEMA and FUNAI and the Military Police Forest Police Unit which involve (a) a program of satellite imagery monitoring of deforestation; (B) forest patrol and protection services.
- institutional weakness and the national level hiring freeze have initially hampered the establishment and the effectiveness of the forest protection programs. However, the necessary staff have now been authorized (a total of about 600 for IBDF, FUNAI and the Military Police).
- the Rondonia state government has taken an active role in coordinating protection and control services in the state and created a state level institute for environmental and natural renewable resources.
- for the central program coordination the new Government is currently developing a plan to strengthen environmental work by the creation of a larger technical office, and of a "blue ribbon panel" for environmental affairs in the Program area.
- about 70% of this year's budget is made available for environmental, amerindian, health and agriculture development related activities.

Measure 4: The Bank should:

"Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the POLONOROESTE Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them."

We can point out:

- these Reserve, Park and Forest areas have been established and protection and management measures are being implemented as explained above.

Measure 5: The Bank should:

"Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.

We can point out:

- these road plans have been abandoned. They were part of a state infrastructure proposal which originated prior to the POLONOROESTE Program.

Measure 6: The Bank should:

in order "to implement measures 1-5 above, consider the renegotiation of the POLONOROESTE loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers."

We can point at:

- the measures recommended by NRDC are all included under the present loan agreements, with the exception of Bank funding for the Amerindian Special Project.
- the Bank has been willing to fund the Special Project but is aware that external funding for FUNAI is difficult under the existing Brazilian legislation.
- at present we are engaged in a constructive dialogue with Government regarding the 1984 mid-term review results and a related action program. The main issues identified at mid-term (i.e. at the end of the third project year) relate to comparative delays in the implementation of agricultural, environmental and Amerindian project components in relation to the highway project.

Measure 7: The Bank should:

"Insist that the Brazilian Government Land Agency (INCRA) and the State of Rondonia halt nationwide advertising, promoting further migration to the POLONOROESTE region."

We can point out:

- such advertising campaigns have already been discontinued.

Measure 8: The Bank should:

"Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in POLONOROESTE; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas."

We can point out that in the case of POLONOROESTE:

- problems encountered in the implementation of environmental safeguards cannot be attributed to "costly mistakes" in environmental design. To the contrary, much care was taken to

ensure adequate design in all environmental respects, including research and relevant groups and institutions groups and institutions were certainly consulted (see attached environmental fact sheets).

- As we see it, problems exist in carrying out this well designed program due to migration to the region and larger economic interests which have taken on dimensions which surpass original projections and which therefore require much political will, institutional strengthening, and additional resources "to stem the tide".

We can point out in general:

- The statements about staffing do not adequately reflect the depth of environmental expertise in the Bank. Indeed, throughout the operational complex, particularly in energy, agriculture, and water supply/sanitation there are numerous staff with professional training and experience in environmental management.
- Procedures for enforcing loan agreements are in place in the Regions and, in the case of environmental measures, the Regions seek the advice and assistance of the Environmental Affairs staff, often using consultants as recommended by Environmental Affairs.

MKoch-Wesser/JLee:kmc

Summary of the Environmental Measures and Actions
in the POLONOROESTE Program

In the Settlements:

1. Zoning: With respect to land use capabilities -
 - i) Choice of settlement areas
 - ii) Localization of each plot
2. Maintenance of 50% of the area of each plot under forest coverage with block forest reserves.
3. Maintenance of useful tree and palm species.
4. Forest extension service.
5. Utilization of wood produced in the cleared areas -
 - i) Sawmill
 - ii) Steam energy devices in the service centers

In the State:

1. A system of protected areas -
 - i) Pacaas Novos National Park
 - ii) Jaru and Guapore Biological Reserves
 - iii) Cunia Ecological Station
 - iv) Several national forests
 - v) Several "block" reserves
2. Forestry development -
 - i) Federal forest administration (IBDF) improvement state level environmental and natural renewable resources institute Rondonia
 - ii) Forest control infrastructure, equipment and personnel -
 - a) Control posts
 - b) Military forest police
 - iii) Forest extension
 - iv) A nursery
3. Environmental research
4. Environmental monitoring
5. Environmental evaluation

INDIRECT

In the Settlements:

1. Priority to permanent (tree) crops
2. Discouragement of extensive cattle ranching
3. Agricultural research in appropriate technologies
4. Comparatively small plots
5. Land tenure regularization
6. Land ownership concentration control

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United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

January 24, 1985

Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

I am enclosing a copy of a letter which was sent to you some time ago, together with the response to that letter by your Latin America and Caribbean Regional Office.

The letter to you was an effort by a number of serious and respected groups and individuals who are interested in the environmental affects of World Bank development projects. I believe they raised a number of legitimate concerns and suggested some reasonable approaches to alleviate those concerns. The response from the World Bank was at best a brush-off, but frankly, more correctly described as an insult.

As you know better than anyone else, securing support for U. S. contributions to multilateral development institutions is difficult at best. That the World Bank would respond in such a cavalier fashion to groups and individuals who would otherwise support their programs is most difficult to understand.

The questions and concerns raised in the October 12th letter to you are legitimate and deserve a credible and responsive answer. I, therefore, put these questions and concerns to you and ask that you respond to me as Chairman of the Foreign Operations Appropriations Subcommittee.

Sincerely,



Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

Enclosures

RWK:jdb

Natural Resources Defense Council, Inc.

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WASHINGTON, D.C. 20005

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New York Office

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NEW YORK, N.Y. 10163

212 949-0049

Western Office

25 KEARNY STREET

SAN FRANCISCO, CALIF. 94104

415 421-0501

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Clausen:

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Program (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the program lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Program was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of measures to protect the environment and Amerindian population of the Program area, there are strong indications that the Bank has lost control over - or will not take effective measures to control - the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitats and irreplaceable biological diversity are threatened as never before.

In spite of this evidence -- and in disregard of the terms of the Loan Agreement for Phase I of the Program -- the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Program) was to help Brazil maintain development momentum in the face of the

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Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740



lingering world recession, it violated basic principles of sound management by accelerating funding for a program which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Program account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso -- and of the thousands of indigenous people and non-Indian settlers dependent on these resources -- rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.
2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.

4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological Reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.
6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the U.S. Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with

the concern of a number of U.S.-environmental organizations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the U.S. Treasury Department "to press the issue of the environment with the Bank. Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the U.S. Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programs such as Polonoroeste. These programs which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonocoeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological

design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Program
Natural Resources Defense Council

Thomas B. Stoel, Jr., Director
International Program
Natural Resources Defense Council

Barbara Bramble, Director
International Program
National Wildlife Federation

Jack Lorenz
Director
Izaak Walton League of America

Michael Bean, Director
Wildlife Project
Environmental Defense Fund

Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute

Fran Lipscomb
Director of International Issues
National Audubon Society

Liz Raisbeck
Legislative Director
Friends of the Earth

Shelton Davis, Executive Director
Anthropology Resource Center

Kenneth I. Taylor
Executive Director
Survival International, U.S.A.

David Maybury-Lewis
Executive Director
Cultural Survival, and
Professor, Department
of Anthropology, Harvard
University

Dr. Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia
(Brazilian Anthropological
Association)

Deputado (Deputy) List Vieira
Lider do Partido dos Trabalhadores e Presidente
da Comissao Especial de Estudos Ecologicos a
Assembleia Legislativa do Estado do Rio de
Janeiro (Leader of the Labor Party and
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Helio Saboya
President, Ordem dos Advogados do
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Anil Agarwal, Chairman
Environmental Liaison Center
Nairobi, Kenya; and
Director, Center for Science
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Helena Norberg-Hodge
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Georg Henriksen, Director
International Working Group
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Copenhagen, DENMARK

Gesellschaft fur Bedrohte Volker
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Minority Rights Group
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Bruce Albert
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ao Indio (ANAI) (National Indian Support
Association)
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Ordep Serra
President,
Associacio Nacional de Apoio ao Indio
(National Indian Support Association)
Bahia, BRAZIL

Aracy Lopes da Silva
Presidente
Comissao Pro Indio/Sao Paulo
BRAZIL

Magda Renner
President
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of
Rio Grande do Sul)
Porto Alegre, BRAZIL

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United States Senate

COMMITTEE ON APPROPRIATIONS
WASHINGTON, DC 20510

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

May 16, 1985

Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

I very much appreciated your response to my earlier letter in which I called upon the World Bank to provide a group of highly respected environmentalists a more thorough and responsive answer to some very legitimate concerns they expressed to the Bank in a letter to you dated October 12, 1984.

Your suggestion that a meeting be arranged with these individuals to discuss their concerns is very appropriate. As I know Bill Stanton has indicated to you, I have waited to reply to your letter until such time as I could suggest the individuals for that meeting, which I understand is now scheduled for 11:30 a.m. on May 22nd in your office. In addition to myself and James D. Bond of the Foreign Operations Appropriations Subcommittee staff, and Alex Echols of my personal staff, accompanying me to the meeting will be: Mr. Bruce M. Rich of the Natural Resources Defense Council; Ms. Barbara Bramble of the National Wildlife Federation; Mr. Brent Blackwelder of the Environmental Policy Institute; and Prof. David Maybury-Lewis of the Department of Anthropology of Harvard University.

In order that our discussions have the fullest impact and make the best contribution possible to solving the environmental concerns we are interested in, I believe it is important that in addition to yourself the Senior Vice President for Operations, Mr. Ernest Stern; the Vice President, Operations Policy, Mr. S. Shahid Husain; the Regional Vice President for Latin America and the Caribbean, Mr. A. David Knox, participate in the meeting. This is also a matter I know was earlier discussed with Mr. Stanton.

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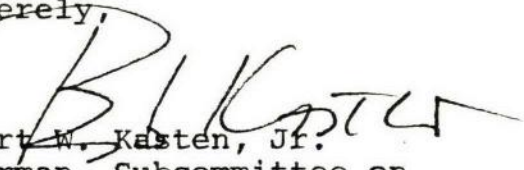
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OFFICE OF THE PRESIDENT

Mr. A. W. Clausen
May 16, 1985
Page Two

I thank you for your personal cooperation in this matter, and I look forward to seeing you on May 22nd.

Sincerely,


Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

RWK:jdb



Record Removal Notice

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Document Date May 6, 1985	Document Type			
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Subject / Title Visit of Brazil's Minister of Finance				
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OFFICE MEMORANDUM

140

DATE: May 2, 1985

TO: Mr. A.W. Clausen

THRU: Mr. Jose Botafogo

FROM: J. William Stanton

EXT: 72173

SUBJECT: BRAZIL: POLONOROESTE Development Project
Meeting with Senator Kasten and Environmentalists

1. Senator Kasten's Appointments Secretary called late yesterday afternoon to say that a letter will be forthcoming confirming Wednesday, May 22 at 11:30 a.m. for a meeting in your office concerning your letter to him of March 1.
2. The Senator's office knows that you have an important luncheon at 1:00 p.m. His secretary also said we should be forewarned that, this far in advance, it is impossible to predict the Senate's floor schedule and if roll calls are scheduled for that time - 11:30 to 1:00 - the Senator will not be able to attend the meeting.
3. After I talked with the Senator's office, I received a call from Jim Bond who informed me that he expects to invite only a few of the many environmentalists/organizations which signed the original (October 12) letter to you. I then explained to Mr. Bond that it was my job only to arrange the date and that coordination would be handled by Mr. Burnham. Mr. Bond then expressed in no uncertain terms that, while the Senator anticipates that Mr. Burnham will attend, he expects the Bank to organize the meeting - not the Executive Director's office - and he would be very upset if he learned that this was not the case. Mr. Bond added that the Senator will ask that Mr. Stern be there. I have passed this information on to Mr. Burnham.

cc: Mr. Burnham, Executive Director
bcc: Messrs. Stern, Knox, Gonzalez'Cofino, Tcheyan

JWS/jv

The regim and Bill Stanton are going to have a strategy meeting to decide how to handle the May 22 meeting - you will be briefed on this.

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1985 MAY -2 AM 11: 48

OFFICE OF THE PRESIDENT

Dear _____:

Thank you for your recent letter to me (to Mr. Clausen) regarding the potential environmental consequences of World Bank projects. Like you, we are very concerned about this issue. We have discussed with Bank management the House Banking Subcommittee's recommendations about measures that might be taken to prevent such environmental problems. We believe that the Subcommittee's recommendations have been carefully thought out, and expect them to have a positive impact on Bank work in this important area.

I would like to assure you that we carefully review all World Bank projects for possible environmental problems. We have followed the Northwest Development Project in Brazil extremely closely to assure ourselves that the Bank has taken all possible steps to guarantee that the difficulties which have arisen in it will be satisfactorily addressed, and we believe that the Bank and the Brazilian authorities have established a basis for accomplishing this.

Once again, thank you for your interest in assisting the World Bank to effectively carry out its developmental tasks.

Sincerely,

*Letter signed
by Mr. Burnham*

cc: Mr. R. Southworth ✓
Ms. J. Maguire

DRAFT
JHallow:JBurnham:mss
4.17.85

Comments: Good letter
Questions: None
*Criticisms: There is a
split infinitive
in the last sentence.*

*Roy
4-22-85*

ROUTING SLIP

Date

March 28

OFFICE OF THE PRESIDENT

Name

Room No.

Mr. Koelle

E 826

cc: Mr. Knox

XX

To Handle

Note and File

Appropriate Disposition

Prepare Reply

Approval

Per Our Conversation

Information

Recommendation

Remarks

Environmental letters Nos. 390, 391,
392, 393 & 394.


Roy Southworth

From

ROUTING SLIP

Date
March 28, 1985

OFFICE OF THE PRESIDENT

Name	Room No.
Mr. Koelle	E-831
cc: Mr. Knox 	

XX	To Handle	Note and File
	Appropriate Disposition	Prepare Reply
	Approval	Per Our Conversation
	Information	Recommendation

Remarks

Environmental letters

Log #376, 377, 378, 379, 380, 381, 382,
383.

Roy Southworth

From

THE WORLD BANK

ROUTING SLIP		Date March 28, 1985
OFFICE OF THE PRESIDENT		
Name		Room No.
Mr. Koelle		E-831
cc: Mr. Knox		
XX	To Handle	Note and File
	Appropriate Disposition	Prepare Reply
	Approval	Per Our Conversation
	Information	Recommendation
Remarks		
Environmental letters # 363, 364, 365, 367, 368, 369, 370, 371, 372, & 373.		
Roy Southworth		
From		

THE WORLD BANK

ROUTING SLIP

Date
March 26, 1985

OFFICE OF THE PRESIDENT

Name		Room No.
Mr. Koelle		E-831
cc: Mr. Knox		
<input checked="" type="checkbox"/>	To Handle	Note and File
<input type="checkbox"/>	Appropriate Disposition	Prepare Reply
<input type="checkbox"/>	Approval	Per Our Conversation
<input type="checkbox"/>	Information	Recommendation

Remarks

Letters # 345, 346, 347, 348, 349, 350,
351, 352, 353, 354, 355, 356,
357, 358.

Roy Southworth

From

THE WORLD BANK

ROUTING SLIP		Date
		March 25, 1985
OFFICE OF THE PRESIDENT		
Name		Room No.
Mr. Koelle		E-831
cc: Mr. Knox		
XX	To Handle	Note and File
	Appropriate Disposition	Prepare Reply
	Approval	Per Our Conversation
	Information	Recommendation
Remarks		
<p>Letters # 381, 382, 383, 384 & 385.</p> <p># 334, 335, 336, 337, 338, 339, 340, 342.</p> <p style="text-align: right;">Roy Southworth</p>		
From		

THE WORLD BANK

ROUTING SLIP

Date

March 20, 1985

OFFICE OF THE PRESIDENT

Name

Room No.

Mr. Koelle

E-831

cc: Mr. Knox

XX

To Handle

Note and File

Appropriate Disposition

Prepare Reply

Approval

Per Our Conversation

Information

Recommendation

Remarks

303, 304, 305, 306,
 307, 308, 309, 311,
 312, 313, 314, 318, 320,
 321, 322, 325, 326, 327,
 Roy Southworth

From

working Campaign
informed about the letter
see me please!
SORIA

are we copying
Knox. & do Stanton
aware? what about
U.S. E.O. ? Furthermore AWK
needs to

OFFICE MEMORANDUM

DATE: March 13, 1985

TO: Files

FROM: Patricia D. Nepomuceno, Internal Communications Unit

SUBJECT: News Committee Meeting - Wednesday, March 13, 1985

Ms. Helen Higgins:
As see para 1. I am attaching a copy of the magazine article. If you do get letters, pls. send them down to me.

Present were: Messrs. Brannigan, Blinkhorn, Riddleberger, Sankaran, Spidle; Ms. Maguire; Ms. Nepomuceno

H. Martin Koelle
3/13/85

The group discussed the following topics:

1. Brazil's Northwest Regional Development Project. "Defenders," a U.S. environmental magazine, has featured the Polonoeste project in its latest issue and is urging the public to write Mr. Clausen and Mr. Ortiz-Mena (IDB). Press interest is expected to be piqued once again.

← OK but copies to know to

Mr. Blinkhorn and PAD, with Mr. Stanton, are drawing up a strategy to respond to inquiries and to the mail that may pour in. PAD's backgrounder on the project could form the basis for a reply to the letters.

2. U.S. position on GCI. Mr. Riddleberger said that any response to the press regarding U.S. Treasury comments on the GCI should emphasize that the Bank seeks to increase its capacity to expand lending; that the FY85 level is an aberration; and that our lending will be \$35 billion to \$40 billion over the next three years.

3. Proposed Bank loan to Chile for Technical Assistance in Public Sector Management. The project is scheduled for Board approval tomorrow; the press reported today that the United States has abstained to protest Chile's human rights policies.

Messrs. Gamarra and Riddleberger are receiving calls inquiring about U.S. policy on lending to Chile and they are referring them to the U.S. Executive Director.

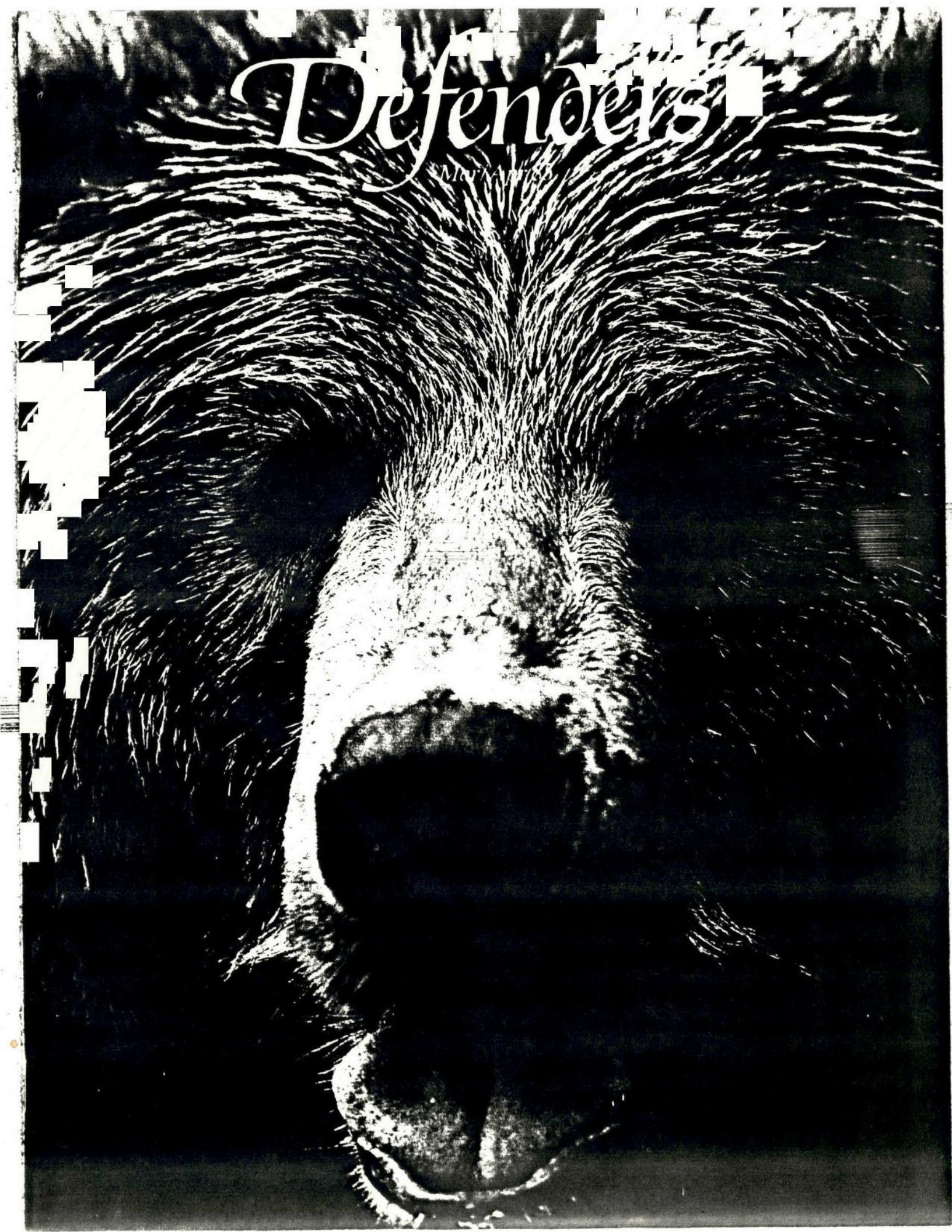
4. World Debt Tables 1984-85. Mr. Brannigan is hoping for a good crowd at the press briefing at 3 p.m. today, H-2-300.

cc: Messrs. Vogl, Koelle, Bahl, Bart, and Burki
 IPA staff
 New York, Geneva, and Tokyo Offices

Message given
to Mr. Kelle
who still wants
Ray to call
him on note
w/cc Burnham,
Stanton, Hank

Defenders

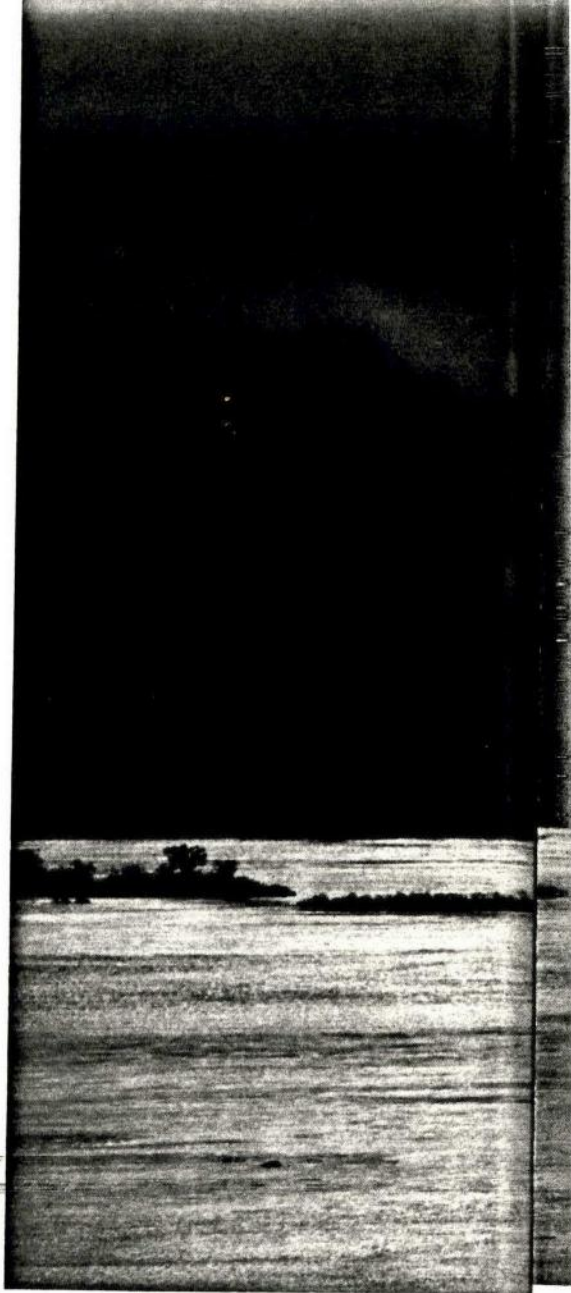
MAY



Debacle in the Amazon

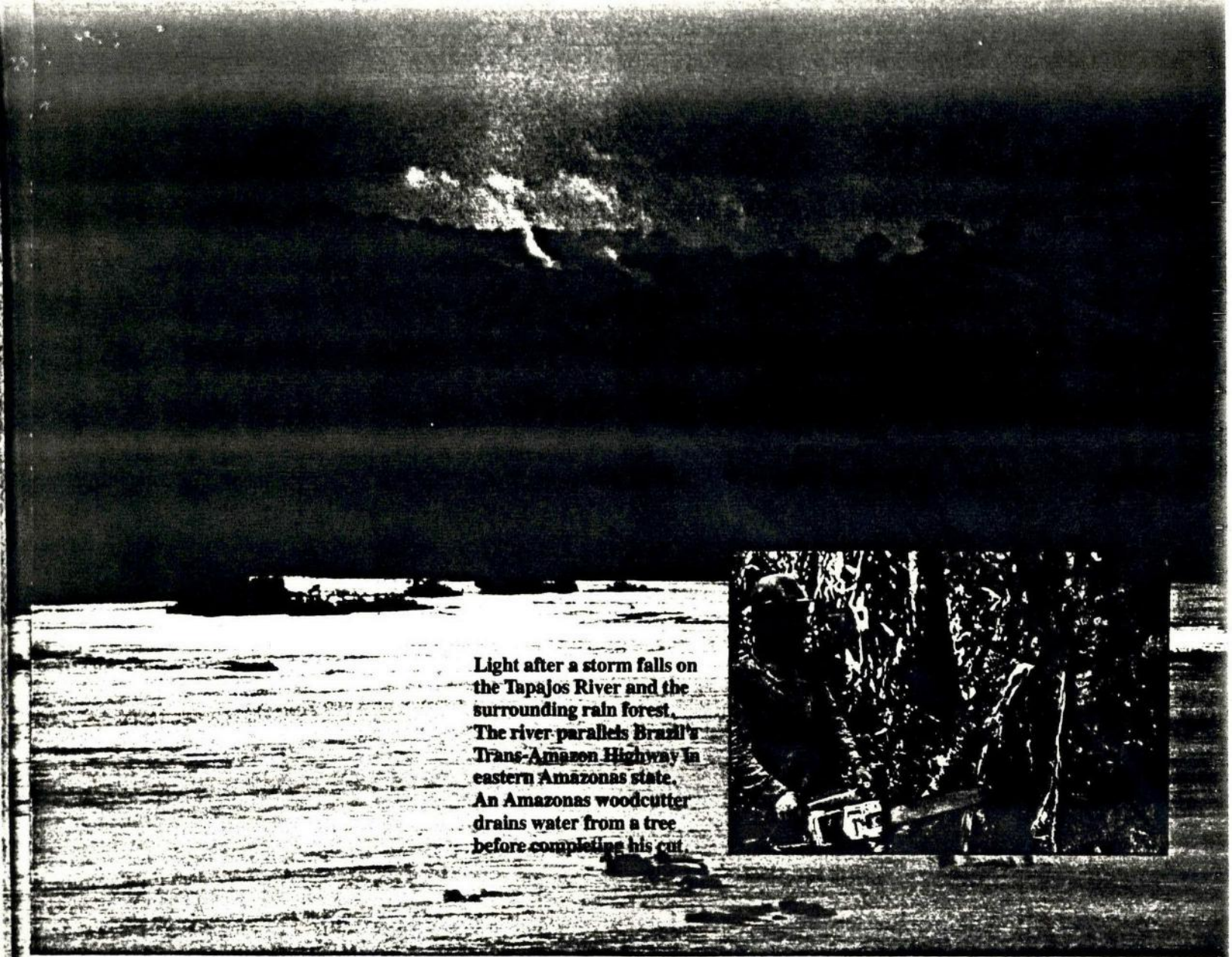
*In Brazil, development backed by
U.S.-dominated multilateral banks
is destroying part of the world's
greatest rain forest*

by Pat Aufderheide and Bruce M. Rich



DEEP in the rain forest of the upper Amazon, miles from a newly paved highway, an Indian of the Uru-eu-wau-wau tribe delicately fingers an odd piece of ridged metal. It is the top of a soda-water bottle, discarded by the child of a local settler. He takes it back to his village to amuse his son, who is coughing with a disease that has no name.

Nearby in a small clearing, a farmer looks despondently over his wilted field of rice. The crop should be ready for harvest, but in only the second season it has failed even to yield enough for the family's needs. When he moved with his wife, four children and a cousin to the state of Rondonia, the government promised him a homestead title in exchange for five years on the land. Now he is



Light after a storm falls on the Tapajós River and the surrounding rain forest. The river parallels Brazil's Trans-Amazon Highway in eastern Amazonas state. An Amazonas woodcutter drains water from a tree before completing his cut.



Walt Anderson/Tom Stack & Associates; inset, H. W. Silvester/Rapho

hoping he can stake a new homestead in virgin rain forest farther up the Amazon basin.

Each day, as chainsaws and tractors push into one of the world's last great reserves of biological diversity, Indians and farmers are playing out roles in a tragic scenario. But they are not alone. There is a leading actor missing from this picture: a development bureaucrat.

The development bureaucrat has long been a shadowy figure behind the bulldozers and bank loans that are deciding the fate of the Amazon rain forest and its inhabitants. But over the last two years, a campaign has been waged in a world financial center—Washington, D.C.—to put development economists and planners back into the picture. The

campaign, involving environmentalists, supporters of Indian rights, members of Congress and Reagan administration officials, seeks to enlist them in defense of the environment.

Ecologists have long been alarmed over destruction of the world's tropical rain forests, which are biological banks for the future and home to some of the most ancient and ecologically wise human cultures. As Catherine Caufield notes in her new book, *In the Rainforest: Report from a Strange, Beautiful, Imperiled World*, man already has destroyed half of this irreplaceable resource. Most of the destruction has occurred since World War II.

Brazil alone has a third of what remains. And in Brazil the dramatic danger to this lush-looking but all too

fragile ecosystem can be seen vividly. There, brazil-nut and mahogany trees, turtles and tapirs can be counted among perhaps a million plant and animal species. Biologists have barely begun to probe the forest's diverse biological riches, and they are racing against time, because in the Amazon basin a war against the future is going on in the guise of what the Brazilian government proudly calls "the largest agrarian reform project ever attempted." The Brazilian government, saddled with one of the world's largest international debts, has been promoting the Amazon basin as a new frontier, especially for large-scale and capital-intensive development schemes—huge dams for generating electricity, cattle-ranching, mining, cash-crop farming.

Standing in the way of development dreams are miles of trackless forest. With slogans such as "The Bold Ones March Westward," the government in the last decade has launched an unprecedented assault on the forest. And the assault has been so successful that one noted ecologist, Dr. Philip Fearnside, has estimated that at the present rate not a single tree will be left standing in the state of Rondonia—an expanse the size of West Germany—by 1990.

Many environmentalists believe that Brazil is not only jeopardizing world ecology but also robbing its own economic future. Therefore they point with alarm to the key role played in large-scale ecological and economic transformation by multilateral development banks.

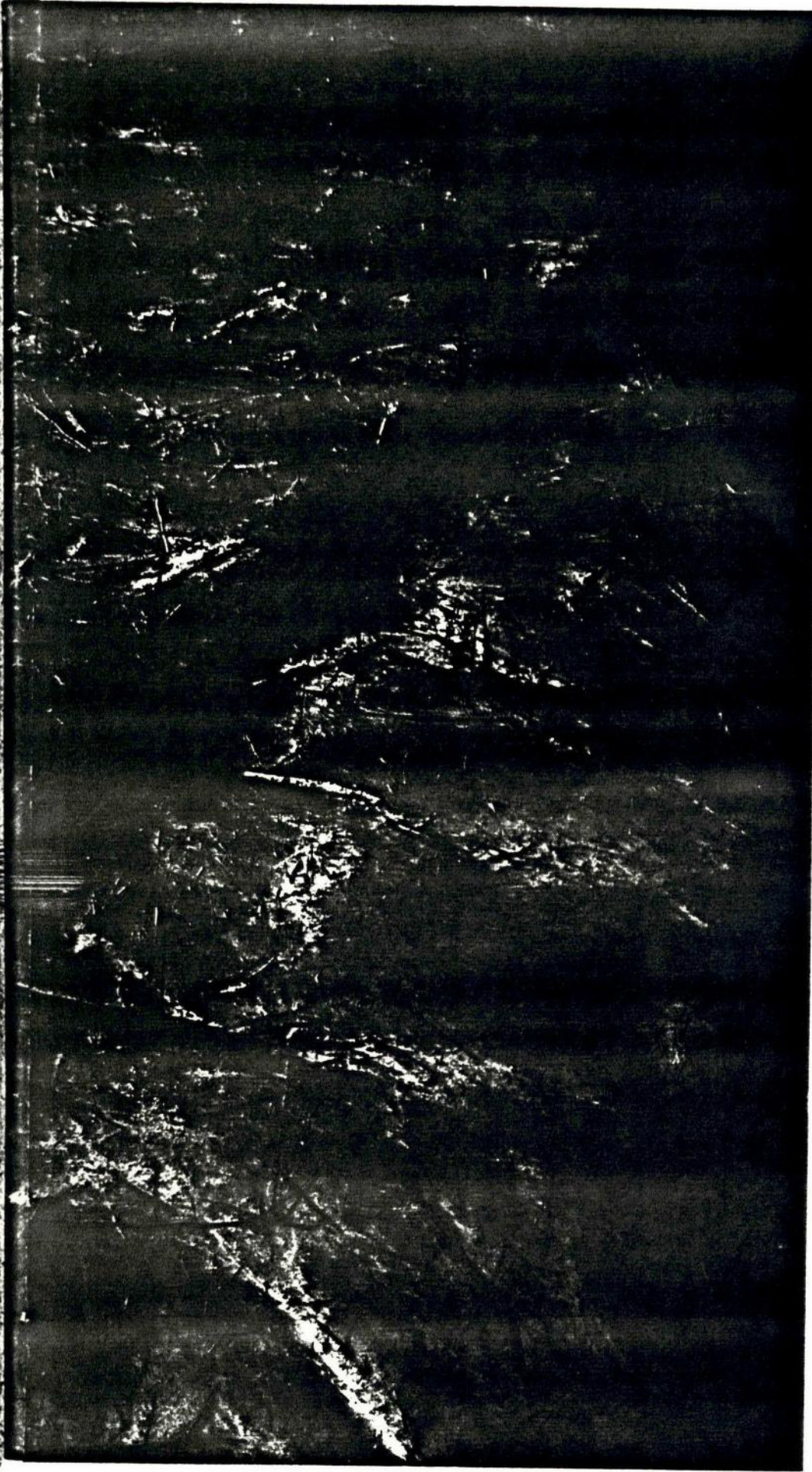
These huge banks, which began after World War II when the World Bank was founded to bankroll European reconstruction and Third World development, are funded by national governments, with the United States contributing the biggest share of any country. Of the existing four institutions, the World Bank and the Inter-American Development Bank (IDB) are essential to Latin American development projects. The United States contributes 20 percent of the World Bank's funds and 35 percent of the IDB's funds—and gets a corresponding share of the votes in the institutions' decisions. The two banks in 1983 alone contributed \$6.46 billion to Latin American projects, and since the banks deal only in million-dollar figures, the money typically goes to expensive projects such as hydroelectric and large-scale agricultural schemes. Once these banks approve a loan, private bankers leap in to fund a project; private capital often matches development-bank investment at a three-to-one ratio. The multilateral development banks' money, in short, is the motor behind big Third World development.

But is it development or is it debacle? The doubts of environmentalists and supporters of Indian rights are spreading to the halls of Congress and even into the plush offices of the Washington, D.C., headquarters of the banks, as the results of one huge and disastrous project come in. The Northwest Regional Development Project, known in Brazil as Polono-roeste, involves some 100,000 square miles of tropical forest in Rondonia

H. W. Silvester/Rapho; inset, Loren McIntyre



Deforestation in Amazonas, Brazil, contrasts starkly with rain forest along Trans-Amazoa Highway BR 230 in Rondonia, inset, when it first penetrated the forest before settlement. Experts predict current cutting rates will leave no standing trees in Rondonia as soon as 1990.



and western Mato Grosso, where the Brazilian government has already cut a 900-mile road called BR-364. The government has invited hundreds of thousands of poor, landless peasants from other parts of Brazil to settle there, promising them some 39 towns where the settlers can sell their crops, send their children to school and get medical help for endemic malaria and other diseases.

The colonization plan limped along for years, until the government in 1979 asked the World Bank for a huge loan to help pave BR-364. But the bank was not blind to the region's problems: reports that the land was too poor to farm, that settlers were invading traditional Indian lands, that failing farmers were clearing huge strips of forest to prepare the land for cattle-ranching. Over the last 15 years, the bank has become increasingly aware of environmental questions, and it now has an office of environmental affairs. The office, however, employs only five of the bank's more than 6,000 staffers, and only one of them is a trained ecologist.

The bank's conditions for approving the Polonoroeste loans—which amount to 30 percent of the multi-billion-dollar investment—were several. The bank insisted on setting aside funds for biological reserves, a national park, four ecological stations and some national forest area. It also required the government to allot lands for 15 Indian parks and to protect the Indians' health. Finally, it demanded that farmers be given homestead land on fertile soil that did not threaten Indian lands or the health of the forest.

Five years later, the bank has committed nearly \$500 million, in seven loans, to Polonoroeste. More than half that money has gone into paving the road—the only part of the project that has been completed.

"Empty-handed, they were arriving, ready to conquer the jungle. And they did it," boasts a Brazilian government brochure featuring the large family of Raul Ribeiro posed in front of a small house in the forest. From all over Brazil, people have arrived, desperate for a plot in a country where 43 percent of the farmland is owned by one percent of the people. And they have been showing up in ever-greater numbers since the bank pitched in to help Polonoroeste become Brazil's new frontier. In the



years between 1978 and 1983, more than 275,000 settlers flocked to Rondonia. In 1984 up to October, more than 115,000 new settlers arrived.

Most did not have the happy experience that the Ribeiro family did. Many discovered instead that cash crops like rice and coffee need more than a tropical rain-forest environment has to offer. The tropical rain-forest soils are, in fact, among the poorest in the world. High temperatures and high rainfall combine to leach away minerals. They also break down clay in the soil so that it cannot hold these nutrients. The richness of the forest is all above the ground, in the trees and other vegetable matter. When the settlers slash and burn, the ashes float downriver along with the settlers' hopes.

The settlers also discovered that the promised towns and services were less than idyllic. At a demonstration to protest lack of government credit to small producers in Rondonia's capital, Porto Velho, last year, one settler said of his "urban nucleus": "We have lots of kids there, and people who need medical treatment,

and the clinic is closed for lack of personnel."

"There is precious little education up here," said another.

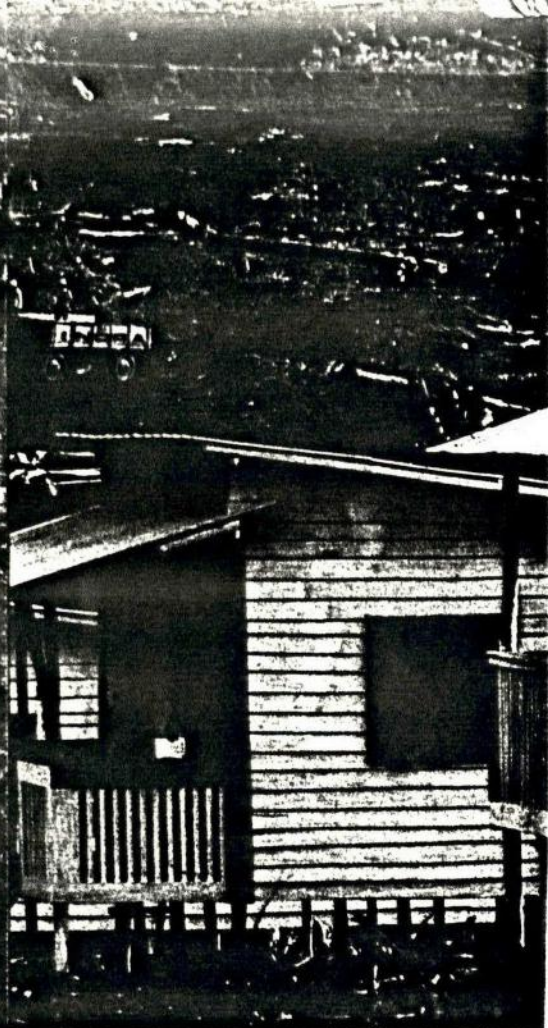
The settlers' options were so few on the poor soil, some pointed out, that many had taken to producing charcoal—the only saleable item. One man asked in indignation how he would be compensated for his claim when a nearby hydroelectric project flooded his land.

The World Bank has paid an expensive price for these settlers' bitter experience. According to one estimate the bank's investment in every family so far is \$12,000 in current dollars—a figure that baffles many settlers who find themselves poorer after two years of farming than they were before.

The bank might have guessed that settlement was at least chancy, given earlier experience in the Amazon. In the Peruvian Amazon, a study of six earlier settlement projects found desertion rates up to 92 percent. In Brazil itself, an earlier such project proved a spectacular failure. The Trans-Amazon highway constructed

in the 1970s was the centerpiece of a government plan to settle 5 million people south of the Amazon River. The project benefited indirectly from large multilateral bank loans for highway construction elsewhere in Brazil. Most of the settlers found they could not make a living off the land, and long stretches of the highway have been abandoned. Today a sign dangles from a tree along the road: "Next gas station, 980 kilometers. Beware of Indian arrows; drive with windows closed."

The Brazilian government, far from losing heart, keeps plowing on into the forest. It has already bulldozed a continuation of BR-364 into the neighboring state of Acre—an almost untouched expanse the size of Virginia where perhaps 5,000 Indians live. The road offers, for the moment, an escape route for failed farmers with nowhere to go back to. And as they abandon homesteads, more come to take their places. The government land agency, INCRA, has run out of land titles, and there are waiting lists two and three families deep for abandoned plots. Yet the government still



Claudia Andujar/Photo Researchers, Inc.

encourages new arrivals. At a demonstration in the south of Brazil where landless peasants gathered to protest their plight, an unmarked car pulled up and out of it were thrown hundreds of leaflets promoting settlement in the Polonoroeste region.

The Inter-American Development Bank apparently shares the Brazilian government's optimism. It recently approved a \$73 million loan to help pave the continuation of BR-364 into the state of Acre.

On paper, Polonoroeste is a celebration of the yeoman farmer. But when farms fail, the one-time rain forest quickly becomes a field for cattle ranchers and land speculators. The majority of small farmers own no cattle at all, but already 80 percent of them have cleared forest for pasture, hoping to increase the land's sale value. The problem, according to Brent Milliken, an environmental expert who performed an independent evaluation of the World Bank program in the area last year, is twofold: the clearing erodes the soil, and land is also quickly invaded by noxious weeds, which cattle cannot use as



Stephan Schwartzman



H. W. Silvester/Rapho

Ranchers drive cattle in Amazonas. Cattle-raising in deforested areas is highly destructive because it prevents regrowth of vegetation. The Brazilian resettlement colony, above left, is typical of those found along BR 364. A frontier town at the forest edge, top, is called a bang-bang for its wild-West atmosphere. Some 400,000 settlers who came to Rondonia between 1978 and September, 1984, found mineral-poor soil unable to support cash crops.

fodder. But many potential purchasers do not care. Speculation is often more lucrative in the short run than productive use of the land.

Cattle-ranching in the Amazon is one of the nightmares of an ecologist like the World Bank's Robert J. A. Goodland, who points in exasperation to the Amazon's wealth of forest animals and fish as much better—and renewable—development resources. Some economists argue that only government subsidy makes cattle-ranching temporarily profitable on tropical soil. But even when it is viable, cattle-ranching produces few jobs and de-

stroys the potential for a rain forest to return.

Yet cattle-ranching has been one of the favorite investments of multilateral development banks over the last two decades in Latin America. According to distinguished Mexican sociologist Ernst Feder, no single commodity in the Third World has received such extraordinary outside subsidy as livestock in Latin America. More than half the World Bank's cumulative agricultural lending in Latin America through 1980 went for livestock activities, according to economist Cheryl Payer.

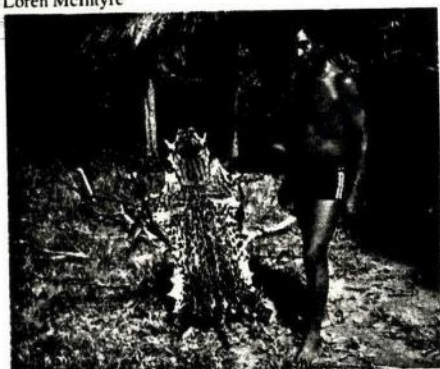


Stephan Schwartzman

Manioc is transported by Indians of the Amazon basin. Some natives recognize 18 kinds of this staple food. The tribal chief of a Cinta Larga (big belt) tribe wears traditional garb. Amazon Indians are being decimated by disease because medical treatment often is not given in time. A professional hunter shows off a highly valued ocelot skin. He will try to kill 40 to 80 ocelots on each trip to the jungle.



Loren McIntyre



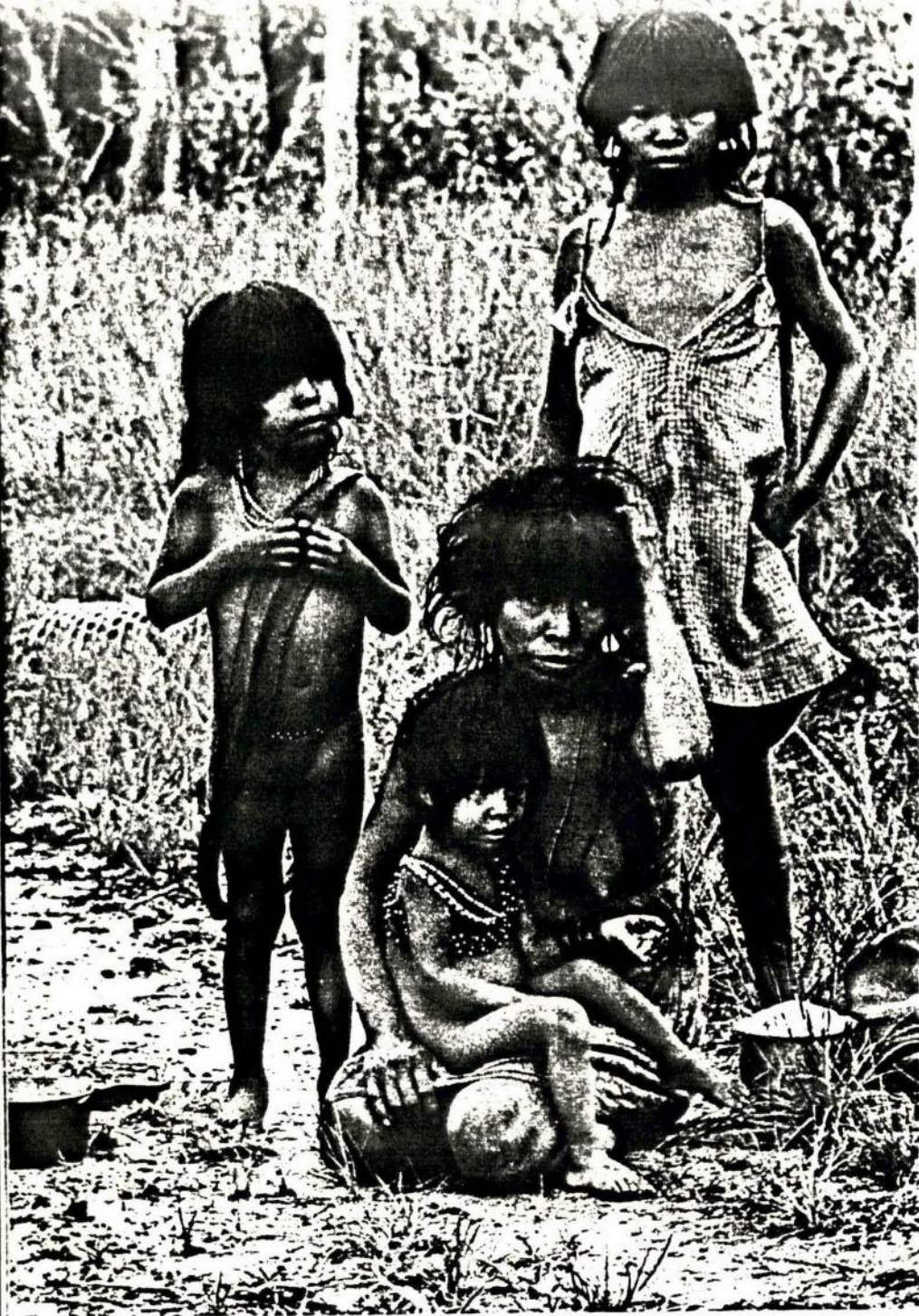
Adrian Cowell/Transworld Features (UK) Ltd.

In thatched-roof hamlets dotting the rain forests live peoples who may have the answer on how to live in the forest for the long haul. They are the thousands of Indians—6,700 counted in the Polonoeste project area alone and more as yet uncontacted—in dozens of highly distinctive tribes. Most of the known tribes are gardeners as well as hunters and have a deep traditional knowledge of soil fertility.

Unlike cash-cropping settlers, they plant gardens rich in crop variety. Their typically small patches are usually cultivated for only two or three years before the forest is allowed to reclaim the land. The Indians may be the only experts capable of identifying the forest's astounding biological diversity. One tribe recognizes 18 different varieties of manioc, the staple crop of the Amazon, while only two varieties are yet recognized in biological taxonomy.

Many of these peoples have already paid the price of progress, in initial contact that devastated a tribe like the Surui, which in three years lost half its 600 members to new diseases such as measles and influenza. Those who survive face a new threat: the invasion of their lands by settlers desperate to stake a claim on land good enough to farm.

The Polonoeste program, thanks to World Bank pressure, included from the start the marking off of land to be reserved for Indians. But most of the demarcation has yet to be done, and it gets more expensive to do with every new claim from settlers or—more likely—speculators. The consequences can be dangerous for everyone. In one place, the Lourdes Indian reserve, more than 750 settler families have moved into Indian land. In an attempt to dramatize their crisis, the Indians finally seized a dozen hostages for several days. The effort netted them newspaper articles, but no government action. In the Aripuana Indian park, conflict erupted when a 9-year-old girl of the Cinta Larga tribe was raped by workers on a hydroelectric project. The chief of the tribe threatened to kill the invaders. In other areas, settlers have lost their



Vincent Carilli

A mother and her children of the Nagarote Nambiquara tribe, one of dozens of tribes in the Polonoroeste area vulnerable to the influx of settlers. Pleas to Brazil's government for protection of Indian lands have gone virtually unheeded.

lives to angry Indians, and one 7-year-old settler boy was captured and later killed. But many more Indians are dying as a result of colonization.

The World Bank, itself under pressure from supporters of Indian rights in both the United States and Brazil, repeatedly has urged the Brazilian Indian agency to protect the Indians' land. One group of the Nambiquara has seen a shrunken version of its land claims validated with demarcation. A few clinics and other health

projects have dramatically improved the health of surviving Indians. But most tribes have continued to see their ancestral lands invaded, with no security for the future. And far from demanding that the Brazilian government comply with its explicit requirement to demarcate Indian lands before releasing the next installment of its loan, the bank has actually speeded up payments to keep up the progress of road paving. The IDB's loan to help pave the continuation of BR-364

into Acre will put in jeopardy the lands and lives of the thousands of Indians living there now.

"With the extinction of each indigenous group," says anthropologist Darrell Posey, "the world loses millennia of accumulated knowledge about life in and adaptation to tropical ecosystems."

The destruction of the forest, remarks Dr. José Lutzenberger, goes hand in hand with destruction of cultures. "The loss of these cultures," he says, "is just as irreversible as the loss of a species."

The crisis far away in the Amazon rain forest became the subject of public debate in the halls of Congress in 1983. The process was set in motion by representatives of three environmental groups—the Natural Resources Defense Council, National Wildlife Federation and Environmental Policy Institute—that shared a concern about ecological devastation promoted by development projects. Prompted by their alarm, longtime conservationist Representative Mike Lowry (D-Washington) moved to introduce an environmental-action amendment into legislation authorizing funds for multilateral development banks. Then Representative Jerry Patterson (D-California) instead suggested holding hearings on the issue. The House subcommittee he chaired, which deals with international development finance, held a series of five hearings in 1983 and 1984. Information long buried in private bank evaluation reports became public record.

"We are not singling out the multilateral development banks as villains or assigning blame," testified the National Wildlife Federation's Barbara Bramble on the first day of hearings. "We do see serious problems they are causing or perpetuating through lack of environmental planning." She pointed out that sound economic development is essential to long-term resource conservation, but said her organization was alarmed that "this invaluable resource, which is a tropical forest, is being cut and degraded for short-term use."

The next day, David Price, who had worked as an anthropological consultant to the World Bank, soberly warned members of Congress that Indians' lives and health were endangered. "One cannot help but feel," he said as he summarized his frustrations, "that the World Bank is much

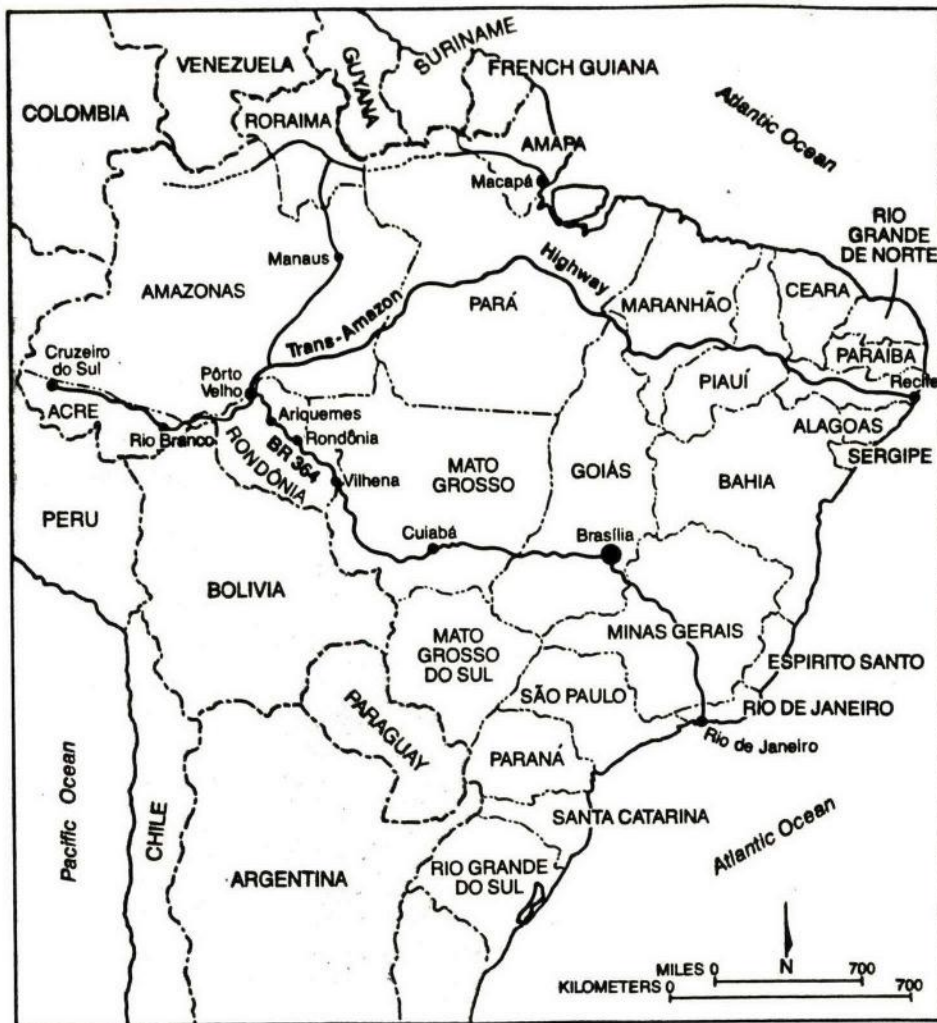
more concerned with images than with the welfare of the native minorities."

As the hearings proceeded to examine health issues and to expose hazards of pesticide use in Third World development projects, Congressman Patterson asked Secretary of the Treasury Donald Regan to get some explanations for the World Bank's actions. The result was more than a thousand pages of information that provide the most detailed public evidence to date on the bank's environmental policies.

The connection between development banks and the future of rain forests was also made when the Natural Resources Defense Council, on behalf of seven environmental organizations, testified at Senate hearings held in February, 1984, to consider appropriating money to one division in the World Bank, the International Development Association. Senator Robert Kasten (R-Wisconsin), the subcommittee chairman, had long been critical of international development lending. Worried about the bank's bottom line, World Bank President A. W. Clausen agreed to environmentalists' requests for a meeting before the hearings. "Don't hold IDA hostage to the environment," he begged them, arguing that the bank's environmental concern was greater than its reputation suggested.

When environmentalists testified before Senator Kasten's subcommittee, they did support funding of the bank. They also suggested ways to make sure the bank would at least observe its own environmental conditions on loans. The committee agreed with them, adopting their recommendations and also directing the Treasury Department—which tells the bank's U.S. representative how to vote—to monitor environmental issues. It also required the bank to report back within a year to demonstrate improvement in its environmental record.

When the five Patterson subcommittee hearings finally wound to a close last September with a review of recommendations to improve World Bank environmental policy, the Treasury official responsible for development issues, James W. Conrow, was there. "In appearing before you in June, 1983," he said, "I could honestly say that I was unaware of particular problems." Calling the testimony he had heard "surprising and distress-



Bob Pratt

ing," he went on to say that he had checked it for accuracy. "We found substantial corroboration of the information presented by most of the witnesses," he said. He also endorsed most of the recommendations, which included boosting the environmental staffing for banks and starting environmental training programs in the Third World, as well as involving environmentalists and indigenous peoples in development project planning from the start.

Of key importance was one committee recommendation: that U.S. representatives to multilateral development banks actively promote environmental concerns. The Treasury Department, the agency to which they answer, will be reporting back to Congress on their progress.

Polonoroeste itself took center stage in a House of Representatives hearing last September. Representative James Scheuer (D-New York), head of an agricultural research subcommittee, had found environmentalists' testimony in other hearings deeply disturbing. He scheduled a hearing in

which the agricultural implications of the Polonoroeste case were explored.

The unlikely star of the hearing was Brazilian agronomist José Lutzenberger, a gentle, middle-aged man who had left a job with a chemical company to devote his life to environmental issues. He had helped an English filmmaker, Adrian Cowell, produce a film chronicling Amazon development called *Decade of Destruction*. Following a clip from the film showing a hellish red-gray fog arising from forests burning for profit, he spoke on behalf of Brazilian environmental groups.

He argued that the government's promotion of "green revolution" strategies—high-yield, capital-intensive agriculture—had paved the way for this disaster just as surely as the new road had. It had thrown peasants off good farmland in the south of Brazil, while making the fortunes of a few. Polonoroeste, he charged, has one main objective: to transplant the agricultural poor. "There are at least 2.5 million landless poor in Brazil today," he told the committee, "and the

Polonoroeste project is designed as a safety valve for the political and social pressures caused by them." Worse, he added, "it transfers them from rich soils, in a subtropical climate, which can recuperate relatively quickly, to poor tropical soil where deforestation does permanent damage."

Lutzenberger's testimony bridged the gap between the banks and the rain forests in another way as well. His appearance in Congress made nightly TV news in Brazil. His comments, as well as the film's glimpse of rain forest devastation, reached at least 30 million viewers there. Ironically, Brazilian television had balked at covering the same story, with the same footage, when Lutzenberger had made it available earlier.

The original core group of environmentalists had grown in the meantime. Representatives of 31 organizations—including the National Audubon Society, American Anthropological Association, European and Brazilian environmental and Indian rights groups and political parties in Brazil and West Germany—signed a letter submitted by the Natural Resources Defense Council directly to World Bank President Clausen. The letter cited reasons for immediate environmental action and proposed specific measures the bank could take. It

reached Clausen's office the same day that the New York *Times* carried a story on the Polonoroeste project headlined, "World Bank Urged to Halt Funds for Amazon Development."

But bankers are used to operating behind closed doors, and the World Bank is not accustomed to pressure from outsiders regarding its loans. The letter drew a reply familiar to those who had listened to the bank's 1981 assurance that whatever it contributed to the Polonoroeste project would be better than nothing. A bank official assured the signers in a short paragraph that the bank realized the situation required close attention and that it had met with the Brazilian government. "You can be sure that the bank is continuing to monitor the situation closely, and that your concern will be considered as Polonoroeste continues," it ended.

Senator Kasten was outraged. "It is difficult," he said, "to appropriate money to the World Bank when it has offered a response that is basically insulting to environmental organizations that are its natural supporters." And he followed his words by submitting the substance of the environmentalists' letter to the Secretary of the Treasury, this time asking for a full reply from the bank. He also asked to see key bank documents

explaining the reasons behind the original loan approval.

He is not the only one who is watching the World Bank's future environmental policy closely. The Treasury Department now expects regular reports, and State Department officials concerned with international development have met with environmentalists and Indian rights supporters.

Back in the rain forest, pressure is building. Impoverished settlers and embattled Indians come ever closer to violent conflict, while forests continue to be stripped and burned each day. But now, pressure is building in meeting rooms in the banks as well, where canceling future loan installments to Polonoroeste has become an uncomfortable subject of discussion.

If closer attention is paid to environmental and indigenous peoples' concerns at the outset of such loans, the banks may yet play the positive ecological role that they so long ago assumed as their responsibility. □

Pat Aufderheide is a Washington, D.C., writer who has lived with the Krenakore Indians in Xingu National Park in Brazil's Amazon basin. Bruce Rich is an attorney with the Natural Resources Defense Council in Washington, D.C.

How You Can Help Stop Amazon Deforestation

LAST FALL the House Banking Subcommittee on International Development Institutions and Finance urged a number of actions by multilateral development banks to give greater emphasis to environmental factors in loan decisions affecting developing nations. The Treasury Department agreed to help promote the recommendations through the U.S. executive directors of the banks.

Among steps the banks should take, the subcommittee said, are:

- Increase environmental staffing, including assigning a full-time environmental staff member to each of the World Bank's six regional offices and establishing a central environmental office in the Inter-American Development Bank.

- Involve nongovernmental conservation organizations and indigenous peoples of developing countries in

planning and carrying out projects.

- Actively involve the ministers of environment and health of developing countries in formulating policies.

- Make plans and strategies conform to the 1980 World Conservation Strategy.

- Commit staff and money to carrying out the pledges made in the banks' 1980 Declaration of Environmental Policies and Procedures Relating to Economic Development.

- Refuse to finance projects that will result in use of natural resources at unsustainable levels, threaten species extinctions, degrade protected natural areas or degrade the land and resource base on which indigenous peoples depend.

- Devote more resources to small-scale appropriate technologies instead of giant dams, highways and similar large-scale, capital-intensive projects.

- Cease financing roadbuilding and settlement projects in tropical forests.

To help curb rain-forest destruction in Brazil and other Latin American nations, write to the following urging immediate implementation of the House Banking Subcommittee's environmental recommendations:

**A. W. Clausen, President
World Bank
1818 H Street, N.W.
Washington, DC 20433**

**Antonio Ortiz Mena, President
Inter-American Development Bank
1808 Seventeenth Street, N.W.
Washington, DC 20577**

Also write the U.S. executive directors of the two banks, James B. Burnham, World Bank, and Jose Manuel Casanova, IDB.

IS ACRE'S TURN NEXT?

Another Amazon state is on the verge of disastrous de-greening

by Stephan Schwartzman

EVEN as northwest Brazil's huge Polonoroeste project area experiences disastrous deforestation from World Bank-financed development, the same process may be unfolding in the neighboring state of Acre. This time the multilateral bank involved, the Inter-American Development Bank (IDB), is taking a different tack. But environmentalists are asking whether the end result will be the same or even worse.

Acre, about the size of Virginia, embraces some 92,000 square miles at Brazil's western extremity. Until the mid-70s it was known best as a remote but profitable rubber-producing region. The rich Acre rain forest then remained 97 percent untouched. But with the arrival of agribusiness, speculators and growing throngs of migrants, deforestation is accelerating. If it continues at the present rate, say informed scientists, in another decade no forest will be left.

BR-364, paved through World Bank loans, is bringing 13,000 people a month into the state of Rondonia. But Rondonia has no more land for settlers. Authorities plan to send them on to Acre, to the adjoining state of Amazonas and to Roraima Territory farther to the north. This migration will be greatly aided by a newly approved \$58.5 million IDB loan for paving some 300 miles of BR-364 from Porto Velho, capital of Rondonia, to Rio Branco, capital of Acre.

The main problem with the BR-364 project is that a detailed environmental-protection plan will be prepared only as the present dirt road is actually being paved. The bank claims that it will impose strict conditions on later loan disbursements. "But this will amount to closing the barn door after the horses have been stolen," says Bruce M. Rich, attorney with the Natural Resources Defense Council. Rich and other environmentalists, along with supporters of Indian rights, contend that the project will spawn unsustainable land use, deforestation, invasion of Indian lands and

land conflicts. They point out that in Rondonia's Polonoroeste project, protection plans were prepared much earlier and were more comprehensive but still did not work.

Already, conflicts over land have flared in Acre, and some fear that increased migration will cause these to multiply dramatically. Last year, a senator from Acre appealed directly to Brazil's President Joao Figueiredo to halt the influx. In December, Acre Governor Nabor Junior called the present level of migration unsustainable. Yet the governor wants the road paved to bring in supplies and to take cash crops to market. Approximately half the land in the state already belongs to interests in the industrial south, many of them speculators. A paved road would increase the value of their holdings. And the contractors whose heavy equipment paved BR-364 as far as Porto Velho have a considerable interest in keeping that equipment moving westward.

A report from Brazil's Indian protection agency, FUNAI, predicts that the road eventually will affect more than 8,000 Indians as settlers spread up and down the river valleys it crosses. None of the 29 areas in Acre where FUNAI knows that Indians live is yet officially demarcated, which means that their lands are unprotected against invading settlers and land speculators. Since the mid-70s, violent confrontations between Indians and big landowners or the military police have been common. The IDB-financed paving project will greatly increase the threat to the Indians' future.

No one expects that the road will stay unpaved indefinitely, but the Brazilian government and IDB planned the project so hastily that many outside observers have become alarmed about its consequences. This past January, NRDC, other environmentalists and Indian rights advocates requested and obtained an unprecedented meeting with bank policy-makers. They emphasized the

possibility of a repetition of the Polonoroeste debacle and suggested modifications of the loan agreement—including prior demarcation of Indian lands—aimed at preventing potential problems.

The bank managers listened. Although insisting that the bank's concern with the environment predated the meeting, an IDB spokesman later declared: "The meeting with representatives of a spectrum of the environmental community on the Brazil project was the first of its type, and we believe it was helpful." What steps will actually be taken on behalf of the environment and the Indians, however, remain to be seen.

Meanwhile, NRDC Attorney Rich called the attention of the U.S. Treasury Department to the environmental problems of the project. As a result, loan approval was delayed for several weeks. When the loan finally came up for a vote on January 23, U.S. Executive Director Jose Manuel Casanova abstained on instructions from then Secretary of the Treasury Donald Regan—the first time a U.S. executive director of a multilateral bank has withheld endorsement of a loan on environmental grounds.

Because of the abstention, \$14.5 million from the bank's Fund for Special Operations was blocked, reducing the \$73 million slated for the loan by that amount. Commenting later, a Treasury spokesman said, "On balance, we felt the economic gains did not justify the costs. In short, the project was not a good investment for the IDB." Cited among the costs were "the unsustainable nature of the agricultural development likely to take place on the poor soils in the region and the heavy deforestation expected with road construction."

Some observers believe that, coming on the heels of the criticism of Polonoroeste, this will help set a new tone for multilaterally financed rain-forest development. Certainly it is encouraging that government officials

See ACRE, page 43

state's annual **grizzly bear** hunt. By law, listed species cannot be hunted unless an agency can demonstrate that there are excessive population pressures that cannot be relieved in any other way. An interagency grizzly bear task force concluded that the bear's status cannot be determined using current data. Despite this, the Montana Game Commission in January tentatively recommended continuing the hunt. A final decision is expected in March. . . . Oral arguments were heard in Denver on January 21 on Defenders' appeal of EPA's decision to reregister the deadly pesticide **Compound 1080** for use against livestock predators. Three judges of the 10th Circuit Court of Appeals allowed Defenders' attorney **David Hayes** and two attorneys for EPA and the joint National Cattlemen's Association/Woolgrowers 15 minutes each. The woolgrowers and cattlemen are appealing EPA's decision as too restrictive. Defenders hopes to prevent reregistration. "Cattlemen want it both ways," said **EPA attorney William Jordan**. "They say it is difficult to find coyotes killed by 1080, so they don't find many, but they know that 1080 is killing them. and then they turn around and say that 1080 is not killing nontarget wildlife because they don't find any." So-called single lethal dose baits were the focus of the presentations rather than toxic collars, which carry pouches of poison that are punctured when a predator attacks a collared sheep. If the court affirms EPA's decision to reregister 1080, toxic collars could be in use within a year, but SLD experimentation and registration could take about two years. Meanwhile, EPA has renewed an **FWS 1080 experimental use permit** allowing use of SLDs in **Montana** and **Idaho** and expanding use to **Utah**. Some 300,000 acres are involved. . . . The Reagan administration has proposed a drastic budget cut for the **National Marine Fisheries Services (NMFS)**. Requested funds for NMFS are lower than the 1985 appropriation by nearly \$3.3 million for protected species research and \$1 million for protected species management. **FWS** fared somewhat better, with a moderate increase. But the request for the Office of Endangered Species is the same as the 1985 appropriation. . . . State and federal wildlife agents filed charges in January against some 130 people for ille-

gal commerce in fish and wildlife, including declining Chesapeake Bay striped bass, or rockfish. A two-year investigation involved undercover operations that started in **Pennsylvania** and **North Carolina** and spread throughout the eastern seaboard. The investigation uncovered illegal taking and sale of **deer, waterfowl, hawks, eagles, small game and song birds**. Implicated were commercial fishermen, fish retailers, transport companies and wholesale fish companies, among others. If found guilty, violators could receive fines up to \$20,000 and jail terms of up to five years. . . . The Southeast's **brown pelicans** have been removed from the **endangered species** list. The delisting applies in **Alabama, Florida, Georgia, the Carolinas** and coastal points to the north. The bird was listed as endangered in 1970 following a decline caused mainly by DDT and other pesticides. . . . **California's** Department of Fish and Game on January 28 issued an emergency order stopping use of large-mesh **entangling nets in sea otter** range. The move should reduce the increasing incidence of otter-drowning in the nets. However, the order may

be challenged in court by fishing groups. Pending state legislation would bar the nets permanently. . . . **Defenders Southwest representative Steve Johnson** was in **New Mexico** on January 24 and 25 to help defeat a rancher attempt to win permission for unlimited hunting of **mountain lions**. Alerted by Defenders and the Sierra Club, New Mexicans flooded the Game and Fish Commission and governor's office with calls and letters, resulting in a department decision to limit the number of lions killed for depredation to 14 and to do all control work itself. In addition, the department promised to seek a statewide three-month lion season with no exceptions. A five-month season is allowed in a high-depredation area in the southeastern corner of the state.

—Page Chichester

ACRE

Continued from page 29

and development planners have proved willing to consider environmental and human costs along with more traditional economic costs. This



How in the world will tomorrow's children know the wonder of wildlife if there's no wildlife left in the world?

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For further information call or write: Etta S. Pollock
Development Director
Defenders of Wildlife
1244 19th Street, N.W.
Washington, D.C. 20036
(202) 659-9510

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proves that environmental organizations have been getting their message across. Nonetheless, these gains could evaporate unless environmental groups continue to press the issue.

In the world of multilateral banks, one loan begets another. While so far IDB-financed pavement reaches only into the eastern tip of Acre, it is rumored that the state and federal governments contemplate paving BR-364 from one end of the state to the other, as well as requesting further World Bank loans for Polono-roeste-like development. □

Stephan Schwartzman, who lives in Washington, D.C., recently spent a year and a half conducting anthropological research in an Indian community in central Brazil.

CANADA

Continued from page 33

many ways. Last year, for example, the Trudeau government's environment minister, Charles Caccia, directed CWS to consult with British Columbia wildlife officials in an effort to persuade the province to halt

an aerial wolf-killing program. Canada's provinces control their own wildlife, but Ottawa's overture had the purpose of helping the province—and Canada—find a way out of an image-harming controversy reaching across the U.S. border.

There is no indication, unfortunately, that Minister Blais-Grenier plans similar initiatives. An outspoken advocate of "less federal government," she refers to the provinces as "true partners able to assume their own responsibilities who must no longer live in the shadow of their big federal brother." She views "the volunteer and business sectors" as other partners, and she told the Fisheries and Forestry Committee that the federal government "must yield more ground, allow our partners more space to breathe and encourage and support private initiatives."

To be sure, she also assured the committee: "The Canadian Wildlife Service has a basic role to play in Canada. . . . We are not going to close it down; we are going to develop it." But just what she meant remains to be seen.

—Barry Kent MacKay

Barry Kent MacKay is on the staff of the Animal Protection Institute—Canada and writes a weekly nature column for the Toronto Star. Readers wishing to comment may write Hon. Suzanne Blais-Grenier, Minister of the Environment, Ottawa, Ontario K1A 0H3.

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OFFICE MEMORANDUM

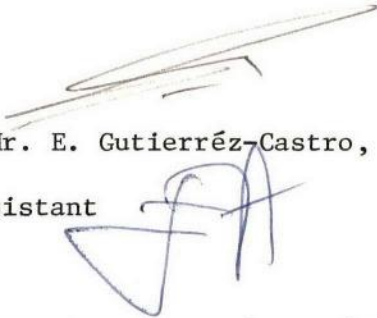
137 DATE: April 22, 1985

TO: Mr. A. W. Clausen, President (Through Mr. E. Gutierréz-Castro, Executive Director)

FROM: Eimar Aviliez, Executive Director's Assistant

EXTENSION: 75337


SUBJECT: His Excellency, Tancredo de Almeida Neves, President-elect of Brazil



I have the sad duty to send to you the official communication from the Brazilian Embassy of the death of His Excellency Tancredo de Almeida Neves, President-elect of Brazil.

Attachment

10.30 a.m.



RECEIVED

1985 APR 23 AM 11: 15


OFFICE OF THE PRESIDENT

137
No. 53

The Brazilian Embassy presents its compliments to the World Bank and has the sad duty to inform it of the passing away of His Excellency, Tancredo de Almeida Neves, President-elect of Brazil, on April 21, 1985.

A Book of Condolences will be open for signature at the Chancery of the Brazilian Embassy 3006 Massachusetts Avenue, N.W., on Monday April 22, Tuesday April 23 and Wednesday April 24 from 10 a.m. to 4 p.m..

The Brazilian Embassy avails itself of this opportunity to renew to the World Bank the assurances of its highest consideration.

 Washington, D.C., April 21, 1985

RECEIVED

1985 APR 23 AM 11: 15

OFFICE OF THE PRESIDENT

BRAZILIAN REPRESENTATIVES WHO WILL ATTEND MEETING WITH MR. CLAUSEN

(APRIL 16, 1985 AT 5 P.M.)

Antonio Carlos Lemgruber, President, Central Bank

Paulo Nogueira Batista, Secretary for Economic Affairs, Planning Ministry

Gilberto Veloso, Secretary for International Affairs, Planning Ministry

Alexandre Kafka, Executive Director, IMF

Eimar Avillez, Technical Assistant to the Executive Director, World Bank

Antonio Carlos Lemgruber

(President, Central Bank)

Antonio Carlos Lemgruber, about 40 years old, has a Ph.D. in economics from the University of Virginia. He left the International Vice Presidency of Banco Boavista, a small bank with headquarters in Rio de Janeiro, to become the President of the Central Bank. In the late 1970s, he was Editor-in-Chief of Conjuntura Econômica, monthly economics magazine put out by the Getulio Vargas Foundation. Known as a strict monetarist, he has no prior public sector experience, and was chosen by Finance Minister Francisco Dornelles after at least two other candidates (Affonso Celso Pastore and Carlos Antonio Rocca) turned down the job.

NEW YORK TIMES

(U.S.)

Payments Stopped on Loan to Brazil

By CLYDE H. FARNSWORTH

Special to The New York Times

WASHINGTON, April 8 — The World Bank has stopped disbursements on nearly \$500 million of loan commitments for development of Brazil's northwest frontier because conditions for protection of Indians and the environment have not been met, according to members of Congress and environmental groups.

The action was taken in mid-March, but had not been announced.

"It represents the first time the bank has ever halted disbursements for environmental reasons," said Bruce M. Rich, staff attorney for the Natural Resources Defense Fund.

The World Bank's action was re-

lated only to environmental concerns and not to Brazil's financial problems with the International Monetary Fund and commercial banks, bank officials stressed. Nor is it expected to affect other loans to Brazil.

Widespread Criticism

The project — to develop agribusiness in a Virginia-sized region known as Polonoroeste in Rondonia Province at Brazil's western extremity — has drawn criticism from environmentalists as well as Indian rights advocates, anthropological associations in the United States and Brazil and both Republican and Democratic members of Congress.

Critics say the development was poorly planned. They charge that it has spawned unsustainable land use,

deforestation, invasion of Indian lands and violent land conflicts.

The project, which calls for construction of a 1,000-mile jungle-penetration road and for a variety of agricultural services, has been subjected to a good deal of heat from Congressional committees. There is a "growing Congressional concern that sustainable, ecologically sound development must be a basis for international development assistance efforts," said a report by the House Subcommittee on International Development Institutions last September.

About the suspended payments, Senator Robert W. Kasten Jr., Republican of Wisconsin, said, "This is very good news, and we look forward to working with the World Bank and the Treasury to resolve these environmental concerns."

Mr. Kasten, one of the leading critics of the plan, is chairman of a Foreign Operations subcommittee that has responsibility for financing all multilateral development institutions. The World Bank, officially known as the International Bank for Reconstruction and Development, is the biggest of these institutions. Last year it lent about \$15 billion to developing countries.

'Environmentally Sensitive Area'

Another Congressional critic, Representative James H. Scheuer, Democrat of the Bronx and Queens, who is chairman of a Congressional subcommittee concerned with natural resources, had earlier urged the bank to encourage Brazil to "limit and control development in this environmentally sensitive area."

Reached in his district, Mr. Scheuer called the decision a "welcome step that will help avoid an environmental disaster in the Amazon," he said, "The World Bank has shown that it understands that development that is not environmentally sound cannot be sustained."

H. Martin Koelle, the bank's acting director of information and public affairs, said that the bank and Brazil had been "reviewing" the project and that "Brazil has requested the bank in the meantime to suspend disbursements." He added, "The bank has suspended disbursements."

He said that it was a "very complex project with all sorts of institutional and environmental aspects to it," and added, "It's like the American frontier, where everything was not orderly or controlled."

'Well-Designed Project'

Eimar Avillez, assistant to the Brazilian executive director on the bank, said that the new Government of President Tancredo Neves, who has been seriously ill, had "ordered suspension of disbursements on all major programs."

"This was a well-designed project, and we want it to go forward," he added.

Mr. Rich of the Natural Resources Defense Council and other analysts said the change in the Brazilian Government gave both Brazil and the bank a face-saving way to retreat from the project.

Brazil, which has fallen out of compliance with conditions on loans from the International Monetary Fund, has earmarked about \$1.6 billion for development of the Polonoroeste project, of which \$434.4 million in six separate loans was to come from the World Bank.

The bank has already disbursed \$178.3 million on these loans. The effect of the suspension is to freeze the remaining \$256.1 million.

For the fiscal year ended last June 30, the bank approved 10 loans totaling \$1.6 billion for all of Brazil. So far in the current fiscal year only three loans totaling \$372 million have been approved, but a bank official said that the bulk of loan approvals usually comes in the April-June quarter.

action
Reading

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

103
DATE: April 3, 1985
TO: Mr. A.W. Clausen
FROM: J. William Stanton, VPE *JWS*
EXT: 72173
SUBJECT: INTERIM REPORT: Meeting with Senator Kasten on
Environmental Issues

1. In your letter of March 1 to Senator Kasten, you stated that you were asking me to contact the Senator to arrange a meeting to hear the Bank's response to issues raised in a letter from environmentalists.
2. Yesterday, I met with the Senator and the Foreign Relations sub-Committee Staff Director, James Bond. The Committee has been extremely busy with continuous hearings all month plus major legislation on the Senate Floor involving famine relief for Africa.
3. The Senator was pleased that a meeting can be planned and with your personal interest in the subject. He asked that I work out the details with Jim Bond.
4. Jim Bond and I will meet next week. Everyone agrees that a time frame in the second or third week in May for a meeting would be satisfactory. As soon as a more definite time schedule is established, I will let all parties know.

cc: Mr. Burnham, Executive Director

bcc: Messrs. Stern, Knox, Gonzalez-Cofino, Tcheyan

JWS/jv

RECEIVED

1985 APR -3 PM 4:42

OFFICE OF THE PRESIDENT

OFFICE MEMORANDUM

RI

TO: Mr. Roy Southworth, Assistant to the President
FROM: Peter Riddleberger, Acting Division Chief, PIO
DATE: March 26, 1985
EXT.: 75606
SUBJECT: Letters regarding the Brazil POLONOROESTE Project

sample attached

1. Letters from the public to Mr. Clausen generated by the attached article ("Debacle in the Amazon" from the magazine Defenders, April/May 1985) are coming in at a rate of 30-40 per day. (Note the letter-writing appeal on page 32). This story comes from the concerns by environmentalists and the accompanying intervention by members of Congress.

We expect this rate to continue for another 10 days. A response is being drafted by IPA with the assistance of LAC and Mr. Stanton. We may be able to use some of the points raised in a note on this matter soon to be circulated to some Executive Directors. We intend to answer all letters over Mr. Vogl's signature. I understand Mr. James Burnham is being advised.

2. Letters in volume are also being received on related subjects, (1) the destruction of tropical rain forests worldwide as outlined in a January 16, 1985 article in the New Yorker, and (2) transmigration in Indonesia.

We intend to see that responses to all three groups of letters are consistent.

cc.: Messrs. Koelle, Bahl, Blinkhorn, Stanton, Ms. Maguire.

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GREGORY R. SLEE, M.D.

March 15, 1985

A. W. Clausen, President
World Bank
1818 H Street Northwest
Washington D.C. 20433

Dear Mr. Clausen:

Last fall the House Banking Subcommittee on International Development Institutions & Finance urged a number of actions by multilateral development banks to give greater emphasis to environmental factors in loan decisions effecting developing nations. The Treasury Department agreed to help promote the recommendations through the United States Executive Directors of the banks.

To help curb rainforest destruction in Brazil & in other Latin-American nations I urge you to immediately implement the House Banking Subcommittee's environmental recommendations. A great world resource is at stake. I believe that it is in the interest of the people of Latin America & the people of the world to preserve the Amazon Basin. They stand to gain more from selective development of the region's natural resources rather than unrestricted destruction of forest through non-productive agricultural mining & ranching practices. The greatest danger of unrestricted development may ultimately be the destruction of the region's native peoples.

Thank you for your consideration.

Sincerely,

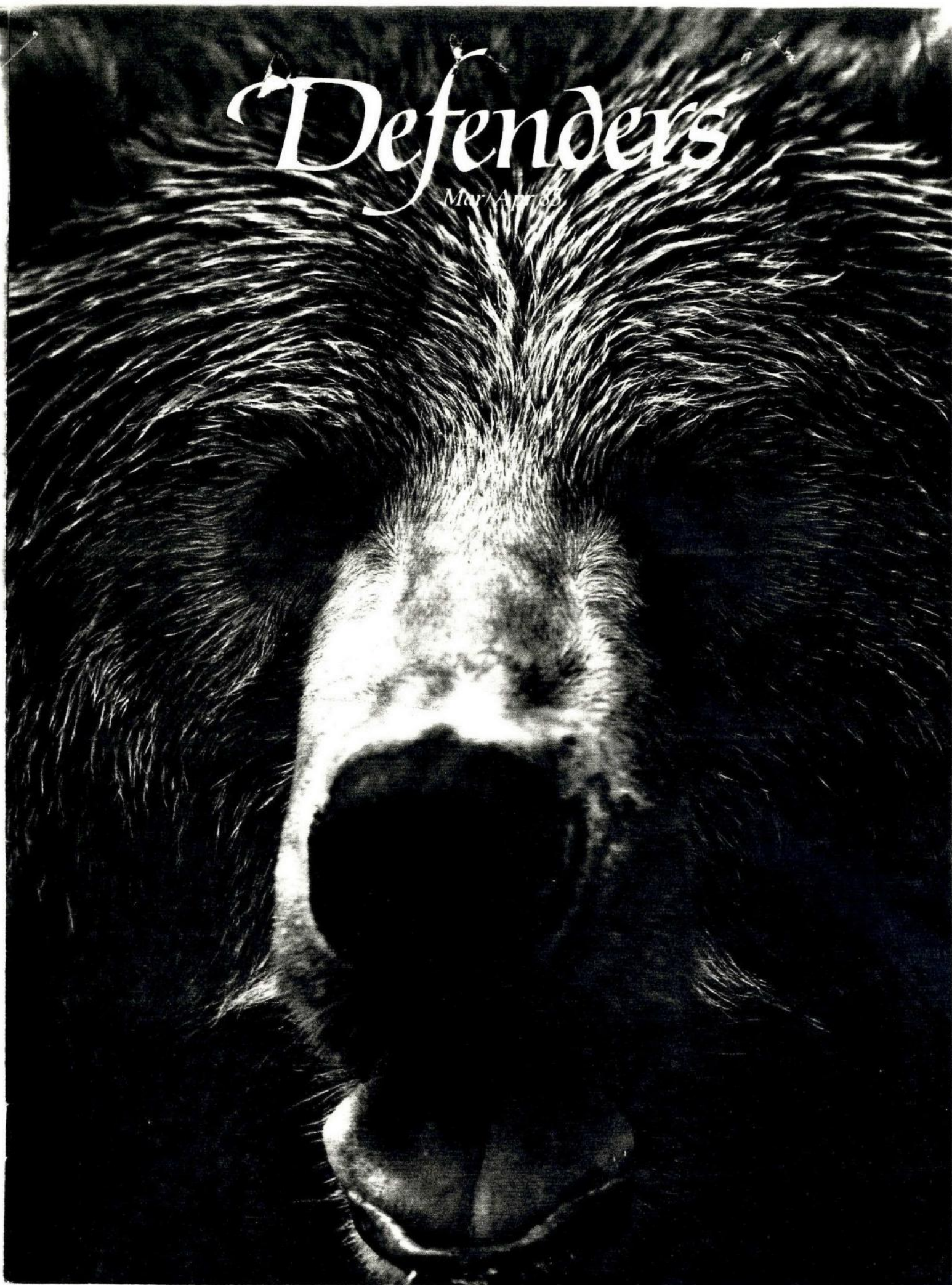


Alan E. Plona, M.D.

AEP/tam

Defenders

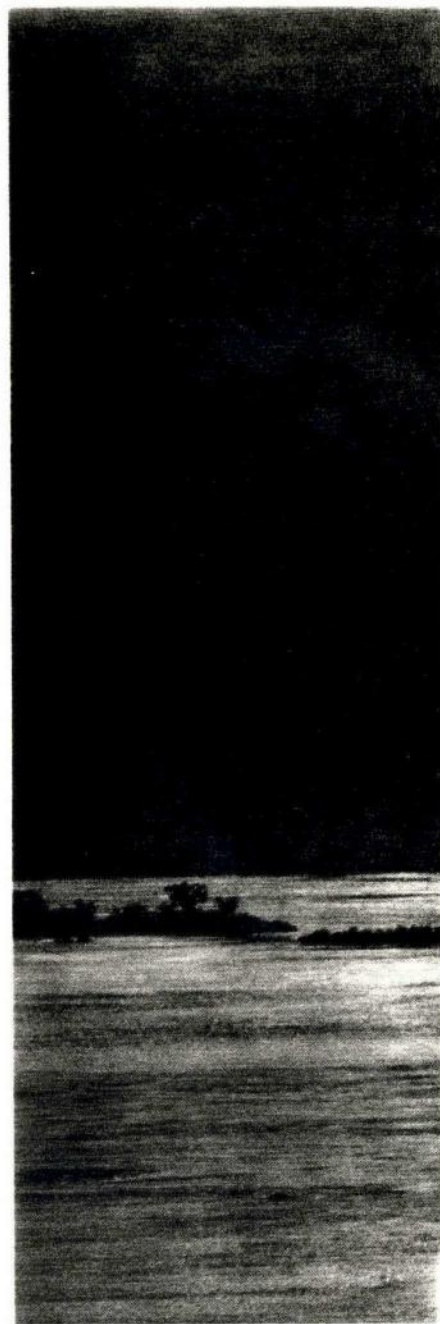
May/June 1988



Debacle in the Amazon

*In Brazil, development backed by
U.S.-dominated multilateral banks
is destroying part of the world's
greatest rain forest*

by Pat Aufderheide and Bruce M. Rich



DEEP in the rain forest of the upper Amazon, miles from a newly paved highway, an Indian of the Uru-eu-wau-wau tribe delicately fingers an odd piece of ridged metal. It is the top of a soda-water bottle, discarded by the child of a local settler. He takes it back to his village to amuse his son, who is coughing with a disease that has no name.

Nearby in a small clearing, a farmer looks despondently over his wilted field of rice. The crop should be ready for harvest, but in only the second season it has failed even to yield enough for the family's needs. When he moved with his wife, four children and a cousin to the state of Rondonia, the government promised him a homestead title in exchange for five years on the land. Now he is



Light after a storm falls on the Tapajos River and the surrounding rain forest. The river parallels Brazil's Trans-Amazon Highway in eastern Amazonas state. An Amazonas woodcutter drains water from a tree before completing his cut.



Walt Anderson/Tom Stack & Associates; inset, H. W. Silvester/Rapho

hoping he can stake a new homestead in virgin rain forest farther up the Amazon basin.

Each day, as chainsaws and tractors push into one of the world's last great reserves of biological diversity, Indians and farmers are playing out roles in a tragic scenario. But they are not alone. There is a leading actor missing from this picture: a development bureaucrat.

The development bureaucrat has long been a shadowy figure behind the bulldozers and bank loans that are deciding the fate of the Amazon rain forest and its inhabitants. But over the last two years, a campaign has been waged in a world financial center—Washington, D.C.—to put development economists and planners back into the picture. The

campaign, involving environmentalists, supporters of Indian rights, members of Congress and Reagan administration officials, seeks to enlist them in defense of the environment.

Ecologists have long been alarmed over destruction of the world's tropical rain forests, which are biological banks for the future and home to some of the most ancient and ecologically wise human cultures. As Catherine Caufield notes in her new book, *In the Rainforest: Report from a Strange, Beautiful, Imperiled World*, man already has destroyed half of this irreplaceable resource. Most of the destruction has occurred since World War II.

Brazil alone has a third of what remains. And in Brazil the dramatic danger to this lush-looking but all too

fragile ecosystem can be seen vividly. There, brazil-nut and mahogany trees, turtles and tapirs can be counted among perhaps a million plant and animal species. Biologists have barely begun to probe the forest's diverse biological riches, and they are racing against time, because in the Amazon basin a war against the future is going on in the guise of what the Brazilian government proudly calls "the largest agrarian reform project ever attempted." The Brazilian government, saddled with one of the world's largest international debts, has been promoting the Amazon basin as a new frontier, especially for large-scale and capital-intensive development schemes—huge dams for generating electricity, cattle-ranching, mining, cash-crop farming.

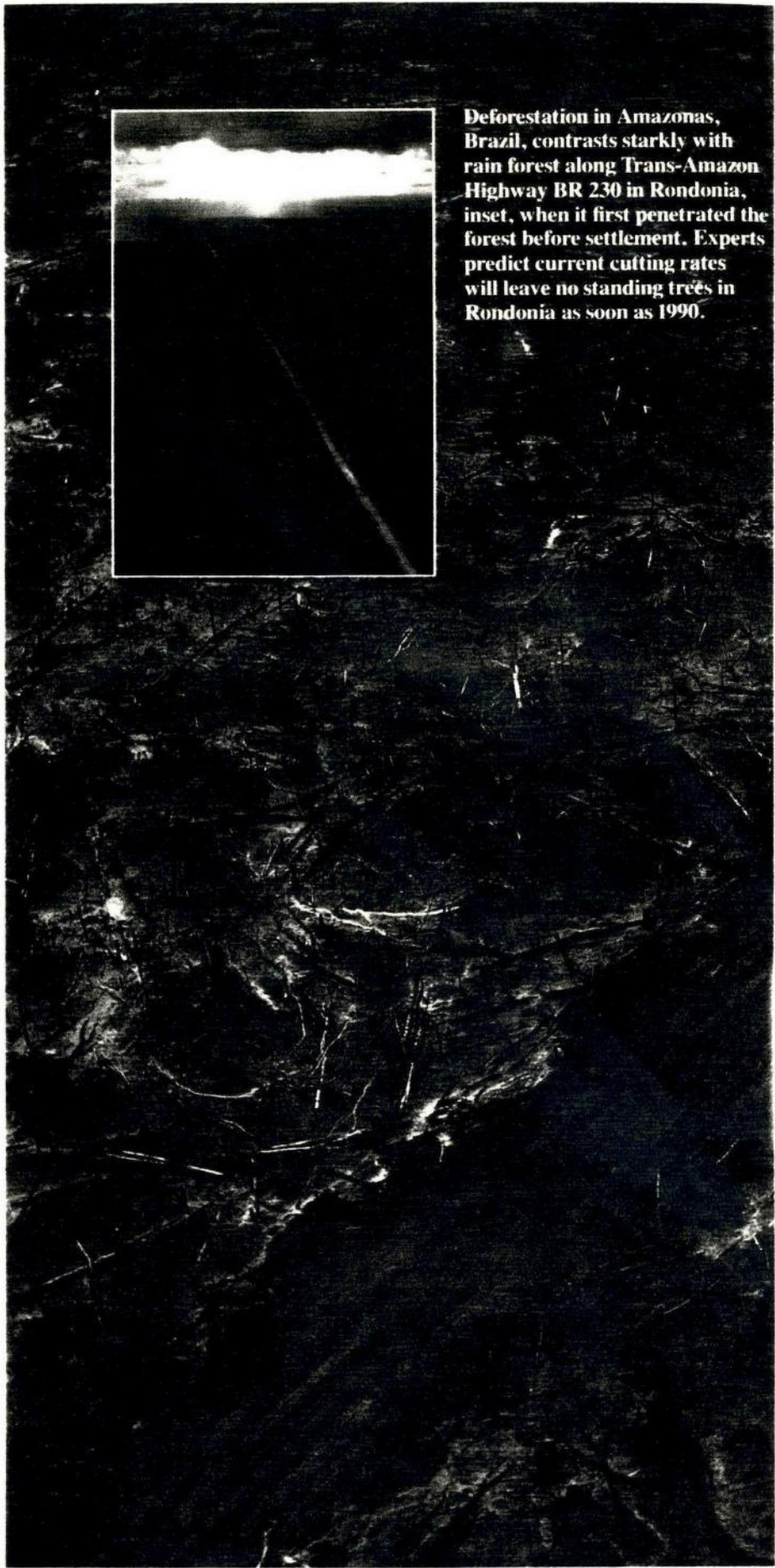
Standing in the way of development dreams are miles of trackless forest. With slogans such as "The Bold Ones March Westward," the government in the last decade has launched an unprecedented assault on the forest. And the assault has been so successful that one noted ecologist, Dr. Philip Fearnside, has estimated that at the present rate not a single tree will be left standing in the state of Rondonia—an expanse the size of West Germany—by 1990.

Many environmentalists believe that Brazil is not only jeopardizing world ecology but also robbing its own economic future. Therefore they point with alarm to the key role played in large-scale ecological and economic transformation by multilateral development banks.

These huge banks, which began after World War II when the World Bank was founded to bankroll European reconstruction and Third World development, are funded by national governments, with the United States contributing the biggest share of any country. Of the existing four institutions, the World Bank and the Inter-American Development Bank (IDB) are essential to Latin American development projects. The United States contributes 20 percent of the World Bank's funds and 35 percent of the IDB's funds—and gets a corresponding share of the votes in the institutions' decisions. The two banks in 1983 alone contributed \$6.46 billion to Latin American projects, and since the banks deal only in million-dollar figures, the money typically goes to expensive projects such as hydroelectric and large-scale agricultural schemes. Once these banks approve a loan, private bankers leap in to fund a project: private capital often matches development-bank investment at a three-to-one ratio. The multilateral development banks' money, in short, is the motor behind big Third World development.

But is it development or is it debacle? The doubts of environmentalists and supporters of Indian rights are spreading to the halls of Congress and even into the plush offices of the Washington, D.C., headquarters of the banks, as the results of one huge and disastrous project come in. The Northwest Regional Development Project, known in Brazil as Polonoeste, involves some 100,000 square miles of tropical forest in Rondonia

H. W. Silvester/Rapho; inset, Loren McIntyre



Deforestation in Amazonas, Brazil, contrasts starkly with rain forest along Trans-Amazon Highway BR 230 in Rondonia, inset, when it first penetrated the forest before settlement. Experts predict current cutting rates will leave no standing trees in Rondonia as soon as 1990.



and western Mato Grosso, where the Brazilian government has already cut a 900-mile road called BR-364. The government has invited hundreds of thousands of poor, landless peasants from other parts of Brazil to settle there, promising them some 39 towns where the settlers can sell their crops, send their children to school and get medical help for endemic malaria and other diseases.

The colonization plan limped along for years, until the government in 1979 asked the World Bank for a huge loan to help pave BR-364. But the bank was not blind to the region's problems: reports that the land was too poor to farm, that settlers were invading traditional Indian lands, that failing farmers were clearing huge strips of forest to prepare the land for cattle-ranching. Over the last 15 years, the bank has become increasingly aware of environmental questions, and it now has an office of environmental affairs. The office, however, employs only five of the bank's more than 6,000 staffers, and only one of them is a trained ecologist.

The bank's conditions for approving the Polonoroeste loans—which amount to 30 percent of the multi-billion-dollar investment—were several. The bank insisted on setting aside funds for biological reserves, a national park, four ecological stations and some national forest area. It also required the government to allot lands for 15 Indian parks and to protect the Indians' health. Finally, it demanded that farmers be given homestead land on fertile soil that did not threaten Indian lands or the health of the forest.

Five years later, the bank has committed nearly \$500 million, in seven loans, to Polonoroeste. More than half that money has gone into paving the road—the only part of the project that has been completed.

"Empty-handed, they were arriving, ready to conquer the jungle. And they did it," boasts a Brazilian government brochure featuring the large family of Raul Ribeiro posed in front of a small house in the forest. From all over Brazil, people have arrived, desperate for a plot in a country where 43 percent of the farmland is owned by one percent of the people. And they have been showing up in ever-greater numbers since the bank pitched in to help Polonoroeste become Brazil's new frontier. In the



years between 1978 and 1983, more than 275,000 settlers flocked to Rondonia. In 1984 up to October, more than 115,000 new settlers arrived.

Most did not have the happy experience that the Ribeiro family did. Many discovered instead that cash crops like rice and coffee need more than a tropical rain-forest environment has to offer. The tropical rain-forest soils are, in fact, among the poorest in the world. High temperatures and high rainfall combine to leach away minerals. They also break down clay in the soil so that it cannot hold these nutrients. The richness of the forest is all above the ground, in the trees and other vegetable matter. When the settlers slash and burn, the ashes float downriver along with the settlers' hopes.

The settlers also discovered that the promised towns and services were less than idyllic. At a demonstration to protest lack of government credit to small producers in Rondonia's capital, Porto Velho, last year, one settler said of his "urban nucleus": "We have lots of kids there, and people who need medical treatment,

and the clinic is closed for lack of personnel."

"There is precious little education up here," said another.

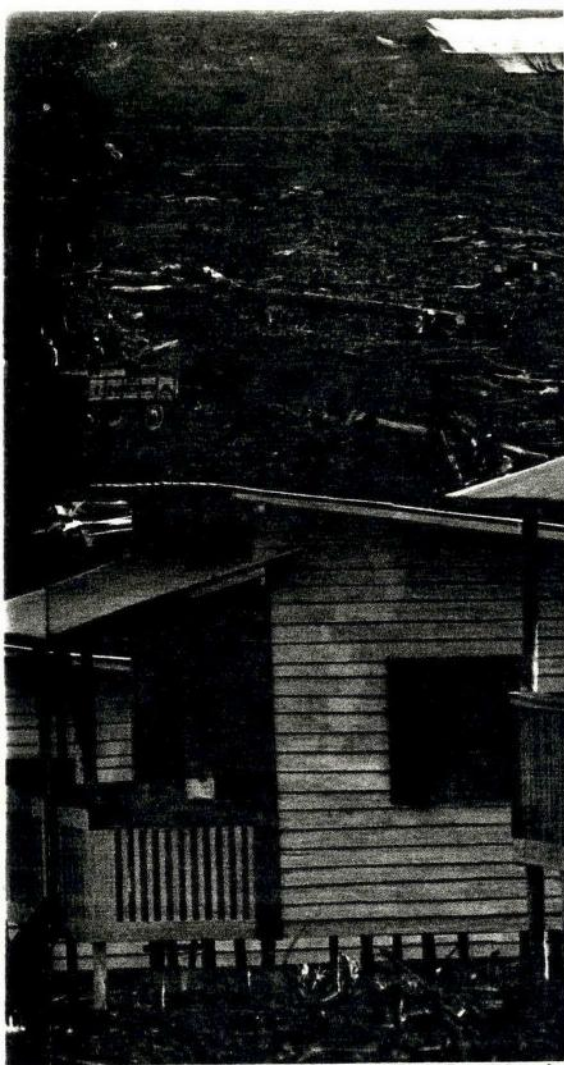
The settlers' options were so few on the poor soil, some pointed out, that many had taken to producing charcoal—the only saleable item. One man asked in indignation how he would be compensated for his claim when a nearby hydroelectric project flooded his land.

The World Bank has paid an expensive price for these settlers' bitter experience. According to one estimate the bank's investment in every family so far is \$12,000 in current dollars—a figure that baffles many settlers who find themselves poorer after two years of farming than they were before.

The bank might have guessed that settlement was at least chancy, given earlier experience in the Amazon. In the Peruvian Amazon, a study of six earlier settlement projects found desertion rates up to 92 percent. In Brazil itself, an earlier such project proved a spectacular failure. The Trans-Amazon highway constructed

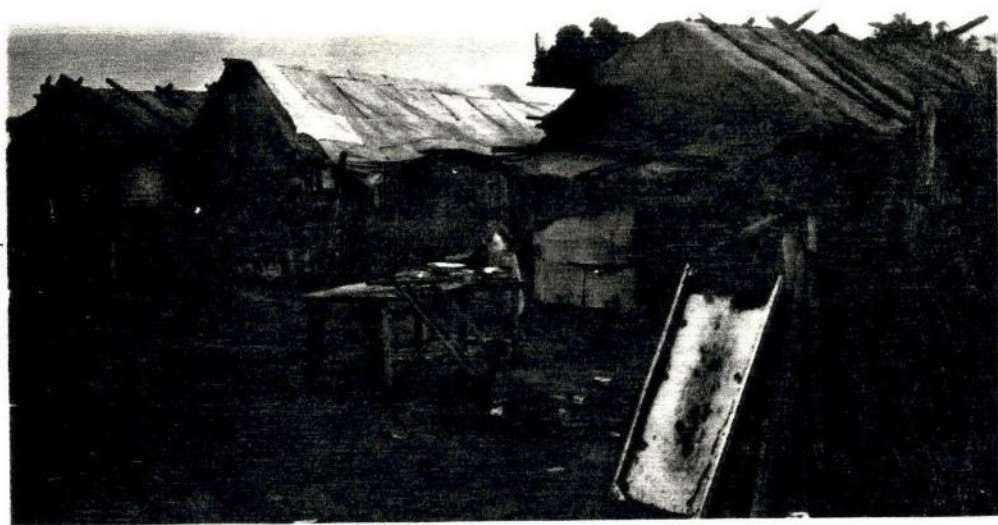
in the 1970s was the centerpiece of a government plan to settle 5 million people south of the Amazon River. The project benefited indirectly from large multilateral bank loans for highway construction elsewhere in Brazil. Most of the settlers found they could not make a living off the land, and long stretches of the highway have been abandoned. Today a sign dangles from a tree along the road: "Next gas station, 980 kilometers. Beware of Indian arrows; drive with windows closed."

The Brazilian government, far from losing heart, keeps plowing on into the forest. It has already bulldozed a continuation of BR-364 into the neighboring state of Acre—an almost untouched expanse the size of Virginia where perhaps 5,000 Indians live. The road offers, for the moment, an escape route for failed farmers with nowhere to go back to. And as they abandon homesteads, more come to take their places. The government land agency, INCRA, has run out of land titles, and there are waiting lists two and three families deep for abandoned plots. Yet the government still



Claudia Andujar/Photo Researchers, Inc.

Stephan Schwartzman



H. W. Silvester/Rapho



encourages new arrivals. At a demonstration in the south of Brazil where landless peasants gathered to protest their plight, an unmarked car pulled up and out of it were thrown hundreds of leaflets promoting settlement in the Polonoroeste region.

The Inter-American Development Bank apparently shares the Brazilian government's optimism. It recently approved a \$73 million loan to help pave the continuation of BR-364 into the state of Acre.

On paper, Polonoroeste is a celebration of the yeoman farmer. But when farms fail, the one-time rain forest quickly becomes a field for cattle ranchers and land speculators. The majority of small farmers own no cattle at all, but already 80 percent of them have cleared forest for pasture, hoping to increase the land's sale value. The problem, according to Brent Milliken, an environmental expert who performed an independent evaluation of the World Bank program in the area last year, is twofold: the clearing erodes the soil, and land is also quickly invaded by noxious weeds, which cattle cannot use as

Ranchers drive cattle in Amazonas. Cattle-raising in deforested areas is highly destructive because it prevents regrowth of vegetation. The Brazilian resettlement colony, above left, is typical of those found along BR 364. A frontier town at the forest edge, top, is called a bang-bang for its wild-West atmosphere. Some 400,000 settlers who came to Rondonia between 1978 and September, 1984, found mineral-poor soil unable to support cash crops.

fodder. But many potential purchasers do not care. Speculation is often more lucrative in the short run than productive use of the land.

Cattle-ranching in the Amazon is one of the nightmares of an ecologist like the World Bank's Robert J. A. Goodland, who points in exasperation to the Amazon's wealth of forest animals and fish as much better—and renewable—development resources. Some economists argue that only government subsidy makes cattle-ranching temporarily profitable on tropical soil. But even when it is viable, cattle-ranching produces few jobs and de-

stroys the potential for a rain forest to return.

Yet cattle-ranching has been one of the favorite investments of multilateral development banks over the last two decades in Latin America. According to distinguished Mexican sociologist Ernst Feder, no single commodity in the Third World has received such extraordinary outside subsidy as livestock in Latin America. More than half the World Bank's cumulative agricultural lending in Latin America through 1980 went for livestock activities, according to economist Cheryl Payer.



Stephan Schwartzman



Loren McIntyre



Adrian Cowell/Transworld Features (UK) Ltd.

Manioc is transported by Indians of the Amazon basin. Some natives recognize 18 kinds of this staple food. The tribal chief of a Cinta Larga (big belt) tribe wears traditional garb. Amazon Indians are being decimated by disease because medical treatment often is not given in time. A professional hunter shows off a highly valued ocelot skin. He will try to kill 40 to 80 ocelots on each trip to the jungle.

Unlike cash-cropping settlers, they plant gardens rich in crop variety. Their typically small patches are usually cultivated for only two or three years before the forest is allowed to reclaim the land. The Indians may be the only experts capable of identifying the forest's astounding biological diversity. One tribe recognizes 18 different varieties of manioc, the staple crop of the Amazon, while only two varieties are yet recognized in biological taxonomy.

Many of these peoples have already paid the price of progress, in initial contact that devastated a tribe like the Surui, which in three years lost half its 600 members to new diseases such as measles and influenza. Those who survive face a new threat: the invasion of their lands by settlers desperate to stake a claim on land good enough to farm.

The Polonoeste program, thanks to World Bank pressure, included from the start the marking off of land to be reserved for Indians. But most of the demarcation has yet to be done, and it gets more expensive to do with every new claim from settlers or—more likely—speculators. The consequences can be dangerous for everyone. In one place, the Lourdes Indian reserve, more than 750 settler families have moved into Indian land. In an attempt to dramatize their crisis, the Indians finally seized a dozen hostages for several days. The effort netted them newspaper articles, but no government action. In the Aripuana Indian park, conflict erupted when a 9-year-old girl of the Cinta Larga tribe was raped by workers on a hydroelectric project. The chief of the tribe threatened to kill the invaders. In other areas, settlers have lost their

IS ACRE'S TURN NEXT?

Another Amazon state is on the verge of disastrous de-greening

by Stephan Schwartzman

EVEN as northwest Brazil's huge Polonoroeste project area experiences disastrous deforestation from World Bank-financed development, the same process may be unfolding in the neighboring state of Acre. This time the multilateral bank involved, the Inter-American Development Bank (IDB), is taking a different tack. But environmentalists are asking whether the end result will be the same or even worse.

Acre, about the size of Virginia, embraces some 92,000 square miles at Brazil's western extremity. Until the mid-70s it was known best as a remote but profitable rubber-producing region. The rich Acre rain forest then remained 97 percent untouched. But with the arrival of agribusiness, speculators and growing throngs of migrants, deforestation is accelerating. If it continues at the present rate, say informed scientists, in another decade no forest will be left.

BR-364, paved through World Bank loans, is bringing 13,000 people a month into the state of Rondonia. But Rondonia has no more land for settlers. Authorities plan to send them on to Acre, to the adjoining state of Amazonas and to Roraima Territory farther to the north. This migration will be greatly aided by a newly approved \$58.5 million IDB loan for paving some 300 miles of BR-364 from Porto Velho, capital of Rondonia, to Rio Branco, capital of Acre.

The main problem with the BR-364 project is that a detailed environmental-protection plan will be prepared only as the present dirt road is actually being paved. The bank claims that it will impose strict conditions on later loan disbursements. "But this will amount to closing the barn door after the horses have been stolen," says Bruce M. Rich, attorney with the Natural Resources Defense Council. Rich and other environmentalists, along with supporters of Indian rights, contend that the project will spawn unsustainable land use, deforestation, invasion of Indian lands and

land conflicts. They point out that in Rondonia's Polonoroeste project, protection plans were prepared much earlier and were more comprehensive but still did not work.

Already, conflicts over land have flared in Acre, and some fear that increased migration will cause these to multiply dramatically. Last year, a senator from Acre appealed directly to Brazil's President Joao Figueiredo to halt the influx. In December, Acre Governor Nabor Junior called the present level of migration unsustainable. Yet the governor wants the road paved to bring in supplies and to take cash crops to market. Approximately half the land in the state already belongs to interests in the industrial south, many of them speculators. A paved road would increase the value of their holdings. And the contractors whose heavy equipment paved BR-364 as far as Porto Velho have a considerable interest in keeping that equipment moving westward.

A report from Brazil's Indian protection agency, FUNAI, predicts that the road eventually will affect more than 8,000 Indians as settlers spread up and down the river valleys it crosses. None of the 29 areas in Acre where FUNAI knows that Indians live is yet officially demarcated, which means that their lands are unprotected against invading settlers and land speculators. Since the mid-70s, violent confrontations between Indians and big landowners or the military police have been common. The IDB-financed paving project will greatly increase the threat to the Indians' future.

No one expects that the road will stay unpaved indefinitely, but the Brazilian government and IDB planned the project so hastily that many outside observers have become alarmed about its consequences. This past January, NRDC, other environmentalists and Indian rights advocates requested and obtained an unprecedented meeting with bank policy-makers. They emphasized the

possibility of a repetition of the Polonoroeste debacle and suggested modifications of the loan agreement—including prior demarcation of Indian lands—aimed at preventing potential problems.

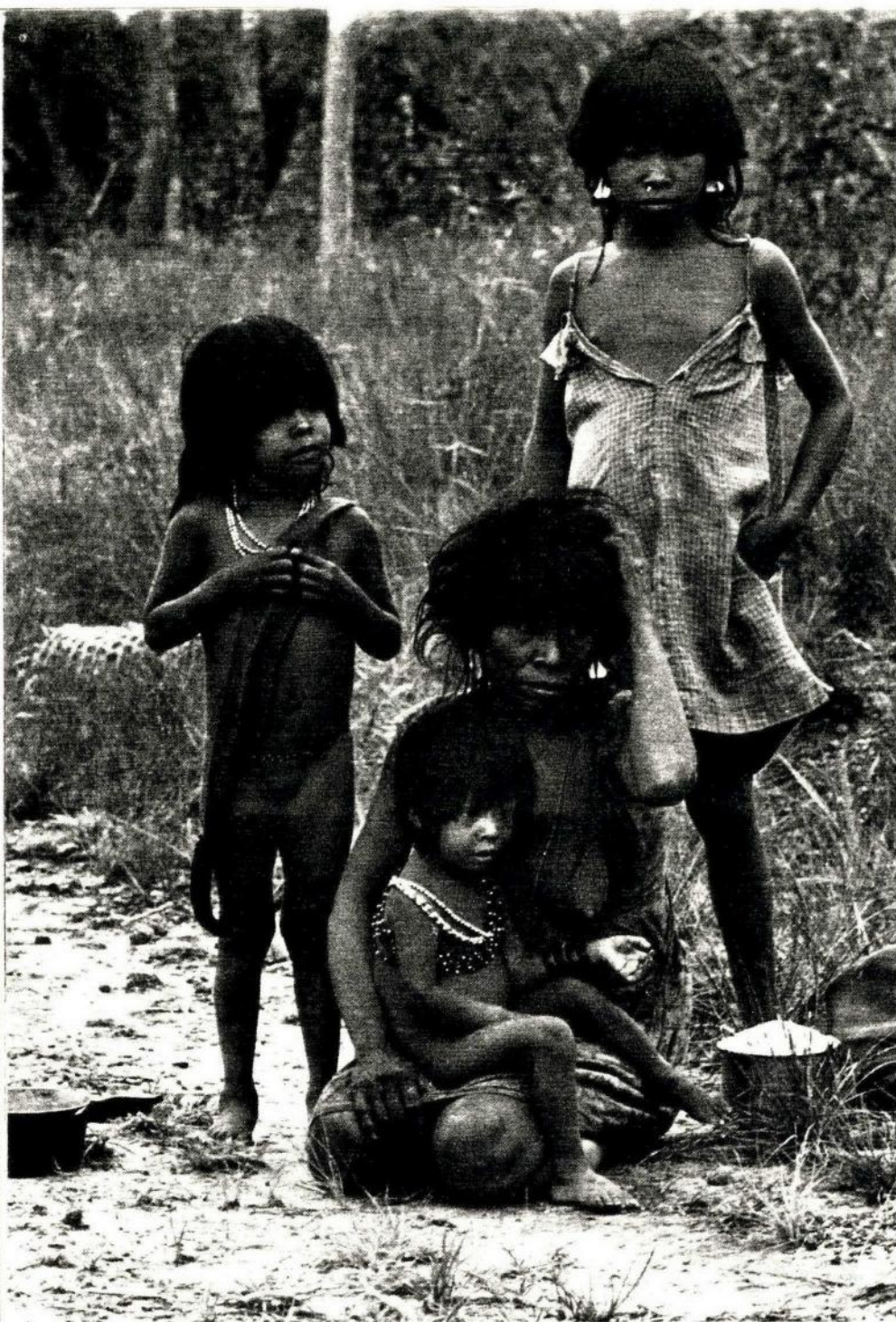
The bank managers listened. Although insisting that the bank's concern with the environment predated the meeting, an IDB spokesman later declared: "The meeting with representatives of a spectrum of the environmental community on the Brazil project was the first of its type, and we believe it was helpful." What steps will actually be taken on behalf of the environment and the Indians, however, remain to be seen.

Meanwhile, NRDC Attorney Rich called the attention of the U.S. Treasury Department to the environmental problems of the project. As a result, loan approval was delayed for several weeks. When the loan finally came up for a vote on January 23, U.S. Executive Director Jose Manuel Casanova abstained on instructions from then Secretary of the Treasury Donald Regan—the first time a U.S. executive director of a multilateral bank has withheld endorsement of a loan on environmental grounds.

Because of the abstention, \$14.5 million from the bank's Fund for Special Operations was blocked, reducing the \$73 million slated for the loan by that amount. Commenting later, a Treasury spokesman said, "On balance, we felt the economic gains did not justify the costs. In short, the project was not a good investment for the IDB." Cited among the costs were "the unsustainable nature of the agricultural development likely to take place on the poor soils in the region and the heavy deforestation expected with road construction."

Some observers believe that, coming on the heels of the criticism of Polonoroeste, this will help set a new tone for multilaterally financed rain-forest development. Certainly it is encouraging that government officials

See ACRE, page 43



Vincent Carelli

A mother and her children of the Nagarote Nambiquara tribe, one of dozens of tribes in the Polonoeste area vulnerable to the influx of settlers. Pleas to Brazil's government for protection of Indian lands have gone virtually unheeded.

lives to angry Indians, and one 7-year-old settler boy was captured and later killed. But many more Indians are dying as a result of colonization.

The World Bank, itself under pressure from supporters of Indian rights in both the United States and Brazil, repeatedly has urged the Brazilian Indian agency to protect the Indians' land. One group of the Nambiquara has seen a shrunken version of its land claims validated with demarcation. A few clinics and other health

projects have dramatically improved the health of surviving Indians. But most tribes have continued to see their ancestral lands invaded, with no security for the future. And far from demanding that the Brazilian government comply with its explicit requirement to demarcate Indian lands before releasing the next installment of its loan, the bank has actually speeded up payments to keep up the progress of road paving. The IDB's loan to help pave the continuation of BR-364

into Acre will put in jeopardy the lands and lives of the thousands of Indians living there now.

"With the extinction of each indigenous group," says anthropologist Darrell Posey, "the world loses millennia of accumulated knowledge about life in and adaptation to tropical ecosystems."

The destruction of the forest, remarks Dr. José Lutzenberger, goes hand in hand with destruction of cultures. "The loss of these cultures," he says, "is just as irreversible as the loss of a species."

The crisis far away in the Amazon rain forest became the subject of public debate in the halls of Congress in 1983. The process was set in motion by representatives of three environmental groups—the Natural Resources Defense Council, National Wildlife Federation and Environmental Policy Institute—that shared a concern about ecological devastation promoted by development projects. Prompted by their alarm, longtime conservationist Representative Mike Lowry (D-Washington) moved to introduce an environmental-action amendment into legislation authorizing funds for multilateral development banks. Then Representative Jerry Patterson (D-California) instead suggested holding hearings on the issue. The House subcommittee he chaired, which deals with international development finance, held a series of five hearings in 1983 and 1984. Information long buried in private bank evaluation reports became public record.

"We are not singling out the multilateral development banks as villains or assigning blame," testified the National Wildlife Federation's Barbara Bramble on the first day of hearings. "We do see serious problems they are causing or perpetuating through lack of environmental planning." She pointed out that sound economic development is essential to long-term resource conservation, but said her organization was alarmed that "this invaluable resource, which is a tropical forest, is being cut and degraded for short-term use."

The next day, David Price, who had worked as an anthropological consultant to the World Bank, soberly warned members of Congress that Indians' lives and health were endangered. "One cannot help but feel," he said as he summarized his frustrations, "that the World Bank is much

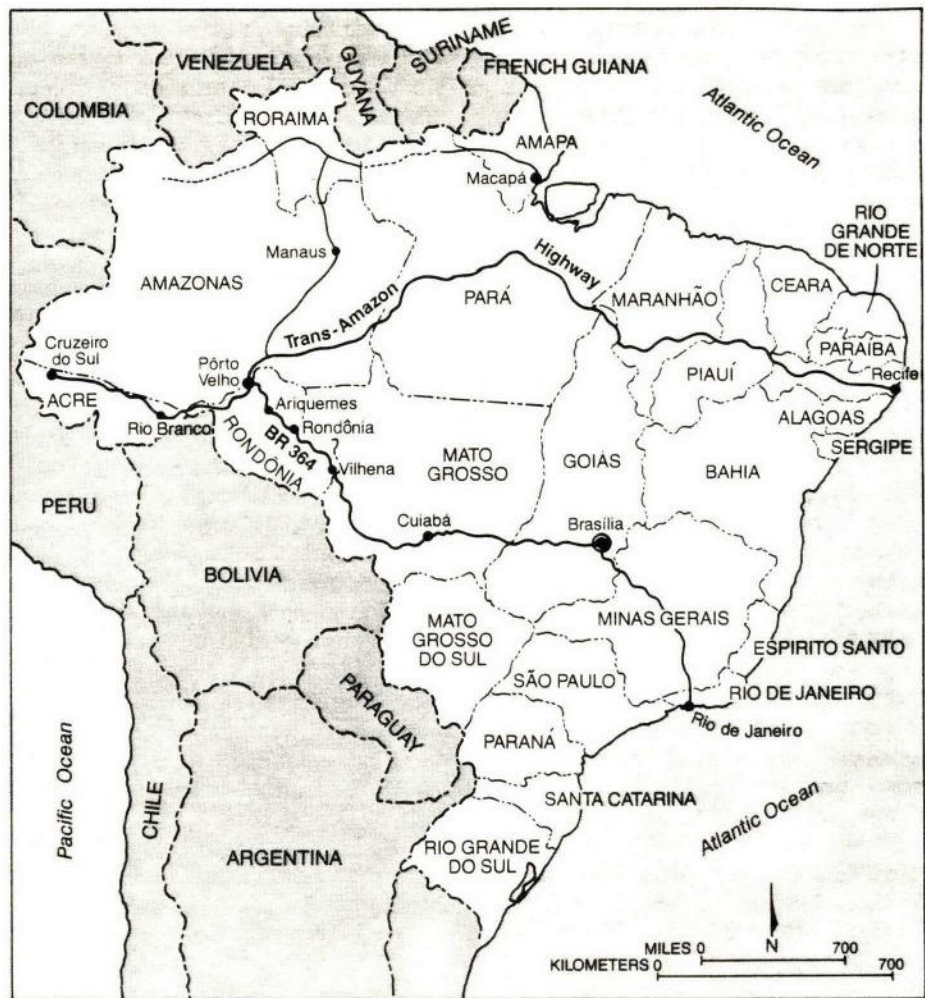
more concerned with images than with the welfare of the native minorities."

As the hearings proceeded to examine health issues and to expose hazards of pesticide use in Third World development projects, Congressman Patterson asked Secretary of the Treasury Donald Regan to get some explanations for the World Bank's actions. The result was more than a thousand pages of information that provide the most detailed public evidence to date on the bank's environmental policies.

The connection between development banks and the future of rain forests was also made when the Natural Resources Defense Council, on behalf of seven environmental organizations, testified at Senate hearings held in February, 1984, to consider appropriating money to one division in the World Bank, the International Development Association. Senator Robert Kasten (R-Wisconsin), the subcommittee chairman, had long been critical of international development lending. Worried about the bank's bottom line, World Bank President A. W. Clausen agreed to environmentalists' requests for a meeting before the hearings. "Don't hold IDA hostage to the environment," he begged them, arguing that the bank's environmental concern was greater than its reputation suggested.

When environmentalists testified before Senator Kasten's subcommittee, they did support funding of the bank. They also suggested ways to make sure the bank would at least observe its own environmental conditions on loans. The committee agreed with them, adopting their recommendations and also directing the Treasury Department—which tells the bank's U.S. representative how to vote—to monitor environmental issues. It also required the bank to report back within a year to demonstrate improvement in its environmental record.

When the five Patterson subcommittee hearings finally wound to a close last September with a review of recommendations to improve World Bank environmental policy, the Treasury official responsible for development issues, James W. Conrow, was there. "In appearing before you in June, 1983," he said, "I could honestly say that I was unaware of particular problems." Calling the testimony he had heard "surprising and distress-



Bob Pratt

ing," he went on to say that he had checked it for accuracy. "We found substantial corroboration of the information presented by most of the witnesses," he said. He also endorsed most of the recommendations, which included boosting the environmental staffing for banks and starting environmental training programs in the Third World, as well as involving environmentalists and indigenous peoples in development project planning from the start.

Of key importance was one committee recommendation: that U.S. representatives to multilateral development banks actively promote environmental concerns. The Treasury Department, the agency to which they answer, will be reporting back to Congress on their progress.

Polonoroeste itself took center stage in a House of Representatives hearing last September. Representative James Scheuer (D-New York), head of an agricultural research subcommittee, had found environmentalists' testimony in other hearings deeply disturbing. He scheduled a hearing in

which the agricultural implications of the Polonoroeste case were explored.

The unlikely star of the hearing was Brazilian agronomist José Lutzenberger, a gentle, middle-aged man who had left a job with a chemical company to devote his life to environmental issues. He had helped an English filmmaker, Adrian Cowell, produce a film chronicling Amazon development called *Decade of Destruction*. Following a clip from the film showing a hellish red-gray fog arising from forests burning for profit, he spoke on behalf of Brazilian environmental groups.

He argued that the government's promotion of "green revolution" strategies—high-yield, capital-intensive agriculture—had paved the way for this disaster just as surely as the new road had. It had thrown peasants off good farmland in the south of Brazil, while making the fortunes of a few. Polonoroeste, he charged, has one main objective: to transplant the agricultural poor. "There are at least 2.5 million landless poor in Brazil today," he told the committee, "and the

Polonoroeste project is designed as a safety valve for the political and social pressures caused by them." Worse, he added, "it transfers them from rich soils, in a subtropical climate, which can recuperate relatively quickly, to poor tropical soil where deforestation does permanent damage."

Lutzenberger's testimony bridged the gap between the banks and the rain forests in another way as well. His appearance in Congress made nightly TV news in Brazil. His comments, as well as the film's glimpse of rain forest devastation, reached at least 30 million viewers there. Ironically, Brazilian television had balked at covering the same story, with the same footage, when Lutzenberger had made it available earlier.

The original core group of environmentalists had grown in the meantime. Representatives of 31 organizations—including the National Audubon Society, American Anthropological Association, European and Brazilian environmental and Indian rights groups and political parties in Brazil and West Germany—signed a letter submitted by the Natural Resources Defense Council directly to World Bank President Clausen. The letter cited reasons for immediate environmental action and proposed specific measures the bank could take. It

reached Clausen's office the same day that the New York *Times* carried a story on the Polonoroeste project headlined, "World Bank Urged to Halt Funds for Amazon Development."

But bankers are used to operating behind closed doors, and the World Bank is not accustomed to pressure from outsiders regarding its loans. The letter drew a reply familiar to those who had listened to the bank's 1981 assurance that whatever it contributed to the Polonoroeste project would be better than nothing. A bank official assured the signers in a short paragraph that the bank realized the situation required close attention and that it had met with the Brazilian government. "You can be sure that the bank is continuing to monitor the situation closely, and that your concern will be considered as Polonoroeste continues," it ended.

Senator Kasten was outraged. "It is difficult," he said, "to appropriate money to the World Bank when it has offered a response that is basically insulting to environmental organizations that are its natural supporters." And he followed his words by submitting the substance of the environmentalists' letter to the Secretary of the Treasury, this time asking for a full reply from the bank. He also asked to see key bank documents

explaining the reasons behind the original loan approval.

He is not the only one who is watching the World Bank's future environmental policy closely. The Treasury Department now expects regular reports, and State Department officials concerned with international development have met with environmentalists and Indian rights supporters.

Back in the rain forest, pressure is building. Impoverished settlers and embattled Indians come ever closer to violent conflict, while forests continue to be stripped and burned each day. But now, pressure is building in meeting rooms in the banks as well, where canceling future loan installments to Polonoroeste has become an uncomfortable subject of discussion.

If closer attention is paid to environmental and indigenous peoples' concerns at the outset of such loans, the banks may yet play the positive ecological role that they so long ago assumed as their responsibility. □

Pat Aufderheide is a Washington, D.C., writer who has lived with the Krenakore Indians in Xingu National Park in Brazil's Amazon basin. Bruce Rich is an attorney with the Natural Resources Defense Council in Washington, D.C.

How You Can Help Stop Amazon Deforestation

LAST FALL the House Banking Subcommittee on International Development Institutions and Finance urged a number of actions by multilateral development banks to give greater emphasis to environmental factors in loan decisions affecting developing nations. The Treasury Department agreed to help promote the recommendations through the U.S. executive directors of the banks.

Among steps the banks should take, the subcommittee said, are:

- Increase environmental staffing, including assigning a full-time environmental staff member to each of the World Bank's six regional offices and establishing a central environmental office in the Inter-American Development Bank.

- Involve nongovernmental conservation organizations and indigenous peoples of developing countries in

planning and carrying out projects.

- Actively involve the ministers of environment and health of developing countries in formulating policies.

- Make plans and strategies conform to the 1980 World Conservation Strategy.

- Commit staff and money to carrying out the pledges made in the banks' 1980 Declaration of Environmental Policies and Procedures Relating to Economic Development.

- Refuse to finance projects that will result in use of natural resources at unsustainable levels, threaten species extinctions, degrade protected natural areas or degrade the land and resource base on which indigenous peoples depend.

- Devote more resources to small-scale appropriate technologies instead of giant dams, highways and similar large-scale, capital-intensive projects.

- Cease financing roadbuilding and settlement projects in tropical forests.

To help curb rain-forest destruction in Brazil and other Latin American nations, write to the following urging immediate implementation of the House Banking Subcommittee's environmental recommendations:

**A. W. Clausen, President
World Bank
1818 H Street, N.W.
Washington, DC 20433**

**Antonio Ortiz Mena, President
Inter-American Development Bank
1808 Seventeenth Street, N.W.
Washington, DC 20577**

Also write the U.S. executive directors of the two banks, James B. Burnham, World Bank, and Jose Manuel Casanova, IDB.

RI

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March 8, 1985

Dear Professor Goldenberg,

Your recent letter to Mr. Clausen, expressing concern for the science and technology activities in the Bank, has been received. Mr. Clausen forwarded your letter to me for consideration and reply as these activities are organizationally within the purview of my vice presidency.

In the interests of effecting a closer collaboration between our science and technology, and environmental programs, we merged them under a reconstituted Office of Environmental and Scientific Affairs late in 1983. Under this new configuration, the opportunity for a more purposeful integration of these increasingly important areas in the context of economic development, has been enhanced.

Far from diminishing its activities, Science and Technology has undergone a reordering of its objectives and priorities, bringing it more into the mainstream of the Bank's evolving efforts at policy guidance, technical assistance, including training in appropriate technology and its transfer, sector studies and project lending. Further, it is now in a better position to keep the Bank's senior management informed of contemporary developments and advances in both science and technology, which can be expected to have a bearing on the Bank's policies and programs of development financing.

Be assured that the contribution of science and technology to the development process is fully recognized, and it is our intention that they, along with natural resources management and environmental protection, are accorded increasing attention in the work of the Bank.

Sincerely,

S. Shabid Husain
Vice President
Operations Policy Staff

Prof. Jose Goldenberg
Secretary of State
Al Ministro Rocha Azevedo 25
01410 Sao Paulo SP
Brazil

JALee: on
cc: Mr. Southworth, EXC ✓

Presidência

February 25, 1985.

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Mr. A.W. Clausen
President, The World Bank
1818 H Street NY
Washington D.C. 20433
U.S.A.

Dear Mr. Clausen

I learned recently that the World Bank is re-organizing its office of Science and Technology which was headed by Dr. Charles Weiss and in effect, diminishing its activities in this area.

As an University Professor in a developing country, actively engaged in R&D in Brazil, and as Secretary for Energy Affairs in the State of São Paulo, I wish to express my disappointment with such events.

As seen from my perspective in Brazil, the office being abolished fulfilled two tasks:

1. Enhanced the importance of Science and Technology as one of the components of development; courses and other actions given by the office played a role in convincing national governments to increase their own efforts in this area as can be judged by the recent World Bank loan to the PADCT program of the Brazilian government to be conducted by the National Research Council.
2. Called the attention of national governments to new (or even old knowledge) in Science and Technology relevant to their development. New or old, but appropriate technologies, can save large amounts of money in projects financed by the World Bank or other investors. The idea that development in Third World countries has to retrace the steps taken by industrialized nations is a mistaken idea which leads frequently to inefficient and conventional solutions.

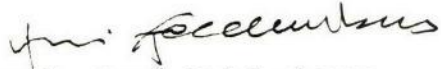
This is particularly true since the 1973 energy crisis because the ideas of efficient energy use and conservation became very important since then. These ideas are incorporated in the new technologies being used today and there is no reason why developing countries should not adopt them now as they grow, avoiding the costly retrofitting actions being taken in OECD countries.

In this respect, industrializing countries can "leapfrog" the industrial nations as shown by the successful Alcohol Program in Brazil, in which the Office of Science and Technology of the Bank was involved.

I submit that the incorporation of appropriate technologies (new or old) in the projects financed by the Bank is one of the more effective methods of helping national governments.

As a consequence it seems to me that the World Bank should be doing more and not less than what was done by the Science and Technology Office and regret the fact that it is being disactivated.

Sincerely yours,


Prof. José Goldemberg
Secretary of State

OFFICE MEMORANDUM

R1

63

DATE: March 1, 1985
TO: Mr. A.W. Clausen
FROM: J. William Stanton *JWS*
SUBJECT: BRAZIL: POLONOROESTE Development Project
Correspondence with Senator Kasten



1. James Bond, Staff Director for the Senate sub-Committee on Foreign Operations, was very satisfied with your response of March 1. He said to tell you that he knew the Senator would also be very pleased.
2. Mr. Bond said he would arrange for me to see the Senator next week to set a definite date that was mutually satisfactory. He asked what date we had in mind for a meeting and I said that, due to the Congressional recess for Easter (the first two weeks of April), it might have to be after that. He said that was fine.
3. Jim Burnham made an excellent suggestion worth noting. During the next six weeks, if there are any public announcements of action taken on the project, it was hoped that before the public announcement--but after the official notification to affected parties--we could give the Senator's office some advance notice. I assumed Mr. Burnham would do this if notified when the announcement was going to be made public.

cc: Mr. Burnham
Executive Director

bcc: Messrs. Stern, Knox, Gonzalez-Cofino, Tcheyan

JWStanton/aps

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OFFICE OF THE PRESIDENT

THE WORLD BANK
Washington, D. C. 20433
U. S. A.

A. W. CLAUSEN
President

March 1, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Senate Sub-Committee
on Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator Kasten:

When I wrote to you on February 5 acknowledging your January 24 letter requesting that the Bank address more directly the concerns expressed by the Natural Resources Defense Council (NRDC), I hoped that I would be in a position to do just that by the end of February.

The reason for this time schedule was based on the fact that when the Council's original letter arrived in October, we were in the process of carrying out in-depth discussions with the Brazilian government on many of the issues raised in the Council's letter. These discussions resulted in a mid-term review of the project which was begun last December, and I assumed that all decisions would have been made by now.

However, it is my understanding that while the results of this review have just now been completed, they are being reviewed and evaluated. Significant conclusions have been and will continue to be drawn in the next three to four weeks. These conclusions direct themselves to some of the concerns expressed in the Defense Council's letter.

As Chairman of the Senate Foreign Operations Sub-Committee, you are certainly entitled to a full and complete answer. I, too, want to clear this up as soon as possible so I am going to assume that the time schedule in the above paragraph is correct. With this in mind, I am asking Bill Stanton to contact you to arrange a meeting of interested parties, on a mutually convenient date, to hear the Bank's response to the issues raised in the Council's letter.

The Honorable
Robert W. Kasten, Jr.

-2-

March 1, 1985

I understand that many in the Council are long-time supporters of the Bank's purposes and, like you and me, are interested in results rather than information, excuses or promises.

Thank you for your patience.

Sincerely,

A handwritten signature consisting of a stylized capital letter 'A' with a horizontal line extending to the right from the top right corner of the 'A'.

A. W. Clausen
President

CC: James Burnham
Executive Director

BC: Messrs. Stern, Knox, Stanton, Gonzalez-Cofino, Tcheyan

THE WORLD BANK
Washington, D. C. 20433
U.S.A.

A. W. CLAUSEN
President

March 1, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Senate Sub-Committee
on Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator Kasten:

When I wrote to you on February 5 acknowledging your January 24 letter requesting that the Bank address more directly the concerns expressed by the Natural Resources Defense Council (NRDC), I hoped that I would be in a position to do just that by the end of February.

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As Chairman of the Senate Foreign Operations Sub-Committee, you are certainly entitled to a full and complete answer. I, too, want to clear this up as soon as possible so I am going to assume that the time schedule in the above paragraph is correct. With this in mind, I am asking Bill Stanton to contact you to arrange a meeting of interested parties, on a mutually convenient date, to hear the Bank's response to the issues raised in the Council's letter.

Tom -
I think this offer of a meeting is unfortunate. I believe we will not be able to satisfy the group and will lose some flexibility in dealing with the Brazilians. But even if I am wrong about this particular case, at best it reinforces undesirable precedents. Our meetings with the Population lobby are not proving productive. We run great risks in opening, and maintaining, these direct lines of communication.

JJ
3/1/85

yes -
but not
from us
directly.
which is
the
unfortunate
implication.

The Honorable
Robert W. Kasten, Jr.

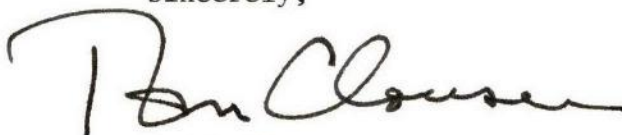
-2-

March 1, 1985

I understand that many in the Council are long-time supporters of the Bank's purposes and, like you and me, are interested in results rather than information, excuses or promises.

Thank you for your patience.

Sincerely,

A handwritten signature in black ink, appearing to read "A. W. Clausen". The signature is fluid and cursive, with a large initial "A" and "W" that are connected to the rest of the name.

A. W. Clausen
President

CC: James Burnham
Executive Director

BC: Messrs. Stern, Knox, Stanton, Gonzalez-Cofino, Tcheyan



Record Removal Notice

File Title Brazil - Country Files - Correspondence - Volume 4 - Polonoroeste problem		Barcode No. 1779609		
Document Date May 6, 1985	Document Type			
Correspondents / Participants Mr. A. W. Clausen Ibrahim F.I. Shihata				
Subject / Title Provision of Information to Senator Kasten				
Exception No(s). <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 A-C <input type="checkbox"/> 10 D <input type="checkbox"/> Prerogative to Restrict				
Reason for Removal Attorney - Client Privilege				
Additional Comments		The item(s) identified above has/have been removed in accordance with The World Bank Policy on Access to Information. This Policy can be found on the World Bank Access to Information website.		
		<table border="1"><tr><td>Withdrawn by Chandra Kumar</td><td>Date Aug 27, 2013</td></tr></table>	Withdrawn by Chandra Kumar	Date Aug 27, 2013
Withdrawn by Chandra Kumar	Date Aug 27, 2013			

Mr. M. Syedur-Zaman, Alternate Executive Director

April 21, 1981

T. T. Thahane, Vice President and Secretary

JAC Sub-committee on PPARs

1. In response to your memorandum of April 3, 1981 on the above, I wish to make the following points:

- (a) Supervision Reports are internal staff reports to Management and contain staff judgements on issues and personnel which may be sensitive and recommendations for certain courses of action which may or may not be approved. It would, of course, limit the candor and frankness of these reports from the staff if it was known that they would eventually be made available to a wider audience, including the Board and its Committees. Release of these documents has been a subject of periodic discussions between the Board and Management and everyone has recognized the importance of maintaining frankness in these reports.
- (b) Notwithstanding the policy in the foregoing paragraph, Management has permitted a review of specific parts of the reports to clear up specific issues on which there may be doubts. The issues must, however, be clearly identified and the information need spelled out beforehand.
- (c) It was pursuant to the spirit of paragraph (b) above that the German Executive Director's Assistant was given access to part of a supervision report on the Indian Dry Seed Project. This was done after the Sub-committee had clearly specified the procurement issue and the information needed for clarification. It is not correct that supervision reports on all PPARs considered by the Sub-committee were made available.
- (d) The Sub-committee's recommendation in JAC80-6 that the Supervision Reports be made available automatically in the future is, of course, contrary to the present operating policy which has governed the work of JAC, Management and the Board to-date.

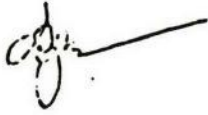
2. I hope the above points clarify this matter.

cc: Messrs. A. Looijen
E. Stern
W. Baum
M. Weiner
S. Kapur

Mrs. M. Parent
Messrs. R. Mayorga-Cortes
K. Nakajima
O. Poulsen
D. Smith
Wm. Smith

OFFICE MEMORANDUM

TO: Mr. Timothy T. Thahane, Vice President & Secretary DATE: April 3, 1981

FROM: M. Syeduz-Zaman, Alternate Executive Director 

SUBJECT: JAC sub-committee on PPARs

In connection with the work of the above-mentioned sub-committee, we had requested the OED to provide us with the relevant documents for the PPARs selected for review, including supervision reports. We were advised to take up the matter with the Vice President, CPS and the Vice President and Secretary. In my discussion with the Vice President, CPS, I was told that as a matter of policy, it was not possible to make supervision reports available to others and I was also advised to discuss further with the Vice President and Secretary. In my discussion with you sometime ago, you had indicated the considerations which went behind this 'decision'. However, I notice from the Report of the sub-committee on PPARs for the last year (Report No. JAC80-6 dated May 27, 1980) that on the request of the members of the sub-committee supervision reports were, in fact, made available to them: - Further, the sub-committee recommended that in future, supervision reports should be made available automatically (paragraph 6 of the Report). This came to me as a big surprise as there seems to be an inconsistency in the policy that is being followed in the matter. I shall be grateful if you would kindly clarify the position and advise the concerned departments to make the relevant reports available to the members of the JAC sub-committee. I appreciate the sensitivity that may be attached to the supervision reports, but I would like to assure you that the concerned reports would be used by the members of the JAC sub-committee with utmost care and discretion and only in the interest of discharging their functions.

Copy furnished:

Messrs. A. Looijen
 E. Stern
 W. Baum
 M. Welner
 S. Kapur

Mrs. M. Parent
 Messrs. R. Mayorga-Cortes
 K. Nakajima
 O. Poulsen
 D. Smith
 Wm. Smith
 M. Stojiljkovic

OFFICE MEMORANDUM

DATE: February 28, 1985

TO: Mr. A.W. Clausen

FROM: J. William Stanton *JWS*

EXT: 72173

SUBJECT: BRAZIL: Polonoroeste Development Project
Correspondence with Senator Kasten

*DEMARCATION
 EVICTION OF ILLEGAL SETTLERS
 akin to the "Worst" Home
 in the U.S. 100+ years
 ago.*

1. On Tuesday morning (February 26) I received a telephone call from Mr. James Bond, Staff Director for the Senate sub-Committee on Foreign Operations. He explained that he only called me because he tried to reach Mr. Burnham but found that he was out of the office until Wednesday afternoon.

2. Mr. Bond, in the strongest language imaginable, impressed upon me that your letter to the Senator was an insult for the following reason. The Senator wrote to you on a very serious matter and your reply to him, in essence, was that you were going to have the U.S. Executive Director give him an answer. If he had wanted an answer from the U.S. Government, he would have asked them in the first place. I replied that the issue was more complex than that and set up an appointment with him for 3:30 p.m.

3. At the meeting I tried, to the best of my ability, to make two points:

- First, I explained that McNamara once wrote a U.S. Senator informing him that the Bank was ceasing its lending to North Vietnam. (The White House (Nixon) had been pressing the Bank to do this.) The Treasury learned of the change in policy when reading the Senator's press release in the newspapers. Since that experience, a system was adopted whereby all correspondence from a country legislator, which involved Bank projects, would be handled by the Executive Director of that country.
- Second, if Bond had received Mr. Burnham's interim reply at the same time, he would have seen the continuity in the response and might not look on the reply as a "brush-off".

4. My logic got nowhere. He then said that if he took your letter to the Senator that the Bank was sure to suffer consequences and added, "I'm returning this letter. I'll give you twenty-four hours to have Mr. Clausen make any changes he might want to make." I replied that I had no authority to take a letter back and asked him to put the request in writing; further requesting that he give us until Friday as you were out of the country.

5. On Wednesday morning I told Mr. Burnham of my conversation. He assumed that Bond might mellow when his letter, which was a very

well-crafted interim reply, arrived. We agreed that perhaps only very minor changes in your original letter - in the final paragraph - would suffice. At noon Mr. Burnham called to say he that had spoken to Bond, who told him that his reply was also unacceptable and he was sending it back. This is all the information I have.

6. I reported my conversation with Bond to David Knox. He agreed with me that this was a political issue, not one of substance, and that there was nothing more for him to do at the moment. It was between you and Burnham.

7. We must keep uppermost in our minds that Bond and Kasten see this as an opportunity to help Kasten's environmental record. It is not too favorable at the moment and the environmentalists are powerful in Wisconsin. You should also be aware that Kasten wrote to the Secretary of the Treasury asking for specific, related information. This letter is now before Hugh Scott to determine what our legal position should be. All three specific requests in the letter indicate that someone has a thorough knowledge of the subject, which causes potential problems for us. (Letter attached.)

Recommendations

8. This problem is similar to arguing over the size of the negotiating table. However, it may set the tone for what will follow and, thus, cannot be taken lightly.

9. A simple reply might be the best answer (draft attached). The letter has to have a specific purpose such as calling for a meeting. Jim Burnham's letter, (which agrees with the opinion of the Operations personnel I have discussed the issue with) indicates that "... in three to four weeks ..." we should be able to respond to the issues raised by the Council's letter. Burnham could set the meeting up for the middle of April. Congress adjourns for Easter from April 3 to 15. We want to be sure we have all the time we can get, and perhaps some of the group, who may come from Brazil, will need time. We should be as accommodating as possible because I am more concerned for the Bank over Kasten's letter to Treasury, than about who attends the meeting.

10. We should let Kasten personally invite whatever environmentalists he wants. This gives him a chance to show his leadership on the subject. The meeting should probably be held here because several countries have expressed interest in this subject. (Burnham has said that several E.D.s had mentioned it to him.) This keeps the discussion on an international plane and better explains your personal involvement in the issue to those in the bureaucracy who want very much to keep you out of everything like this.

Mr. Clausen

- 3 -

February 28, 1985

11. Whatever your decision, I should hand deliver it to Bond Friday afternoon.

Attachments

JWS/jv

RECEIVED
1985 FEB 28 PM 12:35
OFFICE OF THE PRESIDENT

February 28, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Senate sub-Committee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Kasten:

When I wrote to you on February 5 acknowledging your January 24 letter requesting that the Bank address more directly the concerns expressed by the Natural Resources Defense Council (NRDC), I hoped that I would be in a position to do just that by the end of February.

The reason for this time schedule was based on the fact that, when the Council's original letter arrived in October, we were in the process of carrying out in-depth discussions with the Brazilian government on many of the issues raised in the Council's letter. These discussions resulted in a mid-term review of the project which was begun last December and I assumed that all decisions would have been made by now.

However, it is my understanding that, while the results of this review have just now been completed, they are being reviewed and evaluated. Significant conclusions have been, and will continue to be drawn in the next three to four weeks. These conclusions direct themselves to some of the concerns expressed in the Defense Council's letter.

?

WHY NOT MOST?

As Chairman of the Senate Foreign Operations Appropriations sub-Committee, you are certainly entitled to a full and complete answer. I, too, want to clear this up as soon as possible, so I am going to assume that the time schedule in the above paragraph is correct. With this in mind, I am asking Jim Burnham, the U.S. Executive Director, to contact you to arrange a meeting of all interested parties, on a mutually convenient date, to hear the Bank's response to the issues raised in the Council's letter.

Practically most concerned

I understand that many in the Council are long-time supporters of the Bank's purposes and, like you and I, are interested in results, rather than information, excuses, or promises. Thank you for your patience.

Sincerely,

A.W. Clausen

Keep a step ahead.

United States Senate

COMMITTEE ON APPROPRIATIONS

Bill,

Senator Kustow made
to the World Bank
President — not the
U.S. Government or its
executive director. Out of
courtesy to him — and for
the good of the Bank — I
would expect a reply from
Clayson. I will hold
back Clayson's Feb. 21st
letter until March 1st
unless I hear from
you.

Charles
Jim Board

2-26-85 3:45 PM

- Jim Bond

THE WORLD BANK
Washington, D. C. 20433
U. S. A.

A. W. CLAUSEN
President

February 21, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator Kasten:

This letter refers to your request of January 24, 1985 that we in The World Bank address more directly the concerns expressed by various groups and individuals through the Natural Resources Defense Council, Inc. (NRDC) in regard to The World Bank-supported Northwest Region Integrated Development Program (POLONOROESTE).

I would like to confirm the earlier response of our Latin America and Caribbean Regional Office to the NRDC that we take very seriously the fact that the measures to protect the Amerindian population and the environment envisaged in the POLONOROESTE are not being fully taken. Our concerns have been expressed on a number of occasions to the Brazilian authorities. They have assured us of their Government's determination to take the necessary steps to protect the Amerindian population and the environment in the Northwest of Brazil. We have since continued to work very closely with the Brazilian authorities to work out the detailed measures required but with the clear understanding on both sides that the problems had to be resolved quickly.

We have kept James B. Burnham, United States Executive Director in The World Bank, informed of the status and implementation problems of the POLONOROESTE projects. Mr. Burnham will be in touch with you on the details of what is being done and the current status of the discussions.

Let me assure you that we share your concerns about POLONOROESTE and that we shall try to do the utmost, in the context of our continuing dialogue with the Brazilian authorities, to ensure that POLONOROESTE succeeds in achieving its original objectives.

Sincerely,



CC: James B. Burnham

PRESORTED
FIRST-CLASS



The Honorable Robert W. Kasten, Jr.
Chairman
Subcommittee on Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

A. W. Clausen
THE WORLD BANK
Washington, D.C. 20433
U.S.A.

TED STEVEN, ALASKA
LOWELL P. WEICKER, JR., CONN.
JAMES A. MC CLURE, IDAHO
PAUL LAXA, T. REV.
JAKE GARN, UTAH
THAD COCHRAN, MISS.
MARK ANDREWS, N. DAK.
JAMES ABDONOR, S. DAK.
ROBERT W. EASTEN, JR., WIS.
ALFONSE M. D'AMATO, N.Y.
BLACK MATTINGLY, GA.
WARREN RUDMAN, N.H.
ARLEN SPECTER, PA.
PETE V. DOMENICI, N. MEX.

JOHN C. STENNIS, MISS.
ROBERT C. BYRD, W. VA.
WILLIAM PROXMYRE, WIS.
DANIEL K. INOUIYE, HAWAII
ERNEST F. HOLLINGS, S.C.
THOMAS F. BAGLETON, MO.
LAWTON CHILES, FLA.
J. BENNETT JOHNSTON, LA.
WALTER D. HUDDLESTON, KY.
QUENTIN N. BURDICK, N. DAK.
PATRICK J. LEAHY, VT.
JIM BASSER, TENN.
DENNIS DE CONCI, ARIZ.
DALE BUMPERS, ARK.

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

January 23, 1985

The Honorable Donald T. Regan
Secretary, Department of the
Treasury
Washington, D. C. 20220

Dear Don:

I am enclosing a copy of a letter sent to World Bank President Tom Clausen by several respected U. S. environmental groups, together with the reply to that letter concerning a World Bank project in Brazil. These organizations and several distinguished environmentalists from around the world are very concerned about the affect this project will have on management of natural resources and the protection of indigenous people in the area of the project.

As you can see from the letter, these groups have outlined a number of specific concerns, as well as making what I believe are sound suggestions, only to be answered by a one paragraph letter which can only be described as outrageous. The response to these groups is an insult. It serves only to cement feelings by many that international organizations such as the World Bank are arrogant and totally unwilling to receive constructive criticism which in the long run would help those institutions, not hurt them.

As you well know, securing appropriations for international financial institutions is not an easy proposition under the best of circumstances, and for the World Bank to treat organizations and individuals which are otherwise supportive of their types of programs obviously compounds our problems.

I am taking this matter up with you personally because I believe it requires attention at the highest levels, and hopefully as a result the World Bank will be more responsive to legitimate concerns about the environment in the future.

The Honorable Donald T. Regan
January 23, 1985
Page Two

In addition, because I have myself some concern with the project in Brazil, I would like to request our Executive Director to the Bank to secure the following information about that project for examination by the Subcommittee:

1. All memoranda sent out or sent to the Office of Environmental Affairs concerning environmental and AmerIndians for the years 1980 and 1981.
2. All memoranda of the agricultural staff of the Operations Policy Staff that discussed the nature and quality of soils in the Polonoreste program area for the years 1980 and 1981.
3. All back to office reports from Supervision Missions for the Polonoreste program for the year 1984.

Sincerely,



Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

RWK:jdb

cc: The Honorable James A. Baker III
Secretary of the Treasury Designate

The World Bank

1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.



With the compliments of
James B. Burnham
U.S. Executive Director

OK
A

2/28

Mr. Burnham has asked to come
in and see you about Sen. Kaster.
I have given him an appointment
for tomorrow (Friday) at 11 a.m.
MB

Executive Director

February 26, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D.C. 20510

Dear Chairman Kasten:

Tom Clausen has shared your letter of January 24, 1985 with me, and I would like to make an interim response to your concerns about the Bank's program in the Brazilian Northwest.

Along with my colleagues at the Department of the Treasury, I also have been seriously concerned about the complex difficulties encountered in the Bank-financed projects in this area. I have had a number of discussions about this issue with Tom Clausen and members of the Bank's senior management, and my staff has kept in close contact with relevant Bank project officers.

From the very inception of its involvement in the Brazilian Northwest Development Program, the Bank has been aware of the potential for serious problems. As was noted in the comprehensive October 12, 1984 letter from the Natural Resources Defense Council to Tom Clausen, the Bank included measures to protect the environment and Amerindian population in the area in its earliest loans supporting the program. A great deal of effort has been made since then to insure that the measures which the Bank believes are necessary to achieve that protection are fully implemented, although I think all parties would admit serious deficiencies have arisen.

Discussions have been held by senior Bank management with Ministers of the Brazilian government on a number of the environmental concerns at issue. A Bank mission was recently in Brazil to conduct a mid-term review of the progress made in addressing the environmental and social problems that have emerged in the Northwest development program. In addition, management has just concluded extensive discussions with Brazilian authorities here in Washington on the steps to be taken to resolve the outstanding difficulties.

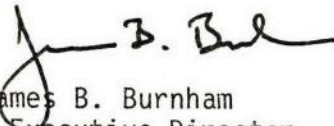
February 26, 1985

Both the results of the mission, and the reaction of the Brazilian Government to the Bank's concerns, are now being considered. We expect some significant conclusions to be drawn in the next three to four weeks, and will be able to provide you with complete and full information about the nature of the Bank's future role in the Northwest Development Program at that time.

I regret not being able to be more precise about the resolution of these issues at this time, but it would be unwise to prejudge the outcome of the Brazilian Government's and the Bank's discussion and deliberations. However, I can assure you that the Bank is seriously concerned about the problem, and that the process to resolve them is well underway.

I am confident that I will be able to respond fully to the issues raised by the Council's letter within the next three to four weeks. Once again, thank you for your interest and concern.

Sincerely,



James B. Burnham
U.S. Executive Director

bcc: Messrs. A.W. Clausen, IBRD ✓
J.W. Stanton, IBRD
J. Donaldson, Treasury Dept.
J. Conrow, Treasury Dept.

Copy to Mr. Knowl's office

THE WORLD BANK
Washington, D. C. 20433
U. S. A.

A. W. CLAUSEN
President

February 21, 1985

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

Dear Senator Kasten:

This letter refers to your request of January 24, 1985 that we in The World Bank address more directly the concerns expressed by various groups and individuals through the Natural Resources Defense Council, Inc. (NRDC) in regard to The World Bank-supported Northwest Region Integrated Development Program (POLONOROESTE).

I would like to confirm the earlier response of our Latin America and Caribbean Regional Office to the NRDC that we take very seriously the fact that the measures to protect the Amerindian population and the environment envisaged in the POLONOROESTE are not being fully taken. Our concerns have been expressed on a number of occasions to the Brazilian authorities. They have assured us of their Government's determination to take the necessary steps to protect the Amerindian population and the environment in the Northwest of Brazil. We have since continued to work very closely with the Brazilian authorities to work out the detailed measures required but with the clear understanding on both sides that the problems had to be resolved quickly.

We have kept James B. Burnham, United States Executive Director in The World Bank, informed of the status and implementation problems of the POLONOROESTE projects. Mr. Burnham will be in touch with you on the details of what is being done and the current status of the discussions.

Let me assure you that we share your concerns about POLONOROESTE and that we shall try to do the utmost, in the context of our continuing dialogue with the Brazilian authorities, to ensure that POLONOROESTE succeeds in achieving its original objectives.

Sincerely,



✓ CC: James B. Burnham

✓ BC: Messrs. Stern, Stanton, Blinkhorn, Collell, Batstone, TEHEYAN

February 20, 1985

The Honorable Robert W. Kasten, Jr.
Chairman, Subcommittee on Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Kasten:

This letter
I refer to your request of January 24, 1985 that we in the World Bank address more directly the concerns expressed by various groups and individuals, through the Natural Resources Defense Council, Inc. (NRDC), in regard to the World Bank-supported Northwest Region Integrated Development Program (POLONOROESTE).

I would like to confirm the earlier response of our Latin America and Caribbean Regional Office to the NRDC that we take very seriously the fact that ~~various~~ ^{the} measures to protect the Amerindian population and the environment envisaged in the POLONOROESTE are not being fully taken. Our concerns have been expressed on ~~various~~ ^{a number of} occasions to the Brazilian authorities, notably last October by our Senior Vice President, Mr. Ernest Stern, in a meeting in Washington with the Brazilian Minister of the Interior and by our Vice President for Latin America and the Caribbean, Mr. David Knox, in meetings in Brasilia with the Ministers of Planning and of Finance and the Deputy Minister of the Interior. The Brazilian ~~authorities~~ ^{authorities} *name* ministers assured us of their Government's determination to take the necessary measures to protect the Amerindian population and the environment in the Northwest of Brazil. We have since continued to work very closely with the Brazilian authorities to work out the detailed measures required *but with the clear understanding on both* sides that the problems had to be resolved quickly. ~~Our own thinking on the matter is in fact very similar to that in the NRDC's letter to us. This perhaps is not surprising since part of the NRDC's material is quite similar to the report of a consultant hired by the Brazilian government and financed by the World Bank.~~

~~In this, as in other similar matters, we always face a dilemma of how much we can reveal to parties other than our member governments. Our relationships with Brazil are based, as are those with our other member governments, on confidentiality and trust. This is especially important in discussing sensitive political issues with the government, as in this case. Respecting that relationship, I am sure that you can understand that we have to be prudent in what we say to organizations other than our member governments.~~

We have kept Mr. James B. Burnham, the Executive Director for the US in the World Bank, informed of the status and implementation problems of the POLONOROESTE projects. Mr. Burnham will be in touch with you to ^{and} ~~arrange a meeting~~ ^{so} that you can be given ~~fuller~~ ^{fuller} details of what we have ~~done so far~~ ^{is being done}, of the current status of the discussions, and of what we propose to do should those discussions not be successful very soon.

~~In closing,~~ Let me assure you that we share your concerns about POLONOROESTE and that we would try to do the utmost, in the context of our continuing dialogue with the Brazilian authorities, to ensure that POLONOROESTE succeeds in achieving its original objectives.

Sincerely,

cc BURNHAM

A. W. Clausen

B cc: Mr. Clausen's Office
Mr. Stern

Cleared with and cc: Messrs. Stanton, VPE
Blinkhorn, IPA
Collell, LEGLC
Batstone, PPDES

DRAFT
JHallow:mss
2.20.85

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Kasten:

Tom Clausen has shared your letter of with me, and I am pleased to have the opportunity to respond to your concerns about the Bank's program in the Brazilian Northwest.

Along with my colleagues at the Department of the Treasury, I have been concerned about some of the difficulties encountered in the Bank financed projects in this area. I have had a number of discussions about this issue with Mr. Clausen and members of the Bank's senior management, and have been kept closely informed by them of how the Bank intends to deal with it.

1-24
also
#1 I feel that the Bank has been making a considerable amount of progress
A Bank mission was recently in Brazil to conduct a mid-term review of the progress made in addressing the environmental and social problems that have emerged in the Northwest development program. In addition, Bank management has just concluded discussions with Brazilian authorities here in Washington on the necessary steps to be taken to resolve the outstanding difficulties.

Both the full report of the mission, and the response of the Brazilian Government to the Bank's concerns, are now being prepared. We expect both of these procedures to be brought to completion in the next three to four weeks, and will be able to provide you with complete and full information about the Bank's future role in the Northwest development program at that time.

I regret not being able to be more precise at this time, but it would be both unfair and inaccurate to prejudge the outcome of the Brazilian Government's and the Bank's discussion and deliberations. *However, I can assure you that* Serious steps have been taken by the Bank and Brazil to deal with the problems, and the process to resolve them has been set in motion.

I am confident that I will be able to respond fully to the issues you raised within the next three to four weeks. Again, I understand and appreciate your concerns.

Sincerely,

James B. Burnham
U.S. Executive Director

OFFICE MEMORANDUM

DATE: February 20, 1985

TO: Mr. A.W. Clausen

FROM: J. William Stanton, VPE *JWS*

EXT: 72173

SUBJECT: BRAZIL: POLONOROESTE Development Project
 Environmental Issues
Senator Kasten's Letter of January 24, 1985

1. Before you leave tomorrow, you should decide on an answer to Senator Kasten's letter of January 24. In this particular case, I recommend your continued involvement. The subject matter came up over in England last week and was also mentioned at a meeting in Nairobi a couple of weeks ago.

2. David Knox and his region have kept me fully informed on discussions about a proper response to the Senator. Everyone agrees that a written response, answering the environmentalists' point for point, would be unsatisfactory. The Senator's position of influence calls for an invitation to him to personally hear the Bank's viewpoint in order to assure him that we have made every effort to satisfy him as best we can. Once this is decided upon, there are two approaches that you could take.

3. One is to send an excellently drafted letter by the Division expressing your concern, and then asking Jim Burnham to contact Kasten to explain the situation in detail. The alternative response is for you to continue your own personal interest in this matter, in addition to involving the U.S. E.D.

5. We can let Jim Burnham contact Kasten to set up a meeting that would be convenient sometime in March. However, I think you should show your personal interest. It may come about that Kasten himself will not come and then you could back out at that time. If you decide on this approach - your continued involvement - I have enclosed a possible draft. You could also take the region's response and simply change the last part of the letter where it states that you are contacting Jim Burnham to follow up and at that point say that you are asking him to set up a meeting at which you could be present.

6. In any event you should answer Kasten yourself. I understand David Knox has a draft from Burnham to Kasten which was submitted to him for his approval.

Attachment
 JWS/jv

RECEIVED

1985 FEB 20 PM 5:54

OFFICE OF THE PRESIDENT

DRAFT

February 20, 1985

The Honorable
Senator Robert W. Kasten, Jr.
Chairman, subCommittee on Foreign Operations
United States Senate
110 Hart Senate Office Building
Washington, D.C. 20515

Dear Senator:

This letter is in response to your January 24 letter to me and is a follow-up to my acknowledgement of February 5.

Earlier today, I received a verbal reply from our Vice President in charge of operations in Latin America as to why the concerns expressed by various groups and individuals, through the Natural Resources Defense Council, Inc., (NRDC) were not more directly addressed in the Bank's original response of November 7.

Let me say at the outset that I can see where you may have a point in stating that our November response was "at best a brush-off". As I understand it, there were a couple of reasons for this:

First, the division was following the Bank's standard practice that discussions with a sovereign member government in respect to contractual obligations under existing loan agreements are a private affair. The confidentiality between the World Bank and the concerned member government must be respected.

Second, at the time of their letter, the Bank was in the process of conducting in-depth discussions with the Brazilian

government concerning many of the issues raised in the letter. A mid-term review of the project was started in December 1984, directed at determining what actions were necessary to improve the effectiveness with which non-infrastructureal components were being carried out. This has now been completed.

As Chairman of the Foreign Operations Appropriations subCommittee, you are certainly entitled to a full and complete report. In order to facilitate this, I have today asked Jim Burnham, the U.S. Executive Director, to contact you personally to arrange a meeting in my office with yourself and whomever you wish to attend, our senior operations people, and myself.

Thank you for your personal interest in our operations.

Sincerely,

N/D
A

February 5, 1985

Dear Senator Kasten:

I am in receipt of your letter about our response to the various environmental groups on the consequences of projects financed by the Bank in Brazil. We are working on a reply to the issues you raised and will be back to you with our reply shortly.

Sincerely,



A. W. Clausen

The Honorable
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations
Senate Committee on Appropriations
328 Russell Senate Office Building
Washington, D. C. 20510

bcc: Mr. E. Stern
Mr. D. Knox
Mr. S. Husain
Mr. Wm. Stanton

VRS:abp

(Log #122)

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DALE BUMPERS, ARK.

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

January 24, 1985

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

122
Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

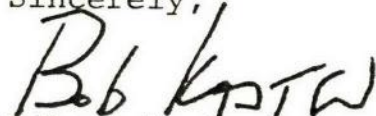
I am enclosing a copy of a letter which was sent to you some time ago, together with the response to that letter by your Latin America and Caribbean Regional Office.

The letter to you was an effort by a number of serious and respected groups and individuals who are interested in the environmental affects of World Bank development projects. I believe they raised a number of legitimate concerns and suggested some reasonable approaches to alleviate those concerns. The response from the World Bank was at best a brush-off, but frankly, more correctly described as an insult.

As you know better than anyone else, securing support for U. S. contributions to multilateral development institutions is difficult at best. That the World Bank would respond in such a cavalier fashion to groups and individuals who would otherwise support their programs is most difficult to understand.

The questions and concerns raised in the October 12th letter to you are legitimate and deserve a credible and responsive answer. I, therefore, put these questions and concerns to you and ask that you respond to me as Chairman of the Foreign Operations Appropriations Subcommittee.

Sincerely,



Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

Enclosures

RWK:jdb

Natural Resources Defense Council, Inc.

1350 NEW YORK AVENUE, N. W.

SUITE 300

WASHINGTON, D.C. 20005

202 783-7800

New York Office

122 EAST 42ND STREET

NEW YORK, N.Y. 10168

212 949-0049

Western Office

25 KEARNY STREET

SAN FRANCISCO, CALIF. 94108

415 421-6561

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Clausen:

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Program (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the program lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Program was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of measures to protect the environment and Amerindian population of the Program area, there are strong indications that the Bank has lost control over - or will not take effective measures to control - the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitats and irreplaceable biological diversity are threatened as never before.

In spite of this evidence -- and in disregard of the terms of the Loan Agreement for Phase I of the Program -- the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Program) was to help Brazil maintain development momentum in the face of the

New England Office: 850 BOSTON POST ROAD • SUDBURY, MA. 01776 • 617 237-0472

Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740



lingering world recession, it violated basic principles of sound management by accelerating funding for a program which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Program account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso -- and of the thousands of indigenous people and non-Indian settlers dependent on these resources -- rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.
2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoroeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.

4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological Reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.
6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the U.S. Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with

the concern of a number of U.S.-environmental organizations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the U.S. Treasury Department "to press the issue of the environment with the Bank. Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the U.S. Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programs such as Polonoroeste. These programs which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonocoeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological

design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Program
Natural Resources Defense Council

Thomas B. Stoel, Jr., Director
International Program
Natural Resources Defense Council

Barbara Bramble, Director
International Program
National Wildlife Federation

Jack Lorenz
Director
Izaak Walton League of America

Michael Bean, Director
Wildlife Project
Environmental Defense Fund

Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute

Fran Lipscomb
Director of International Issues
National Audubon Society

Liz Raisbeck
Legislative Director
Friends of the Earth

Shelton Davis, Executive Director
Anthropology Resource Center

Kenneth I. Taylor
Executive Director
Survival International, U.S.A.

David Maybury-Lewis
Executive Director
Cultural Survival, and
Professor, Department
of Anthropology, Harvard
University

Dr. Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia
(Brazilian Anthropological
Association)

Deputado (Deputy) List Vieira
Lider do Partido dos Trabalhadores e Presidente
da Comissao Especial de Estudos Ecologicos a
Assembleia Legislativa do Estado do Rio de
Janeiro (Leader of the Labor Party and
President of the Special Commission on
Ecological Studies, Legislative Assembly of
the State of Rio de Janeiro)

Nancy Oestreich Lurie
President, American
Anthropological Association

Helio Saboya
President, Ordem dos Advogados do
Brasil (Brazilian Bar Association)
Seccional do Rio de Janeiro

Willi Hoss
Gaby Gottwald
Julius Kriscan
Dr. Erika Hickel
Gert Jansen
Marie-Louise Beck-Oberdorf
Antje Vollmer
Walter Schwenninger
Jurgen Reents
Roland Vogt
Hans Verheyen

(MEMBERS OF THE WEST GERMAN BUNDESTAG)

Roque Sevilla Larrea, President
Fundacion Natura
Quito, ECUADOR

Anil Agarwal, Chairman
Environmental Liaison Center
Nairobi, Kenya; and
Director, Center for Science
and Environment
Delhi, INDIA

Helena Norberg-Hodge
Co-Director
Ladakh Ecological Development Group
Leh, Ladakh, INDIA

Georg Henriksen, Director
International Working Group
for Indigenous Affairs (IWGIA)
Copenhagen, DENMARK

Gesellschaft fur Bedrohte Volker
Gottingen, WEST GERMANY

Ben Whittaker, Director
Minority Rights Group
London, UNITED KINGDOM

Marcus Colchester
Survival International
UNITED KINGDOM

Bruce Albert
Survival International
FRANCE

Beate Engelbrecht
Incom Indios
Basel, SWITZERLAND

Jeremy Swift, Chairman
The Anti Alavery Society for
the Protection of Human Rights
London, UNITED KINGDOM

Henrik Persson
Chairman
Fourth World Association of Sweden
Solna, SWEDEN

Flavio Lewgoy, President
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
Protection of Nature of Rio Grande do Sul)
Porto Alegre, BRAZIL

Jose Lutzenberger, Ecologist
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
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Julio M. G. Gaiger, President
Associacao Nacional de Apoio
ao Indio (ANAI) (National Indian Support
Association)
Porto Alegre, BRAZIL

Ordep Serra
President,
Associacio Nacional de Apoio ao Indio
(National Indian Support Association)
Bahia, BRAZIL

Aracy Lopes da Silva
Presidente
Comissao Pro Indio/Sao Paulo
BRAZIL

Magda Renner
President
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of
Rio Grande do Sul)
Porto Alegre, BRAZIL

The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street, N.W.
Washington, D.C. 20433
U.S.A.

(202) 477-1234
Cable Address: INTBAFRAD
Cable Address: INDEVAS

November 7, 1984

Mr. Bruce M. Rich
Attorney, International Program
Natural Resources Defense Council, Inc.
1350 New York Avenue, N.W. - Suite 300
Washington, D.C. 20005

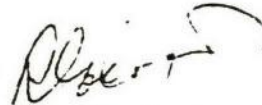
Dear Mr. Rich:

I am writing to thank you for your letter and attached document to Mr. Clausen, dated October 12, 1984, regarding the Northwest Region Integrated Development Program (POLONOROESTE). As you are aware, POLONOROESTE is a carefully planned regional development program, which seeks to stabilize and maximize the economic development of the region, while minimizing the risks to the regional ecology and Amerindian populations. We very much share the concerns you have noted in your letter. We have discussed them in detail with the Brazilian authorities and are encouraged by those discussions to believe that effective action will be taken. We recognize, however, that close monitoring will be necessary and we will therefore continue to follow the situation very carefully. If and when appropriate, and consistent with our ongoing reviews of program implementation, we will recommend to the Government needed modifications to the design and implementation of the program so that its long-term objectives can be achieved.

You can be sure that the Bank is continuing to monitor the situation closely, and that your concerns will be considered as POLONOROESTE continues.

With best regards,

Sincerely yours,



Roberto Gonzalez Cofino
Chief, Brazil Division
Latin America and Caribbean
Regional Office

OFFICE MEMORANDUM

DATE: February 28, 1985

TO: Mr. A.W. Clausen

FROM: J. William Stanton *JWS*

EXT: 72173

SUBJECT: BRAZIL: Polonoroeste Development Project
Correspondence with Senator Kasten

- # 61
1. On Tuesday morning (February 26) I received a telephone call from Mr. James Bond, Staff Director for the Senate sub-Committee on Foreign Operations. He explained that he only called me because he tried to reach Mr. Burnham but found that he was out of the office until Wednesday afternoon.
 2. Mr. Bond, in the strongest language imaginable, impressed upon me that your letter to the Senator was an insult for the following reason. The Senator wrote to you on a very serious matter and your reply to him, in essence, was that you were going to have the U.S. Executive Director give him an answer. If he had wanted an answer from the U.S. Government, he would have asked them in the first place. I replied that the issue was more complex than that and set up an appointment with him for 3:30 p.m.
 3. At the meeting I tried, to the best of my ability, to make two points:
 - First, I explained that McNamara once wrote a U.S. Senator informing him that the Bank was ceasing its lending to North Vietnam. (The White House (Nixon) had been pressing the Bank to do this.) The Treasury learned of the change in policy when reading the Senator's press release in the newspapers. Since that experience, a system was adopted whereby all correspondence from a country legislator, which involved Bank projects, would be handled by the Executive Director of that country.
 - Second, if Bond had received Mr. Burnham's interim reply at the same time, he would have seen the continuity in the response and might not look on the reply as a "brush-off".
 4. My logic got nowhere. He then said that if he took your letter to the Senator that the Bank was sure to suffer consequences and added, "I'm returning this letter. I'll give you twenty-four hours to have Mr. Clausen make any changes he might want to make." I replied that I had no authority to take a letter back and asked him to put the request in writing; further requesting that he give us until Friday as you were out of the country.
 5. On Wednesday morning I told Mr. Burnham of my conversation. He assumed that Bond might mellow when his letter, which was a very

Roy -

AWC has
original of
this.

H

February 28, 1985

well-crafted interim reply, arrived. We agreed that perhaps only very minor changes in your original letter - in the final paragraph - would suffice. At noon Mr. Burnham called to say he that had spoken to Bond, who told him that his reply was also unacceptable and he was sending it back. This is all the information I have.

6. I reported my conversation with Bond to David Knox. He agreed with me that this was a political issue, not one of substance, and that there was nothing more for him to do at the moment. It was between you and Burnham.

7. We must keep uppermost in our minds that Bond and Kasten see this as an opportunity to help Kasten's environmental record. It is not too favorable at the moment and the environmentalists are powerful in Wisconsin. You should also be aware that Kasten wrote to the Secretary of the Treasury asking for specific, related information. This letter is now before Hugh Scott to determine what our legal position should be. All three specific requests in the letter indicate that someone has a thorough knowledge of the subject, which causes potential problems for us. (Letter attached.)

Recommendations

8. This problem is similar to arguing over the size of the negotiating table. However, it may set the tone for what will follow and, thus, cannot be taken lightly.

9. A simple reply might be the best answer (draft attached). The letter has to have a specific purpose such as calling for a meeting. Jim Burnham's letter, (which agrees with the opinion of the Operations personnel I have discussed the issue with) indicates that "... in three to four weeks ..." we should be able to respond to the issues raised by the Council's letter. Burnham could set the meeting up for the middle of April. Congress adjourns for Easter from April 3 to 15. We want to be sure we have all the time we can get, and perhaps some of the group, who may come from Brazil, will need time. We should be as accommodating as possible because I am more concerned for the Bank over Kasten's letter to Treasury, than about who attends the meeting.

10. We should let Kasten personally invite whatever environmentalists he wants. This gives him a chance to show his leadership on the subject. The meeting should probably be held here because several countries have expressed interest in this subject. (Burnham has said that several E.D.s had mentioned it to him.) This keeps the discussion on an international plane and better explains your personal involvement in the issue to those in the bureaucracy who want very much to keep you out of everything like this.

Mr. Clausen

- 3 -

February 28, 1985

11. Whatever your decision, I should hand deliver it to Bond
Friday afternoon.

Attachments

JWS/jv

United States Senate

COMMITTEE ON APPROPRIATIONS

Bill,

Senator Hefner wrote
to the World Bank
President — not the
U.S. Government or its
executive director. Out of
courtesy to him — and for
the good of the Bank — I
would expect a reply from
Clayton. I will hold
back Clayton's Feb. 21st
letter until March 1st
unless I hear from
you.

Charles
W. Brown

2-26-85 3:45 P.M.

THE WORLD BANK

ROUTING SLIP		Date Jan. 30, 1985
OFFICE OF THE PRESIDENT		
Name		Room No.
Mr. Knox ✓		A-907
cc: Mr. Stern		
Mr. Husain		
Mr. Stanton		
	To Handle	Note and File
	Appropriate Disposition	Note and Return
	Approval	Prepare Reply
	Comment	Per Our Conversation
	Full Report	Recommendation
	Information	Signature
	Initial	Send On
<p>Remarks</p> <p>David:</p> <p style="text-align: center;">How should we respond to this-- besides "very carefully." Please give me a call.</p> <p style="text-align: right;"><i>Roy</i> Roy Southworth</p>		
From		

TED STEVENS, ALASKA
LOWELL P. WEICKER, JR., CONN.
JAMES A. Mc CLURE, IDAHO
PAUL LAXALT, NEV.
JAKE GARN, UTAH
THAD COCHRAN, MISS.
MARK ANDREWS, N. DAK.
JAMES ABDNOR, S. DAK.
ROBERT W. KASTEN, JR., WIS.
ALFONSE M. D'AMATO, N.Y.
MACK MATTINGLY, GA.
WARREN RUDMAN, N.H.
ARLEN SPECTER, PA.
PETE V. DOMENICI, N. MEX.

JOHN C. STENNIS, MISS.
ROBERT C. BYRD, W. VA.
WILLIAM PROXMIRE, WIS.
DANIEL K. INOUE, HAWAII
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THOMAS F. EAGLETON, MO.
LAWTON CHILES, FLA.
J. BENNETT JOHNSTON, LA.
WALTER D. HUDDLESTON, KY.
QUENTIN N. BURDICK, N. DAK.
PATRICK J. LEAHY, VT.
JIM SASSER, TENN.
DENNIS De CONCINI, ARIZ.
DALE BUMPERS, ARK.

United States Senate

COMMITTEE ON APPROPRIATIONS

WASHINGTON, D.C. 20510

J. KEITH KENNEDY, STAFF DIRECTOR
FRANCIS J. SULLIVAN, MINORITY STAFF DIRECTOR

January 24, 1985

122

Mr. A. W. Clausen
President, The World Bank
1818 H Street, N. W.
Washington, D. C. 20433

Dear Mr. Clausen:

I am enclosing a copy of a letter which was sent to you some time ago, together with the response to that letter by your Latin America and Caribbean Regional Office.

The letter to you was an effort by a number of serious and respected groups and individuals who are interested in the environmental affects of World Bank development projects. I believe they raised a number of legitimate concerns and suggested some reasonable approaches to alleviate those concerns. The response from the World Bank was at best a brush-off, but frankly, more correctly described as an insult.

As you know better than anyone else, securing support for U. S. contributions to multilateral development institutions is difficult at best. That the World Bank would respond in such a cavalier fashion to groups and individuals who would otherwise support their programs is most difficult to understand.

The questions and concerns raised in the October 12th letter to you are legitimate and deserve a credible and responsive answer. I, therefore, put these questions and concerns to you and ask that you respond to me as Chairman of the Foreign Operations Appropriations Subcommittee.

Sincerely,

Bob Kasten
Robert W. Kasten, Jr.
Chairman, Subcommittee on
Foreign Operations

Enclosures

RWK:jdb

Natural Resources Defense Council, Inc.

1350 NEW YORK AVENUE, N. W.

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WASHINGTON, D.C. 20005

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415 421-6561

October 12, 1984

Mr. A. W. Clausen
President
The World Bank
1818 H Street, N.W.
Washington, D.C. 20433

Dear Mr. Clausen:

We are writing to express our grave concern over disturbing evidence of the consequences of the continued neglect of sound management of natural resources and protection of indigenous peoples in the design and implementation of World Bank projects.

Several independent sources in Brazil have called our attention to the accelerating and uncontrolled ecological and human destruction occurring in the World Bank financed Brazil Northwest Development Program (Polonoroeste). There is considerable evidence that the Brazilian agencies responsible for the program lack either the will or the institutional means to provide minimum protection to ensure the physical survival of the ecology of the Northwest region and over 6,700 Amerindians belonging to at least 34 tribal groups. Although Bank support for the Program was strictly predicated in the first Loan Agreement (No. 2060 BR) on the prompt implementation of measures to protect the environment and Amerindian population of the Program area, there are strong indications that the Bank has lost control over - or will not take effective measures to control - the destruction being unleashed in the region. Information we have received strongly indicates that the Bank's \$443.4 million investment has so far contributed to uncontrolled migration, accelerated deforestation, conversion of land to unsustainable cattle ranching, land speculation, and increased encroachment on Indian land areas. The Northwest Region's thousands of Amerindian inhabitats and irreplaceable biological diversity are threatened as never before.

In spite of this evidence -- and in disregard of the terms of the Loan Agreement for Phase I of the Program -- the Bank actually accelerated lending late last year for the third phase of Polonoroeste, which will settle 15,000 more families in the region. Although the purpose of this accelerated loan disbursement (part of the Bank's Special Action Program) was to help Brazil maintain development momentum in the face of the

New England Office: 850 BOSTON POST ROAD • SUDBURY, MA. 01776 • 617 237-0472

Public Lands Institute: 1720 RACE STREET • DENVER, CO. 80206 • 303 377-9740



lingering world recession, it violated basic principles of sound management by accelerating funding for a program which was already encountering grave difficulties in managing the resources at hand.

The Bank's \$443,400,000 loan commitments to the three phases of the Program account for nearly one-half of one percent of Brazil's enormous foreign debt. It will be a tragedy for Brazil if this huge investment leads to the destruction of the natural resource base of Rondonia and western Mato Grosso -- and of the thousands of indigenous people and non-Indian settlers dependent on these resources -- rather than to development that is sustainable in the long term.

We urge and request the Bank to undertake effective measures to regain control over its enormous investment. In particular, we wish to know what immediate actions the Bank plans to undertake to:

1. Secure, through immediate discussions with the federal government of Brazil and the state of Rondonia, a halt to ongoing plans to settle 8,000-10,000 settlers in the Guapore Valley along the soon to be completed BR-429 (Presidente Medici-Costa Marques) highway. These planned settlements are on soils largely unsuitable for sustained cultivation by small farmers and threaten invasions of the Guapore Biological Reserve, the Pacaas Novos National Park, the Rio Branco Indian Reserve, and the still undemarcated lands of the Uru-Eu-Wau-Wau Indians. Such plans appear to be in clear violation of Section 3.13 of the Bank's Agreement with Brazil and the state of Rondonia for loan 2060 BR.
2. Provide for the immediate demarcation and protection of the extensive Indian lands in the Program area, as well as for the provision of health and other services. This is an aspect of Polonoeste which the Bank and the Brazilian government agreed in Section 4.05 of Loan Agreement BR-2060 would be implemented by the Brazilian Indian Agency, FUNAI, but which is largely unimplemented. Numerous Indian areas are being occupied by squatters. In at least one reported case - the Lourdes Reserve - armed confrontations have occurred between Indians and settlers.
3. Promote concrete measures to deal with accelerating, indiscriminate deforestation, land speculation, and conversion to cattle pasture in areas where the Bank is financing new colonization or attempting to consolidate existing settlements; to this end, the Bank should immediately begin to improve the support and extension services available to the settlers.

4. Ensure adequate protection and management of the two Biological Reserves, the National Park, the four Ecological Stations, and the National Forests which were to be set up with Bank funding in the Polonoroeste Program Area; the National Forests have not been established or demarcated, and the other protected areas are either occupied by squatters or lack management plans and the means to implement them.
5. Ensure that the state of Rondonia redesign or cancel three planned roads - state highways 370, 377, 383 - which will crisscross the Guapore Biological Reserve and the Rio Branco Indian Reserve. These roads will link the reserves with two major federal highways and existing and planned settlements and remove all remaining hope of conserving these protected areas.
6. To implement measures 1-5 above, consider the renegotiation of the Polonoroeste loan agreements and the funding of special projects to strengthen FUNAI, the Brazilian Indian Agency, IBDF, the Brazilian Forestry Development Institute, and the government agencies charged with providing services to the settlers.
7. Insist that the Brazilian government land agency (INCRA) and the State of Rondonia halt nationwide advertising promoting further migration to the Polonoroeste region.
8. Increase the Bank's professional environmental staff and systematically implement more rigorous procedures to ensure improved environmental design so that the Bank does not repeat the costly mistakes in resource management that are occurring in Polonoroeste; a key element in improved design should be the early inclusion and participation in project planning of representatives of the local groups that are affected: indigenous peoples, farmers and settlers, environmental conservation organizations, and members of the church working in rural areas.

The prompt implementation of these measures would help to forestall increasing concern in the U.S. Congress and the West German Bundestag over evidence of the Bank's inadequate attention to sustainable management of natural resources and to the indigenous people who depend on those resources. In particular, as you may be aware, the House Banking Subcommittee on International Development Institutions and Finance has held five hearings in the past sixteen months on the multilateral banks and the environment, culminating with hearings last month on specific recommendations on measures to improve the environmental performance of the World Bank and other MDBs. In addition, the Senate Appropriations Committee has expressed its agreement with

the concern of a number of U.S.-environmental organizations "over the lack of environmental consideration given by the World Bank in the formulation of its projects," and has directed the U.S. Treasury Department "to press the issue of the environment with the Bank. Recently, the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment held the first of a series of hearings on the environmental impacts of World Bank and other MDB agricultural projects which resulted in Chairman of that Subcommittee sending a letter of concern to the U.S. Treasury Department and Executive Director requesting that the Bank take measures similar to the ones we have outlined to deal with the urgent and disturbing problems relating to the Bank's involvement in Polonoroeste.

In the future, we urge the Bank to seriously reconsider the implications of funding programs such as Polonoroeste. These programs which serve as "escape valves" for the human consequences of government economic policies and gross inequalities in land tenure in other parts of the country, which have resulted in the migration of millions of rural farmers over the past decade and a half. The financing of the settlement of tens of thousands of families in ecologically dubious and unsuitable areas of the Amazon is clearly not a viable solution to these complex problems. In particular, by financing the construction of roads and other infrastructure in such areas (in the case of Polonoroeste, over half the Bank's financial commitment), the Bank contributes to untenable migration rates which result, as in the case of Polonoroeste, in accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance.

We have enclosed two memoranda that outline some of the major deficiencies in the implementation of the environmental and Amerindian components of Polonoroeste.

We wish to underscore the urgency of the situation in Polonoroeste and the need for the Bank to implement immediately the measures we have outlined and the measures which the Chairman of the House Science and Technology Subcommittee on Natural Resources, Agriculture Research and Environment is requesting the Bank to act upon. To ensure that Bank loan conditions are respected in the future, the Bank must exercise its maximum leverage in this situation, including reconsideration of planned funding for other agricultural projects in Brazil. At stake is the ecological survival of an area larger than Great Britain and the very lives of its thousands of indigenous inhabitants, as well as the credibility and image of the World Bank.

The profoundly disturbing situation in Polonocoeste underscores all the more the urgent need of the World Bank to undertake concrete measures and commit real resources, such as more professionally trained staff, to improve the ecological

design and review of its projects. Further neglect and delay of the Bank in addressing these environmental management issues will not only inflict grave long-term damage on the Bank's image, but could ultimately undermine public and legislative support for funding of the Bank in its most important donor countries.

Sincerely,

Bruce M. Rich, Attorney
International Program
Natural Resources Defense Council

Thomas B. Stoel, Jr., Director
International Program
Natural Resources Defense Council

Barbara Bramble, Director
International Program
National Wildlife Federation

Jack Lorenz
Director
Izaak Walton League of America

Michael Bean, Director
Wildlife Project
Environmental Defense Fund

Brent Blackwelder, Director
Water Resources Project
Environmental Policy Institute

Fran Lipscomb
Director of International Issues
National Audubon Society

Liz Raisbeck
Legislative Director
Friends of the Earth

Shelton Davis, Executive Director
Anthropology Resource Center

Kenneth I. Taylor
Executive Director
Survival International, U.S.A.

David Maybury-Lewis
Executive Director
Cultural Survival, and
Professor, Department
of Anthropology, Harvard
University

Dr. Roberto Cardoso de Oliveira
President, Associacao Brasileira
de Anthropologia
(Brazilian Anthropological
Association)

Deputado (Deputy) List Vieira
Lider do Partido dos Trabalhadores e Presidente
da Comissao Especial de Estudos Ecologicos a
Assembleia Legislativa do Estado do Rio de
Janeiro (Leader of the Labor Party and
President of the Special Commission on
Ecological Studies, Legislative Assembly of
the State of Rio de Janeiro)

Nancy Oestreich Lurie
President, American
Anthropological Association

Helio Saboya
President, Ordem dos Advogados do
Brasil (Brazilian Bar Association)
Seccional do Rio de Janeiro

Willi Hoss
Gaby Gottwald
Julius Kriscan
Dr. Erika Hickel
Gert Jansen
Marie-Louise Beck-Oberdorf
Antje Vollmer
Walter Schwenninger
Jurgen Reents
Roland Vogt
Hans Verheyen
(MEMBERS OF THE WEST GERMAN BUNDESTAG)

Roque Sevilla Larrea, President
Fundacion Natura
Quito, ECUADOR

Anil Agarwal, Chairman
Environmental Liaison Center
Nairobi, Kenya; and
Director, Center for Science
and Environment
Delhi, INDIA

Helena Norberg-Hodge
Co-Director
Ladakh Ecological Development Group
Leh, Ladakh, INDIA

Georg Henriksen, Director
International Working Group
for Indigenous Affairs (IWGIA)
Copenhagen, DENMARK

Gesellschaft fur Bedrohte Volker
Gottingen, WEST GERMANY

Ben Whittaker, Director
Minority Rights Group
London, UNITED KINGDOM

Marcus Colchester
Survival International
UNITED KINGDOM

Bruce Albert
Survival International
FRANCE

Beate Engelbrecht
Incom Indios
Basel, SWITZERLAND

Jeremy Swift, Chairman
The Anti Alavery Society for
the Protection of Human Rights
London, UNITED KINGDOM

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Chairman
Fourth World Association of Sweden
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Flavio Lewgoy, President
Associacao Gaucha de Protecao ao Ambiente
Natural (AGAPAN) (Association for the
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Jose Lutzenberger, Ecologist
Associacao Gaucha de Protecao ao Ambiente
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Julio M. G. Gaiger, President
Associacao Nacional de Apoio
ao Indio (ANAI) (National Indian Support
Association)
Porto Alegre, BRAZIL

Ordep Serra
President,
Associacio Nacional de Apoio ao Indio
(National Indian Support Association)
Bahia, BRAZIL

Aracy Lopes da Silva
Presidente
Comissao Pro Indio/Sao Paulo
BRAZIL

Magda Renner
President
Acao Democratica Feminina Gaucha
(Feminine Democratic Action of
Rio Grande do Sul)
Porto Alegre, BRAZIL

The World Bank

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

1818 H Street, N.W.
Washington, D.C. 20433
U.S.A.

(202) 477-1234
Cable Address: INTBAFRAD
Cable Address: INDEVAS

November 7, 1984

Mr. Bruce M. Rich
Attorney, International Program
Natural Resources Defense Council, Inc.
1350 New York Avenue, N.W. - Suite 300
Washington, D.C. 20005

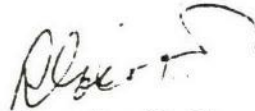
Dear Mr. Rich:

I am writing to thank you for your letter and attached document to Mr. Clausen, dated October 12, 1984, regarding the Northwest Region Integrated Development Program (POLONOROESTE). As you are aware, POLONOROESTE is a carefully planned regional development program, which seeks to stabilize and maximize the economic development of the region, while minimizing the risks to the regional ecology and Amerindian populations. We very much share the concerns you have noted in your letter. We have discussed them in detail with the Brazilian authorities and are encouraged by those discussions to believe that effective action will be taken. We recognize, however, that close monitoring will be necessary and we will therefore continue to follow the situation very carefully. If and when appropriate, and consistent with our ongoing reviews of program implementation, we will recommend to the Government needed modifications to the design and implementation of the program so that its long-term objectives can be achieved.

You can be sure that the Bank is continuing to monitor the situation closely, and that your concerns will be considered as POLONOROESTE continues.

With best regards,

Sincerely yours,



Roberto Gonzalez Cofino
Chief, Brazil Division
Latin America and Caribbean
Regional Office

ROUTING SLIP		DATE: 1/28/85
NAME		ROOM NO.
Roy Southworth		
APPROPRIATE DISPOSITION		NOTE AND RETURN
APPROVAL		NOTE AND SEND ON
CLEARANCE		✓ PER OUR CONVERSATION
COMMENT		PER YOUR REQUEST
FOR ACTION		PREPARE REPLY
✓ INFORMATION		RECOMMENDATION
INITIAL		SIGNATURE
NOTE AND FILE		URGENT
REMARKS:		
FROM: Jim Lee	ROOM NO.:	EXTENSION:

New Environmental Goals for World Bank

The Treasury Department and House Banking Subcommittee on International Development Institutions and Finance have agreed on a sixteen-point U.S. environmental policy to be promoted by the U.S. Directors of the World Bank and three other multilateral development banks (MDB's). Thirteen of the recommendations were formulated by NRDC International Project attorney Bruce Rich.

Discussion on the policy was initiated in June 1983, when the Subcommittee began hearings on the MDB's and the environmental effects of the international projects they finance. The banks finance and plan international development projects such as giant hydroelectric dams and jungle colonization schemes with tremendous environmental consequences, including erosion, deforestation, misuse of agricultural chemicals, destruction of protected areas and spread of endemic disease.

The recommendations adopted include assigning an environmental review staff to the Treasury's Office of Multilateral Development Banks and promoting increases in environmental staffing in the four multilateral banks and MDB-financed environmental training programs for Third World countries.

Most importantly, the recommendations go on to direct the U.S. MDB Directors to assume a role of environmental leadership by advocating changes in MDB operations. They are to promote inclusion of nongovernmental conservation groups as well as environmental and public health ministries in project planning and in the high-level policy discussions between the banks and Third World nations. The U.S. Directors are to vote against certain categories of environmentally destructive projects, and the Treasury Department will be required to submit regular progress reports to Congress.

National Resource
Defence Council,

ensure adequate design in all environmental respects, including research and relevant groups and institutions groups and institutions were certainly consulted (see attached environmental fact sheets).

- As we see it, problems exist in carrying out this well designed program due to migration to the region and larger economic interests which have taken on dimensions which surpass original projections and which therefore require much political will, institutional strengthening, and additional resources "to stem the tide".

We can point out in general:

- The statements about staffing do not adequately reflect the depth of environmental expertise in the Bank. Indeed, throughout the operational complex, particularly in energy, agriculture, and water supply/sanitation there are numerous staff with professional training and experience in environmental management.
- Procedures for enforcing loan agreements are in place in the Regions and, in the case of environmental measures, the Regions seek the advice and assistance of the Environmental Affairs staff, often using consultants as recommended by Environmental Affairs.

MKoch-Weser/JLee:kmc

MYRA —
NOT DIFFERENT
FROM ORIGINAL
PAGE!
AT LEAST!
CAIT!
FIND IT!

cc: Messrs. Lerdau, LC2
van Gigh, LCP
Martinsen, LCP
van der Haijden, LC2
Asseo, LCP
Mrs. Koch-Weser, AGR
von Pogrell, LCP

NOTcheyan:gz

*Indians: Projeto Satis-
factory: Dec 83*

DATE: December 28, 1983

TO: Mr. A. W. Clausen

(through Mr. S. Hussin, Acting Senior Vice President, Operations)

FROM: Sultbertus van der Meer, Acting Regional Vice-President

EXTENSION: 75901

SUBJECT: BRAZIL - Northwest Region Integrated Development Program - Briefing on Amerindians

1. The Northwest Integrated Development Program was designed to support the development of regional agricultural potential, while providing for measures to reduce the risk to the region's vulnerable Amerindian population and to prevent harmful ecological impact. The program was first identified in mid-1979, and the first phase loans approved in December, 1981. The Bank has made five loans totalling US\$411.6 million to support the Program, which total cost is estimated at US\$1.2 billion, for a highway project, two rural development projects, a new settlements project, and a health project.

2. A sensitive issue during the negotiations was to agree specific measures to be taken to protect the region's Amerindian population, which is widely dispersed and in varying degrees of contact with modern society. Simple and essential measures, consistent with Brazilian legislation, were made an integral part of the Program. The Special Project for Protection of Amerindian Communities provides for these measures, including demarcation of Amerindian reserve areas, provision of adequate and necessary health care to Amerindian populations, and monitoring of reserve borders to prevent squatting or other illegal invasion of Amerindian lands. These measures are being implemented by the Brazilian National Indian Foundation (FUNAI), and are financed entirely by the government. The Bank maintains the right to supervise the Special Project and no obstacles in this respect have been encountered. Bank staff contact with FUNAI is easy, and there have been positive responses by FUNAI to recommendations of supervision missions.

3. Implementation of the Special Project is now satisfactory. In 1982 and until mid-1983 there were substantial delays, especially in the completion of demarcation of reserves in the Cuiabá Valley of Mato Grosso, which have been a focus of controversy since the late 1960's. During discussions with the Government in May and June, 1983 specific actions were agreed to speed the implementation of the Special Project. Demarcation of the reserves in the Cuiabá Valley of Mato Grosso is now nearing completion (the work is being carried out by the army geographic services), and FUNAI was given authority to contract about 60 additional staff to provide more adequate medical assistance.

4. A number of international interest groups have been monitoring these developments. We have taken the position that the negotiations between the Bank and the Government are a confidential matter, and have therefore not provided specific detail of our agreements with the Government. But we have on a number of occasions met with representatives of these groups to inform them of developments. In Brazil, the anthropological community is supportive of our strategy. We have, and will continue to monitor the Special Project closely given its sensitivity and visibility in the international scene.

OFFICE MEMORANDUM

355 **DATE:** November 7, 1984

TO: Mr. A. W. Clausen
(Through Mr. Ernest Stern)

FROM: A. David Knox

EXTENSION: 75901

SUBJECT: BRAZIL - Northwest Region Integrated Development Program
Update on Implementation

1. The purpose of this memorandum is to let you know of recent developments with respect to the Northwest Region Integrated Development Program (POLONOROESTE), and in particular the special Project for Protection of Amerindians. You will find attached a copy of our last briefing note to you on this matter, dated December 25, 1983.

Background

2. The Bank's involvement in POLONOROESTE was justified on economic grounds, but also because of the contribution the Bank made towards designing a broad regional strategy which takes into account ecological, social and infrastructural problems, including specifically the protection of Amerindian communities. As you are aware, Bank staff have maintained regular supervision of the Special Project, although the Government has never accepted Bank financing for it. There have been, since the first phase loans were approved in December 1981, various times at which the Bank has had to apply some pressure to the Government to achieve compliance with the legal agreements. However, implementation of the land demarcation and protection aspects of the Special Project has come to a standstill since early 1984.

The Nambikwara Reserves

3. In June 1983, the Bank received assurances from the Government that the Nambikwara reserves, in the Guaporé Valley of Mato Grosso, would have been demarcated, and that measures to make the reserves permanent, would have been taken, by end-December 1983. The reserves were demarcated by the Army Geographic Service, consistent with the timetable the Government had provided to the Bank. However, since then, there has been little progress in the measures to complete the legal establishment of the reserves. These measures include:

- (a) a Presidential Decree establishing the reserves now that they have been demarcated; and
- (b) registration of the reserves in local "cartorios" and in the Serviço Patrimônio da União, which effectively deeds the land to the Amerindians.

Invasion of the Lourdes Reserve in Rondonia

4. The Lourdes Reserve, in the State of Rondonia, was invaded by a few squatter families in 1982, and by April 1984, the number of squatter families had increased to several hundred. Action has only recently been initiated by the Government to remove the squatters, and still needs to be stepped up.

Other Amerindian Reserves

5. Delays were also experienced with regard to all other aspects of the demarcation program. All identified demarcation works were originally scheduled to be carried out by end-1982. However, only three reserves have been fully demarcated and registered to date, out of a total of 37 Amerindian areas. Physical demarcation has been completed for 16 reserves, but the Presidential Decree formally establishing them is still awaited. Fifteen Amerindian areas were acknowledged by the National Indian Foundation (FUNAI) as invaded by illegal squatters, wood logging companies, garimpeiros and rubber tappers. Particularly threatened are the areas of the Zoros and Uru Eu Wau Wau groups, which have not yet been defined or demarcated.

Other Issues Affecting the POLONOROESTE Program

6. A number of other institutional issues are seriously hampering the achievement of the indispensable balance between economic growth and environmental protection in the Northwest Region. Key among these, are the continued poor performance of the Brazilian Forestry Institute and the recent decision to dissolve the Rondonia Agricultural Development Company (CODERON), which plays a pivotal role in the program's agricultural activities in Rondonia. The Bank mid-term review mission, planned for the end of November 1984, will probably recommend further Government and Bank action on these issues.

7. In light of this situation, we have recently indicated to the Government that, unless specific actions are taken by February 28, 1985, the Bank would have to suspend disbursements on the five loans made to support POLONOROESTE. Specifically, concerning the protection of Amerindians, the Bank has required:

- (a) completion of the legal establishment of the Sararé and Vale do Guaporé reserves in the Guaporé Valley of the State of Mato Grosso;
- (b) final definition of reserve areas to be demarcated for two groups in the State of Rondonia (the Zoros and Uru Eu Wau Wau) along with a schedule of implementation; and,
- (c) eviction of illegal squatters from the Lourdes Reserve in Rondonia.

8. International interest groups have continued to monitor developments with respect to Amerindian and ecological issues in POLONOROESTE, and you recently received a letter from Mr. Bruce Rich of the

Natural Resources Defense Council. As in the past, we are not disclosing to these groups the substance of our discussions with the Government, but we continue to acknowledge the concerns raised as well as our interest in these matters. The action we have taken should not be made public. Our effectiveness with the Government in obtaining action in the past has largely been the result of the low-profile the Bank has taken, and the focus maintained on specific actions, rather than any appearance of siding with or responding to pressure groups within and outside Brazil. The letter of reply to Mr. Rich, also attached, follows this strategy.

Attachments

cleared with & cc: Messrs. Martinusen, LCPAB
Blinkhorn, IPA

cc: Messrs. Gué, Gonzalez Cofino, LC2
Malone, Asseo, LCPAB
Mrs. Koch-Weser, AGRME

NOTcheyan: cgm

R1
cc: Mr. Knox
2/12

165

Washington, 3 de fevereiro de 1985.

Excelentíssimo Senhor
A. W. Clausen
Presidente do Banco Mundial

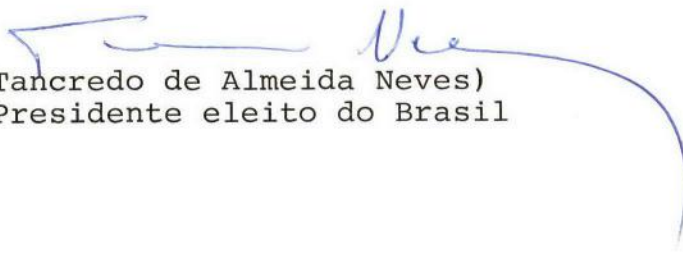
A

Caro Presidente Clausen

Ao partir de Washington, não posso deixar de agradecer-lhe a oportunidade de conversarmos abertamente sobre assunto de tanta relevância para meu país. Nosso diálogo trouxe-me a certeza de que, no meu Governo, o Brasil continuará a merecer, da prestigiosa entidade que Vossa Excelência preside, a distinção que lhe foi sempre conferida.

Espero revê-lo em breve para reatar nossas conversas que estimei altamente proveitosas.

Cordialmente,


(Tancredo de Almeida Neves)
Presidente eleito do Brasil

RECEBIDO
1985

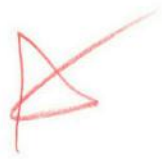
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OFFICE OF THE PRESIDENT

Washington, D.C., February 3, 1985

Mr. A. W. Clausen
President
The World Bank
Washington, D.C.



Dear Mr. Clausen:

I did not want to leave Washington without thanking you for the opportunity to talk openly about a subject of such importance to my country. Our conversation assured me that during my Administration Brazil will continue to deserve from your prestigious institution the same distinguished attention it has always received.

I look forward to meeting you again soon to resume our conversation, which I found extremely valuable.

Sincerely,

Tancredo de Almeida Neves
President-elect of Brazil

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OFFICE OF THE PRESIDENT

Brasilia, Feb. 5

Mr. A. W. Clausen
President
The World Bank

I would like to thank His Excellency for the telex of congratulations on my election as President of Brazil and also to renew the confidence that I had the opportunity to express to you during our recent meeting to strengthen the relations between the Bank and my country.



Tancredo de Almeida Neves
President Elect of the
Federative Republic of
Brazil

FTC Communications, Inc.



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FTC Communications, Inc.



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cc: Mr. K...
218

EXC

FEB.05,85 15:47
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BRASILIA, BRASIL, 05 DE FEVEREIRO DE 1985

A SUA EXCELENCIA
O SENHOR A. W. CLAUSEN,
PRESIDENTE DO BANCO MUNDIAL.
WASHINGTON - DC. EUA.

017 - DPF/DCS/DIV/ - AO AGRADECER A VOSSA EXCELENCIA A GENTILEZA DA MENSAGEM DE FELICITACAO POR OCASIAO DA MINHA ELEICAO AA PRESIDENCIA DA REPUBLICA FEDERATIVA DO BRASIL, DESEJO RENOVAR A CONFIANCA, QUE TIVE OPORTUNIDADE DE EXPRESSAR EM NOSSO RECENTE ENCONTRO, NO APERFEICAMENTO DAS RELACOES ENTRE O BANCO E MEU PAIS.

TANCREDO DE ALMEIDA NEVES
PRESIDENTE ELEITO DA REPUBLICA
FEDERATIVA DO BRASIL

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SUA EXCELENCIA
 DR. TANCREDO DE ALMEIDA NEVES
 DD. PRESIDENTE ELEITO
 REPUBLICA FEDERATIVA DO BRASIL
 BRASILIA, D.F., BRASIL
 EM NOME DO CONSELHO DIRETOR E DO STAFF DO BANCO MUNDIAL APRESENTO
 A VOSSA EXCELENCIA NOSSOS CUMPRIMENTOS POR VOSSA ELEICAO COMO
 PRESIDENTE DO BRASIL.
 POR OCASIAO DA REUNIAO QUE MANTEVE COM VOSSA EXCELENCIA EM
 OUTUBRO PASSADO, O DR. A. DAVID KNOX, VICE PRESIDENTE PARA A
 REGIAO DA AMERICA LATINA E O CARIBE, TEVE O PRAZER DE TRANSMITIR
 A VOSSA EXCELENCIA NOSSO FIRME DESEJO DE QUE O BANCO MUNDIAL
 CONTINUE COOPERANDO COM O GOVERNO BRASILEIRO, INTENSIFICANDO E
 AMPLIANDO A JAH FRUTUOSA ASSOCIACAO QUE VIMOS MANTENDO POR VARIOS
 ANOS COM O BRASIL.
 ACABO SE SOLICITAR AO DR. KNOX A PREPARACAO DE UMA CARTA
 ENDERECADA A VOSSA EXCELENCIA, NA QUAL ESTARAO INDICADOS DETALHES

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CLASS OF SERVICE:	TELEX NO.:	DATE:
SUBJECT:	DRAFTED BY:	EXTENSION:
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DE NOSSO PROGRAMA DE OPERACOES NO BRASIL, ENVOLVENDO QUESTOES QUE SOLICITARIAMOS RECEBESSEM ESPECIAL CONSIDERACAO, NA SUA MELHOR OPORTUNIDADE, DE VOSSA ADMINISTRACAO. DENTRE OUTROS, GOSTARIAMOS DE DESTACAR, COMO DISCUTIDO COM VOSSA EXCELENCIA NO ENCONTRO MENCIONADO ANTERIORMENTE, A POSSIVEL INDICACAO POR VOSSA EXCELENCIA DE UM CONTATO QUE FACILITARIA, DURANTE O PERIODO DE TRANSICAO, O PROGRESSO NO PROCESSAMENTO DE EMPRESTIMOS QUE ESTARIAM EM CONSIDERACAO PARA SEREM APROVADOS NOS PROXIMOS MESES PELO CONSELHO DE DIRETORES DO BANCO MUNDIAL. O CHEFE DA DIVISAO DO BRASIL, DR. ROBERTO GONZALEZ COFINO, ESTARAH NO BRASIL ENTRE OS DIAS 17 E 26 DESTE MES, E SERAH O PORTADOR DA REFERIDA CARTA, COLOCANDO-SE AA VOSSA DISPOSICAO NESTE PERIODO PARA QUALQUER CONTATO QUE SEJA CONSIDERADO OPORTUNO POR VOSSA EXCELENCIA.

PERMITA-ME, MAIS UMA VEZ, DESEJAR A VOSSA EXCELENCIA TODO O SUCESSO NO DESEMPENHO DA MAIS ALTA FUNCAO PUBLICA NO PAIS.
 RESPEITOSAMENTE,

A. W. CLAUSEN, PRESIDENTE, BANCO MUNDIAL.

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CLASS OF SERVICE:	TELEX NO.: 613719	DATE: 01/15/85
SUBJECT: BRAZIL Congratulations President Elect	DRAFTED BY: R.G.Cofino:cgm	EXTENSION: 72031
CLEARANCES AND COPY DISTRIBUTION:	AUTHORIZED BY (Name and Signature): A. W. Clausen 	
	DEPARTMENT: President	
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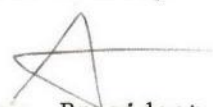
ADDRESSED TANCREDO NEVES
PRESIDENT ELECT OF THE FEDERATIVE REPUBLIC OF BRAZIL

On behalf of the Board of Directors and staff of the World Bank, I would like to congratulate you for your election as President of Brazil. As already indicated to you last October by Mr. A. David Knox, the Bank Vice President for Latin America and the Caribbean, we look forward to having the Bank cooperate closely with your Government, intensifying and widening the already fruitful association that we have maintained for many years with Brazil.

I have asked Mr. Knox to send you a letter indicating some aspects of our proposed operations for which we would ask an early consideration from your future Administration. One aspect we would like to bring to your attention now, as already discussed in the meeting mentioned above, is the possible appointment by you of a liaison person who could help expedite, during the transition period, the processing of loans which are scheduled to be approved by our Board within the next few months. Mr. Knox's letter will be hand carried by the Chief of our Brazil Division, Mr. Roberto Gonzalez Cofino, who will stay in Brazil from January 17 to 26. He will be available during that period for any contact that you may deem advisable.



I take this opportunity to wish you all possible success in the highest office of your country.

Sincerely,


A. W. Clausen, President, World Bank

OFFICE MEMORANDUM

DATE: January 10, 1985

TO: Mr. A. W. Clausen 
(through Mr. Ernest Stern) 

FROM: A. David Knox 

EXTENSION: 75901

SUBJECT: BRAZIL - Proposed Telex to Mr. Tancredo Neves

1. According to all available information, Mr. Tancredo Neves will be elected President of Brazil next Tuesday, January 15, by the country's Electoral College. In a meeting I held with Mr. Neves during my visit to Brazil last October, he agreed to have further contacts with the Bank immediately after the election, and to appoint one of his associates as a liaison with the Bank.

2. I believe that the need for us to establish promptly an appropriate working relationship with Mr. Neves and his associates has become more urgent now, in view of the present Government's decision to consult from now on with Mr. Neves on all important policy matters -- including those related to several proposed FY85 loans. I have decided, therefore, to send Mr. Roberto Gonzalez Cofino to Brazil on January 16, to start the required discussions as soon as possible. To facilitate his mission, as well as to congratulate Mr. Neves for his election, I suggest that you sign the attached telex (unofficial translation to English is also attached). We will send it on January 15 or 16, after Mr. Neves' election is confirmed.

Attachments

RGonzalezCofino:nev

November 12, 1984

Dear Mr. Minister:

We received with great pleasure your formal notification of Brazil's participation in IDA7. On behalf of my colleagues in the Association and its recipient members, I should like to express my appreciation for your Government's prompt action in notifying us of its contribution.

Thank you once again, Mr. Minister, for the support that Brazil has continually provided to the Association and the personal interest that you have shown in its activities.

Warm regards,

Sincerely,



A. W. Clausen

His Excellency
Antonio Delfim Netto
Minister of Planning and
Governor for Brazil
Ministry of Planning
Brasilia, DF
Brazil

bcc: Mr. Antonio V. Romualdez
Executive Director

Copies to: Messrs. Qureshi,
Bock, Duarte, Leipziger, Mistry, van Puymbroeck,
Southworth

/PHamidian:vj

THE POLONOROESTE PROGRAM AND INDIGENOUS PEOPLES

World Bank Policy and Indigenous Peoples

The World Bank has taken an important initial step in recognizing the rights of indigenous peoples in its statement, Economic Development and Tribal Peoples: Human Ecological Considerations (World Bank 1981). Since indigenous peoples are often those most at risk from development projects and typically lack political representation, it is especially important that multilateral lending institutions take account of their existence in planning and implementing development projects. With its great resources and international influence, the World Bank can play a beneficial role in designing and implementing adequate measures to safeguard the interests of indigenous peoples. The World Bank's policy statements have shown a clear grasp of the issues involved:

Experience has shown that, unless special measures are adopted, tribal people are more likely to be harmed than helped by development projects that are intended for beneficiaries other than themselves. Therefore, whenever tribal people may be affected, the design of projects should include measures or components necessary to safeguard their interests....
(World Bank 1982)

General policy is in keeping with such observations:

The Bank will assist projects only when satisfied that the Borrower or relevant government agency supports and can implement measures that will effectively safeguard the integrity and well-being of the tribal people.
(Ibid.)

The Polonoroeste Program is one development project with substantial World Bank funding that affects indigenous peoples (approximately 6700 Amerindians in some 34 groups in the program area) and as such is an example of the application of the Bank's policy with respect to indigenous peoples. The existence of the Indians in the area was well known to both the Bank and the Brazilian government in the planning stages of the program. The Loan Agreement for the first phase, Agricultural Development and Environmental Protection Project (Loan No. 2060 BR) dated December 15, 1981, states in section 4.05,

The Borrower and the Bank agree that the strengthening of the measures to protect the indigenous Amerindian population in the Program Area is essential to the successful carrying out of the Project. To this end, the Borrower shall take all necessary measures to put into effect promptly the Special Project for protecting the interests of the Amerindians and the Amerindian communities located in the Program Area.

In the description of the project in the same Loan Agreement, it is stated that the purpose of the project is to promote orderly development of the Program Area, "while adequately protecting the indigenous Amerindian population and the natural environment."

(p. 25)

From the outset, various organizations have expressed serious concern over the fate of the indigenous groups in the area. (Cultural Survival 1980, 1981; Anthropology Resource Center 1980, 1982; Survival International 1981a, 1981b, 1984; American Anthropological Association, motion passed at annual meeting, 1980). Perhaps in response to such concern, the World

Bank insisted on the demarcation of lands for the Nambiquara, and a reserve was finally legally guaranteed this year.

Anthropologists and indigenists in Brazil who have followed the case closely and regarded demarcation of territory for the Nambiquara as a high priority point to this as an example of the positive influence the Bank can have. But even in the Nambiquara case, not all the Indians' areas have yet been demarcated. The Bank has typically responded to criticisms and warnings as it did in its press release of December 3, 1981:

... (the National Indian Foundation) is upgrading its organization and operation in the region and has already begun a series of measures giving priority treatment to the protection and demarcation of Amerindian lands and the removal of illegal settlers.

The Bank's public statements then and now would appear to indicate its satisfaction with the performance of FUNAI (the National Indian Foundation, Brazil's Indian agency). That the Bank sees no notable problems in the protection of indigenous peoples in the area is also indicated by the fact that disbursement of a Bank loan of \$65.2 million for resettlement of farm families is to be accelerated as part of a special action program (Bank News Release No. 84/19, October 27, 1983). The Bank's statements and actions would indicate that the government of Brazil has taken the requisite measures to protect the interests of the Amerindians in the program area, as stipulated by the Loan Agreement.

However, recent information from the Polonoroeste area shows that, in fact, four years into the program, basic preliminary precautions to protect the Indians, such as demarcation of lands, have yet to be taken, and that as a result large sectors of the indigenous population suffer direct threats to their physical and cultural survival. Further, according to its own publications, the Bank has been aware of the factors that led to this grave situation at least since 1980.

The Bank's Assessment of FUNAI

In the Bank's 1981 report, Brazil: Integrated Development of the Northwest Frontier, a number of insightful remarks on FUNAI's special project to assist the indigenous groups in the program area appear:

While the FUNAI program for the Northwest is directed correctly at the crucial problems regarding land, health, education, agriculture, and administration, it would appear that many of the measures proposed in these areas are exceedingly complex, costly, and, in some cases, inappropriate. Most of the issues of this type are the result of an inadequate knowledge of conditions in the field -- including the self-perceived wants and needs of the Indians -- on the part of the program's authors. In principle this could have been avoided, if, before or during the elaboration of the program its authors had visited each of the Indian reserves in the program area....
(World Bank 1981:37)

The report also notes basic administrative problems in FUNAI resulting from filling key posts with a succession of retired military officers who "have little knowledge of, and experience with, Indian affairs and are not always able to anticipate

problems of concern to FUNAI." (Ibid. 28) In 1980, most of FUNAI's technical staff -- anthropologists, indigenists, medical personnel -- were fired or resigned in protest over the mismanagement of FUNAI and the anti-Indian positions taken by its highest administrators. (See AAA motion, 1980, Cultural Survival 1981) It is presumably for these reasons that the Loan Agreement speaks of "strengthening" measures to protect Amerindians.

Clearly, from the time the program was approved by the Bank, a kind of special pleading was involved in regard to protecting indigenous peoples. FUNAI's Special Project was not actually acceptable as submitted -- FUNAI was in a state of disarray and, according to the Bank's own evaluation, was administered by persons with no particular competence to carry out the work for which they were responsible. But on the strength of assurances that the situation would be improved, the loan was nonetheless approved. To put this in perspective, imagine that Bank evaluators had made similar observations about accountants proposed to handle a project by a given nation. Would the Bank, after finding that senior accountants had no competence in arithmetic or accounting, approve a major loan on the basis of vague assurances by those same persons that something would be done? In the case of protecting indigenous peoples in the Polonoeste program, ostensibly a condition of the success of the project, this is just what has happened. And now, four years into the program, the cultural and physical survival of the indigenous peoples is more at risk than ever.

Current Conditions in the Polonoroeste Area

According to Anthropologist Betty Mindlin, who coordinates the team evaluating the project for the World Bank and the Brazilian government, "either these lands are demarcated and defended now or the Indians will disappear within three or four years, with the massive immigration to Rondonia." (Mindlin, personal communication, March 1984) It is, then, especially alarming to note that, according to Mindlin's extensive report on the area, many areas have not yet been demarcated, since demarcation of the land is the first step (by itself usually insufficient) on which defense of the indigenous territory depends. In a recent article, Mindlin writes: "The great accomplishment, and perhaps the only one, of the Polonoroeste Program in this area was the demarcation of the Nambiquara territory, still not completed." (Mindlin 1984) By even the most optimistic count, there are 14 areas that were undemarcated in 1980 when the project began that still await demarcation. Counting in terms of areas where demarcation is completed (registered in the SPY), 26 areas remain to be legally guaranteed. Mindlin notes the following areas that urgently await demarcation:

- 1) the territory of the Uru-eu-wau-wau, with the necessary disappropriations, since there are persons with land titles in the area;
- 2) the Karipuna territory;
- 3) the Zoro territory;
- 4) the area interdicted for the Cinta-Larga;

- 5) the Irantxe area, and new definition of the limits of the area;
- 6) the Saluma area;
- 7) the Pareci area, delimitation and demarcation of the Formoso, Estivadinho, and Capitao Marcos areas, and inclusion of the Pareci area of the land north of the 14th parallel;
- 8) the Kaxarari area;
- 9) redefinition of the Bakairi area to include lands justifiably claimed by the Indians;
- 10) definition and demarcation of land for the Mequem;
- 11) reconstitution of the Urubu group, with definition of land for the tribe;
- 12) finishing the Nambiquara demarcation (including indemnifying and removing ranches within the area).

In short, next to nothing has been done in the program area since 1980, when FUNAI's Special Project began. In Rondonia, for example, where there are 18 indigenous areas, only five are registered in the Sevice de Patrimonio da Uniao, that is, legally guaranteed, according to a recent interview with the FUNAI regional delegate (Zero Hora, 1984). These 18 areas do not include four peoples whose lands have no administrative or legal recognition whatsoever, of whom two are uncontacted (Aconteceu 83:165-6).

That so little has been achieved in the crucial area of land demarcation is especially alarming because other protective measures depend on demarcation. Land that is not clearly demarcated physically may be invaded because colonists do not know that it is Indian land, while land not legally demarcated is an open invitation to companies and land speculators hoping to

press claims, as has happened in Nambiquara land. Invasion, with its attendant threat to the Indians of violent confrontations and devastating introduced diseases, is rampant in the Polonoroeste region.

Perhaps the most urgent case is that of the Uru-eu-wau-wau, since the group was contacted for the first time only last year and faces various invasions, including mining operations, without, according to Mindlin, "FUNAI having the resources to investigate and obtain precise information." Groups with extremely limited and recent contact with the national society are those most at risk from introduced diseases, as the tragic series of disastrous contacts in the Brazilian Amazon has shown (cf Davis 1977). There are invasions in other areas as well. In the Lourdes reserve, there are 750 families of squatters, and the Gavioes Indians took several Brazilian hostages in an attempt to move FUNAI into action. In the Cinta-Larga interdicted area, there is a mining company employing 150 miners, and the Indians have threatened violence; while in Serra Morena, also a Cinta-Larga area, the government of the state of Mato Grosso is constructing a hydroelectric power plant 20 kilometers from the indigenous village. (Folha de Sao Paulo, 4/3/84) In this area, violence is also imminent, and a nine-year-old girl was raped by non-Indian invaders. Furthermore, state politicians have subdivided and sold indigenous lands in the area, while the government of the state of Rondonia intends to build a road in the reserve. The Mequem, one of the groups whose land is entirely without legal recognition, are prey to illegal logging

operations, which have allegedly threatened the Indians with hired gunmen. At the state and local levels -- those levels of government most directly responsible for the Polonoroeste program -- there is utter disregard for the welfare of the Indians, and indeed, aggression against them, while FUNAI apparently is either powerless or unwilling to take protective measures on their behalf. Invasions are not confined to the areas mentioned -- Posto Indigena [Indigenous Post] Pakaas Novas has been entered by squatters, while companies have invaded the areas of the Pareci, Bakairi, Irantxe, and Tubarao.

Serious as these invasions are, they are only the tip of the iceberg, given the massive and increasing migration to Rondonia. According to Brazilian census figures, the population of the state increased 16% between 1970 and 1980, largely from immigration. (O Globo, 1/4/83) While official figures "greatly understate the total annual flow of migrants; probably by more than half" (World Bank 1981:15), they show 57,572 immigrants for 1980; 61,647 for 1981; 52,200 for 1982; and another 60,000 projected for 1983. Recent reports indicate that already in 1984 there have been some 115,000 new migrants to Rondonia alone. The paving of BR-364, the one aspect of the Polonoroeste program completed (ahead of schedule), certainly has facilitated and increased this migration and will continue to do so, especially if the aggressive promotion of migration to the area by government agencies continues (cf., Lutzenberger 1984). This massive influx of migrants in search of land puts increasing pressure on indigenous lands and thus increasingly threatens the

survival of the indigenous peoples. There is already evidence that, to the contrary of the Bank's assumption that migrants would be "permanently settled on small-scale farms" (World Bank 1981:v-vi), colonists often clear, plant, and exhaust plots in only a few years, then move on. The FUNAI regional delegate has in fact already noted turnover of plots cleared by squatters inside of indigenous areas (Zero Hora, 1984). This tendency is likely to be exacerbated by the state of Rondonia's plans to settle migrants in areas of very poor soils -- as in the Vale do Guapore, where 8,000 - 10,000 families are to be settled by 1986 -- since rapid soil exhaustion will force migrants to seek new land and thus represents an enormous threat to the indigenous peoples. In this light, the opening of the 429 road in an area occupied by still uncontacted Indians makes a mockery of section 4.05 of the Loan Agreement.

Along with expropriation of land and violent conflicts, uncontrolled immigration brings with it the risk of contagion. Many groups in the program area have already suffered massive population loss in the recent past, as was the case of the Surui, contacted in 1968-69, who lost half their population in a measles epidemic, or the Karipuna, who lost 80% of their population in 1976. Isolated and recently contacted indigenous groups are notoriously susceptible to introduced epidemic diseases. Leaving land undemarcated and undefended and allowing uncontrolled contact under the conditions of massive immigration prevalent in Rondonia and Western Mato Grosso thus invites disaster. Health conditions are poor among the immigrant population. In Rondonia,

for example, "... the most common transmissible diseases in the area are malaria, leishmaniasis, measles, and whooping cough; the most frequent causes of death (1977-78) are malaria, hepatitis, tuberculosis, and measles." (World Bank 1981:21) These include diseases that present the most danger to the indigenous populations.

Health care for the indigenous groups is consequently of extreme importance, and Mindlin's comments on the subject are alarming: "In the area of health, the deficiencies are very great and the mortality figures are still shocking." Mindlin notes that while the program has provided crucial resources for infrastructure and hiring personnel, more difficult and often more pressing tasks, such as vaccination, have been less successful. She adds, "the quality and process of selection of personnel still leave much to be desired" (Mindlin 1984). Her report specifies a number of deficiencies and steps that remain to be taken, including:

- 1) anti-malarial measures;
- 2) resources to treat tuberculosis;
- 3) vaccination of the Uru-eu-wau-wau -- especially important since the group is in the first stages of contact;
- 4) rigorous vaccination of recently contacted groups, such as Cinta-Larga;
- 5) a register of all Indians vaccinated -- even in cases of recently contacted groups -- by use of photographs if necessary. (Also of especial importance since, without accurate records of who has been vaccinated, when and for what, the process is often ineffective, as many vaccines require more than one dose);
- 6) resources to equip an empty infirmary in Porto Velho in the

Casa do Indio;

- 7) contracts with regional hospitals to provide for treatment of Gaviao, Arara, Surui, Cinta-Larga, Pakaa Nova, and Bakairi;
- 8) provision for operation of refrigerators to preserve vaccines and medicines on all Indian Posts;
- 9) resources for the clinic of FUNAI's 5th Regional Delegacy, where two buildings and the central pavilion are without equipment.

It is extremely disturbing to learn that so many basic steps remain to be taken in such an urgent and deteriorating situation. It is still more disturbing when taken in conjunction with the fact that FUNAI was unable to spend the funds allocated for Indian protection by the Polonoroeste program and its own budget. For example, only some \$2 million (CR\$ 834,581,000) were spent in 1982-83, instead of \$5 million budgeted for each year of the project (Folha de Sao Paulo 4/3/84). Some sources state that this results from delays in the application of funds, such that massive inflation dramatically erodes the purchasing power of the money appropriated before it is spent (cf., Zero Hora, 1984). In any case, FUNAI, which was supposed to provide 60% of the resources for the special project, was in September of this year two billion cruzeiros in debt (Folha de S.P. 9/12/84), with no funds on hand to run the agency. In August the agency was already on the brink of being shut down, having received no resources from the Ministry of the Interior for the previous three months. According to an article in Journal do Brasil, Indians from Rondonia had frequently come to FUNAI to find out what had happened to the funds from the Polonoroeste program

administered by SUDECO (Superintendencia para o Desenvolvimento do Centro-Oeste) (Journal do Brasil 8/9/84). Furthermore, it is reported that SUDECO has threatened to cut off funds for the FIPE evaluation team altogether, a step that would halt all independent monitoring of the program. Clearly, the commitment of the Ministry of the Interior, and, it seems, SUDECO, to the sound operation of FUNAI and the monitoring of the situation of the indigenous peoples in the Polonoroeste area is very limited indeed. Given the very serious problems common in the program area, it is exceedingly difficult to see how by any stretch of the imagination this situation could be considered compliance with section 4.05 of the Loan Agreement.

Conclusions

If the Bank's professed concern with the indigenous peoples of the Polonoroeste area is to be taken seriously, rather than as a public relations position, the Bank must insist not only to FUNAI but to the Minister of the Interior and the Minister for Land Issues (who now have final authority over demarcations of indigenous lands) that demarcation of indigenous lands and assistance measures be carried out. Speeding up disbursements for the program when the road is already ahead of schedule and the Amerindian Special Project mostly unimplemented would seem to send the message that the road is important to the Bank, while the Indians are not.

Another positive step that the Bank could take would be to design a Special Action Program to ensure that resources are

available to carry out protective measures. The Brazilian government initially rejected Bank funding of an "Amerindian component," claiming that indigenous lands were a national security issue. This position is evidently subject to revision, since the Bank has insisted on an Amerindian component in the Carajas Iron Ore Project, which could serve as a model for a Special Action Program to rectify the situation in Rondonia.

In this case, funds were made available through CVRD, the development company, for FUNAI to carry out measures to protect the Indians in the project area, and for outside evaluators selected by the Brazilian Anthropological Association (ABA), to monitor the implementation of those measures. This was a positive step, not only in terms of providing funds for protective measures but also in providing for continuing oversight. As the Bank's own publications point out, FUNAI is a weak agency, and managerial positions are subject to rapid turnover, often resulting from political pressure. The Bank could take further positive steps by supporting measures to strengthen FUNAI by developing capabilities to deliver health care, bilingual education, and community development. Training programs for field personnel could perhaps be established in conjunction with ABA and the Preventive Medicine program of the Escola Paulista de Medicina, which under the auspices of Dr. Roberto Baruzzi has done extensive work with indigenous populations.

The 364 road is now completed and migration to the area exceeds all previous estimates. Meanwhile, the State of Rondonia

is building the 429 road through an area in all probability inhabited by uncontacted Indians, without having consulted FUNAI. If the Bank does not wish to send the clear message that conditions in accordance with its Tribal Peoples' policy on any further loans are merely window dressing to be flouted at will, it must insist that section 4.05 of the Loan Agreement be honored now.

Most importantly, insofar as the Bank intends to continue funding development in areas with indigenous populations, it should make every effort to involve the indigenous peoples themselves in the process of project identification, planning, implementation, and monitoring. Indians in Brazil are increasingly organizing on their own behalf, as shown by the second national Indigenous Leaders Conference in Brasilia in April of 1984, when more than 200 indigenous leaders belonging to the Uniao das Nacoes Indigenas (UNI) met to discuss legislative issues, petitioning congress on a series of proposed laws. Shortly thereafter, several Indians were promoted to high positions in FUNAI for the first time -- positions they have kept despite still another change in administration of FUNAI. Not only these individuals and UNI, but the groups in areas where projects are contemplated, should be directly consulted at the earliest possible stages of project planning about what their needs and wishes are and how they might best participate in the development process. This would obviously insure a clearer understanding of what the indigenous peoples in project areas want, but it could also offer some advantages to the project as

well. Especially in tropical forest regions, indigenous peoples live in just the areas most susceptible to environmental degradation and least well understood scientifically. Involving indigenous peoples in such areas in environmental protection, as has been done in the Udirbi project in Panama (Breslin and Chapin 1984), offers potentially immense benefits. Indigenous peoples have an overwhelming interest in seeing that environmental protection measures actually work and, if research is appropriately designed, could add greatly to ecological understanding of heretofore little known regions.

If the Bank wants to involve indigenous peoples in planning and monitoring development, it could also add qualified anthropologists to its staff. The Bank presently employs one anthropologist to work in part on tribal peoples' issues in Latin America. If the tribal peoples policy is to be effectively implemented, the indigenous peoples themselves must be consulted, and in most cases anthropologists, indigenists, and linguists could be called on to facilitate communication between Bank staff and the indigenous groups and their organizations. In the case of Polonoroeste, the recommendations of Mr. David Price were instrumental in the Bank's greatest accomplishment in the area of protection of indigenous peoples: the demarcation of the Nambiquara reserve.

At this point, it is far from clear that the migrants to the region, supposedly the major beneficiaries of the project, will even benefit in the short term. It should be recalled that the military government of Brazil in the late '60s and the '70s held

out great hope for the Transamazonica Highway and Amazonian development projects as opportunities for the oppressed and landless masses. (Davis 1977) Thousands of Indians died and thousands more were dislocated and marginalized in this period in a Faustian bargain that put immediate, large-scale development ahead of their protection, to the point of installing in the FUNAI presidency and other high positions military officers avowedly more committed to technocratic development than to Indians' rights. The cruelest part of this Faustian bargain is that there was no trade-off. The poor and landless of Brazil have not benefitted from these projects. The "miracle" has transformed into a \$93 billion foreign debt and an inflation rate of 200%, while there is more hunger in Brazil than ever before.

The protection of indigenous peoples is not incompatible with economic development, but such protection must be undertaken in a controlled, clearly verifiable way, where the consequences of noncompliance with a mutually satisfactory plan designed in consultation with the indigenous peoples themselves are made very clear, and then enforced. If the World Bank does not undertake immediate steps to see that section 4.05 of the Loan Agreement is carried out, it risks disaster for the indigenous peoples of the Polonoroeste area. And if disaster occurs, the Bank will bear a large measure of responsibility.

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(con't)
1984

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Folha de Sao Paulo
4/3/84

Construcao de hidreletrica ameaca o Parque do Aripuana.

9/12/84

Andreazza rejeita pedido de demissao de Jurandy.

Lutzenberger, Jose
1984

Testimony before the Subcommittee on Natural Resources, Agriculture Research and Environment of the House Committee on Science and Technology, 9/19/84.

Breslin and Chapin
1984

Conservation Kuna Style. Grassroots Development, Journal of the Inter-American Foundation, Vol. 8, No. 2.

Journal do Brasil
8/9/84

Funai sem recursos pode parar.

October 16, 1984

Dr. Jose Alcimo Lucena, Director
Brazil Private University Project
Alcimo Lucena Foundation
4680 Ave. Dupuis - Suite 4
Montreal, P.W.
Canada, H3W-1N3

Dear Dr. Lucena:

I have the pleasure of writing in response to your September 17, 1984 letter to the President of the Bank concerning the proposed creation of a private university in the state of Ceara, Brazil.

Normally, the World Bank confines its financing to primary and secondary education projects. Occassionally, it finances investments required for higher levels of education - such as teacher training colleges, agricultural technical schools, or applied research centers - if they constitute a key element for a primary or secondary education project.

If you believe that your project might fit within this general policy, we would be glad to hear further about it. Of course, the Bank would expect that any project proposed for its financing be generally consistent with other ongoing projects within the same geographical area, specially other projects already financed or under consideration by the Bank. At this point it is probably too early to formulate specific questions but, as a general guideline, I would say that the Bank would be interested in the educational requirements of the population in the project's area of influence, how those requirements are currently being met, what are the short-comings already identified and the solutions envisaged, what are the specific investments proposed, their estimated cost, and the plans to finance such costs. If the Foundation Alcimo Lucena has already prepared a feasibility study or some other similarly comprehensive proposal, we would be willing to examine it on a preliminary basis.

I gather from your letter that yours is a non-governmental endeavor. If my understanding is correct, you may wish to keep in mind that any loan which the World Bank could eventually consider granting for this project would have to be guaranteed by the Federative Republic of Brazil.

Sincerely yours,



Daniel C. Lecuona
Senior Loan Officer
Brazil Division
Latin America and Caribbean
Regional Office

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clw&cc: Mr. Douglas Keare, Chief, LCPED
(with copy of incoming)

cc: Messrs. Southworth, EXC ✓ *OK UPS 10/17/84*
Agueh, Acting Chief, LC2BR
Gonzalez Cofino Chief LC2BR (c/r)



ALCIMO LUCENA EDUCATIONAL FOUNDATION

Projet Université Privée au Brésil—Projeto Universidade Particular no Brasil—Project Private University in Brazil

Montréal, September 17, 1984

Mr. A. W. Clausen, President
International Development Association
1818 H St., N.W.
Washington, D.C. 20433

Dear Mr. Clausen:


I am writing about a project that will be realized soon. It concerns the creation of a private university in Brazil, more specifically in the city of Crato located in the State of Ceara. This state is in the northeastern region of Brazil which, as you may know, is very poor and deficient in the field of higher education. As a solution to this problem, we decided to implement a private university with thirteen faculties, being able to receive 10 000 students at its beginning. We have already met the authorities of this city and they have give us a site measuring 1 000 000 m².

A maquette of the university complex has been made by two students of the School of Architecture of the University of Montréal, under the supervision of Professor Harry Parnass.

We need from you any kind of support you could provide in any of the following fields: ideas, financement, management, planification, research, people to contact, etc. I would like to know exactly what kind of help your organization can give us in order to permit the realization of our project.

I hope to receive from you an answer to our request as soon as possible and I thank you very much for your kind cooperation.

Very truly yours,


JOSE ALCIMO LUCENA
Directeur du Projet
4680 Av. Dupuis, Suite 4
Montreal, P. Q. Canada
H3W 1N3

JAL/gl

10.25.84

Ray -

Keep until
Ando's file update
brief arrives and
then return for
my review +
information.

⊙

THE WORLD BANK

Office of the President

October 17, 1984

Tom:

This is the letter from the Natural Resources Defense Council. It deals with environmental consequences and the effects on the indigenous tribes of the Bank-financed Polonoroeste project. It has prompted an article today in the New York Times (attached).

There have been problems with the project and Mr. Knox is now in Brazil to discuss it. Ernie also met yesterday with the Brazilian Minister of Interior on this topic.

Andre Gue, Program Director responsible for Brazil, is preparing brief to update you on the status of the project and the actions the Bank is contemplating.

Roy

World Bank Urged to Halt Aid to Brazil for Amazon Development

By ERIK ECKHOLM

Critics asserted yesterday that Brazil's program to settle the Amazon frontier was harming the forests and jeopardizing Indian tribes, and they called on the International Bank for Reconstruction and Development to reassess its financial support of the project.

More than 25 environmental and anthropological groups from the United States, Brazil and other countries issued the complaint in a letter to A. W. Clausen, president of the World Bank. The critics said Brazil's poor planning was causing "accelerated, rampant deforestation, invasion of Indian lands, and destruction of natural areas unsuited for agriculture but possessing tremendous biological significance."

A spokesman for the World Bank, Peter Riddleberger, said, "This is a thoughtful letter and it will receive a thoughtful response." But he declined to offer immediate comment on specifics.

Bank Financing Major Road

The World Bank has committed \$443 million in loans to Brazil for paving a 1,000-mile road into the region, building feeder roads, providing services to settlers and establishing biological reserves.

Landless families are streaming into the project area, which includes the entire state of Rondonia and part of Mato Grosso. Most of the migrants come from southern Brazil, where mechanization is displacing farm laborers.

Stories from the frontier are reminiscent of the Old West in the United States, with land disputes often settled through gunfights, farmers futilely clearing fragile soil, speculators taking over farms and settlers invading areas set aside for Indian tribes, some of which are only now making their first contacts with people of European descent.

Scientists say the unchecked clearing of the Amazonian forest in the area will exterminate several plant and animal species and could alter the regional climate.

Bank Demanded Safeguards

The World Bank wrote stringent conditions for protection of the environment and of tribal groups into the loan agreements in 1981. The Brazilians agreed to set aside several nature reserves, to limit farming to soils that could sustain it and to demarcate and protect Indian lands.

Critics now say the building of roads has speeded migration to the region but little has been done to put the safeguards into effect.

Arguing that the "credibility and image" of the World Bank was at stake, the letter from private organizations asserted: "To insure that bank loan conditions are respected in the future, the bank must exercise its maximum leverage in this situation."

Congressman Writes Letter

The letter was written by the Natural Resources Defense Council and signed by many other environmental groups, including the National Wildlife Federation and the National Audubon Society and by the presidents of national anthropological associations in the United States and Brazil.

In a related action, Representative James H. Scheuer, Democrat of the Bronx and Queens, who is chairman of a Congressional subcommittee concerned with natural resources, sent a letter Monday to Treasury Secretary Donald T. Regan, whose department handles Federal relations with the World Bank. Mr. Scheuer said the bank should encourage the Government of Brazil "to limit and control development in this environmentally sensitive area."

The United States holds about 20 percent of the shares of the bank, the



The New York Times/Oct. 17, 1984

Brazil's Amazon frontier project involves area larger than Britain.

world's largest development lending agency.

At hearings before Mr. Scheuer's Congressional subcommittee in September, José Lutzenberger, a Brazilian agronomist, said many settlers were being given plots unsuited to farming, forcing them to sell out after a few years to speculators and ranchers who were consolidating large holdings and violating forest protection laws.

Road to Pristine Forest

He and other witnesses expressed particular concern about a new road being constructed into the Guaporé Valley, the last untouched forest in Rondonia. He said the road "blatantly flouts two conditions in the World Bank's loan agreement."

The valley's soils are generally poor, he said, and the remote area is inhabited by still-unidentified Indians who killed colonists and rubber tappers in encounters in 1981 and 1983.

The critics also urged the World Bank to strengthen its ability to reject loans that could cause harm to the environment. The bank has issued formal guidelines for environmental planning, but, according to Bruce M. Rich of the Natural Resources Defense Council and other critics, it has not yet committed the resources and staff needed to guarantee they would be put into effect.

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ATT.: MR. A. W. CLAUSEN
PRESIDENT

I AM PLEASED TO RETRANSMIT THE TEXT OF THE FORM OF
NOTIFICATION RELATING TO THE BRAZILIAN CONTRIBUTION TO FY
84 ACCOUNT, SENT TODAY BY MAIL:

FORM OF NOTIFICATION

IDA - FY 84 SPECIAL ADDITIONAL
CONTRIBUTIONS - RESOLUTION 82-6

DEAR MR. CLAUSEN:

REFERENCE IS MADE TO RESOLUTION IDA-82-6 OF THE EXECUTIVE
DIRECTORS OF THE INTERNATIONAL DEVELOPMENT ASSOCIATION
ENTITLED "ARRANGEMENTS FOR SPECIAL CONTRIBUTIONS",
WHICH WAS ADOPTED ON OCTOBER 26, 1982.

THE GOVERNMENT OF BRAZIL HEREBY GIVES NOTIFICATION
PURSUANT TO SECTION C, PARAGRAPH 5 (A), OF SAID
RESOLUTION THAT IT WILL MAKE A SPECIAL CONTRIBUTION
IN THE AMOUNT OF US 10 MILLION TO THE FY 84 ACCOUNT
IN ACCORDANCE WITH THE TERMS OF THE SAID RESOLUTION.

AFFONSO CELSO PASTORES
ALTERNATE GOVERNOR
FOR BRAZIL

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