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Washington, D.C.

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1525563

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Bank Administration and Policy - Ecology - 1969/1971 Correspondence - Volume 2

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FOR FURTHER CORRESPONDENCE PLEASE SEE VOL. III

RECORDS MANAGEMENT SECTION

Ecology

Dr. James A. Lee

March 31, 1971

Michael L. Hoffman

Mr. Swaminathan Iyer

Mr. Swaminathan Iyer looks like a very bright graduate student and I am sure the study he plans to make of environmental disruption in Japan will be of great interest. However, I cannot see any basis for the Bank to finance his travel for the purpose. Japan is one of our major stockholders and I think if we should need a report on any of the questions he plans to investigate, we would normally work through our Executive Director. The Japanese would hardly need outside technical assistance in this, of all, fields.

MLH:jg

MLH

J

Ecology

OFFICE MEMORANDUM

TO: Mr. M. L. Hoffman

DATE: March 29, 1971

FROM: James A. Lee

SUBJECT: Mr. Swaminathan Iyer

This student contemplates conducting a study of environmental problems in Japan during the forthcoming summer months. He hopes the objectives and purposes to be served by the study will be of sufficient interest to the World Bank as to have the Bank subsidize his air fare over and back.

During my absence this week, would you kindly look over his project outline with a view to commenting on the appropriateness of this project for some possible support by the Bank. In particular, I was thinking that if appropriate we might bring him on as a consultant, whereby we would pay for his air fare and in return would receive a copy of his final report. What do you think?

JALee:on (Dictated by Mr. Lee but typed in his absence)

7



Massachusetts Institute of Technology
Alfred P. Sloan School of Management
50 Memorial Drive
Cambridge, Massachusetts, 02139

March 22, 1971

Dr. J. Lee
Environmental Adviser
IBRD, 1818 H Street, N.W.
Washington, D.C.

Dear Dr. Lee:

This letter is in continuation of the conversation I had with you during my recent visit to your office. I am herewith enclosing the proposal relating to my summer study in Japan during June-August 1971. Please let me know if you wish to make modifications in any part of the proposal to suit the requirements of the World Bank.

A copy of my resumé is also attached to this letter.

Awaiting to hear your decision in the matter. With kind regards.

Sincerely yours,

A handwritten signature in cursive script that reads "Swaminathan Iyer".

Swaminathan Iyer

423 Ashdown House, MIT
Cambridge, Mass. 02139

SI:sb
Enclosures

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A position of economic strength just behind USA and USSR is a matter of pride for Japan, but the rapid thrust gained in the past decade has also disgorged an ocean of waste and wrought widespread environmental damage. The proposed three-month study during June-August 1971 will cover the various kinds of environmental disruption going on in the most heavily populated parts of Japan. On a more detailed level the study would be directed to an examination of the following aspects:

1. The effects of pollution on commercial fisheries, including Oyster Culture and Seaweed (nori) Culture.

The presence of toxic materials, oxygen depletion, and excessive or toxic algae growth have altered the character of fish life and reduced the amount. The Tama River, for example--one of the 117 rivers of various sizes flowing through Tokyo--has, as a result of pollution, become unfit as a habitat of ayu (sweet fish), crucian carp, eel and oikawa. It is not uncommon to find poisoned fish floating to the surface.

The study will attempt to measure damage to commercial fisheries, which is a social cost of pollution. What is the value of the reduction in the catch of the more valuable fish? To what extent are fishery resources made redundant by the decrease or destruction of commercial fishing in certain areas transferable? What is the net economic loss? Hopefully, the investigation will answer some of the above mentioned queries.

2. The effect of environmental disruption on the health of the Japanese people.

Minimata illness has taken a toll of 45 lives and left 71 survivors in poor health. The eating of fish taken from water polluted by mercury waste from a factory is the cause of this tragedy. Itai-Itai disease--caused by cadmium poisoning--is a major industrial hazard that has appeared in Japan. Tokyo will have to live with photochemical smog and suffer the pain of sore eyes and sore throats. One wonders if Japan will confront the spectacle of mass illness.

The investigation will cover the extent of cadmium and mercury poisoning caused by discharge of industrial wastes and will try to measure its potential as a health hazard. Have Japanese researches established causal relationship between the number of deceased and sulphur dioxide, suspended particulate concentration and lead poisoning--all major air pollutants.

3. A study of the measures adopted or planned to maintain a comfortable urban environment and other steps undertaken to combat environmental disruption.

Is the Japanese Government committed to dealing firmly with those responsible for pollution? How effective are the existing laws and ordinances? Officials in Tokyo and Osaka estimate that at least \$1.4 billion would be required

to carry out an effective ten-year anti-pollution program for the respective cities. It remains to be seen whether this plan will suffice to control environmental disruption.

4. The Japanese perception of the problem of pollution.

Man values the experience of certain qualities of his natural environment in that it affords an aesthetic dimension to the human condition. It would be of interest to find out how the Japanese view the effect of pollution on their environment.

Japan's economic growth is associated with drastic changes in the consumption pattern of its society, but environmental disruption restrains the satisfaction of the newly acquired demand for the refinements and pleasures of a high consumption society.

How does the citizen in Tokyo, Osaka, Nagasaki, Yokohama and Sapporo view the problem? The views of those working within pollution-creating industries would be a vital input. Does the nation perceive the prospects of having mentally retarded and physically deformed children? How does the resident in the Tokyo-Osaka megalopolis react to photochemical alerts that impose restrictions on his movement? One could also ponder over alternative forms of recreation when activities such as fishing and boating have to be foregone.

Methodology

The conduct of the study will be devised such that it permits me to ascertain the technical facts as they are understood by Japanese researchers and public authorities and to sound out the opinion of Japanese people within various social strata and within some of the more important relevant institutions.

Study of the first objective entails meetings with officials of major fisheries bodies. Among others it will include those belonging to Japan Fisheries Association, Japan Pearl Promoting Society & National Federation of Inland Water Fisheries Co-Operatives. The Fisheries Research Institutes and the Fisheries Faculty in the various universities should prove to be valuable sources for information.

Japan's Ministry of Welfare handles the hygiene administration and is also considered as a competent authority in battling public nuisances. Prof. Kin-ichi Yoshioka has studied various aspects related to Itai-itai disease and Dr. Jun Vi has done extensive work on Minimata disease. Besides interviewing people in the medical profession and public health authorities, I also plan to meet social scientists including Dr. Vi and Prof. Yoshioka in connection with the study of the second objective.

Premier Sato has established a special cell under his charge to coordinate measures to counter environmental disruption. Environmental Protection Bureaus have also been established in Tokyo and other cities. Meeting officials in these agencies will acquaint me with the master plan mapped out at the official level. Policies of various various ministries in adopting protective measures have produced

conflict situations--e.g., the clash between the Welfare Ministry and MITI over health hazards produced by the Mining Industries. How are the environmental protection measures going to be effective if the various ministries continue to guard their prerogatives? Interviews in the various ministries should throw light on the problem.

The fourth objective would demand interviews with members of the Fourth Estate, leaders of opposition parties and a random sample of Japanese people from different walks of life. The Japanese Youth Movement-Zengaikuren considers pollution in Japan as a "symbol of imperialism." I would be keen to meet representatives of Zengaikuren and other organizations to elicit their views on the problem.

Possible Outcomes

Japan appears to represent one of the worst cases of environmental disruption. The outcome of the study should indicate the probability of Japan's capacity and willingness to arrest the abuse of its environment. The pattern of protective measures adopted or planned in Japan could also give a lead to other areas in the world with problems of a similar nature. If the pollution hazards become more severe, Japan may have to exercise checks that could retard its impressive growth. Other Asian countries look forward to Japanese assistance in their development programs. Can Japan afford to be generous in this sphere if it gets locked in a major battle against environmental pollution at home?

The technical adequacy of various protective measures is an important facet which needs to be evaluated. The measures adopted or

planned have to be weighed in terms of their political impact and any gap between official measures and the public expectation has to be considered. Will the Japanese society permit imposition of public health and sanitation standards higher than those a substantial segment of the population have been unwilling to pay for in the past? The need for better water treatment facilities and the treatment of diseases--especially those caused by industrial pollution--involves huge social costs. Sixty percent of the animal protein intake of Japanese people is provided by seafood. Major injury to the fishing industry in inland waters and coastal waters could prove very expensive. What would be the cost of lowered health and of seeking distant sources of substitute supply? The study should provide at least provisional answers to these questions.



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Additional Comments		<p>The item(s) identified above has/have been removed in accordance with The World Bank Policy on Access to Information or other disclosure policies of the World Bank Group.</p> <table border="1"><tr><td>Withdrawn by Bertha F. Wilson</td><td>Date June 5, 2017</td></tr></table>	Withdrawn by Bertha F. Wilson	Date June 5, 2017
Withdrawn by Bertha F. Wilson	Date June 5, 2017			

Educ
via Ecology
P

Mr. D. S. Ballantine

March 26, 1971

Shigenari Mitagami

A Report of Public Broadcasting Environment Center

The report was prepared by the Public Broadcasting Environment Center (PBECC). PBECC was established by the Corporation for Public Broadcasting with funds which HEW had awarded to the Corporation.

The object of the report is to design a broadcasting system to provide the maximum educational impact on environmental matters and much feedback from the nation-wide audiences.

It seems that the contents of the report have no relation with the Bank's efforts to help developing countries because:

- (a) It has the specific object to cope with environmental problems of the United States;
- (b) It is broadcasting facilities in this country that are to be mobilized for this campaign;
- (c) The potentiality of the United States broadcasting industry is so vast beyond almost all comparison with under-privileged broadcasting systems in developing countries. Besides, the U. S. broadcasting systems have their unique background and history.

The report, however, tries to identify an approach to mass education through use of public broadcasting concentrated on the environment. The plan would mobilize all educational broadcasting activities including school broadcasts, teacher training programs, an adult education programs, and assistance to local stations. The proposed method may become partially applicable to educational reform in developing countries when those countries have reached more developed states.

Considering these conditions, I drafted a letter which is addressed to PBECC.

SF/hm

Educ
✓ Ecology
@

March 26, 1971

Mr. Thomas T. Hart
Deputy Director
Public Broadcasting Environment Center
1030 15th Street, N. W.
Suite 1050
Washington, D. C. 20005

Dear Mr. Hart:

Your letter dated January 20, 1971 and a final report of the Public Broadcasting Environment Center was referred to me for study. First of all, I thank you for your kind interest in the World Bank's activities. As the report points out, if PBEC's approach to mass education succeeds, the similar use of the approach on other issues, such as educational reform, would certainly become reasonable in some developing countries.

I feel, however, that the PBES's project would not have immediate relation to the Bank's work because the PBES's project has as its specific object to cope with environmental problems. Besides, the scale of the public broadcasting organizations in this country would not be comparable to the broadcasting systems of developing countries.

I hope that the PBES's plan will be very successful in making the most of the vast potentiality of this country's broadcasting systems. We hope you will keep us informed.

Yours sincerely,

Shigenari Futagami
Mass Media Specialist
Education Projects Department

SF/hm

7

DEVELOPMENT SCIENCES INC.

Ecology
Ecology

BOX 77
ROUTE 6A
EAST SANDWICH, MASS.
02537

(617) 888-0101



Mr. George Kalmanoff
Deputy Director, Industrial Projects Department
International Bank for Reconstruction
and Development
1818 H Street N.W.
Washington, D.C. 20433

Dear Mr. Kalmanoff:

Thank you for the time you spent explaining the Department's frame of reference. I have discussed the guidelines approach with our staff and we are enthusiastic to begin. However, in the proposal below you will recognize our caution at concluding that the guidelines approach will be sufficient. We have left time to evaluate our own work and to interact with staff members of the Industrial Projects Department as critics. Since we are embarked on an innovative program, the stimulative effect of this interaction should sensitize our staff to the Bank's requirements and be of benefit to your staff as we pose alternative measures for assessing environmental considerations.

The brief proposal indicates the steps we intend to take, the costs associated with each step, and the likely outcome of the first phase. We consider the initial contact to be the first phase effort because it would be difficult for either of us, at this time, to predetermine the most successful mode of writing complete guidelines without a better understanding of the potential reaction to such a program.

Let me express our sincere pleasure at having an opportunity to work with your group and to contribute to the goal of ecologically sound economic development.

Sincerely yours,

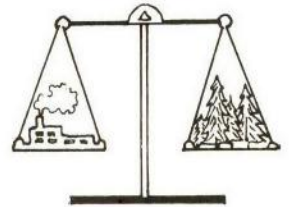
Morton Gorden
Dr. Morton Gorden
President

March 26, 1971

DEVELOPMENT SCIENCES INC.

BOX 77
ROUTE 6A
EAST SANDWICH, MASS.
02537

(617) 888-0101



A DESIGN FOR GUIDELINES TO ASSESS THE ENVIRONMENTAL IMPACT OF INDUSTRIAL PROJECTS

In past years, it has come to the attention of an increasing number of investors that the long term consequences of investments create hidden costs for developing nations. These costs take the form of deleterious environmental effects and public diseconomies in terms of future opportunities. Without underestimating the difficulty of the scientific uncertainties, the conflicts of values, and the problems of implementation; it is time to place these concerns in an operational context so that known costs can be readily computed and uncertainties can be identified. With this aim of sensitizing investors and giving a fuller cost analysis to decision making bodies, Development Sciences Inc. proposes to design a set of Guidelines for the Industrial Projects Department which will assess the environmental impact of investments in industrial projects.

The program will encompass three main tasks in the initial phase.

TASK 1. will evaluate guidelines as the most appropriate format for including environmental concerns in Department decisions. There are other alternatives which have been tried elsewhere and the experience of these other approaches will be summarized. The transferability of alternatives from other organizational contexts is not necessarily positive, but minimally, this examination will be useful in constructing the guidelines to best meet the criteria of the Department's specific organizational context.

TASK 2. will develop the guidelines in a preliminary form so that Department staff will understand how environmental criteria can be inventoried, interpreted and implemented, and how natural resource opportunities and constraints can be examined to assess impacts. The guidelines will cover at least three main areas of concern. The first includes an assessment of direct impacts, that is the loss of particular natural resources by virtue of the exploitation of others due to the interrelatedness of bio-physical resources in the ecosystem. The second area of concern will be for alternative project designs which can minimize or eliminate incompatibilities of operations. The third area will involve opportunity costs which arise from calculations based on immediate short term utilization of resources. In this set of concerns we are interested in applying criteria of efficiency for materials utilization which lead to better waste management practices and increase the value obtained from materials by linking investment decisions to possible networks of industrial projects in related sectors.

3.

TASK 3. will project the likely impact on the Department operations from the application of the guideline program. We will make the criteria of successful implementation explicit by articulating the degrees of response which are likely, possible, and desirable.

The three tasks will together create a clear base of reference for a later phase when background materials will be written in full to make the guideline program implementable and understood by Department staff. The first phase is of value in itself for a set of guidelines will be written and initial application for pilot purposes can be undertaken. However, due to the limited amount of effort in this proposed contract, Development Sciences Inc. cannot promise a complete program at this time.

Cost Analysis

The distribution of man/days at an average rate of \$200/day is as follows:

Task 1, 2 days; Task 2, 6 days; Task 3, 1 day.

In addition to the tasks above, there will be two man days devoted to a seminar to explain the results of the three tasks and two days to write a final report.

The total number of man/days is therefore 13, at a cost of \$2600 for labor and overhead.

A separate cost of \$400 will be incurred for travel and subsistence, which will cover three Washington, D.C. visits by

4.

company personnel. More than three man visits will be undertaken, but since they will coincide with other company efforts in the Washington area, the cost of travel can be assumed by the company.

The total costs for the contract will be \$3,000 payable in three equal monthly installments beginning May 1, 1971. The starting date of the work can be April 15, with the final report due on June 15, 1971.

Development Sciences, Inc.
East Sandwich, Massachusetts

March 26, 1971

THORNE
ECOLOGICAL
FOUNDATION

1229 UNIVERSITY AVE. BOULDER, COLORADO 80302 (303) 443-

Meetings Misc
✓ Ecology @

March 25, 1971

Mr. Michael L. Hoffman, Assoc. Director
Development Services Dept.
World Bank
20 Exchange Place
New York, New York 10005

Dear Mr. Hoffman:

Your article in the Fall 1970 FINANCE AND DEVELOPMENT has just come to my attention. I congratulate you for your efforts at making more specific ecological input into world developments over which you have some financial control.

I believe you would find considerable benefit from the fifth Seminar on Environmental Arts and Sciences to be held June 25 - 30, 1971 in Aspen, Colorado, specifically to provide national and international decision-makers with a deeper understanding of the principles of ecology and how they relate to man's well-being. Three-fourths of the time will be spent in actual field exercises designed to expand understanding of the many interesting processes set in motion by specific technological developments.

This program is supported by philanthropic assistance which makes it possible to invite you for a below-cost registration fee of \$310, covering room and meals. Since registration is limited to 125, your early response would make it possible for us to expand this invitation to another qualified possible participant.

Sincerely,

Beatrice E. Willard

Beatrice E. Willard, Ph.D.
President

BEW:sjs
Enclosures

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MRS. ELIZABETH C. TITUS

Meetings Misc.
Va Ecology
@

March 24, 1971

Dr. John R. Olive
American Institute of Biological Sciences
3900 Wisconsin Avenue, N.W.
Washington, D.C. 20016

Dear John:

The following is a suggested program outline for the symposia on Problems of Developing the New World to be chaired by Frank Blair at the Second National Biological Congress.

1. Development Finance and the Environment (20 minutes)

James A. Lee
The World Bank Group
Washington, D.C.

or

The Environmental Officer (soon to be appointed)
Inter-American Bank
Washington, D.C.

2. The Careless Technology (20 minutes)

John Milton*
International Program
The Conservation Foundation
Washington, D.C.

3. The Environmental Issue as Seen by the Developing Countries
(20 minutes)

Speaker, to be chosen by F. Blair, from
Peru or Argentina

4. The International Biological Program in the Third World
(20 minutes)

Frank Blair
Chairman, IBP
University of Texas

* I have not checked on John's interest or availability - appropriate that you do this.

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5. Panel Discussion - moderated by Frank Blair.

(Including questions from the floor, of course.)

Should be a lively session!!

Sincerely,

A handwritten signature in cursive script, appearing to be the initials "JAH".

cc: Frank Blair

Highway
via Ecology

Mr. James A. Lee

March 24, 1971

S. C. Hardy

Crushed Glass for Road Paving
Some Technical and Social Considerations

1. Thank you for your note of March 23, 1971 attaching a clipping on the above subject. A number of experiments have been made with a variety of aggregates in bituminous macadam, and I was already aware that crushed and powdered glass was being tried in developed countries with a "bottle-surplus". I understand the results are similar to the use of hard, glass-like, igneous rocks, and are relatively poor compared with conventional materials. The problems appear to be those of adhesion of the bituminous binder, the brittle fracture shape of the particles, polishing of the aggregate, low skid resistance, etc. X

2. Nonetheless, we in the Highway Divisions would be interested in the outcome of any practical findings forthcoming from the University of Missouri research. I hope some indication of the trade-offs with conventional materials is included in the study, so that we may attempt a quantification of any benefits arising.

3. I suspect that the clipping comes from a publication in some developed country, where the disposal of surplus glass bottles can be a serious problem. But is it a problem in the developing countries with which we deal? It could possibly be so in relatively sophisticated countries such as Mexico, Finland, etc. In some countries however, particularly in Africa, bottles are prized, and are in great demand as containers and sometimes even used for barter trade. I recall that not so many years ago, our highway mission in Somalia went into the bush loaded with empty bottles for trading with the nomadic tribesmen (who comprise 70% of Somalia's population). The price of a bowl of camel's milk - one bottle; of a spear - eight to ten bottles; of a wooden headrest - two to three bottles. Are we to destroy a country's secondary monetary system by crushing their monetary units and incorporating them in our roads?

SCHardy:dfw

cc: Messrs. Knox, Geolot, Young, North, Hogg, Pouliquen, van Helden.

Highways

EA info / advice
not relevant.

Out of touch.

Agric
Va Ecology
©

Mr. James A. Lee

March 24, 1971

F. F. Darnell

Soil Regeneration Methods - Prof. Ir. Jac. P. Thijsse

1. Your memorandum of March 10 addressed to Mr. Evans has been referred to me.
2. The work of Mr. van der Meulen in Brazil is known to Mr. M. van Gent (Administration Department). During Mr. van Gent's work with Grontmij (Netherlands) he visited Mr. van der Meulen in Brazil in 1964. Apparently the basic principle of his method of soil regeneration is the planting of leguminous cover crops to build up the soil fertility by increasing the organic matter, by nitrogen fixation and by controlling erosion. I gather that Mr. van der Meulen, (now about 80 years of age) is somewhat difficult character to get along with and personality clashes have arisen in the past. He is known to have upset the staff of both the Ford and Rockefeller Foundations in Brazil.
3. Notwithstanding these basic personality problems, several competent and experienced agriculturists believe there is technical merit in his approach. It is probable that further investigations would be necessary to establish the technical and economical merits of his techniques under controlled field conditions. If this proved to be the case, such investigations could be carried out more appropriately as a UNDP study.

GFDarnell:pam

c.c. Mr. L.J.C. Evans

Mr. Mervyn L. Weiner

March 24, 1971

Charles H. White

Environmental Considerations for Development Projects
in Developing Countries

1. With reference to Dr. James E. Lee's memo of March 16, 1971, and his guidelines concerning dam construction -
2. A study of the ecological aspects of a hydroelectric project should form part of the feasibility report. If we know in time we could ask for such studies to be carried out and be included in the report. The cost of the studies in such cases would presumably be met by the prospective borrower.
3. Unfortunately in many cases we do not get advance information and by the time we are asked to consider a project for Bank lending the feasibility study has been completed.
4. In such cases, would we then ask our prospective borrower to have studies carried out? If so, would we expect him to meet the cost?
5. In the case of Murchison Falls we recommended that a desk study of the feasibility report be made by a senior scientist of the Smithsonian Institution to determine the terms of reference and the composition of a subsequent investigation in depth. The estimated time required for the desk study was 2 - 3 weeks and 5 - 6 months for the investigation. Allowing time for the assembly of the group to carry out the investigation, the total time required from the date of receipt of the consultant's report to receipt of the ecological report was estimated at up to 12 months. The cost of this work was estimated at \$45,000.
6. It is realized that Murchison Falls is a special case and it might not be necessary to have such an intensive study carried out in other projects, even so, any study carried out after receipt of the feasibility report could cause delay in processing the loan for the project.
7. I understand that a small sum has been included in the Department's budget for the engagement of ecological experts to carry out preliminary studies to determine the need for further studies and to prepare terms of reference. Would the Bank meet the cost of such subsequent studies or would the cost have to be met by the prospective borrower.

CHWhite:mam

IBRD

Ecology

©

March 23, 1971

Dr. Norman W. Hoover
Director
Department of International Medicine
American Medical Association
535 North Dearborn Street
Chicago
Illinois 60610

Dear Dr. Hoover:

It was our pleasure a few days ago to host a luncheon for Drs. Telford Work and William Reeves of the American Society for Tropical Medicine and Hygiene. It was our purpose to explore with them the general subject of the relationship of health to economic development, and, in particular, to tell them of new developments in that regard within the World Bank Group.

Under the leadership of its President, Mr. Robert S. McNamara, the Bank Group recently announced that it intends, henceforth, to pursue economic development with a careful and studied regard for the environmental and health consequences of the activities for which it provides technical assistance and makes loans. To implement this policy, a senior position of Environmental Adviser was established to oversee the full range of Bank activities affecting environment and health. While this office has been operative for only a few short months, it has been very active in pursuing health problems and opportunities in the developing countries.

Both Drs. Reeves and Work expressed great interest in the plans and programs outlined to them, and suggested that you too would be interested. I would, therefore, like to suggest we plan to meet in the not too distant future for an exchange of views and information. We would be delighted to host you for luncheon at the Bank and provide you with an opportunity to meet with others of our Bank officials who are both interested and involved in matters of the environment and health.

May I look forward to hearing from you.

Cordially,

James A. Lee, Ph.D
Environmental Adviser
Office of the Director, Projects

cc: Drs. Reeves and Work
Messrs. Wm. Clark
Cope / (Cleared)

JAL:on

J

FORM No. 75
(2-60)

INTERNATIONAL BANK FOR
RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL FINANCE
CORPORATION

INTERNATIONAL DEVELOPMENT
ASSOCIATION

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March 24 '71

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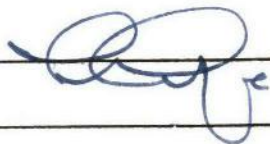
Initial

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REMARKS

PHD!

From



Ecology
e

March 23, 1971

Mr. Robert H. Aldrich
Coordinator of Environmental Systems
The Chase Manhattan Bank
1 Chase Manhattan Plaza
New York
N.Y.

Dear Mr. Aldrich:

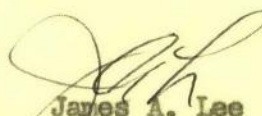
Recently, I received a welcomed telephone call from Mr. Griffith Mark of the Morgan Guaranty Trust Company, informing me of that bank's decision to establish an environmental affairs office. During our conversation he mentioned your own efforts at Chase Manhattan to assess the impact of environmental programs on the bank's lending activities.

I suggested to Mr. Mark that at some mutually agreeable time in the not too distant future it might prove useful for us to meet together for an exchange of views and experiences. Perhaps other banks headquartered in New York have made, or are contemplating, similar moves and would like to be represented at such a meeting.

I would be pleased to host a group of perhaps four to six here at the World Bank, or journey to New York for a day. In any event, I would like to know something of your activities and plans and those of Mr. Mark's, too.

With kind regards,

Cordially,



James A. Lee
Environmental Adviser
Office of the Director, Projects

cc: Mr. G. Mark

JAL:on

Ecology

②

March 23, 1971

Dr. Norman W. Hoover
Director
Department of International Medicine
American Medical Association
535 North Dearborn Street
Chicago
Illinois 60610

Dear Dr. Hoover:

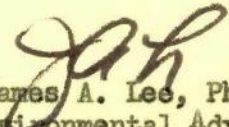
It was our pleasure a few days ago to host a luncheon for Drs. Telford Work and William Reeves of the American Society for Tropical Medicine and Hygiene. It was our purpose to explore with them the general subject of the relationship of health to economic development, and, in particular, to tell them of new developments in that regard within the World Bank Group.

Under the leadership of its President, Mr. Robert S. McNamara, the Bank Group recently announced that it intends, henceforth, to pursue economic development with a careful and studied regard for the environmental and health consequences of the activities for which it provides technical assistance and makes loans. To implement this policy, a senior position of Environmental Adviser was established to oversee the full range of Bank activities affecting environment and health. While this office has been operative for only a few short months, it has been very active in pursuing health problems and opportunities in the developing countries.

Both Drs. Reeves and Work expressed great interest in the plans and programs outlined to them, and suggested that you too would be interested. I would, therefore, like to suggest we plan to meet in the not too distant future for an exchange of views and information. We would be delighted to host you for luncheon at the Bank and provide you with an opportunity to meet with others of our Bank officials who are both interested and involved in matters of the environment and health.

May I look forward to hearing from you.

Cordially,


James A. Lee, Ph.D
Environmental Adviser
Office of the Director, Projects

cc: Drs. Reeves and Work
Messrs. Wm. Clark
Cope

JAL:on

W

Neurology
William

Ecology
@

Mr. A. David Knox

March 22, 1971

P.O. Malone

Environmental Considerations for Development Projects
in the Developing Countries

1. Reference your memo of March 17, the answer to many of the questions posed in Dr. Lee's memo of March 16 is "Yes, of course there will be damage to the environment, and to some extent there is nothing one can do about it if one wants to build a highway using modern methods." For instance, earth-moving machinery unavoidably makes dust, so do asphaltting plants; heavy trucks make fumes, etc. It all depends what one means by "deleterious affect", or "problems", (para 5 of the attachment to Dr. Lee's memo).

The examples I have quoted are, of course, short-term (i.e. tied to the construction period) and are largely unavoidable. What I think is far more important is the long-term, lasting hazards to the environment. To my mind the questions posed in Dr. Lee's attachment do not sufficiently differentiate between short- and long-term damage.

In my opinion one can design, in given (topographical, meteorological, socialological, etc.) conditions an ecologically-acceptable road; one currently can (and hopefully does) design an economical road - but the two may be (and probably are) far apart in terms of cost.

If one is to design for the environment there may be need for radical revision of design criteria; for instance, road design is traditionally based on, inter alia, "balancing" the earthworks, i.e. the road grade is such that the cuts and the fills are approximately equal, so all the excavated material is just used up, and there is therefore no need to borrow or spoil. This theoretically leads to the most economical earthworks, but it may well lead for instance to bad scarring and heavy erosion of the country-side. If one were considering road design from the ecological stand point, it may be desirable for instance to avoid big cuts by raising the road line; this would "unbalance" the earthworks and lead to extra cost.

If we have the cost of "an ecologically designed" road and of an economically designed road, we could then put a price on what we are paying to preserve the environment. (A parallel is when Government modifies an economical road design for political purposes; if the cost of the economical design is known, then the cost of the political distortion can likewise be evaluated.) In my opinion therefore the problem is really to define the criteria for avoiding permanent ecological damage, forgetting the transient affects of the construction itself. Having defined these criteria, it might be useful if someone were to take time (or for us to pay a consultant) to design an ecologically acceptable road in conformity with these criteria, then to design an economical road (paying no special heed to ecology) to see the order of magnitude of cost of preserving the environment. We might then be in a better position to assess just how far we can reasonably go to prevent lasting damage to our surroundings.

POMalone/kms

W

OFFICE MEMORANDUM

Op files
✓ Ecology
cc Highways

TO: Mr. A. David Knox
FROM: S. C. Hardy
SUBJECT: Environmental Considerations of
Road Construction

DATE: March 22, 1971

1. You asked for comments on Mr. Lee's memorandum dated March 16, 1971 which relates to "environmental and health criteria (or guidelines) to be used in analyzingprojects". (The underscoring is mine.)
2. I find the draft "guidelines" particularly disappointing as such; the paper constitutes merely an aide-memoire on topics which most engineers (and some economists) have continually in mind when planning and constructing road projects. It gives no indication of the methods of analysis to be used, nor who would do the analysis, nor of the various trade-offs between doing, or not doing, any of the items listed.
3. The jargon defeats me in places. What, for example, are "new pathways for disease vectors"? Do we accept the "old" pathways?
4. A number of pertinent points appear to have been omitted from the aide-memoire, for example: the aesthetics of the road alignment and structures; the effect on society of control of access, limitations on road-use, building codes, etc; unemployment, and the relative merits of labor v equipment in construction and maintenance; the socio-economic aspects of bypassing towns and villages which might rely for a livelihood on proximity to a road (Janle Uen in Somalia); disruption of industry etc.
5. No indication is given as to how trade-offs might be estimated amongst the activities listed, for example:
 - (i) what are the relative benefits from spontaneous settlement and development within the zone of influence of newly constructed roads compared to efficiently planned (and often costly) resettlement? (para 1);
 - (ii) how should "clearing, grubbing and burning be limited to the extent practicable"? (para 3) - such action is often advantageous in jungle areas for future planting;
 - (iii) unsurfaced roads (para 5) and corresponding dust hazards, are part of our stage construction policy - we know that it would cost some US\$5,000 to US\$10,000 per km in surfacing to kill the dust problem, but how do we quantify the benefits ensuing for comparison with the expenditure involved? Are there any cheaper dust palliatives on the market?
 - (iv) while roadside landscaping is desirable (para 6) it is often regarded as a luxury item in developing countries, to be done at some future date when funds allow - should we insist that it be done now?

6. I have the following suggestions for recasting the memorandum in a form that might be more useful to Bank staff concerned with roads:

- (a) The various items mentioned should be broken down into groups for consideration at the different phases of planning, execution and operation of roads, as it is my belief that the Bank's influence will become progressively less at the more advanced phases.
- (b) An indication should also be given as to the items for which some attempt might be made to quantify benefits, and those which would remain subjective. Some guidance in the analysis of projects should be given, and the various trade-offs to be considered.
- (c) Future Bank policy as to the environmental aspects of road projects should be stated, for example:
 - (i) Should we expand our appraisal team with appropriate experts, and modify our appraisal reports to include an analysis of the environmental issues?
 - (ii) Is the Bank prepared to give certain weight to environmental issues, and make them conditions of our lending?
 - (iii) If additional costs are involved in execution as a result of an "environmental checkout", is the Bank prepared to finance such additional costs on a grant, or on a loan, basis in the event that Government is reluctant to comply?

SCHardy:dfw

cc: Messrs. Geolot, Young, North, van Helden, Pouliquen, Hogg.

Meeting Misc
✓ Ecology
@

March 22, 1971

Dr. B. Lundholm
Ecological Research Committee
Swedish Natural Science Research Council
Wenner-Gren Center
Sveavagen 166⁰
S-113 46 Stockholm
Sweden

Dear Bengt:

Your letter of February 18 concerning the Stockholm Conference on Ecology and the Less Developed Countries on April 26-27 was received. In accordance with your request, I cabled you on February 23 that I would be pleased to participate. I have not heard whether in fact you received the cable and this letter is merely to confirm my attendance.


I understand you may be in Washington on March 29-30 for a SCOPE meeting. Unfortunately, I shall be out the country on those dates. But - would you kindly call my secretary, Miss Nash, 477-5265 to let her know the latest information on your plans for the Conference.

I am preparing a paper along the lines suggested in your letter for about a twenty minute presentation.

Incidentally, Mr. Ake Aastrup of the Swedish International Development Authority was in the Bank last week and expressed great interest in your forthcoming Conference.

With kindest regards,

Cordially,


James A. Lee
Environmental Adviser
Office of the Director, Projects

JAL:on

W

Ecology

Ⓢ

March 17, 1971

Dr. Hermelino Gusmão
Director
Industria e Comercio de Minerios (ICOMI)
Avenida Graca Aranha
26-16th
Rio de Janeiro
Guansbara
Brasil

Dear Dr. Gusmão:

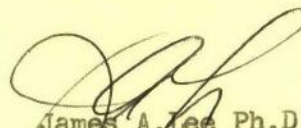
Your kindness in sending me reprints of several of your papers is most sincerely appreciated.

The paper on Integrated Health Services at AMAPA interested me so much that I am making it available to the principals in the mining complex in Botswana as a suggested model. I am also urging them to read your paper Hospital-Centro de Saúde em uma Comunidade Industrial with a view to seeing the encouraging statistics you have accomplished.

The use of chloroquinated table salt as a preventive measure for malaria also attracted my attention, and I have suggested this to the medical staff of a large company about to build a hydroelectric plant in New Guinea. So you can see that I profitted greatly from our all too brief visit and from your papers.

Enjoyed another pleasant chat with Frank Neva and he sends his regards. I am looking forward to that trip you suggested. It should be a most instructive experience for me and I do thank you for your invitation.

Cordially,



James A. Lee Ph.D
Environmental Adviser
Office of the Director, Projects

Ecology
e

Messrs. Ballantine, Evans, Fuchs, Kanagaratnam,
Knox, Koch, Sadove and Weiner

March 16, 1971

James A. Lee

Environmental Considerations for Development Projects
in the Developing Countries

It is my intention to have prepared for your use a handbook of environmental and health criteria (or guidelines) to be used in analyzing these aspects of projects under consideration in your respective departments. As this will be some while in the preparation I am providing you with some interim guides in selected areas of activities which involve construction. These were developed in cooperation with the Office of Science and Technology, US Agency for International Development. The activities selected are seen as frequently being contributors to environmental and health problems. As such, the environmental considerations set forth under each are intended to suggest the kinds of questions that might usefully be asked in a consideration of their environmental aspects. They are designed to serve as a point of departure for analyzing the potential environmental consequences of development projects. It is recognized that these generalized considerations must be tailored to respond to the unique geographical, physical, economic and social conditions surrounding each project.

Clearly, environmental and health considerations are but two of many factors that influence the evaluation of specific projects but it seems important to have some basis for directing our approach to these factors.

Similar compilations will be forthcoming for municipal water systems, electric power generation and transmission, smelting operations, pulp and paper industries, port and harbor development and agricultural chemical plants.

Attachments

cc: Messrs. Chadenet and Baum

Wieczorowski

Gaud

Wm. Clark

JALee:cn

Hoffman

Christoffersen

Blinkhorn

w

Environmental Considerations

DAM CONSTRUCTION

1. What new public health questions will arise? Will changes in water velocities, temperatures, and depth result in a more favorable environment for disease-bearing organisms? Will the changes in water patterns introduce disease-bearing organisms into previously unaffected areas? Will the new water patterns create new disposal areas -- either directly through dumping or indirectly through runoff -- for sewage, garbage, or other refuse?
2. Have appropriate provisions been made for the mitigation of the impact on the biota in the water system, both upstream and downstream? What effect will there be on migration and breeding of riverine fish? What will be the impact on traditional fishing techniques and the resultant effect on the fish populations?
3. What undesirable vegetative consequences will accompany reservoir development? What is the potential for an influx of aquatic vegetation? Should trees and other vegetation be removed from the floor of the reservoir? What will be the impact on the surrounding vegetation and particularly on the agriculture and forestry potential of the riparian land?
4. What undesirable consequences to physical resources will accompany reservoir development? How fast will siltation occur and how will sediment buildup be handled? What will be the salinity buildup over time and how will this be handled? Will there be undesirable interactions between the change in surface water patterns and underground water sources? Will undesirable downstream pollutants be introduced? What physical and biological alterations will take place in receiving river, estuary, ocean or lake?
5. What will be the human and ecological consequences of changes in land use patterns and population distribution? Will there be undesirable population crowding as the residents of the flooded areas move to the peripheral areas? What type of environmental planning is being done to insure that the new settlements will not be plagued by sanitation and disease problems? Will there be new settlements on the hillsides surrounding the reservoir that will deposit wastes into the reservoir? Will fertilizer use be a problem, pesticides?
6. Will the dam construction activities be carried out in a manner that will minimize damage to the natural environment? Is there a consolidated construction plan that takes into account ecological factors? Are road patterns, land excavation and fill sites, and refuse disposal activities consistent with good environmental protection practices? Will land in construction area be restored by filling, grading, and reseeding to prevent erosion?

7. What resources will the impounded water cover or displace; e.g. mineralized areas, artifacts, wildlife habitats?

Environmental Considerations.

IRRIGATION SYSTEMS

1. Will new public health questions arise? Will changes in water velocities, temperatures, and depth result in a more favorable environment for disease-bearing organisms? Will the changes in water patterns introduce disease-bearing organisms into previously unaffected areas? Will the new water patterns create new disposal areas -- either directly through dumping or indirectly through runoff -- for sewage, garbage, or other refuse?
2. What will be the impact on the biota in the water systems? Will diversion of water to field use seriously degrade the capabilities of the original water system to support needed biological species? Will runoff water contain residues -- such as pesticides and fertilizers -- that contaminate downstream waters?
3. What undesirable vegetative consequences will accompany irrigation development? What is the potential for growth of aquatic weeds?
4. What undesirable physical consequences will accompany irrigation system development? How will salt accumulation be controlled? How does the irrigation network interact with sources of drinking water? What are the sedimentation and erosion problems?
5. What will be the ecological consequences of changes in land use patterns and population distribution? Will there be undesirable population crowding as villages expand either to make way for or take advantage of the irrigated areas? What type of environmental planning is being done to insure that the changes in population density do not aggravate sanitation and disease problems?
6. What changes might the system have on the microclimate for insects, their life cycles, habitats, movements, and populations, especially vectors of diseases (See No. 1)?
7. Will the project result in new or expanded use of pesticides? If so, have they been identified and standards established for their use? Are operators trained in their use?

Environmental Considerations

MINING ACTIVITIES

Onshore

1. Will environmental safeguards be incorporated into mineral exploration and production agreements?
2. Has adequate provision, including health and sanitary services, been made for resettlement of populations that will be displaced by or attracted to mining operations? Will mining activities create health or sanitation problems? What will happen to spoils and tailings?
3. Will mining activities adversely affect adjacent land use patterns? Will underground water and surface water runoff patterns be adversely affected? Will new water settling ponds and basins attract insects or create other potential disease problems?
4. What measures will be taken to prevent water pollution from mine drainage directly or indirectly into water bodies? Will pollution controls be incorporated into processing operations to prevent the discharge of toxic effluents into the water? What are the specific effluents of concern and what are their most worrisome characteristics? Will water and land biota be adversely affected from runoffs from spoils and tailings?
5. What provisions have been made to prevent air pollution from coal fires, smouldering slag heaps, and similar disposal practices? Will processing operations incorporate controls to prevent release of toxic gases, fumes, and particulates? What provisions can be taken to reduce air pollution from mining-operation dust? Will access roads constitute a source of dust pollution?
6. Will mining operation be a source of land erosion and despoilment? Will strip mines be refilled and replanted? Have provisions been made to reclaim spoil dumps; tailing pipes? Will mine tunnels be shored or filled to prevent subsidence?

Offshore

7. What will be the impact of water turbidity from dredging operations? What steps will minimize it? Have dredging disposal areas been chosen for minimum deleterious impact upon the biota? What consideration has been given to the effect of groundwater infiltration from dredged spoil areas to subsurface aquifer? Will polluted or contaminated dredge spoils be treated and removed in such a way to prevent further pollution? Have mosquito and disease-control measures been incorporated into the dredging operation? If open-water dumping of spoils is used, what will be the effect upon marine environment? Will consideration be given to grading

seeding and planting of spoil deposited on land? What measures will be taken to prevent water pollution from dredge discharges of oil, sewage, etc.? How and to what degree will dredging operation affect human use of the waters?

8. What effect will drilling or related exploration operations have on the marine environment? What measures will be taken to prevent water pollution from tower, service boat discharges of oil, sewage, contaminated drilling mud? Do the production systems include accident prevention equipment such as storm chokes and blowout preventors? Will monitoring of safety equipment take place regularly? Is there a contingency plan for coping with blowouts and spills that includes boats, manpower and control equipment? What type of control and cleanup technique will be employed; boom containment, dispersants, sorbents, a mix? If dispersants or detergents are to be used, what will be the effect on the marine environment? Has an estimate of the effect on the marine environment of major oil spill been incorporated into project planning? Could a spill kill significant portions of marine biota with significant human and economic consequences?

9. Will pipeline or shipborne delivery systems constitute a hazard to the environment from ruptures or spills?

Environmental Considerations

PETROLEUM-PETROCHEMICAL INDUSTRY

1. Have environmental considerations, including human landuse patterns in the vicinity and the ecological implications of the plant siting been incorporated into the selection of the location and plant design? Have hydrologic, geologic, seismologic, and meteorologic studies of the site been made to anticipate and minimize damage to human populations and the environment should nature or man-made accidents occur? Will plant design incorporate environmental safety features? Will plant operation be governed by air- and water-quality standards? Will adequate monitoring measures be provided?
2. What will be the types and quantities of effluents produced by the plant? Will effluents contain toxic materials? If effluents are to be discharged directly or indirectly into a water body, have studies been made of present and anticipated physical and chemical properties of the water, e.g., temperature, current patterns, dissolved oxygen, etc.; algae populations; invertebrate and fish populations? What control techniques will be provided to remove toxic materials from effluents? Are there opportunities to economically reclaim or recycle wastes to reduce effluent volume? Will there be a thermal pollution problem? What damage will the water body and biota sustain if volume and toxicity of effluents are not controlled? What effect will this lack of control have on downstream use of the waste for urban, industrial, or agricultural purposes?
3. What provisions have been made to control and monitor air quality? Will the plant produce emissions that can have a deleterious effect upon the biota in the area? What will be the effects on the human population? Will new health problems occur? Will odors be controlled? What provisions have been made to remove contaminants from plant emissions?
4. Will the plant produce solid wastes? In what manner will they be disposed? Has recycling of solid wastes been considered?
5. Do offloading and onloading methods of petroleum and chemical products incorporate human and environmental safeguards? What are the dangers of an explosion or oil or chemical spills? Will cleanup contingency plans, including manpower and materials, be available to cope with accidents? Has adequate attention been given to the design and construction of safe storage facilities for hazardous or toxic materials?

Environmental Considerations

ROAD CONSTRUCTION

1. Will the roadway and related construction activity open up new pathways for disease vectors affecting humans, plants, or animals? Has provision been made for adequate living conditions for populations that are displaced by construction activity or populations that are attracted to newly opened areas? Are the longer term urbanization aspects of the roadway development being considered?
2. Will the route preempt or disrupt use of agricultural land? Will there be an adverse effect on habitat, and migration of significant wildlife? Are forest conservation principles being incorporated into construction activities in forested areas? Could the roadway also serve as a firebreak in forestal areas? Will there be unnecessary disturbance of natural drainage patterns?
3. Do plans include provisions for prevention of unnecessary despoilment of the landscape and vegetation during construction? Will provision be made to prevent despoilment by heavy equipment and blasting? Will clearing, grubbing, and burning be limited to extent practicable? Will controls be exercised over the extent of quarry, borrow and disposal areas? Will top soil be stored for respreading? Will soil stabilization measures be taken during construction to minimize damage, e.g. slope reseeding to prevent erosion by wind or water?
4. Do plans include provisions for prevention of water pollution by spillage and runoff during construction or during use of roadway? Can construction of temporary drainage systems, barriers, and sedimentation basins be used to prevent eroding materials from reaching waterways? Will water impoundments create health hazards? Will wastes from machinery, asphalt and concrete plants, construction camps and shops be controlled to prevent water pollution? What will be the environmental effects of herbicides and pesticides if they are used? Will construction operations in water areas be carried out in such a way as to prevent damage to fish and other marine biota? Will selection of borrow areas avoid use of stream bottoms and banks?
5. Will air pollution by smoke, fumes, and sprays originating from construction operations be a problem? Will air pollution by dust from unsurfaced roads or construction operations have a deleterious affect on the environment or on human welfare? Can such problems be limited in a practical way?
6. Do construction plans call for restoration of roadside areas by filling, grading, reseeding, and reforestation? Will provision be made for reclamation of quarry and borrow areas? Could such areas be developed for other uses, e.g. fish ponds, recreation areas?

Environmental Considerations

SEWERAGE PROJECTS

1. Does the project provide for a combined (sewage-stormwater) sewerage system? If combined, what effects can be anticipated if the system overloads? Can the system be economically designed to accommodate or eliminate overload problems, perhaps with storage or pumping or by separating the sewage and stormwater components? Will the conduction system create new health problems by transporting and concentrating wastes at new locations? Is there a possibility that the sewage system will contaminate drinking water?
2. Has the site for the sewage-treatment plant been selected so as to provide maximum compatibility with land-use plans and human welfare? Will gases, odors, insects, and disease vectors be a problem? Have provisions for future expansion been taken into account if the sewage load increases?
3. What level of treatment will the sewage plant provide: primary, secondary, tertiary? Could additional treatment capacity be incorporated into design at reasonable cost? What type of sewage will the plant process: domestic, industrial, mixed? What will be percentages of the types of wastes that are processed and the efficacy of the treatment of each type? What type of toxic materials can be expected in raw sewage inputs, e.g., heavy metals, hydrocarbons, other chemical compounds? Will the plant be designed to remove toxic materials? Will the plant provide for maximum removal of nutrients such as phosphorous and nitrogenous materials? Have provisions been made for continuous monitoring of plant effluents?
4. Will the system discharge effluents into a stream, river, lake, or estuary either directly or indirectly? What effect will effluent have in terms of biochemical oxygen demand? What effect will effluents have on the marine biota, in vicinity of the plant and downstream? Could marine life cycles be disrupted by effluents? What dilutive or assimilative capacity does the waterway possess for receiving the effluents? Have seasonal variations in water flow and water levels been accounted for? Will thermal pollution of the waterway be a problem? Has control of water-borne diseases and vectors been considered? Has adequate and effective provision been made for disposal of sludges?
5. What alternatives to the discharge of effluents into waterways have been considered? Could recycling of effluents through treatment facilities or spraying effluents onto non-productive land be an economical alternative to discharging incompletely processed sewerage into waterways?
6. What provisions have been made for training the professional, technical and operator manpower in the environmental aspects of the system? What type of maintenance will be required? Will funds be available? Is there clear jurisdictional responsibility for safe operation of the system? Are there provisions for environmental inspections?

Ecology

March 15, 1971

Mr. G. Eldin
Deputy Secretary General
OECD
2 rue Andre Pascal
Paris 16
France

Dear Mr. Eldin:

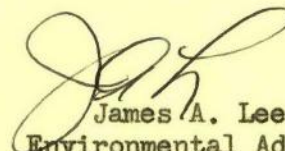
Your thoughtfulness in sending me a collection of papers relating to problems of the environment is most appreciated.

I found the documents dealing with air pollution, traffic noise, and pesticides to be especially useful. The paper on Problems of Modern Society, Economic Growth, Environment and Welfare was interesting from the standpoint of identifying the trend to externalize "external diseconomies" to arrive at a true cost: benefit analysis. This is a difficult exercise but a necessary one in which some progress is being made.

Do think of me whenever your activities lead to publications which touch upon environmental issues.

Again, let me say how much I enjoyed our recent visit and look forward to the time when next we meet again.

Cordially,



James A. Lee
Environmental Adviser
Office of the Director - Projects

JAL:on

Meeting - Misc
VCC Ecology

March 10, 1971

Mr. Harry Boardman
Secretary General
Council for Biology in
Human Affairs
The Salk Institute
Post Office Box 1809
San Diego, California 92112

Dear Harry:

I am going to make a good try at getting to your workshop at Columbia. My present plan is to come up Saturday morning, arriving at La Guardia at 10 o'clock and at the meeting at, say, 10:30. I will probably have to leave at midday or early afternoon on Sunday. However, the conference sounds interesting and I look forward to being with you.

With best regards,

Sincerely yours,



Richard H. Demuth
Director
Development Services Department

RHD:tf

Meeting Use
re Ecology LE

Mr. Richard Demuth

March 10, 1971

James A. Lee *JAL*

Environment and Economic Development: Columbia University Workshop,
March 19-21, 1971

I finally reached Dr. Cyrus Levinthal, the Workshop coordinator. He informs me that 35-40 are expected to attend. All meetings will be held in the Faculty Club, 117 Street and Morningside Drive. Dinner on Friday will be an integral part of the workshop. Participants will be queried as to their affiliation, responsibilities and background in order that all will know the makeup of the group.

Saturday morning will be devoted to somewhat formal presentations as follows:

- (a) Prof. Gilbert White - environmental and social problems of large-scale irrigation projects.
- (b) Dr. Martin Alexander - soil erosion, nutrient loss and related effects.
- (c) Dr. Wally Broker - man-induced climatic changes.
- (d) Mr. Hans Landsberg - how to do cost analyses for environmental protection.
- (e) Dr. Merrill Eisenbud - water and sewage problems of the urban environment.
- (f) Mr. Sheldon Siegel - the population problem.

Discussions will follow, focused initially on the substantive aspects of the papers. Later, three or four problem areas will be selected for discussion on Sunday directed toward bringing about solutions to the problem of achieving economic development and environmental protection.

Dr. Levinthal is hopeful of a lively, productive workshop wherein confrontation is avoided and cooperation engendered.

JALee:on

Ecology
cc Agriculture - glr

Mr. L.J.C. Evans

March 10, 1971

James A. Lee

Soil Regeneration Methods - Prof. Ir. Jac. P. Thijsse

From a perusal of the attached communications from Prof. Thijsse, do you think it useful for me (or someone on your staff) to pursue this matter further? I am not familiar with Thijsse or Indoconsult N.V.

I do not like to discourage individuals who may have new approaches to problems but I do not wish to encourage those who really have little or nothing to offer.

Attachments

JALee:on

Meetings - Misc
✓ cc Ecology

THE SALK INSTITUTE
COUNCIL FOR BIOLOGY IN HUMAN AFFAIRS

8 March 1971

Dear Mr. Lee:

From Mr. Warren C. Baum, I understand that you will be able to attend the Environmental Protection/Development Workshop about which I recently wrote you. This is good news indeed. I trust that we may count on your presence. Presuming that, I enclose a memo setting forth various salient details of time and place, etc.

I look forward to meeting you.

Sincerely,

Harry Boardman
Harry Boardman
Secretary General

Encl.

Mr. James A. Lee
Ecological Advisor
International Bank for Reconstruction
and Development
1818 H Street, N.W.
Washington, D. C. 20433

Post Office Box 1809, San Diego, California 92112 • Telephone (714) 453-4100

Original to: *Mr. Lee*
Date: *3/10/71* Communications Section

W

Ecology

Mr. William Clark

March 5, 1971

James A. Lee

Letter from American Society of Tropical Medicine and Hygiene

My suggestion would be to invite Drs. Work and Reeves to a luncheon at the Bank on March 18 for a discussion of their assessment of the Pearson Report as it pertains to health problems.

A dialogue is always preferable to a letter and I am sure they would be very interested in learning of our activities in both the environmental and health fields.

If your schedule permits, why not host them for such a luncheon meeting?

Attachment

JALee:on

Ecology
18

Messrs. Morse, Wapenhans, and Gibbs

March 3, 1971

James A. Lee

Treatment and Reuse of Domestic Wastes

The attached was sent to me by Mike Hoffman following a visit to his office by Dr. Cochrane of Melbourne University. Dr. Cochrane reports that a Professor M. McGarry, Asian Institute of Technology, Bangkok, Thailand, believes he has a process for the conversion of domestic wastes to protein (algae) in a form suitable for use as animal food. Reportedly, this process is suitable for use under Thailand conditions at a cost roughly equal to that of soy bean production.

An admittedly hasty look at the attached suggests to me this is not a new approach. In fact, I have viewed a pilot project along these lines a few years ago in the State of Arizona. However, it may have application in Thailand, and I invite you to follow up on it if you are interested.

Attachment

JALee;On

MODERN TECHNOLOGY

the consumer of natural resources and
the creator
of waste products

is necessitating the development of a new technology

THE TREATMENT AND REUSE OF WASTES

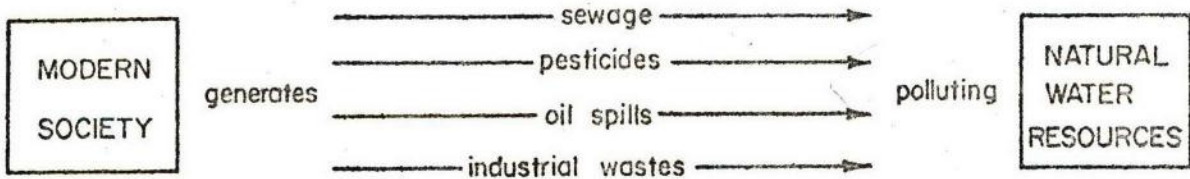
Dr. Dickerson - Melbourne.

Prof: M. McGarry
Asian Institute of Technology
Bangkok.
Thailand.

MAN AND HIS ENVIRONMENT ARE INTERDEPENDENT

yet

raw materials continue to be drawn from natural resources and wastes are returned to the natural environment sometimes with disastrous consequence



The natural environment cannot cope with excessive wastes resulting in

environmental pollution

extinction of species

hazards to public health

spoiling of recreational resources

deterioration of the environment

permanent ecological damage

decline of fisheries

and hidden

social and aesthetic costs

conventional benefit-cost approaches to decision making cannot be applied as the overall cost due to environmental pollution cannot be quantified

THE CONTINUED EXPLOITATION OF NATURAL RESOURCES AND UNCONTROLLED DISCHARGE OF WASTES MAY PROVIDE MOMENTARY COMMERCIAL GAINS BUT THE RESULTING ECOLOGICAL DAMAGE TENDS TO BE PERMANENT

THE DEVELOPING NATIONS OF ASIA HAVE NOT AND
MAY NOT FIND WATER POLLUTION CONTROL JUSTIFIABLE
UNLESS WASTE TREATMENT COSTS CAN BE REDUCED

New - cheaper methods of wastewater treatment must be developed in Asia
taking into account local social, economic, climatic and ecological factors

WASTE TREATMENT AND REUSE IS A FEASIBLE SOLUTION TO THIS PROBLEM

Conventional sewage treatment methods are too expensive unless a saleable
byproduct can be found to reduce operating costs - ALGAE fulfill this
requirement

- Algae has a strong market potential as a protein source in animal feeds
- Algae can be successfully cultivated using wastewater nutrients
- Cost estimates indicate that with algae as a saleable byproduct
sewage can be treated at minimum cost
- In addition, waste water is treated and may be utilized for irrigation

FEASIBLE WASTE RECOVERY AND REUSE CAN EFFECTIVELY PROTECT THE ENVIRONMENT

Several known technologies are already in use

Sulphuric acid is manufactured from sulphur dioxide recovered from the copper smelting process

Raw materials are recovered from used automobiles, wood chips and paper

Alkali is recovered from spent pulp mill liquor wastes

Land is fertilized by reuse of farm wastes

Potable water is reclaimed by tertiary treatment of domestic wastes

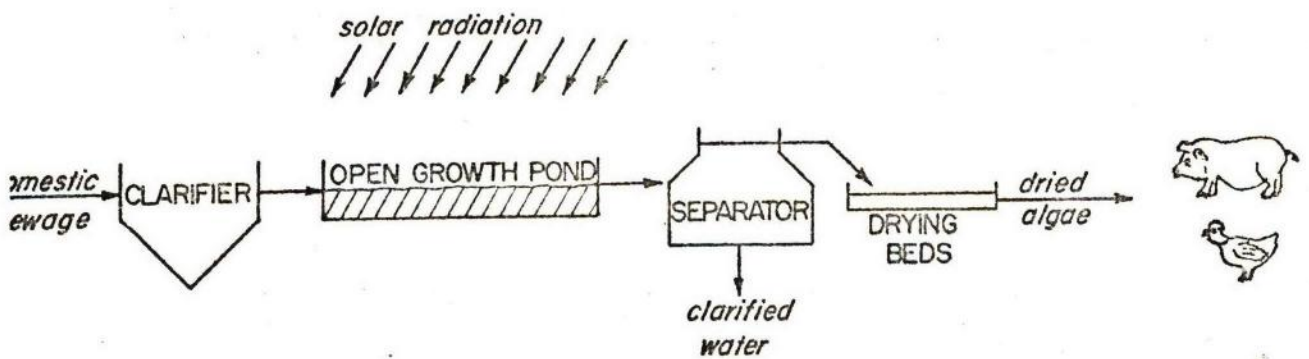
Land is reclaimed by sanitary landfill using solid wastes

Sulphur is recovered from natural gas

Fish and swine are fed using kitchen wastes

Saleable byproducts make these processes more economical

PROTEIN CAN BE PRODUCED AS A BYPRODUCT FROM WASTE TREATMENT

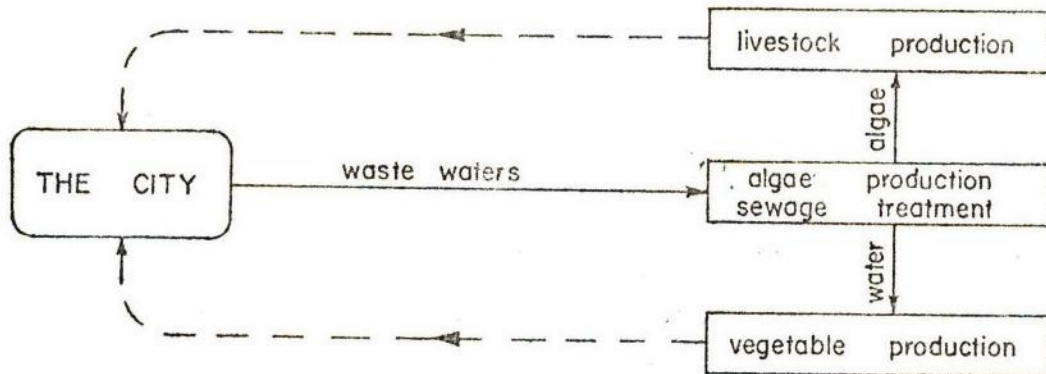


Humans do not use all the nutrients they eat. Large quantities are discarded as waste product.

These wasted nutrients may be used to grow algae (a microscopic plant) in an open ponding system.

The algae (50% protein) are separated and dried and used as an inexpensive source of protein for swine and chicken production

THE BENEFITS OF RECYCLING



- increased protein supply without additional pressure on limited arable land and conventional water resources
- provision of protein for animal production where protein is already a limiting factor
- treatment of wastewaters which would otherwise adversely affect the environment
- water pollution control in the urban environment and consequent improvement in health and socio-economic aspects of community
- the provision of a constant supply of irrigation water with valuable fertilizer components in close proximity to the city
- isolation of wastes from nature and their feasible treatment and reuse.
- resource conservation through water and protein reclamation

MORE RESEARCH IS REQUIRED

It is intended to reduce the cost of algae production to a level at which the process is economically viable on the basis of algae sales alone. Sewage treatment could then be effected at no cost.

Areas of research

- algae growth and sewage treatment
- algae harvesting experiments
- livestock feeding trials
- pilot plant production
- market research

Meetings Misc
NCC Ecology

THE SALK INSTITUTE
COUNCIL FOR BIOLOGY IN HUMAN AFFAIRS

25 February 1971

Dear Mr. Lee

It was a pleasure to shake hands with you while I was visiting William Clark. I regret it was only that, and hope that we may have a talk next time. And soon. Perhaps this would occur at the workshop which the Council for Biology in Human Affairs, in association with the School of International Affairs, Columbia University, will convene March 19-21 at which you would be most welcome.

As you know, claims that man's environment is being steadily degraded, introducing major health hazards, have rapidly proliferated. Evaluation of this crisis differs while perception of the problem may be closely allied to how affluent the society is. But environmental concerns do impinge increasingly upon attitudes about and programs for world-wide economic growth. The allocation and flow of resources from the industrialized to the developing nations are subject to the influence of these claims, while criteria for environmental protection established by the developed may well inhibit industrial and economic growth in the less developed countries and trade among them and the developed nations.

Mindful of the U.N. Conference on Human Environment, scheduled for Stockholm in 1972, we have consulted with the Secretary General of that conference, the Honorable Maurice Strong. We are assured that these issues are most germane to that conference and that Mr. Strong and members of his staff will participate fully in this workshop. We hope through it to sort out the complex of issues associated with environmental protection and economic and industrial growth, and for identifying work which needs to be done.

Post Office Box 1809, San Diego, California 92112 • Telephone (714) 453-4100

Original to: Mr. J. A. Lee
Date: 3-1-71
Communications
Section

Number letters addressed to
Mr. Bellin, Hap

THE SALK INSTITUTE

COUNCIL FOR BIOLOGY IN HUMAN AFFAIRS

Mr. James A. Lee

-2-

25 February 1971

I do hope that you will be able to attend. Attached is a brief outline of the substantive frame of reference and a partial roster of participants and invitees. We will limit participation, so that your early reply will be appreciated.

Cordially,



Harry Boardman
Secretary General

Encl.

Mr. James A. Lee
Ecological Advisor
International Bank for Reconstruction
and Development
18th & "H" Streets, N.W.
Washington, D.C. 20433

Ecology ca

February 25, 1971

Professor Glov Hedberg
Institute of Systematic Botany
of the University of Uppsala
Box 123, 751 04 Uppsala 1
SWEDEN

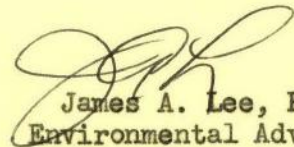
Dear Professor Hedberg:

Your letter of February 2 to Mr. Gavin Wyatt and his reply of February 10 have been sent to me by Mr. Wyatt.

I was most interested in your comments concerning the need for ecological studies to be carried out in connection with planned hydroelectric projects. As Mr. Wyatt pointed out, we are now making such studies an integral part of our project identification and appraisal activities. I have also noted with great interest that SIDA is similarly undertaking the support of such studies.

As I plan to be visiting with SIDA officials in the not too distant future on matters relating to the environment in developing countries, I will, of course, discuss the problem of training ecologists for service in Africa. The dearth of broadly trained environmentalists poses problems for the successful execution of studies and investigations in virtually all countries. Efforts to provide for increased support of training should receive high priority by all responsible institutions. Wherever and whenever I can I speak out on the urgency surrounding this shortage of trained manpower and the need for greater resources to be made available.

Sincerely,



James A. Lee, Ph.D
Environmental Adviser
Office of the Director, Projects

cc: Mr. Wyatt
Op.Files
JAL:on

Ecology
19

Mr. B. Chadenet

February 23, 1971

James A. Lee

US Banks - Environmental Affairs

You will be interested in a call I received this morning from a Mr. Griffith Mark of the Morgan Guaranty and Trust Company of New York City. He is heading up a committee within their bank especially to set up an office of environmental affairs patterned, as Mr. Mark put it "after the World Bank". He went on to say that their bank had decided to follow the lead of the World Bank in becoming directly involved in the environmental consequences of the projects for which it makes loans. He was most interested in the organizational and procedural strategy that we were going to follow and hoped that we could exchange information and views with them in the near future.

He also pointed out that Chase Manhattan Bank, one of the largest US banks, is also setting up a similar office and he indicated that several other banks with headquarters in New York were thinking about doing the same thing. Thus it appears that the World Bank has started something which promises to grow throughout the US lending institutions.

We both agreed that a meeting of the environmental officials in the several banks in the near future would be desirable for purposes of exchanging views and information and discussing how best we might cooperate.

cc: Messrs. Wm. Clark
M. Hoffman
Graves
Christoffersen

JALee:on

42

OUTGOING WIRE

TO: DR. BENGT LUNDHOLM
EKOLOGIKOMMITTEN
WENNER-GREN CENTER
SVEAVAGEN 166^B
S-113 46 STOCKHOLM

DATE: FEBRUARY 23, 1971

CLASS OF
SERVICE: LT

COUNTRY: SWEDEN

RL

TEXT:
Cable No.: PLEASED TO ACCEPT INVITATION PARTICIPATE CONFERENCE ON ECOLOGY AND DEVELOPING
COUNTRIES

JAL:EE
INTBAFRAD

NOT TO BE TRANSMITTED

AUTHORIZED BY:

NAME James A. Lee

DEPT. Office of the Director, Projects

SIGNATURE *James A. Lee*
(SIGNATURE OF INDIVIDUAL AUTHORIZED TO APPROVE)

JAL:on

ORIGINAL (File Copy)

(IMPORTANT: See Secretaries Guide for preparing form)

CLEARANCES AND COPY DISTRIBUTION:

cc: Mr. Wm. Clark

For Use By Communications Section

Checked for Dispatch: *[Signature]*

Mr. L.E. Christoffersen

February 23, 1971

James A. Lee

Attached Suggested Letter of Reply to Mr. Yuh-jao Wu

I agree with you that the attached suggested letter is too negative. I would suggest language as follows:

"Thank you for your interesting letter and its enclosures.

"Your proposed Conference on Asian Environments will be dealing with important issues, and I very much applaud your efforts to organize it. While the Bank is prohibited from making a grant of the type you request, I should like to suggest an alternative. We would be pleased to arrange to bring to the United States, at the Bank's expense, one or more Conference participants of your choice. While technically they would serve as consultants to the Bank, their assignment would be that of participating in your Conference. Travel and subsistence costs, and a reasonable fee for their services not to exceed \$3000 in total, would be borne by the Bank. In return, we would like copies of the Conference proceedings and an invitation for one or more of the Bank staff to attend.

"The objectives to be served by your Conference are significant, and I extend my best wishes for its success."

Attachment

JALee:on

Ecology *W*

Mr. James E. Lee

February 4, 1971

Charles H. White *CH*

The Great Environmental Debate and the Power Industry

I attach herewith a publication on the above subject which you may find interesting.

This was obtained at a meeting in New York of the Institute of Electrical and Electronic Engineers, which I attended on February 2, 1971.

Attachment
CHWhite:mam

Ecology

Mr. R.K. Jones

February 3, 1971

Lars Anderlind CA

Pollution Control Information

At Mr. James A. Lee's (IBRD) suggestion I yesterday called Mr. Kenneth Biglane at the Federal Water Quality Administration of the Environment Protection Agency in the Department of Interior (his telephone number is 557-7660 or IDS 161-77660) to discuss possible assistance for development and engineering of pollution control arrangement for Philippine Petroleum Corporation and its oil barging operations on the Laguna Lake in the Philippines.

Mr. Biglane said standard designs and equipment for the loading shipment and unloading of heavy oils were available and could easily be adopted to PPC's requirements. Plans and equipment for handling oil spills were also available. For specific requirements Mr. Biglane suggested PPC to contact Capt. Haywood of the Office for Law Enforcement of the U.S. Coast Guard.

Mr. Biglane offered to meet with PPC representatives at any time to help develop equipment and procedures to satisfy the Laguna Lake Development Authority requirements.

For insurance to cover oil pollution liability, Mr. Biglane referred to the Marine Insurance Companies handling Public Indemnity Liability. IBRD's Insurance Officer is investigating this matter.

cc: Messrs Feige
Conner

Circulation (3)

LA/ejk

w

Ecology

Mr. Walter J. Armstrong

January 29, 1971

Gavin E. Wyatt

Ecological Consultants

At the discussion in Mr. Baum's office on the Papua/New Guinea Upper Ramu Project, it was agreed on Mr. Lee's advice that an ecological reconnaissance by one man should be carried out to determine the nature of any further in depth studies of the ecological impact of the project. This was the pattern adopted in Kamburu and Mr. Lee anticipates it will be the pattern for most projects in future. The cost of the consultants' services will be borne by the Bank, since the information is really required for our purposes and is a legitimate charge to the appraisal or pre-appraisal, if it has not already been undertaken by the borrower.

In the case of Kamburu a suitable consultant was found, who lives only 60 miles from the project and the cost involved is therefore only about \$200 to \$300, but in Papua/New Guinea it might be necessary to send someone from Australia, USA or Europe and the cost could then be as high as \$3,000 to \$3,500.

I mention this because we are now preparing budgets and it may be advisable to include a provisional sum of say \$1,500 for an ecological consultant in respect of each appraisal to be carried out in the financial year, other than perhaps for distribution loans.

GEWyatt:jc
IBRD

cc: Central Files
Division Files
Mr. Howell
Mr. Ducker
Mr. Fish

UNESCO
✓ CC Ecology

January 27, 1971

Mr. M. Makagiensar
Division of Application of Social Sciences,
Department of Social Sciences
UNESCO
Place de Fontenoy
75 Paris-7^e

Dear Mr. Makagiensar:

will r/lee — Thank you for your letter of January 12 transmitting a report covering UNESCO's conference on "Man's Role in Changing the Environment".

I shall read the report with much interest, and I am hoping that on a forthcoming visit to the Bank's office in Paris that we can arrange to get together for an exchange of information and views.

I would be pleased to receive additional information relating to the work you have under way and am hopeful that in the near future I can send you some material which I feel would be of interest to you.

Cordially,

James A. Lee
Environmental Adviser
Office of the Director, Projects

JALee:om

Ecology

Mr. J.E. Merriam
James A. Lee
Costa Rica

January 26, 1971

The attached newsletter from the Organization for Tropical Studies contains some items which may be of interest to you in your activities in Costa Rica. I refer specifically to page 3 where three ecological research projects being funded from the National Science Foundation are described. In addition, you will find other items of interest relating to Costa Rica and other Latin American countries.

Attachment

JALee:cn

Ecology

January 11, 1971


Mr. W. J. Sheridan
Union Carbide Corporation
270 Park Avenue
New York, N.Y. 10017

Dear Mr. Sheridan:

This acknowledges with thanks receipt of your letter dated January 7, 1971 enclosing a copy of the Battelle Study on the cost of air pollution controls in the iron and steel industry.

I enjoyed meeting you and your colleagues last week and look forward to exchanging views and information with you in the future.

Yours sincerely,



John W. P. Jaffe
Industrial Projects Department

JWPJaffe:o

cc: Messrs. Fuchs
Cash

U

Ecology
©

Mr. Bernard Chadenet

January 11, 1971

James A. Lee

Advisory Panel on Environment - Suggested Terms of Reference

There has been an opportunity for me to discuss the need for and possible functions of an advisory panel on environmental and closely related matters with several members of the Bank's staff, including very recently, Mr. Demuth.

There seems to be something of a consensus that a "public image" type of an advisory body is not being sought by the Bank's top management. There would seem to be a general feeling that an advisory group should service the perceived needs of the Environmental Adviser and, in fact, be a non-collegiate body of working advisers. It was suggested that those serving on the panel would be brought in on an individual basis from time to time to engage in such activities as the Environmental Adviser believed required their services, and that collegiate meetings of the entire panel may be few in number.

I was repeatedly cautioned against having an advisory panel encumbered with the paraphernalia of officers, executive secretary, terms of office, etc., and highly structured meetings with formalized agendas. This, of course, appeals to me but I do not want it to appear that the Advisory Group is only a self-serving instrument of the Environmental Adviser. If this can be achieved, then the terms of reference for the Group can be broad, flexible and responsive to the developing needs of the Bank in the environmental area.

With this in mind I would see the purpose of the Advisory Panel as "assisting and advising the International Bank for Reconstruction and Development in its efforts to ensure that economic development is pursued with careful regard for the quality of environment and human life."

The functions of the Advisory Group would be generally as follows:

- (1) To advise the Bank through its Environmental Adviser on all such matters relating to environment and health as are deemed to be of interest or concern to the Bank.
- (2) To review, as appropriate, the character of the Bank's lending programs generally to identify the types of projects which characteristically present significant threats to the environment and/or public health, and to indicate the steps which the Bank staff should take to determine whether such threats can be prevented or satisfactorily mitigated during the course of project preparation, appraisal, and supervision.

- (3) To advise, where appropriate, on the development of policies governing the Bank's activities which affect the environment.
- (4) To evaluate from time to time the procedures within the Bank designed to ensure the timely and effective handling of its environmental responsibilities.
- (5) To advise the Environmental Adviser and, as appropriate, staff of the Information and Public Affairs and Administration Departments in the task of informing, educating, or training employees of the Bank in matters of environment, ecology, and health.
- (6) To advise and otherwise assist the Environmental Adviser and, as appropriate, the Development Services Department in the task of representing the Bank on national and international bodies concerned with the environment and health, and at associated or related conferences and meetings.
- (7) To assist the Environmental Adviser in developing the nature and dimensions of proposed ecological studies relating to projects under consideration by the Bank and in identifying qualified consultants to conduct or participate in such studies on behalf of the Bank, its borrowers, or member governments.

cc: Mr. Baum

JALee⁴son

Ecology
②

Mr. B. Chadenet

January 11, 1971

James A. Lee

Environmental Considerations - Bank Activities

I. Introduction

The Environmental Adviser during the initial seven weeks of his employment has endeavored to identify some aspects of the Bank's activities seen as being contributory to problems of environmental degradation and public health; specifically:

- (a) What aspects of Bank-financed projects or technical assistance have the possibility of creating problems?
- (b) Which of the problems should receive priority attention?
- (c) How can the Bank strengthen its capabilities and those of its borrowers and member countries for dealing with environmental problems?

II. General Nature of the Problems

A very broad range of Bank-related activities have the potential for adverse environmental and health effects. In large measure these activities and their problems are known to the Bank staff and the latter have not been altogether unmindful of them. In fact, while the Bank has undoubtedly contributed to some problems in the past (and will in the future, to some extent) its record in this regard is seen as not all that bad. By and large, the Bank staff are concerned about environmental and health matters and seek to do the right thing. In this regard, the Bank, of necessity, displays an ambivalent image. It does so because it sees the problems of pollution, disease, and environmental degradation from the respective vantage points of the developed and developing countries. It is keenly aware of the contrast in interests, in priorities, and in capacities, between the wealthy and the impoverished. It, in itself, is something of a bridge between the two sides of the income gulf, over which flow the predominant views of the problems on the two sides. Simply put, the developed countries are coming increasingly to feel that there is a growing serious problem of global dimensions, that its solution is a matter of first priority, and that a substantial price should be paid if and as necessary to effect a solution. The developing countries, on the other hand, are likely to feel the reverse, and to be much less capable of applying solutions even if persuaded they are worth the trouble. Thus, if the Bank is to be a part of an international effort (as it is) to stem the tide of pollution and degradation, it must, as I see it, proceed on the basis of:

- (a) Continuing its efforts to advance the rate of economic and social development in the poor countries. The poor countries cannot be expected to join the assault on environmental problems without expanded development aid. And, as the Bank seeks to inject anti-pollution measures into its loan agreements, and these measures conflict with the policies seen as necessary to rapid economic development, the Bank should expect most developing countries to opt in the direction of modernization.
- (b) A recognition that developing countries have neither sufficient motivation nor the resources to carry any major share of the financial burden that accompanies measures for a safe, clean environment. Thus, the add-on costs attributable to environmental safeguards and controls may be an object of contention in loan negotiations.
- (c) A further recognition that the developing countries have not the research capacity to deal with the problems they create, some of which are unique to them. This implies a further responsibility for the Bank in assisting in the development of institutional capabilities, management training, and transfer of technology and knowhow in this area.
- (d) A growing clamor from vociferous environmentalists and their organizations that the Bank and other international development organizations are not fully assuming their responsibilities for the environmental consequences of their activities. There are signs on the horizon that the Bank will come under closer scrutiny by these groups as to its performance and its policies, including post-project evaluations leading to public disclosure of findings and criticisms.

III. Some Substantive Priority Areas

1. Environmental Aspects of Engineering Projects

Dams and irrigation systems can be the source of troublesome ecological and health problems. Erosion control in the upstream watershed is an important requirement in preventing premature sedimentation of reservoirs created by dams. Man-made lakes are the source of many problems affecting the fisheries resources, and associated flora and fauna. Aquatic weed growth can become a serious nuisance. Evapotranspiration can result in troublesome water losses.

Inadequate drainage of irrigated areas can cause water-logging and salinity problems, often within a few decades after irrigation commences. Lowered water tables, salt water intrusion and subsidence problems can also attend groundwater development activities. The Bank (as well as other international development organizations) could profit from guidelines designed to alert planners and engineers to these problems and provide direction prior to the construction of dams and irrigation systems, tubewell irrigation systems, and other major engineering works.

2. Water-borne and Other Infectious Diseases

Such diseases as malaria, schistosomiasis, onchocerciasis, filariasis, trypanosomiasis, bacillary dysentery, etc., are unwelcomed consequences of some development projects. Because of the serious nature of schistosomiasis and its rapid increase in Africa and East Asia, this disease merits especial increased attention to both basic and applied research. Updated guidelines to guide engineering and reflecting new knowledge are urgently needed.

The introduction and spread of diseases and/or their vectors as a result of road building, rural to urban migration, population resettlement, work force introductions, etc. pose problems that need to be identified early on in project identification and appraisal.

3. Pesticides, Related Biocides and Pollutants

Use of these substances is often a component of agricultural projects, and also disease vector control associated with dam projects, etc. The evidence surrounding their role in environmental degradation is well known. The Bank should make every effort to ensure that the borrower and the member country involved in their use are fully aware of the local, regional and global hazards to humans, plants and animals. The long-range effects on agriculture production and pest populations in a country should likewise be explained. This imposes an educational role on missions and appropriate Bank staff in the provision of information and advice about environmental and human hazards and safeguards. There is need, also, for procedures for overseeing the furnishing and monitoring of the use of these materials.

Other materials and substances which constitute environmental and health hazards include a growing array of industrial pollutants; e.g., mercury, chromium, lead, beryllium, arsenic, fluorine, nitrates, sulfur and nitrogen oxides, asbestos, radioactive isotopes, etc. Again, there is a need to identify the possible injection of these and other pollutants into the environment from a Bank-financed project, and to provide safeguards for their control.

4. Socio-cultural Implications of Major Engineering Works

Increased attention early in the project cycle to the human consequences of relocation of population groups, the disruption or destruction of life styles and living patterns, introduction of new value systems and social acculturation processes, is needed. The human ecological implications should and ought to be important determinants in project decision making. Failure to identify the social costs attributable to a project has too often caused the decision-making process to be based upon a narrowly economic cost-benefit analysis. The socio/cultural/political consequences can pose very serious problems for a developing country. Projects in the Mekong and for some African rivers need especial attention in this regard.

5. Environmental/Social Consequences of Urbanization

The trend of rural to urban migration is expected to increase within the developing countries and promises to become the principal problem for them through the end of the century. Housing, health, transportation, education, essential services, etc., are being overwhelmed by the unplanned growth that accompanies this phenomenon and associated population growth. The Bank has instituted efforts to provide guidance and even partial solutions, but time and resources are of the essence.

IV; Strengthening Capabilities in the Environmental/Health Areas

(a) In-Bank Capabilities

To meet its responsibilities the Bank will need to further strengthen its internal capabilities in dealing with environmental and related health problems. (This is the subject of separate accompanying memoranda.) Principal among the recommendations contained in them are the establishment of an advisory panel on the environment consisting of internationally recognized authorities; new procedures for injecting environmental/health considerations in the pre-appraisal studies and in the project identification, appraisal and implementation cycle; preparation of ecological guidelines as an aid in project planning and review; sensitization seminars and short-course training for appropriate Bank staff; intra-Bank dissemination of environmental information on a continuing basis; new and expanded ties with national and international organizations concerned with the environment; and, day-to-day servicing of Bank staff requests and handling of expedient problems.

(b) Research

The very nature of the socio/environmental/health problems relating to the Bank's activities requires research. Realizing that

the Bank is not a research supporting organization as such, it does, in fact, support some limited research. The strategic position of the Bank in international development activities suggests, however, that its views on research needs will be seriously listened to by funding agencies. Hence, an articulation of these needs and requirements can be a stimulus and catalyst for the conduct of research. The advisory panel on the environment could bring needed research opportunities to the attention of the Bank, could help in efforts to get research underway, and could help in evaluating research and development findings as they might apply to the Bank. In this regard, also, the Economics Department might be expected to play an increasing role in the approach to the economics of environmental and health problems, including the identification and quantification of social costs and benefits.

V. A New Role for the World Bank

The World Bank, by a publicly expressed recognition of its role and responsibility to pursue economic development with careful regard for the quality of the environment and human life, has become an important focal point on the international scene for global awareness of and concern for environmental problems. If it adheres strenuously to this responsibility it will assume an expanded role in serving the needs of peoples in developing countries by adding to the "genuine quality" of human life. It will assume, also, a new role in assisting in the protection of man's global environment.

The Bank may begin modestly, but it should begin positively to accept the challenge of becoming a guardian as well as developer of the environment.

cc: Mr. Baum

Attachments

JALee: on

APPENDIX I

The following are types of Bank-financed activities seen as being among the most troublesome from a socio/ecological/health point of view. As such, the environmental considerations set forth under each are intended to suggest the kinds of questions that might usefully be asked in weighing the environmental aspects of both loan proposals and technical assistance efforts.

Clearly, environmental and health considerations are but two of many factors that influence the shape of specific projects, but it seems important to have some basis for directing our approach in these endeavors.

More detailed guidelines are being considered by AID, and a joint IUCN - Conservation Foundation effort, to assist in project planning and proposal review, particularly in terms of identifying alternatives and added costs associated with environment/health safeguards. The products of these efforts may suffice to meet Bank needs. However, the Bank may wish to have guidelines prepared to satisfy its own perceived needs, and this is a suggestion offered in the accompanying memorandum on Bank strategy for meeting its environmental responsibilities.

DAM CONSTRUCTION

1. What new public health questions will arise? Will changes in water velocities, temperatures, and depth result in a more favorable environment for disease-bearing organisms? Will the changes in water patterns introduce disease-bearing organisms into previously unaffected areas? Will the new water patterns create new disposal areas -- either directly through dumping or indirectly through runoff -- for sewage, garbage, or other refuse?
2. What will be the impact on useful biological species in the water system, both upstream and downstream? What effect will there be on migration and breeding of riverine fish? What will be the impact on traditional fishing techniques and the resultant effect on the fish populations?
3. What undesirable vegetation consequences will accompany reservoir development? What is the potential for an influx of floating vegetation? Should trees and other vegetation be removed from the floor of the reservoir? What will be the impact on the surrounding vegetation and particularly in the agriculture and forestry potential of the riparian land?
4. What undesirable consequences to physical resources will accompany reservoir development? How fast will siltation occur and how will sediment buildup be handled? What will be the salinity buildup over time and how will this be handled? Will there be undesirable interactions between the change in surface water patterns and underground water sources? Will undesirable downstream pollutants be introduced?

5. What will be the ecological consequences of changes in land use patterns and population distribution? Will there be undesirable population crowding as the residents of the flooded areas move to the peripheral areas? What type of environmental planning is being done to insure that the new settlements will not be plagued by sanitation and disease problems? Will there be new settlements on the hillsides surrounding the reservoir that will deposit water into the reservoir?
6. Will the dam construction activities be carried out in a manner that will minimize damage to the natural environment? Is there a consolidated construction plan that takes into account ecological factors? Are road patterns, land excavation and fill sites, and refuse disposal activities consistent with environmental considerations?
7. What resources will the impounded water cover or displace....mineralized areas, artifacts, wildlife habitats?
8. Will power production facilities and transmission lines affect scenery or other aesthetic qualities?

IRRIGATION SYSTEMS

1. What new public health questions will arise? Will changes in water velocities, temperatures, and depth result in a more favorable environment for disease-bearing organisms? Will the changes in water patterns introduce disease-bearing organisms into previously unaffected areas? Will the new water patterns create new disposal areas -- either directly through dumping or indirectly through runoff -- for sewage, garbage, or other refuse?
2. What will be the impact on useful biological species in the water systems? Will diversion of water to field use seriously degrade the capabilities of the original water system to support needed biological species? Will runoff water contain residues -- such as pesticides and fertilizers -- that contaminate downstream waters?
3. What undesirable vegetative consequences will accompany irrigation development? What is the potential for growth of aquatic weeds?
4. What undesirable physical consequences will accompany irrigation system development? How will salt accumulation be controlled? How does the irrigation network interact with sources of drinking water? What are the sedimentation and erosion problems?
5. What will be the ecological consequences of changes in land use patterns and population distribution? Will there be undesirable population crowding as villages expand either to make way for or take advantage of the irrigated areas? What type of environmental planning is being done to insure that the changes in population density do not aggravate sanitation and disease problems?
6. What changes will the systems have on the microclimate of insects, their life cycle, habitat, movements, and populations?

7. Will the project result in new or expanded uses of pesticides? If so, have standards been established for their use? Are operators trained in the use of these poisons?

RURAL ROAD CONSTRUCTION

A. Conservation and Aesthetics

- (1) Will slope reseeding and revegetating be carried out during construction to prevent soil erosion by wind or water?
- (2) Will topsoil be stored to speed revegetation where necessary?
- (3) Has provision been made for reclamation of borrow areas through filling and seeding or development of borrow-put lakes for wildlife or other similar uses?
- (4) Will the road fit into the natural landscape and not preempt choice scenic or recreational areas?
- (5) Will disposal of construction waste materials, soils, etc. be responsive to aesthetic considerations if appropriate?
- (6) Will proposed road location disrupt prime wildlife habitats (major feeding, nesting, spawning areas) and, if so, have acceptable alternative sites been considered?
- (7) Will road pose a barrier to wildlife migrations?
- (8) Can roads serve as effective fire breaks by proper selection of width requirements?
- (9) Will new pathways be opened for diseases and their vectors affecting plants, animals and humans?
- (10) Will flood hazards be posed by obstructing natural drainage or irrigation systems?

B. Pollution Control

- (1) Can construction of temporary drainage systems, barriers, or sedimentation basins be used to prevent eroding materials from reaching streams, lakes, etc.?

- (2) What will be the extent and impact of dust pollution from heavily traveled dirt roads near populated, agricultural, or wildlife areas?
- (3) Will selection of borrow area avoid use of stream bottoms and stream banks?

PETROLEUM - PETROCHEMICAL INDUSTRY

A. Waste Discharge and Disposal

- (1) Are the types and quantities of waste to be discharged into the air and receiving waters clearly identified; and have quality standards been established?
- (2) Has adequate provision been made for reasonable pollution control techniques and devices to restrict the discharge of substances known to be harmful to the environment?
- (3) Are there safer alternatives to proposed methods of waste disposal?
- (4) Are there unexplored opportunities to economically reclaim or recycle waste streams to limit effluent volume?
- (5) Are safe disposal methods being provided for scrap and solid waste materials (e.g., plastics)?
- (6) What are the potential losses of options for alternative uses of receiving waters (commercial fishing or recreation) due to stimulation of algae and aquatic weed growth or population mortality?
- (7) Will smokestack effluents carry substances which may affect downwind plants and animal populations?

B. Raw Materials and Products Handling

- (1) Do offloading and onloading methods and systems (e.g., petroleum from barge or tanker) have environmental safeguards built in?
- (2) Is a cleanup contingency plan plus manpower and materials available in case of accident?

- (3) Is adequate attention being given to design and construction of storage facilities and storage areas for hazardous materials (e.g., tanks for liquids; basins for waste oil awaiting processing)?

C. Plant Design and Location

- (1) Have environmental considerations (e.g., aesthetics, ecological impact of siting) been incorporated into selection of location and plant design?

SEWERAGE PROJECTS

1. Are the design specifications of the proposed project consistent with the following objectives?
 - (a) Collection, treatment and disposal of plant effluent, screenings and sludge.
 - (b) Control of water-borne diseases and vectors.
 - (c) Protection of biosphere (aquatic plant and animal life in streams, inland bodies of water, coastal waters and tidal estuaries).
 - (d) Protection of atmosphere - control of gases, odors, insects.
 - (e) Aesthetic considerations - control of floating debris, scums, etc.

2. Have realistic decisions and evaluations been made on:
 - (a) Acceptable effluent, in terms of Biochemical Oxygen Demand (BOD)
 - (b) Dilution or carrying capacity of waterway receiving effluent in recognition of seasonal variations in streamflow.
 - (c) Toxicity of effluent where other than normal domestic sewage is involved.
 - (d) Capacity and siting of waste treatment plants.
 - (e) Location of effluent discharge units with respect to aesthetics, productivity of receiving water, etc.
 - (f) Quality of effluent - downstream considerations related to water supply intakes, recreation activities and commercial fishing operations.

3. What effects can be anticipated if the system components are overloaded?
Can severe impacts be minimized by redesign or modification?

4. Can emergency bi-passes (storage, pumping) of peak loads be accommodated?
5. Has adequate and effective provision been made for disposal of sludges?

Ecology
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Mr. Bernard Chadenet

January 11, 1971

James A. Lee

Technology Agency for International Development, U.S. Department
Strengthening Capabilities in Dealing with
Environmental And Health Considerations

To meet its responsibilities the Bank will need to strengthen its internal capabilities for dealing with environmental and health considerations. The following are put forward as organizational and procedural mechanisms for more effective in-house handling of these matters.

1) Advisory Panel on the Environment

This would consist of a small multidisciplined, working group of distinguished authorities knowledgeable of international environmental needs and problems which would advise and assist the Environmental Advisor. The draft terms of reference for such a panel and a slate of possible candidates have been prepared, and are the subject of a separate memorandum.

2) Ecological Considerations in the Project Cycle

How and where to inject a consideration of the ecological and health aspects of a proposed project in the project cycle needs to be determined. That such a consideration should be carried out as early as possible (and feasible) in the chain of activities culminating in the implementation of a project is generally agreed upon. Three possibilities for making this determination are: (a) an in-Bank working party be established to study the matter and report out its recommendations to management; (b) a consultant firm be brought in to make a study; or, (c) a combination of the two approaches.

I am not familiar with the Bank's views on outside consultants carrying out studies on organizational/procedural matters, but I tend to favor the (c) approach, wherein management works closely with the consultants.

3) Ecological Guidelines and Criteria as an Aid in Pre-appraisal, Project Planning and Proposal Review

There is a need to provide at least limited (and, hopefully, more specific) guidance in weighing the environmental aspects of the Bank's loan proposals and technical assistance efforts. The provision of such guidelines and the preparation of an appropriate handbook(s) is currently underway at the Office of Science and Technology, Agency for International Development, U.S. Department

Mr. Bernard Chadenet

January 11, 1971

of State and the International Union for the Conservation of Nature. The Bank through its Environmental Advisor is Cooperating in both efforts.

The output of these collective endeavors may suffice to meet the Bank's needs. On the other hand, the Bank may wish to employ consultants for this purpose under the general direction of the Advisory Panel and the Environmental Advisor.

In specific areas, such as the control of water-borne diseases, discussions and correspondence with WHO officials give promise of the production of a handbook. The Environmental Advisor hopes to finalize this when he visits WHO in February.

There is also a possibility that UNDP similarly is interested in the preparation of guidelines. The Environmental Advisor is planning talks with appropriate officials in January.

4) Sensitization Seminar and Short-Course Training in Environment and Related Topics

This, in effect, would be a continuing effort to: (a) inform and otherwise sensitize appropriate members of the Bank staff on a broad range of topics dealing with the environmental and related consequences of economic development activities; and (b) provide in-depth training of a short course nature for selected employees of the Projects, Area, and, perhaps, other departments in such specific areas as water-borne diseases, marine and estuarine pollution, air pollution control, etc. Contractual arrangements for carrying out these activities can be made with a number of qualified consulting firms or individuals.

5) In-Bank Dissemination of Environmental Information

At present, there is no purposeful effort made to distribute environmental material of an informational and educational nature within the Bank. Preliminary discussions with the Information and Public Affairs Department has revealed their possible interest in such an undertaking. In cooperation with the Library, Research Files and the Environmental Advisor, this department could arrange to duplicate and distribute materials designed to inform and update appropriate members of the Bank staff. This would complement the activities outlined in (4) and could also include guest speakers and films, as appropriate.

6) Developing Multi-disciplined Consultancy Capability to Assist Borrowers and Member Governments

The scope and dimensions of the Bank's environment-affecting activities including their geographic, climatologic, and topologic diversity, requires that an array of consultative talent and expertise be available for evaluative purposes. Such a file of consultant talent has been started by the Environmental Advisor. Such organizations as the International Union for the Conservation of Nature (IUCN), the International Association of Ecologists (INTECOL), the International Biological Program (IBP) and the Ecological Society of America have all indicated their willingness to assist. It is planned that key individuals in these organizations, when alerted to the details of a consulting task, will assemble appropriate talent for consideration by the borrower, member government, or the Bank, as may be appropriate. Mr. Finne's office will also be a focal point for consulting firms engaging in environmental work.

7) Strengthening Environmental Capability of Appropriate Field Offices

The proposal under consideration for assigning new roles and responsibilities to certain of the Bank's field installations suggests their use in environmentally related activities. Certain resident staff could, when properly sensitized, serve to expedite the local handling of environmental matters, alert the Environmental Advisor's office to developing problems and needs, work with borrowers and government officials on environmental requirements, studies, etc, and, in general, function as an extension of the eyes and ears of the Environmental Advisor.

In developing the new terms of reference for these offices, consideration should be given to developing such a function.

8) Preparation for 1972 UN Conference on the Human Environment

Efforts in this regard are, of course, already underway. The Environmental Advisor has held discussions with Mr. Maurice Strong, Secretary-General for the Environment, and Dr. Thomas Wilson, principal consultant to the Secretary-General. He is in close touch with the principals developing the U.S. position, and with the principals of international organizations working on agenda items; e.g., IUCN, SCIBP, SCOPE/ICSU, MAB/UNESCO, etc. He has received copies of the U.S. and U.K. proposed agenda items. He has been asked by the Secretary-General to participate in the second meeting of the ad hoc working group on the human environment in January, and at the second preparatory conference in February. In turn, the Environmental Advisor has discussed the developing agenda with members of the Bank's management in order to ascertain how best to represent the

Mr. Bernard Chadenet

January 11, 1971

Bank and its interests. While the Bank as a non-governmental institution has not sought or been requested to play a prominent role in the preparations for the Conference, its position among the international development organizations requires it to assist with those agenda matters most closely related to this position.

9) Servicing of Bank on Day to Day Basis

With the appointment of the Environmental Advisor there has been created within the Bank a focal point for the handling of questions and requests for assistance. The volume of this work has steadily increased, indicative of both a growing awareness and an active interest in environmental matters by the Bank staff and management. It can be expected (and hoped) that this function will continue to increase and grow in importance. Expedient day to day needs, if quickly and responsively handled, can engender cooperation, understanding, and expedite the work of identifying and handling problems of the environment and health.

Until the procedures for each consideration of the ecological and health aspects of loan proposals are established and operating (No. 2), the many projects emerging from this pipeline will require a terminal evaluation of their environmental impacts. Similarly, projects undergoing implementation or post implementation supervision will require appropriate surveillance and monitoring to preclude any serious environmental problems. In this latter instance, the field offices could play a useful role (No. 7).

JALee: ??

Suzanne

Jan. 11

Please remind me to talk to Mr. Lee.

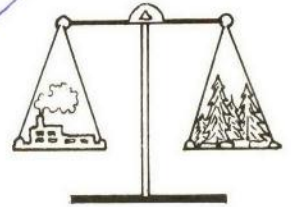
Fuchs

DEVELOPMENT SCIENCES INC.

Ecology

22 Jan

(617) 888-0101



BOX 77
ROUTE 6A
EAST SANDWICH, MASS.
02537

Mr. Hans Fuchs
Industrial Projects Division
International Bank for Reconstruction
and Development
1818 H Street N.W.
Room A-201
Washington, D.C. 20433

Dear Hans:

Thank you for your cordial reception at the Bank just before the holidays. I appreciated the opportunity to talk with you and found the problems which you and the staff posed to be most challenging. I have given some thought to how we might slowly build interest in alternative techniques for integrating environmental concerns into the long and short term benefit calculations for developing countries.

One desirable format for beginning this task would be a two hour lecture-discussion meeting in which alternative approaches were investigated. We then might retire to a series of smaller groups in the remainder of the day to talk about specific problems and how the general approach can be made specifically relevant. In this way, we start people thinking about their problems and offer some preliminary ideas for their solutions.

The scope of this effort can range from a single day's discussions with myself to a more multi-disciplinary panel of our staff members who can provide technical expertise in some depth. We are entirely flexible, but remain dedicated and interested in working in this area with you. Please inform me of your interests and we would be pleased to be obliged.

Sincerely yours,

Morton Gorden

Dr. Morton Gorden
President

January 6, 1971
cc: Dr. A. Sani El-Darwish
George Kalmanoff
James Lee

W

✓ Ecology
cc WHO
re

Files

January 8, 1971

James A. Lee

HORWITZ

Meeting - Dr. Abraham Horowitz, Director General
Pan American Health Organization

On January 8 I had lunch with Dr. Horowitz and Dr. John Hanlon, Deputy Administrator of the U.S. Environmental Protection Agency. Purpose of the meeting was to get acquainted with Dr. Horowitz and the work of PAHO.

Dr. Horowitz expressed great interest in the Bank's environmental and health activities and was pleased that it had established a unit to look after these matters. We discussed the health problems of South America and, in particular, the rapid southward spread of schistosomiasis. This disease gives every promise of extending itself into Argentina. The number of afflicted in Brazil is not known but is estimated in the millions. We discussed disease problems associated with water development projects, the influx of new industries, the rural to urban migration and the population growth.

Dr. Horowitz indicated that PAHO would be eager and pleased to assist the Bank in Central and South America. It would furnish advice and assistance on disease problems associated with our projects, and in appraisal activities. He told of PAHO's educational efforts to make government officials aware of pollution and related health problems. He is intimately familiar with all the heads of government and their principal ministers and is willing to work with them to bring about a concern for the environmental and health aspects of development activities in their countries.

Dr. Horowitz is setting up a luncheon meeting for me to meet the principal PAHO staff members. As he was recently elected for his fourth four-year term, his directorship of PAHO can be counted on.

I will be seeing Dr. Horowitz in Geneva in mid-January and he will introduce me to the WHO principal staff.

I feel from my conversation with Dr. Hanlon and Dr. Horowitz that the Bank has a good friend and ally in Dr. Horowitz.

The embryonic condition of the newly created U.S. Environmental Protection Agency precluded Dr. Hanlon from giving us much useful information on the plans for this organization. We are assured, however, of a good liaison. As this will be the standard-setting and enforcement organization in the area of air and water pollution, etc., for the U.S., it can be a rich source of advice and information.

cc: Mr. Chadenet
Dr. Kanagaratnam
JALee: on

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Files

January 7, 1971

James A. Lee *JAL*

Call From "Business Week"

On January 6 I received a call from a Mr. France of Business Week magazine. He was referred to me by Mr. Pryor of the Information and Public Affairs Department.

Mr. France was interested in learning whether or not the Bank was worried about the international trade problems relating to the costs for environmental controls that may be imposed on the less developed countries by the Bank as part of its loan agreements. For example, Mr. France pointed out that countries producing goods where environmental controls and safeguards were absent or minimally enforced would have trade advantages over countries where such controls were in being and enforced. He wondered about the reaction of less developed countries to any suggestion or imposition by the Bank for making environmental and public health safeguards a part of their economic development activities. Further, he was interested in how the Bank was going to bring about a concern for, and consideration of, environment in the conduct of its activities with the less developed countries.

In reply I told Mr. France that I had been here only a short while and could not speak authoritatively as to the Bank's thinking on the matters that he had raised. However, I felt certain that the Bank would begin to worry about and give thought to the problems relating to international trade competition, tariff impositions, etc. that may of necessity stem out of environmental control activities. I suggested to him that the recent article by Michael Hoffman in Finance and Development would give him a good background as to the Bank's thinking on these matters. I further suggested that he contact Mr. Thomas Wilson who is a principal consultant to the Secretary General on the Environment, United Nations, regarding the agenda for the 1972 U.N. Conference and the position that these problems may have on the agenda. He indicated that he would call Mr. Wilson and discuss this with him.

cc: Mr. Chadenet

JALee: on

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WHO
VCC Ecologist
19

January 7, 1971

Dr. A. Mochi
Chief
Cooperative Programs for Development
World Health Organization
Avenue Appia
1211 Geneva
SWITZERLAND


Dear Dr. Mochi:

As I believe I told you my assignment with relation to the environmental aspects of the Bank's work was only a temporary one. The Bank has hired Mr. James A. Lee, formerly Director of Human Ecology in the Department of Health, Education and Welfare of the United States, to be Environmental Adviser in the Office of the Director, Projects, and he has now taken over this aspect of the Bank's work.

Mr. Lee will be in Geneva for meetings on January 18 and 19, and would like to meet with you on January 20 to pursue the question of how the Bank can best identify public health hazards of proposed investment projects, which I had raised with you in our conversations in Geneva last Fall and in my letter of November 12. I hope this date will be convenient for you.

With best wishes,

Sincerely yours,


John A. King
Training Adviser
Office of the Director, Projects

cc: Messrs. Demuth Shipman, Lee

JAK/lmc:m



UNION CARBIDE CORPORATION

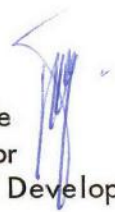
270 PARK AVENUE, NEW YORK, N. Y. 10017

Ecology

CORPORATE MARKETING
DEVELOPMENT DEPARTMENT

January 7, 1971

Mr. John W.P. Jaffe
International Bank for
Reconstruction and Development
1818 H Street N.W.
Washington, D. C. 20433



Dear Mr. Jaffe:

Once again, many thanks for making yourself available for a most informative meeting on Monday.

Enclosed is the Battelle study on the cost of air pollution in the steel industry which was sponsored by the U.S. Department of Health, Education and Welfare. I think you will find it of genuine interest.

When our analyses of the power systems of selected countries has been completed, we shall be in contact with you to gain some judgements on the quality of these systems. We appreciate your offer of assistance in this area.

Very truly yours,

A blue handwritten signature, which appears to be "W. J. Sheridan", written in cursive.

W. J. Sheridan

Enclosure

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Messrs. Ballantine, Evans, Fuchs, Kanagaratnam,
Koch, Knox, Sadove, Weiner

January 6, 1971

B. Chadenet B. Chadenet

Environmental Adviser, Office of the Director, Projects

1. As you know, the post of Environmental Adviser, Office of the Director, Projects has been created and Mr. James A. Lee has been named to fill it. This appointment is an essential step in making sure that the environmental consequences of projects financed by the Bank and IDA are taken fully into account at all stages of Project preparation, appraisal and implementation. Mr. Lee will work closely with the staff of the Projects Departments to achieve this objective.

2. Mr. Lee, who is a citizen of the United States and holds degrees in Ecology and Public Health, has spent his working career in these areas. Most recently, he served as Director of Human Ecology in the U.S. Department of Health, Education and Welfare.

3. In his speech to ECOSOC on November 13, Mr. McNamara spoke of the Bank's concern for the environment, saying in part:

"The problem facing development finance institutions, including the World Bank, is whether and how we can help the developing countries to avoid or mitigate some of the damage economic development can do to the environment, without at the same time slowing down the pace of economic progress. It is clear that the costs resulting from adverse environmental change can be tremendous. It is equally clear that, in many cases, a small investment in prevention would be worth many times over what would have to be expended later to repair the damage.

"In the Bank, therefore, we recently have established a small unit to foresee, to the extent possible, the environmental consequences of development projects proposed to us for financing. Even more important, we want to work toward concepts that will enable us and other development financing agencies to consider the environmental factors of development projects in some kind of cost-benefit framework. I am well aware of the complexities of the task. But I am equally convinced of its importance."

4. Attached is a copy of Mr. Lee's terms of reference. I am sending sufficient copies for distribution to your Division Chiefs.

Attachment

cc: Messrs. Alter, Benjenk, Cargill, Chauffournier, Goodman, Gutierrez, Lejeune

JAK
JAKing/BChadenet:lmc

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Ecology cc

Mr. L.E. Christoffersen

January 6, 1971

James A. Lee

Letter to John S. Owen

I would suggest the following paragraph be inserted in Mr. McNamara's letter of reply to Mr. Owen.

"The problems of over-utilization of our national parks and outdoor recreational areas of which you speak are increasing in their severity and dimensions here in the United States. The United States National Park Service is faced with an escalating demand for outdoor recreational experiences and, at the same time, preserve the very amenities which our largely urban population is seeking in these experiences. Your plan to bring the Board of Trustees over to view the Everglades and Grand Canyon National Parks is most commendable. I understand your itinerary for this trip is presently being completed by the Park Service. I am enclosing some material relating to the problems of over-utilization in the United States. The Bank has not published any material on this subject but we shall enquire elsewhere as to what might be available. I would suggest, however, that you secure the 1970 English edition of the United Nations List of National Parks and Equivalent Reserves, available from the International Union for the Conservation of Nature. Further, the library at IUCN headquarters may be able to provide you with useful information relating to the developing countries."

JAL:on

W

Ecology 6

December 30, 1970

Miss Kathleen McNamara
The Conservation Foundation
1717 Massachusetts Avenue N.W.
WASHINGTON D.C. 20036

Dear Miss McNamara:

Thank you for your letter of December 23, sending me a copy of Tom Wilson's bibliography. He seems to have done a great deal of useful work.

We will be glad to continue our discussions whenever you wish to resume them.

Sincerely yours,

John A. King
Training Adviser
Office of the Director, Projects

cc: Mr. Lee

JAK/lmcm

W

Nuclear Atomic Energy
Vcc Ecology

Mr. Bernard Chadenet

December 28, 1970

James A. Lee

Nuclear Energy and Electric Power Programs in the Developing Countries -
Review of Draft Report

Thank you for giving me the opportunity to review the subject report. I found it both interesting and informative.

1. In reviewing those sections of Part II concerned with the Environmental Problem I was naturally interested in the experts sought out by the Bank for their views. Annex 8, page 1 of 5 pages, suggests that such views were solicited, but no mention is made of the environmental authorities involved. Is the information set forth on this subject the result solely of discussions with the management of the power systems? Does it reflect the views of their consultants or were the views of independent workers also sought? It is important, I think, for the credibility of this portion of the report, to have it reflect a consensus of the current thinking on the environmental aspects of nuclear power generation. It is, after all, the environmental considerations that are presently holding up the implementation of a score of nuclear power plants in the U. S.

2. In considering the environmental aspects of nuclear power plants, the advantages would include: (1) Nuclear power is produced without releasing combustion products to the atmosphere and thus contributes substantially to the control of air pollution; (2) Nuclear power generating plants have an aesthetically attractive appearance and, in some instances, provide recreational opportunities in the area surrounding them; (3) The use of nuclear fuel will extend the world's reserves of energy; (4) Nuclear energy causes economic benefits since the cost of this type of power does not vary appreciably with location, and the unit cost of nuclear power plants decreases more rapidly with increased size than unit costs of other plants.

3. The benefits of clean air from nuclear power plants are considerable. For example, a modern coal-fired plant with a capacity of 1,000 MWe could discharge through the stack about 250 tons of sulphur dioxide per day. This is no small amount of air pollution. When multiplied many times over this has an adverse effect on health and on the quality of the environment.

4. There is a great deal of concern over the potential effects of waste heat due to nuclear power operations. This thermal problem is, of course, not unique to the nuclear power industry. Fossil-fuel power plants and other industries also reject waste heat to the environment. It must be acknowledged, however, that there may be a relatively more difficult problem in some localities in the amount of cooling water needed to cool the condensers in a nuclear plant in comparison to a fossil-fuel plant.

Mr. Bernard Chadsnet

December 28, 1970

The nuclear plant reportedly has to inject to the environment about 67 percent of the heat that it produces as compared to about 61 percent in present day fossil-fuel plants because of the difference in the thermal efficiency of the two plants. The fossil plant rejects about 20 percent of the total heat generated to the atmosphere and about 40 percent to cooling water. Careful studies in the United States and in the U. K. have yet to disclose any demonstrable harmful effects from thermally elevated water to the biota of the receiving waters. However, there are differences in the recorded effects in different locales; e.g., tropical vs. temperate estuaries; riverine systems vs. large lakes; cold oligotrophic lakes vs. warm, eutrophic lakes, etc.

5. Extremely small amounts of radioactivity are released in both gaseous and liquid form from nuclear power plants during operation. Repeated research reveals, however, that the exposure received from operating nuclear power plants is a very small fraction of the radiation which mankind has been receiving from his surroundings - internal, external and cosmic.

It must be admitted, however, that scientific opinions differ sharply on the matter of health effects from the release of radioactive materials to the environment from nuclear power plants. Several U.S. investigators have taken sharp issue with the Atomic Energy Commission and the U.S. Federal Radiation Council on the standards governing the release of such materials to the environment. This issue can be expected to be resolved in the next few years as the data cited in the several studies suggesting adverse health effects comes under intensive scrutiny.

It is further contended that radioactive materials released in the liquid effluents from nuclear power plants could be concentrated to dangerous levels in the food chains leading to man. Both environmental monitoring and research have failed to show concentration of these materials to anything approaching dangerous levels. Unlike some introduced pollutants, such as DDT, radio-nuclide concentrations go down as they progress upward through the aquatic food chains.

6. In conclusion, when presently known benefits and risks are assessed as regards their impact on health and the quality of the environment, nuclear fueled generation of electrical power would seem to have a promising future.

While hydro-powered plants will continue to find favor in the developing countries into the foreseeable future, there still remains a question as to the global effects of ever-increasing damming of the world's rivers. Local and regional effects can be identified and while they too often are undesirable can, through proper planning and operation, be ameliorated. What effect large-scale damming is having on the nutrient regime of oceans is largely unanswered. Future research may reveal it to

Mr. Bernard Chadenet

December 28, 1970

constitute a serious threat to biological productivity and the integrity of essential ecological systems.

cc: Mr. L. Weiner

Ecology

I N C O M I N G C A B L E

DATE AND TIME
OF CABLE:

DECEMBER 23, 1970

121P

LOG NO.: WU 16/24

TO: WYATT INTBAFRAD

FROM: TORONTO

R O U T I N G

ACTION COPY: P. U. POWER II

INFORMATION COPY: PUBLIC UTILITIES PROJECTS

DECODED BY:

TEXT:

AIR POLLUTION CONTROL REPORT AND COMMENTS ON LEGISLATION WILL BE

DESPATCHED AIR MAIL DECEMBER 29

M KATZ

BF



Ecology 12

THE CONSERVATION FOUNDATION

1717 Massachusetts Avenue NW Washington DC 20036 • (202) 265-8882 Cable: CONSERVIT

December 23, 1970

Mr. John King
Training Officer
Special Projects Office
IBRD
1818 H Street, N.W.
Washington, D.C.

Dear Mr. King:

As I promised, I am sending you a copy of Tom Wilson's bibliography.

Happy holidays and hope to continue our probings with you after Christmas.

Fondly,

A handwritten signature in red ink that reads "Kathleen McNamara". The signature is written in a cursive, flowing style.

Kathleen McNamara

w



INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

1818 H Street, N.W., Washington, D. C. 20433, U.S.A.
Area Code 202 • Telephone - EXecutive 3-6360 • Cable Address - INTBAFRAD

*yellow
copy
for files*
Ecology
12

December 23, 1970

Mr. Glenn E. Schweitzer
Office of Science and Technology
Agency for International Development
320 21st Street
Washington, D.C.

re: Preliminary Environmental Consideration for Developing
Projects in Developing Countries

Dear Mr. Schweitzer:

Thank you for your subject memorandum of December 3, requesting the comments of Mr. Wieczorowski and myself on the draft of a set of environmental considerations for development projects that present troublesome ecological, public health, and social aspects.

As you may know, I had an opportunity to discuss these considerations with Messrs. Long and Blowers of the State Department a few weeks ago. We came to general agreement that the six development activities cited did, in fact, span the gamut of projects most often associated with environmental and related problems. Also, I discussed a similar set of considerations with John Milton, Catherine McNamara, and Peter Freeman of the Conservation Foundation. They are developing a handbook of ecological criteria for use by development planners and others engaged in project identification, appraisal and implementation. This is being carried out in conjunction with the International Union for the Conservation of Nature (IUCN). Again, we are in substantial agreement as to the substantive aspects and the necessity for such guidelines.

All of us in economic development activities urgently need guidelines and criteria. Of necessity, they initially will be of a generalized nature. This will lead, however, to the production of criteria for more specific or micro-scale situations, e.g., tropical estuaries, tropical rain forests, etc.

If we can be successful in providing guidance on the six development activities set forth in your draft document, we will have made an important contribution. Refinements of these environmental considerations can be made in the meetings designed to

W

Mr. Glenn E. Schweitzer

December 23, 1970

develop more detailed guidelines, and in critique and evaluation sessions.

We wish to compliment you on this initiative and to assure you of our continuing interest and cooperation.

Cordially,

James A. Lee
Environmental Advisor
Office of the Director, Projects

cc: to be cleared with Mr. Wierzchowski

yellow like
copy

Ecology

OFFICE MEMORANDUM

TO: Files DATE: December 18, 1970

FROM: James A. Lee *JAL*

SUBJECT: Meeting - University of Michigan Graduate Students - Proposed International Project.

On December 17, I met with Mr. Jack Mathias and Mrs. Susan Allan, both University of Michigan Graduate Students and Dr. Charles Cooper of the National Science Foundation. The purpose of the meeting was to acquaint me with a proposed study by a multi-disciplinary team of University students focused around the environmental and related social consequences of a development project in a developed country in Asia. The two students outlined in general their desire to work on an estuary that was being subjected to pollution and shore-line and bottom changes. They sought the advice of the Bank on a suggested project and also inquired as to the possibility of Bank support for some part or all of their work.

While the meeting was largely limited to an exchange of information, I did offer to assist them to the extent of putting them in touch with appropriate Bank staff members when they have developed a more complete prospectus. I was joined at the meeting by Mr. Richard Westabee, who counseled them in matters of the Bank's research funding capability.

Ecology

December 18, 1970

Miss Elizabeth Borgese
Box 4058
Santa Barbara
California 93103



Dear Miss Borgese:

Your invitation to President McNamara to participate in the second Pacem in Maribus Convocation has been brought to my attention by his office.

When the agenda is firmed up would you kindly send me a copy. The demands upon my time are, as you might expect, exceedingly great as I am the Bank's sole adviser in the environmental area. Nevertheless, the opportunity for participating may present itself.

The agenda and any related background information would be welcomed.

Cordially,

James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

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Ecology 2

Files

December 18, 1970

James A. Lee

Meeting - *JAL* University of Michigan Graduate Students - Proposed
International Project.

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TA- 715 HJS
cc Ecology

The Secretary

December 17, 1970

The Environmental Adviser *h*

December 8 Board Meeting: Points of Interest and
for Action - Draft of December 15, 1970

Mr. Chadenet has asked me to review the subject draft report, and provide clearance on his behalf.

The draft appears to be an accurate accounting of the discussions centered around the Kidatu hydro-power project.

While the environmental reconnaissance did not reveal any ecological consequences of a nature to preclude going ahead with the project, the subsequent in-depth study may suggest changes in its implementation. The potential for the introduction and spread of diseases requires careful attention and study. Thus it is important that this study be conducted by a well-qualified, multi-disciplined team to ensure consideration of all factors which might prove inimical to the environment and human well-being.

On the draft copy (attached) I have penciled in a few changes, including substituting Uganda for Tanzania as the site of Murchison Falls.

cc: B. Chadenet

PH - Campbell

0220 103

7/15

Tu - Wetland
1/4 - Wetland

December 17, 1970

✓ CC - Ecology

CC BR - MHR

10/15 - Kamburu

Mr. Bernard Chadenet

James A. Lee

Some Accomplishments - Initial Month - Environmental Adviser

At a meeting recently with some people from the Conservation Foundation, I had occasion to review some of our environmental activities this past month, and it occurred to me that a brief listing might prove interesting to you.

I. TANZANIA - Kidatu Hydro-Power Project

In this project we were successful in re-routing the transmission line in a manner that would not detract from the scenic and aesthetic qualities of the Mikumi National Game Park. A further side benefit resulted as the cost of installing the line is expected to prove less than originally estimated; and, the park warden agreed to provide access roads to the new route at cost.

Phase IA of the Ecological Study revealed, in a general way, some of the expected environment/health problems. Preparations for conducting the critical Phase II study will include the Environmental Adviser as regards selection of qualified consultants and protocol for the study.

Note: Mr. Peter Ndegwa, Ministry of Finance and Economic Planning, Kenya, has requested similar advice from the Environmental Adviser in conducting an ecological reconnaissance and subsequent studies relating to the Kamburu Power Project.

II. PHILIPPINES: PDCP-STPP Subproject

The Environmental Adviser was requested to review the ecological aspects of this project designed to manufacture phosphate-based detergents. His views were considered by the Projects Working Party in their evaluation of its long-term viability. The Working Party has recommended against the financing of this project based, in part, on ecological considerations.

III. BRAZIL: MBR Iron Ore Terminal Project

Consideration of the ecological impact of the proposed terminal project in Sepetiba Bay has resulted in a decision to send a reconnaissance party early in the New Year. It is expected the reconnaissance will point out the nature and scope of any problems, if any, likely to develop as a result of construction and/or operation of the project.

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IV. INDONESIA: Agricultural Project

The possibility of creating conditions suitable for the extension of Schistosomiasis through the engineering of this project was brought to the attention of the Agriculture Department. Efforts to seek up-dated information on this disease in Indonesia and the likelihood of its introduction and/or extension as a result of this project are underway.

V. YUGOSLAVIA: Dubrovnik Water and Sewerage Project

The assistance of the Environmental Adviser was sought with regard to the adequacy of the proposed project in relation to public health and pollution of the off-shore waters. As this is the site of a developing tourism complex, both matters are of importance. Advice was given on sources of information and expertise pertaining to the ecology and oceanography of the Adriatic. Information is being sought from these sources by the Special Projects Department, which will be of use in assessing the adequacy and effectiveness of the project. In addition, such information should prove of interest to the Tourism Department.

VI. AFGHANISTAN - Kunduz Irrigation Project

Inquiry into the possible effects of this project on Schistosomiasis proved useful. It also further spurred our efforts to have WHO prepare guidelines and criteria useful in the design of irrigation and reservoir projects. Recommendations for a conference on and studies of the economic aspects of water-borne diseases have been forwarded to WHO. Also, a case study of Schistosomiasis in the Cameroons was suggested as a means of obtaining "hard" data for use in constructing guidelines.

VII. TURKEY: Istanbul Sewerage and Antalya Forest Industries Projects

The Environmental Adviser has been approached for his possible assistance on the environmental problems associated with these projects. He will be briefed on them shortly and will attempt to render assistance.

VIII. U.N. Conference on the Human Environment

The Environmental Adviser has been active in this area, including meetings with Mr. Maurice Strong, the Secretary-General, and Dr. Thomas Wilson, principal consultant to Mr. Strong. A request to the Bank from Mr. Strong for a report on the "Bank's environmental activities and planned programs" for inclusion in the second U.N. annual environmental report resulted in its preparation by the Environmental Adviser. In addition, he is in touch with the principals preparing the U.S. position papers for the Conference agenda and the principals in the international organizations such as IUCN, SCIPP, MAR/UNESCO, SOPE, etc. He has been invited by Mr. Strong to participate in the second Preparatory Conference scheduled for February. He has discussed the Conference with a number of Bank staff including Demuth, Hoffman, Piley and Wesrebee.

Ecology

Files

December 16, 1970

James A. Lee

JAL

The Woodrow Wilson Institute - Smithsonian Institute

- On December 16, Mr. Merriam of the Public Affairs Department and I were invited by Mr. Benjamin Reed, Executive Director of the Institute to a luncheon meeting at the Smithsonian. The purpose of the meeting was to acquaint us with the activities, present and planned, which would be of interest to the Bank. It should be mentioned that Mr. Reed has had earlier conversations with Mr. McNamara regarding this operation and has been given reason to think that the Bank would indeed be interested in its undertakings.

In essence, the Institute seems to bring together distinguished scholars from here and abroad, to engage in research and related activities in a variety of fields relating to public affairs issues. A number of scholars in ^{response} ~~response~~ are addressing themselves to the problems of the environment and Mr. Reed indicated that additional scholars in this field would be welcomed. To this end, Mr. Christian Herter of the State Department is canvassing the various Embassies abroad to seek out qualified scholars for appointment. Mr. Reed indicated that he would welcome suggestions for scholar appointments from the Bank and asked if we would undertake to seek out such individuals through our Missions and our offices abroad or through our general knowledge of such people. Mr. Merriam and I questioned him as to the form and manner in which the scholars works would be made available for public use. In particular, we were concerned that their respective end products would be in a form useful to the Bank. We also questioned him as to the possibility of Bank staff being invited to dialogue sessions, seminars and/or symposiums that the scholars might be conducting. The possibility for Bank financial support of appropriate activities of the institute were discussed, but neither Mr. Merriam nor I were in a position to give definitive answers.

Mr. Reed will be sending over literature and related material regarding the institute and this will be made available to appropriate individuals within the Bank.

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Ecology

Files

December 16, 1970

James A. Lee

Meeting with Representatives - the Conservation Foundation

On December 15, I met in my office with Miss Catherine McNamara and Mr. Peter Freeman of the Conservation Foundation to discuss the interest and possible assistance of the Bank in the Foundation's newly launched effort to prepare guidelines and/or a handbook on environmental criteria to be observed in economic development activities in the lesser developed countries. During the latter half of our discussions, which occupied some two hours, I invited John King to join us.

Mr. Freeman sought to interrogate me as to my role and responsibilities within the Bank for ensuring that ecological considerations were made a part of the Bank's project activities. He questioned me in depth as to the strategies that I might develop to bring this about and, in a few instances, made so bold as to suggest how the Bank might conduct its affairs in this regard. He was also very much interested in the role the Bank might play in the preparation of the agenda for the 1972 U.N. Conference on the Environment.

I fielded Mr. Freeman's questions within the limits of my knowledge of the Bank - and its operations (4 weeks) and suggested in an oblique way that I was not ready in every instance to disclose the strategies I have in mind. It was my observation that perhaps Mr. Freeman might examine his approach to the various international development agencies which he will be visiting, for I fear that his attitude may result in some obstacles to what otherwise might be effective cooperation. Miss McNamara on the other hand sought to encourage the Bank in its environmental efforts and seemed disposed to await the results of the Bank's activities in this regard.

The Conservation Foundation through these two people and Mr. John Milton are of course seeking the help and the assistance of the Bank in the preparation of its handbook and are especially interested in securing ~~some~~ study material. We indicated our reciprocal interest in this endeavour and our willingness to cooperate in any way that we could.

On the whole it was a useful and amicable meeting and we look forward to cooperatively participating in the preparation of this much needed handbook.

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OFFICE MEMORANDUM

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Ecology
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TO: Files
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W

power
✓ CC Ecology

Mr. Ernesto Franco-Holguin

December 15, 1970

James A. Lee

Symposium on Rapid Methods for
Measuring Radioactivity in the
Environment.

Per your request regarding attendance at the subject Symposium, I do not plan to attend or send a representative. However, perhaps someone in the Power Department may be interested insofar as their interest in nuclear power plants is concerned. Thank you for calling this matter to my attention.

cc: Mr. Weiner (Enc.)

W

Ecology

OFFICE MEMORANDUM

TO: Files

DATE: December 14, 1970

FROM: John A. King *JAK*SUBJECT: International Aspects of the Environment

1. On December 10, 1970 I attended a discussion of International Aspects of the Environment by Gordon MacDonald, one of the three members of the President's Council on Environmental Quality (CEQ), at the Council on Foreign Relations.

2. Mr. MacDonald began by saying that the environment had become an important and "sexy" political issue in the U.S. In the recent elections, a number of Congressmen, the "dirty dozen", had been challenged on their poor voting record on environmental issues and a substantial fraction of them had been defeated. The interest of Congress in the environment was demonstrated by the strong support for the legislation requiring a "clean" internal combustion engine by 1975 and the vote against the SST in the Senate. In the November elections, a large number of bond issues for environmental purposes were approved by the voters. Mr. MacDonald believed that the American voters were sophisticated with respect to this issue.

3. Mr. MacDonald noted that in other developed countries there was also a growing interest in the subject. He mentioned Japan where a special session of the Diet was considering twenty-six measures dealing with environment and pollution.

4. Mr. MacDonald pointed out that environmental standards could have important trade consequences. On the one hand, they might operate as another kind of quota (e.g. by excluding the import of automobiles which did not meet environmental standards) or hamper exports by increasing costs.

5. Mr. MacDonald said that he had recently visited a number of developing countries in Asia and had found they were facing problems similar to those in the developed countries. He believed that at the higher governmental levels the most important concern was still economic development, but at the lower levels there was more concern for environmental matters. He noted a number of critical areas:

- (a) Air Pollution: Seoul, Taipei, Ankara, Mexico City, Bangkok, Djakarta and Manila have air pollution problems more severe than almost all cities in the developed countries.
- (b) Poor Use of Timber Resources: He noted a poor use of timber resources (over-cutting followed by poor agricultural practices resulting in erosion) in a number of countries, particularly the Philippines and Indonesia.

- (c) Offshore Oil: Extensive new offshore exploration and drilling for oil in South Asian waters posed great hazards to the environment.
- (d) Fisheries: People in South Asia depended on fisheries, both fresh and salt water, for the great bulk of their protein and the fisheries were endangered by bad forestry practices, bad agricultural practices and offshore oil drilling.
- (e) Water Supply and Sewage: A critical problem with respect to the urbanization of the developing countries was the completely inadequate system of water supply and sewage, with the consequent dangers of a heavy incidence of water-borne disease.

6. He expressed his concern over the responsibility of the U.S. for worsening the environment in the developing countries, both through AID programs and private investment, though AID was now paying more attention to environmental considerations. Until now, the Governments had not objected to these consequences, perhaps because of the concentration of the higher governmental authorities on economic development, but Mr. MacDonald feared the development of nationalistic reactions against the U.S. for "exporting pollution" and taking an unfair advantage of the developing countries in exploiting their natural resources.

7. Mr. MacDonald then outlined the five principal U.S. initiatives for the 1972 Conference on the Human Environment.

- (a) Improved Water Resource Management: He believed that there had been a general failure of economic planners to provide good water resource management and that greater emphasis was needed in this area. Also needed was a new technology for urban water supply and sewage which would be within the financial means of the developing countries. He proposed the use of regional research institutes, like the agricultural research institutes, concentrating on regional water resource problems, especially in the fields of agriculture and public health.
- (b) Better Management of Natural Resources: Here the problem was the strengthening of administrative capacity in the developing countries. This would require both training of administrators and the development of regulatory techniques and practices. The specialised agencies had much to contribute here. Again he thought that regional research institutes working on these problems could make an important contribution.
- (c) An Attack on the Problems of Urbanization: Mr. MacDonald did not have any specific solutions here, but spoke of strengthening the administrative

capacity, better water supply, training and employment programs and the like.

- (d) Improved Capacity for the Dissemination of Warnings of Impending Catastrophes like Hurricanes and Tidal Waves:

He pointed out that the technology for predicting these cataclysms was adequate, but the means for dissemination warnings to the mass of people affected was not.

- (e) The Production and Transportation of Oil: Here the U.S. would hope that treaties banning the discharge of oil in the oceans and creating safeguards for offshore production could be negotiated before 1972 and signed at the Stockholm Conference.

8. During the question period, most of the questions were concerned with how industry could meet the standards being set and pay for the costs of meeting them. A number of those present suggested that these were social costs which should be paid for out of general government revenues.

cc: Messrs. Chadenet/Baum, Hoffman, Lee, Pryor, Sadove, Weiner

JAK/lmcm

World Meteorology
NY

CC Ecology
December 11, 1970

Mr. Harold N. Graves

James A. Lee

World Meteorological Organization: Program and Budget, 1972-75

Somewhat tardily I have perused the subject copy of the Secretary-General's proposals for the WMO as furnished to Mr. McNamara on September 11, 1970, and acknowledged by your letter of September 30, 1970.

In looking only at the program on Interaction of Man and His Environment, I feel WMO should take a very active part in the proposal to establish a global environmental monitoring network. Such a proposal is being actively advanced by the International Council of Scientific Unions through its Special Committee on Problems of the Environment. Directing this effort is Sir Eric Smith, FRS, of Australia. The proposal will be firmed up during 1971-72 and can be expected to be an important agenda item at the 1972 U.N. Conference on the Human Environment. WMO's long experience and the utility of its meteorological and hydrometeorological services would seem to be an essential element of a global network for monitoring the environment.

Also, I noted with interest and approval WMO's participation in the work of an expert group on the Scientific Aspects of Marine Pollution. I firmly believe the subject of marine pollution will be an "action" item on the '72 Conference agenda and, again, WMO can make an effective contribution in this area.

cc: Mr. Richard Van Wagenen

W

Mr. G. Fossi

James A. Lee

Conference on Marine Pollution - FAO

FAO
VCC Ecology
December 11, 1970

Thank you for bringing this Conference to my attention. We will, indeed, be interested in the papers being presented as well as any conclusions which may be reached at the Conference.

I would hope that in addition to the marine biologists, ecologists, pollution experts, etc., that are participating, that representatives of industry and maritime transportation, for example, are also present. We "scientific types" have a tendency to talk to each other and not include others who should be a part of the discussion.

Thank you again for bringing this to my attention and please do send along whatever articles, papers, etc., you think would be of interest to my office.

cc: B. Chadenet

Ecology le

Mr. Ernesto Franco-Holguin

December 11, 1970

James A. Lee

ECE Conference on Problems Relating to Environment - Prague,
May 2-15, 1971

Thank you for sending me the information on the subject conference. At your convenience I would like the opportunity to discuss with you its significance for the Bank. Perhaps we might do this before a reply is sent to Mr. Stanovnik if, indeed, this has not already been done.

Thank you.

Ecology

Mr. Hans Fuchs

vDecember 11, 1970

James A. Lee

Solid Wastes Management

Because the growing problem of solid wastes management has direct implications for industry, the attached list of available literature on this subject may be of interest to certain members of your staff.

Ecology 12

Mr. Martial M. M. van Gent

December 11, 1970

James A. Lee

Employment of Scientific Consultants - Ecological Reconnaissance

In accordance with our subject telephone conversation of December 8 - am enclosing the curriculae vitae on the three gentlemen who I should like to employ as consultants for a period of about 10 days in early January.

In company with a staff member of the Industrial Projects Department, the 3-man team would go to the vicinity of Sepetiba Bay, south of Rio de Janeiro in Brazil. There in accordance with the terms of reference governing their activities, they would conduct andecological reconnaissance of an area to be affected by a proposed iron-ore marine terminal.

I will be pleased to discuss with you the matter of their remuneration.

Thank you.

Encs.

Ecology e

Mr. William Clark

December 11, 1970

James A. Lee

Intra-Bank Dissemination of Environmental Information

Since coming with the Bank a few short weeks ago, I have been thinking how we might bring to the attention of appropriate members of the Banks' staff, timely and salient information on environmental matters.

At your convenience, would you be so kind as to meet with me on this and perhaps related matter. I would sincerely value your views and counsel.

✓ Ecology
cc Agriculture

Mr. L. J. C. Evans

December 11, 1970

James A. Lee

Research Proposal - Casava-based Nutrient Generating System

The growing use of casava and its current position as the sixth major staple food in the world, has also posed questions as to its role in protein deficiency diseases and the mal-absorption syndrome (which AID investigators suggest accounts for tremendous food wastages).

While giving a seminar recently at the University of Colorado School of Medicine the attached proposal was brought to my attention. Because of its "potential" for offering new approaches to the generation of protein-rich food under primitive conditions of economy and technology, I requested a copy for your perusal. I think there is a possibility this research will be financially supported by the National Science Foundation.

If you have any interest, comments, or suggestions, I know that Drs. Cobb and Rogers would welcome them.

cc: Mr. W. Wapenhaus

Attachment

W

Ecology

December 11, 1970

Dr. John C. Cobb
Department of Preventive Medicine
University of Colorado Medical Center
4200 East Ninth Avenue
Denver, Colorado 80220

Dear Jack:

Just a hasty note to thank you and Dan Teitelbaum for the very warm reception accorded me last week. I enjoyed every minute of my stay and particularly appreciated the efforts of Holly and yourself to provide such a pleasant evening.

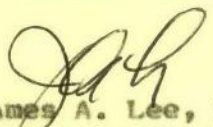
I shall be looking for the Indonesian report and will pass it along to Dr. K. Kanagaratnam with the admonition that it not be quoted until officially released.

Am enclosing outline of our Human Ecology Seminar for Sam, Dan, and yourself to glance at. It has gone very well, so far, and we are making plans to expand it.

Will look for you to visit D.C. in the not too distant future.

With kindest personal regards,

Cordially,


James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

cc: D. Teitelbaum

Encs.

W

Ecology

December 11, 1970

Dr. George Rosen
Editor
The American Journal of Public Health
1740 Broadway
New York, New York 10019

Dear Dr. Rosen:

Thank you for your welcomed letter expressing interest in a recent talk prepared for the Alaska Chapter of the AAAS Conference.

Dr. Hanlon was very kind to suggest that it might be worthy of publication. I will make every effort to revise it into a form suitable for publication in the APHA Journal.

Having just recently entered the service of this institution, I find the demands upon my time leave all too little time for the kind of writing that both Dr. Hanlon and I enjoy. Hopefully, the Holidays may provide an opportunity to put the article in shape.

Cordially,


James A. Lee, Ph.D.

cc: Dr. J. Hanlon

W

WHO
✓ Ecology
ce Water

December 10, 1970

Dr. Andrew A. Arata
Ecologist
World Health Organization
Avenue Appia
1211 Geneva 27
Switzerland.

Dear Dr. Arata:

You may recall we met briefly at the Fourth General Assembly of the International Biological Program in September at the FAO in Rome.

I am writing to inquire if you could secure 12 - 15 copies of a little WHO-FAO publication entitled "Health Implications of Water-Related Parasitic Diseases in Water Development Schemes", issued in 1967.

In fact, Andrew, I would appreciate receiving any articles, publications, etc., dealing with parasitic diseases that might be currently available from WHO. Would you be so kind as to scout around to see what might be secured.

Tentative plans call for my being in Geneva in February and I would hope to visit with you at that time.

With many thanks for your cooperation in this request, I am

Cordially,



James H. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

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December 9, 1970

Mr. Maurice F. Strong
Secretary-General
United Nations Conference
on the Human Environment
United Nations
New York, New York

Dear Mr. Strong:

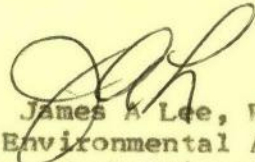
We were delighted that you could arrange to visit with us yesterday. It was a most stimulating and profitable exchange, and you made a most favorable impression upon all of us.

I am enclosing two brief documents which may be of interest, to you or your staff. The statement of Mr. Julian Grenfell, the Bank's Chief of Information and Public Affairs, Europe, to the First Commonwealth Conference on Development and Human Ecology you will find interesting. A report on the Central American Environmental Conference and its implications for the Stockholm Conference was prepared by Mr. John King and is included.

Also, in line with your request, I am enclosing four (4) brief biographical sketches on the gentlemen you met with in our office.

Let me say most sincerely that I look forward to our association in this very important undertaking.

Cordially,



James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

Enclosures.

Ecology
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December 8, 1970

Mr. William J. Hart
Vice President
Coastal Zone Resources Corporation
4009 Oleander Drive
P.O. Box 848
Wilmington, North Carolina 28401

Dear Bill:

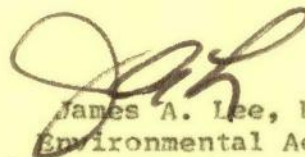
Your welcome letter of November 25th received and I too was sorry that you had to miss the NAS-PAC Conference on Land Utilization. It was a particularly good one and has already enjoyed a number of promising spin-offs.

As you will note from the letterhead, I am now with the World Bank with responsibilities for the environmental/health aspects of the Bank's world-wide operations. In this regard, I am attempting to assemble a list of qualified consultants in a broad spectrum of fields. As not a few of our projects will involve the estuarine and off-shore environments, I would like to have your firm represented on that list. Accordingly, I am asking Mr. Finne of our staff to send you the necessary forms and I would hope that you would complete and return them at your earliest convenience.

Should your travels bring you and/or Dave Adams to Washington, I would hope that you would stop in for a visit.

With kindest regards,

Cordially,



James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

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Ecology ce

December 8, 1970

Dr. Theron G. Randolph
President
Human Ecology Research Foundation
720 North Michigan Avenue
Chicago, Ill. 60611

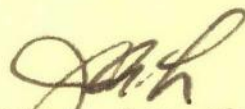
Dear Theron:

Thank you for your welcome letter of November 27th outlining the recent activities of the Foundation and that of the Society for Clinical Ecology.

I am indeed pleased that the activities of both organizations are going so well for I know something of the personal effort you are making. I manage to see Dr. Kailin on occasions and in fact persuaded her to give a lecture at our initial Human Ecology Seminar at the George Washington University Medical School.

Please do keep me informed as to your activities and please notify me as to the date and place of the next Society meeting.

Very sincerely,



James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

W

Ecology 12

December 8, 1970

Dr. Paul Kotin
Director
National Institute of Environmental Health Sciences
Research Triangle Park
North Carolina 27709

Dear Paul:

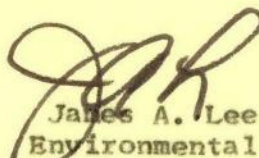
As you will note from the letterhead, I have recently come with the World Bank with responsibility for the environmental and related health effects of the Bank's ever-increasing world-wide activities. The dimension of these problems are such that from time to time, with your permission, I might seek out your advice and counsel on some problems.

The New York Times of Wednesday, October 7, 1970 carried an interesting article attributing to you a statement that the cost of ill health from environmentally caused illnesses might be placed at \$35 billion a year. This estimate of the "social cost" attributable to the changing man-environment relationships has aroused some considerable interest within the Bank - for as you know, quantifying these "social cost" or "diseconomies" is a terribly difficult task at best. We shall be faced with carrying out this kind of an exercise increasingly in the future as we realize that the consequences of some of our projects are not without their untoward effects on human health and well-being.

Would you kindly send me a copy of your paper and for the benefit of my colleagues in the Bank, include some description of the methodology that was employed.

With all best wishes,

Cordially,



James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

12

WHO-
✓ EEBiology

✓

December 7, 1970

Dr. J. Kartman
Parasitologist
Parasitic Diseases
Division of Communicable Diseases
World Health Organization
1211 Geneva 27, Switzerland.

Dear Dr. Kartman:

My colleague John King has asked me to reply to your communication of 16th November, 1970. A small group of us within the Bank have now considered how we might respond to your letter, inviting us to suggest items that might go on the agenda for the proposed multidisciplinary meeting on the economic implications of parasitic diseases (principally in Africa).

As we view the proposed meeting, its main purposes would be: (1) to report on the present state of technical knowledge with respect to a specified number of parasitic diseases and (2) to influence the thinking of those who participate and, indirectly, the organizations to which they belong. The purpose would not be to necessarily invent new ways of thinking about the economic aspects of the problems presented by these diseases since we feel that the central problems can easily be brought within the present framework of cost-benefit analysis if the essential technical data on cause-and-effect relationships exist. An important function of the meeting would be to see whether or not this can be assumed and for which diseases. Let me try to spell this out more explicitly.

To give the meeting sharper focus, we suggest that attention be limited initially to five parasitic diseases, as for example: Trypanosomiasis (tsetse fly vector), Onchocerciasis (Black fly vector), Schistosomiasis (snail vector), Enteric diseases, and Infections with helminths. There may be good grounds for believing that one can predict with reasonable confidence what the consequences of a given development project (e.g. a dam, an irrigation scheme; a jungle-clearing required by a road, railway, or power-line) will be with respect to the introduction or spread of given vectors and parasites, assuming no special measures were taken. The effect on the prevalence and incidence of disease among the population within range of the project could then be inferred. One purpose of the meeting would be to assess the validity of the statements just made, and to make distinctions depending on types of projects, specified vectors and diseases, and specified environments.

W

Once the probable prevalence and/or incidence of various diseases has been specified, one must then ask whether the technical means exist to prevent or to minimize the adverse effects predicted and, if they do, to ask how much they would cost. If no preventive measures are possible, then all attention would turn to curative measures, their existence and cost. At this point we would have the technical data needed for a comparison of "costs" and "benefits", even though these may have to be handled in terms of probabilities (e.g. the probability of inducing a certain incidence to altering its incidence); the chief remaining problem would be to put an economic value on the benefit side of the equation.

In some cases it may prove possible to construct acceptable estimates of the effect on economic activity of specified diseases. The main adverse effect, of course, would be a loss of output arising from the debilitating effect of the disease on a member of the labor force. But where there is unemployment, and where the definition of the "labor force" is arbitrary and elastic (as under conditions of much family and tribal life) it is likely to be extremely difficult to decide whether or not any production is in fact being lost simply because some members of the community have fallen ill. The absence of quantifiable production losses certainly does not mean that the disability is not bad; but it would prevent the economic analysis from being treated in conventional cost-benefit terms. In such a case the project-planners must rely exclusively on a balancing of the qualitative benefit of preventing or minimizing the disease on the one hand and the costs of doing so on the other.

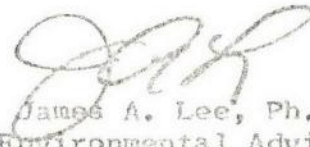
In the past, there have undoubtedly been cases when the adverse "side effects" of projects on public health were not made part of the pre-investment studies. The increase of medical and environmental knowledge, combined with changing social standards, are now making possible - and requiring - that these effects of development projects be studied explicitly. This does not imply that projects should not be sanctioned if they have adverse side effects on public health; it does imply that the projects should be studied and designed with a view to minimizing these effects if it is technically possible to do so at "acceptable" levels of cost. If the technical and/or social effects of projects on parasitic diseases can be predicted in advance with "reasonable" certainty, then it may help governments and financing institutions to charge the costs of these effects directly to the project and -what is more important- to secure timely recognition of these problems so that they can be prevented or minimized.

December 7, 1970

- 3 -

The preceding paragraphs outline our general views on an agenda for the proposed meeting. We would be pleased to translate these general views into a set of specific agenda topics together with suggestions for background papers (which we feel should be rather informal and brief for an initial meeting). We would also be pleased to suggest the names of a few individuals who might be invited to contribute papers, most of them in the field of economic analysis. We will, of course, be most interested to hear whether or not the approach outlined here appeals to you and your associates and, if it should not, to learn what alternative approach you feel might be preferable.

Sincerely yours,



James A. Lee, Ph.D.
Environmental Adviser
Office of the Director, Projects

cc: C. Baldwin
J. King

Attachment

Meeting - Misc
✓ Ecology

December 2, 1970

Mr. Julian Grenfell
European Office
International Bank for Reconstruction
and Development
66 Avenue d'Iena
Paris 16e, France

Dear Julian:

That was a remarkably good memorandum on the Malta
Conference and I am very grateful to you for having sent
it to me.

Sincerely,

Michael L. Hoffman
Associate Director
Development Services Department

MLHoffman/pnn

cc: Dr. Lee *JMLH*

(Incoming material retained in DSD)

Meetings - MISC
re Ecology

December 1, 1970

Mr. Julian Grenfell
International Bank for Reconstruction
and Development
66 Avenue d'Iena
Paris 16e
FRANCE

Dear Julian:

Thank you for your letter of November 25, with your interesting report on the first Commonwealth Conference on Development and Human Ecology. It sounds like an extremely useful and constructive meeting.

Maurice Strong, who is to be Secretary-General of the Stockholm Conference, will be visiting the Bank next week and your memo will be brought to his attention.

With best wishes,

Yours ever,

AJK
John A. King
Training Adviser
Office of the Director, Projects

cc: Mr. Lee

JAK/lmcm

Ecology

December 1, 1970

Professor Leo Marx
Department of English and American Studies
Amherst College
Amherst
Massachusetts

Dear Professor Marx:

As an engineer who has spent his professional career on environmental matters, I wish to thank you for the excellent paper which you authored and which is presented in the November issue of 'Science', entitled "American Institutions and Ecological Ideals". It sets into perspective the problems and attitudes of scientists, engineers, politicians, and the public in a manner which many of us have felt but have not had the ability to analyze and express. I concur with your proposal and conclusions. There seems no other logical approach at the moment, although I am concerned that if a panel is created, its findings will receive less attention and result in less positive policy than is needed.

Again thank you for your paper.

Very truly yours,



Harold R. Shipman
Chief, Water Supply Division I
Public Utilities Projects Department

HRShipman:at

Ecology

November 30, 1970

Mr. Julian Grenfell
Chief of Information
and Public Affairs, Europe
International Bank for
Reconstruction and Development
66, Avenue d'Iena
75-Paris 16^e, France

Dear Mr. Grenfell:

Your letter of November 25 to Bernard Chadenet transmitting a set of papers from the First Commonwealth Conference on Development and Human Ecology has been received by him. He asked that I acknowledge your letter and to express his appreciation for your promptness in making this material available.

I have not had an opportunity to review the papers but did read the transcript of your remarks. Let me say at the risk of inflating your ego that your comments were well chosen and set forth the hopes and expectations of the Bank as regards its environmental responsibilities. I am sure that Mike Hoffman will be pleased at your comments as will John King and Bill Clark.

Over the months ahead we will be developing new organizational and procedural arrangements for carrying out these responsibilities. Knowing of your interest and desire to see the Bank move ahead in matters of the environment, your counsel will be welcomed.

With kindest regards,

Cordially,



James A. Lee
Environmental Adviser
Office of Director, Projects

JALee:vbr

cc: Mr. Chadenet

UN - Acc Functional Group on
Human Environment

✓ CC Ecology

Mr. Richard H. Demuth

November 30, 1970

James A. Lee

J. A. Lee

Report of the Secretary-General, U.N. on
Problems of the Human Environment

1. With reference to the subject letter from Mr. Maurice Strong of November 18, 1970 requesting information on the Bank's current activities and planned programs for inclusion in an updated report, I am pleased to submit the attached.
2. You will note it is, of necessity, very generalized. It sets forth the Bank's interest in and concern for the increasing dimensions of our environmental problems, and indicates the Bank's determination to be alert to its responsibilities in this regard. It does not provide any details as to how the Bank will proceed which, at this stage, would, I feel, be premature.
3. If you find this acceptable for submission to Mr. Strong, you may wish to send it forward over your signature. If you wish me to do so I will be pleased to comply.

JALee:vbr

Attachment

November 30, 1970

The International Bank
for
Reconstruction and Development

1. The World Bank Group as part of the United Nations family of organizations, has been alerted by the Secretary-General to the growing world concern with environmental problems. It has noted with approval the Resolution of December 3, 1968 calling for the convening of a "Conference on the Human Environment" in 1972. While the World Bank Group is not listed in the General Assembly Resolution among those international agencies already doing "important work on some problems of the human environment" it can be confidently expected that its activities in this area will be more visible by the time of the Conference.
 2. The President of the World Bank has voiced his concern over the growing global dimensions of environmental degradation. He has indicated the Bank will no longer be content with the quantitative aspects of its economic development activities but will give increasing emphasis "to the genuine quality of man's life on the planet." Further, he has instructed the Bank's staff at all levels to evaluate the ecological consequences of Bank-financed projects.
 3. To carry out the Bank's expressed determination to preclude or minimize any adverse environmental and related health effects, an Environmental Adviser was appointed late in 1970. He will be assisted in his duties by an Advisory Group composed of internationally recognized multi-disciplined authorities. Procedural and organizational changes will be initiated within the Bank, as necessary, to ensure that this aspect of the Bank's responsibilities is effectively discharged.
 4. It is not possible at this time to indicate the level and nature of professional staffing needed in the years immediately ahead. However, the Bank will be alive to both the staffing and associated budgetary requirements for carrying out its work, and can be expected to devote increased resources for these purposes.
-

Headquarters:
Washington, D.C., U. S. A.



INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Cable Address - INTBAFRAD PARIS

INTERNATIONAL DEVELOPMENT ASSOCIATION

Cable Address - INDEVAS PARIS



EUROPEAN OFFICE:

66, AVENUE D'IENA, 75-PARIS 16^E - FRANCE

Telephone - 553-2510

New Telephone Number
from October 27, 1970:
720.25.10

November 25, 1970

Dear John:

Enclosed is a copy of my report on the Commonwealth Conference on Development and Human Ecology which, thanks to your encouragement, I attended.

It was a very good conference indeed, and it was particularly heartening to note how genuinely delighted and impressed the organizers and participants were that the Bank was interested enough to attend.

I was invited to speak fairly informally to the Conference towards the end of the proceedings, and enclosed you will find an edited transcript of what I said.

Malta was delightful. But the Conference was so hard-working that one had all too little time to get around the islands. A good place for a vacation at some future date.

All best wishes,

Yours ever,

A handwritten signature in cursive script that reads "Julian Grenfell".
Julian Grenfell

Enc.

Mr. John King
Office of the Director, Projects
International Bank for Reconstruction
and Development
Washington, D.C. 20433

Ecology

Mr. B. Chadenet

November 25, 1970

James A. Lee

Seminar on Malaria and Schistosomiasis
in Developing Nations - American University

The Director of the Institutes for Environmental Systems Analysis, Dr. Martha Sager, at American University here in Washington, telephoned me recently to inform me of the subject seminar scheduled for January 4-8 which she felt would be of interest to appropriate personnel in the Bank.

As you will note from the attached the seminar is designed as an inter-disciplinary investigation of the role of malaria and schistosomiasis in the economic development, health and environmental future of large areas of the world. It would seem, therefore, that certain personnel in both the Area and Projects Departments might be interested in this seminar. I am inquiring as to the appropriateness of my sending this announcement to those departments that you might suggest. You will notice that the cost of the five-day seminar is \$125.

Could I have your thinking on this in order that I may inform Dr. Sager as to the disposition of her invitation?

JALee:vbr
Attachment

Ecology

Mr. W. J. Armstrong

November 25, 1970

James A. Lee

DR. ELIZABETH WHITCOMB

Thank you for bringing to my attention the forthcoming visit of Dr. Whitcomb. I would be pleased to meet with her as there are undoubtedly areas of mutual interest which could be discussed. I will await word from Mr. Shipman or yourself as to the details of her visit.

JALee:vbr

cc: Mr. Shipman

Ecology

OFFICE MEMORANDUM

TO: Files

FROM: James A. Lee *JAL*

SUBJECT: JOHN MILTON - The Conservation Foundation

DATE: November 24, 1970

On November 23 I was visited by Mr. John Milton who directs the international activities of the Conservation Foundation. John has been very active within IUCN in their newly launched efforts to prepare guidelines and/or a handbook on environmental criteria to be observed in economic development activities in the lesser developed countries. Specifically, John informed me that despite the inconclusive outcome of the recent IUCN meeting in Rome as regards the need for and the nature of such guidelines and/or handbook, IUCN is nevertheless going ahead with the project. He informed me that funds have been obtained from the Ford Foundation to proceed with the development of a "case study" type of publication. He hopes to achieve a substantive balance showing both the negative and positive environmental/health consequences of development projects around the world.

I discussed with him the need for and the desirability of developing a set of generalized ecological criteria against which economic development institutions such as AID, UNDP, World Bank etc., can make some preliminary assessment as to the possible impact of their proposed activities. He indicated his interest in and sympathy for such criteria and hoped that this may be found within his forthcoming publication or as an outgrowth of it.

We had a lengthy discussion on the environmental and health consequences of specific project activities around the world and the difficulty involved in gaining an acceptance of the need for ecological planning on the part of the governments of the LDC's.

He expects to bring in for my review an outline of the publication and is hopeful that the Bank will cooperate to the extent of making some case history material available to him as may be indicated.

JALee:vbr

Ecology

November 24, 1970

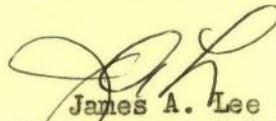
Professor Arthur D. Hasler
President
INTECOL
c/o University of Wisconsin
Laboratory of Limnology
Madison, Wisconsin 53706

Dear Art:

Thank you for your recent letter and the enclosed list of INTECOL commission members. This is precisely what I needed and, in fact, I will most likely need to obtain updated biographies from each of them to fulfil certain formal requirements of the Bank. However, before I do anything with this list and/or the individuals listed on it, I would like very much to have an opportunity to discuss the possible role of INTECOL as regards the Bank's interest in the environment. Would you let me know when next you are coming to Washington so that we can arrange for a get-together. If it appears that you will not be coming within the next month or so then perhaps I can journey out to spend half a day or so with you in Madison.

With all best wishes,

Cordially,



James A. Lee
Environmental Adviser
Office of Director, Projects

JALee:vbr

Ecology

November 24, 1970

Mr. John C. Ayers
Great Lakes Research Division
The University of Michigan
1077 North University Building
Ann Arbor, Michigan 48104

Dear John:

Thank you for your recent letter and the two copies of your biography.

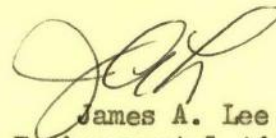
I would appreciate it if you would persuade Hoyt Whipple to send me a similar biographical sketch. I quite understand the pre-requisites that he attaches to his availability as a consultant and by sending me his biographical sketch he does not place himself under any obligation.

Thank you for the tip of Dr. Smith at Brookhaven. I will write him directly and ascertain his interest and availability.

With all best wishes to Kay and the girls,

I am,

Cordially,



James A. Lee
Environmental Adviser
Office of Director, Projects

JALee:vbr

Ecology

Mr. L. Christoffersen

November 23, 1970

James A. Lee

Meeting - Environmental Expert

I learned today that Dr. Eric Smith, FRS, who is the recently appointed Chairman of the Scientific Committee on Problems of the Environment (SCOPE) of the International Council of Scientific Unions will be in Washington, D.C. during December 9-14. While here he will meet with Mr. Maurice Strong, Under Secretary General for the Environment, United Nations. As head of one of the principal non-governmental environmental efforts which includes the establishment of a global network for environmental monitoring, it might be appropriate for the Bank to invite him for a visit. Specifically, if his calendar would permit, a luncheon with Mr. McNamara and perhaps Chris Herter of the State Department.

SCOPE can be expected to play an important role in the development of the agenda for the 1972 UN Conference on the Environment. Further, SCOPE is seriously considering the establishment of an International Center for the Environment. Such a proposal will need to be examined in a broad context containing four basic elements: the present structure of national systems, the UN and Specialized Agencies, the international science community and the less developed countries. SCOPE also envisions providing a mechanism for coordination of environmental activities carried on by non-governmental organizations and thus help, thereby, to achieve a rational division of responsibilities. Its role in establishing and implementing a global network for environmental monitoring will impact on the LDC's and their efforts to build up technological capabilities.

All this by way of saying that Dr. Smith can be expected to play an ever increasing role in global environmental affairs. I think a meeting between he, Mr. McNamara, and perhaps Maurice Strong, would be appropriate and useful at this early stage of developments.

JALee:vbr

OFFICE MEMORANDUM

TO: Files

FROM: James A. Lee *JAL*

SUBJECT: Visit of Dr. Mort Gordon

DATE: November 23, 1970

On November 19 Dr. Gordon met with Mr. Baum and myself to discuss the possibility of his consulting firm doing business with one or more of our Projects Departments. He outlined a series of innovative steps in the planning of a developing nation's industrial capacity. Such things as the concept of "industrial complementarity which in effect sets forth the phased, sequential steps of industrial development predicated on obtaining a close loop in the utilization of primary resources and their waste or by-products." He further advanced some innovative ideas in the planned development of transportation systems designed to service the industrial complexes that would be set up under his plan. So well did he articulate these concepts that Mr. Baum and I felt that his meeting with Mr. Fuchs, Industrial Department would be of mutual benefit.

In response to his suggestion that he could develop a seminar series for our Projects Department employees designed to "sensitize them" to the environmental aspects of their responsibilities and/or do an in-depth study of one or more minor projects in a developing country to show how his concepts and strategy of implementation would alter (if indeed they would) these projects, Mr. Baum suggested that we wait the 90 or so days that I had set as a minimal time limit before we would entertain proposals.

JALee:vbr
cc: Mr. Fuchs

Ecology

OFFICE MEMORANDUM

TO: Files

FROM: James A. Lee *JAL*

SUBJECT: Franklin Institute Research Laboratories (FIRL)

DATE: November 20, 1970

On November 20 I was visited by Mr. J. Spenser Huston, Manager of the Operations Research Laboratory of the subject organization. The purpose of Mr. Huston's visit was to acquaint me with the fact that FIRL had qualified as a consultant to the World Bank and he submitted to me two copies of the required forms.

Mr. Huston described the activities of FIRL, pointing out that they were a multi-disciplinary broad spectrum research organization, not for profit, and had recently completed studies in such diverse fields as air pollution for NAPCA, traffic safety for the Department of Transportation and had been retained to do the site analysis for the City of Philadelphia bicentenary in 1976.

FIRL is desirous of becoming involved in consultative work in the area of environmental impact and while admitting to little previous international experience nevertheless feel qualified to engage in such work. Mr. Huston was desirous of developing a "hard model" which could be used to systematically order an appraisal of possible environmental consequences in the very early stages of project identification and preparation. He asked whether I would entertain submission of a proposal to develop such a model to which I replied that I had given myself no less than 90 days before I would consider submission of a proposal from any contractor. On his own volition and at his own risk he is planning to develop the proposal and have it ready for a probable looksee sometime in March. He left with me four reports of various projects and studies completed by FIRL over the past few years.

JALee:vbr

cc: Mr. Finne

Irrigation
✓ cc Ecology

Mr. W. J. Armstrong

November 20, 1970

H. R. Shipman

Dr. Elizabeth Whitecomb - Ecology and Irrigation

In a telephone conversation this morning with Dr. Abel Wolman of Johns Hopkins University on another matter, he informed me that he had just returned from Europe and that during his stay in England he had met a Dr. Elizabeth Whitecomb who has been residing in India and the Middle East over the past five years, and has been studying and writing extensively on the ecological and economic aspects of irrigation and land development. Dr. Wolman indicated that she is currently working on a book in this field and expects to be in the USA for a few days in December. He suggested that she call me on arrival in Washington, since he felt after his talk with her that she had a considerable collection of facts about which the Bank ought to know.

Since Dr. Whitecomb's visit is more relevant to other departments of the Bank than mine, the foregoing is called to your attention with the suggestion that if others wish to set up a meeting or discussion group with her, I could refer her to them if and when she calls me.

HRShipman:at

Ecology

November 16, 1970

Frederick Sargent II, M.D.
Provost
Western Washington State College
Bellingham, Washington 98225

Dear Fred:

Thank you for your welcome letter of October 28 and to read that all goes well with you in the new position.

Since last we met I have moved over to the World Bank where I shall be advising it on a growing array of environmental and health matters. I can be reached as follows:

Telephone: (202)-477-2755
Room No. : C-307

I can truly sympathize with your efforts these days on behalf of higher education, especially as regards the growing paucity of research funds. I do not envy your task at all, but on the other hand I know of your ability in these matters.

Make it a point to know Doug Hansen as he can be very helpful to you in a number of ways, especially when the Environmental Protection Agency goes operational - and, besides, he is a splendid fellow.

Look forward to seeing you at the next National Committee Meeting. I am, with warm regards,

Cordially,

James A. Lee
Environmental Adviser

JALee:vbr

Ecology

November 16, 1970

Dr. Rene J. Dubos
Rockefeller Institute
New York, New York 10021

Dear Dr. Dubos:

The New York Times of November 12 brought me word of your impending move to the State University of New York at Purchase.

Let me say most sincerely how pleased I am that you will continue your active work in ecology. I know Curt Williams must be delighted at your decision to join him. I recall so well our discussion in your office a few years ago about your future. I am personally pleased that you chose to take this course for it is the one I hoped you would take. I am convinced that you can make a far greater contribution to the solution of our societal problems under these auspices than if you had decided to return to the laboratory bench.

I am hoping to call upon you in the near future in connection with my new position in the World Bank. I will be shortly calling your secretary for appointment.

With kindest personal regards,

Cordially,

James A. Lee, Ph.D.

JALee:vbr

Ecology

November 16, 1970

John Higginson, M.D.
Director
World Health Organization
International Agency for
Research on Cancer
16 Avenue Marechal Foch
69 Lyon (6eme), France

Dear Dr. Higginson:

As you can see from the title below I am the Bank's newly appointed Environmental Adviser which position I believe John King mentioned to you in his recent letter in reply to your communication of October 8, 1970.

I have been trying to recall if you and I have not met some time in the past. I have been associated with a number of people at the National Institutes of Health, such as Dr. Harold L. Stewart and Dr. Paul Kotin. It seems to me at one or more meetings or conferences we met and discussed, I believe, some problems relating to carcinogenic agents in the environment. At any rate I was pleased to note your interest in the Bank's environmental activities and during one of my forthcoming visits to Geneva I hope to visit with you.

In the meantime if there are any problems or matters that you would like to bring to my attention, please do not hesitate to call upon me.

Cordially,

James A. Lee, Ph.D.
Environmental Adviser

JALee:vbr

cc: Messrs. Demuth, Shipman, Otten

WHO
✓ Ecology

November 12, 1970

Dr. A. Neehi
Chief
Cooperative Programs for Development
World Health Organization
Avenue Appia
1211 Geneva
SWITZERLAND

Dear Dr. Neehi:

Thank you for your letter of November 3. I was sorry to miss you in New York, but I quite understand you could not find the time.

As you guessed, I did want to carry forward our discussion of how the Bank can best identify public health hazards of proposed investment projects, particularly those of water-borne diseases. After some discussion here, we have concluded that it would be best to examine this topic separately from the discussions which are now going forward between the Bank and WHO for collaboration in the field of water supply and sewage projects. It was thought that if we were to present WHO with a specific case, we might examine together, within the context of that case, how best to deal with the problems. The case we have selected is a proposed irrigation project in Cameroon. With this project, I am informed we have a site where S. haematobium and S. mansoni are both reported to be indigenous. Also, I am told we may find the three nonoperculate molluscan hosts (Balium, Physopsis and Planorbis) present, which suggests some interesting problems as regards their ecology and, hence, their control. I enclose a little summary of the basic data relating to this project; the feasibility study referred to consists of five rather thick volumes. Appraisal is tentatively scheduled for early 1971.

I would be grateful for your comments on the procedure proposed, and suggestions for any specific measures which WHO might propose in connection with the preparation and appraisal of this project.

Sincerely yours,



John A. King
Training Adviser
Office of the Director, Projects

Ecology

November 9, 1970

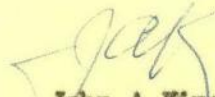
Mr Denzo Izumi
Tokei Kenkyu Kai
1-10 Shinbashi 4-chome
Minato-ku
Tokyo
JAPAN

Dear Mr Izumi:

Mr Michael Hoffman has shown me his copy of the proceedings of the International Symposium on Environmental Disruption entitled "A Challenge to Social Scientists". It strikes me that this is a very useful contribution in this field and I would be grateful if you could arrange to have two copies sent by air to me at this address. Please enclose a bill for the books and the postage.

With many thanks,

Sincerely yours,



John A King
Training Adviser
Office of the Director, Projects

Ecology

Mr. Warren C. Baum

November 9, 1970

James A. Lee

J. A. Lee

Adequate Environmental Controls -
Aerial Spraying of Pesticides: India

The attached has come to my attention and poses some questions. Such large-scale (6 million acres) application of pesticides involve considerable risks to the environment, and to a host of non-target organisms, including man.

The fall-out of pesticides following sprayed applications in the direct treatment of agricultural lands has led to a build-up in the soil of various amounts of pesticides. Soil residues may, therefore, be a cause for concern because they may reach many and other members of the biotic community by a number of routes: uptake from soil by consumable crops; leaching into ground water supplies; runoff into surface waters with subsequent biological magnification; volatilization into the air; and by direct contact with the soil. The magnitude of the problem is directly related to the amount applied to the agricultural lands and the rates of pesticide degradation in the soil. The problem can, of course, be minimized by reducing the amounts of pesticides reaching the land by more effective application procedures, by using pesticides that have a low persistence so that once they reach the soil they remain only for short periods or by the use of pesticides of relatively low toxicity.

Commercial, large-scale applications of pesticides as called for in this project must be performed under competent auspices and carefully regulated. The complex responsibilities of pesticide application involve both achievement of the greatest possible benefit and maximum prevention of environmental damage. These require considerable knowledge of the management of crops, the biology of desirable and undesirable species, the effects of weather, and the effects of biocides in the affected ecosystems. They also require application of professional judgement and use of professional standards of conduct and responsibility.

Such a commercial venture is not without its human health risks too, both as regards the personnel involved in application and those working in and around the affected areas. Hence, careful regulation of the occupational health aspects is needed.

Well, having stated all this, albeit in a highly abbreviated manner, when reviewed against the true complexities involved, I am concerned about our continuing role and responsibility in this project. What provisions have been made for the Bank to oversee the environmental and health aspects of the project? I would welcome your views as to how I might best approach this, if indeed, there is a need for me to be involved.

JALee:vbr
Attachment

Ecology

Mr. Hollis B. Chenery

November 6, 1970

Michael L. Hoffman

Shigeto Tsuru has sent me a copy of the proceedings of the International Symposium on Environmental Disruption which he organized in Tokyo earlier this year, under the sponsorship of the International Social Science Council, and to which, to my great regret, we did not send anyone. I believe you will find it worth your while to look at this volume, in case you have not seen it. I have ordered the book and it should be available from the Joint Library within the next couple of weeks.

I have read only the first paper by Prof. Kapp of Basel and glanced at Leontief's outline of an input-output approach to costing pollution factors arising out of the production process. Kapp's essay is a first class statement of the problem posed for economists in adjusting methodology to deal with environmental problems. Leontief's paper is straight forward and somewhat disappointing because he still uses the concept of "final products" whereas a good deal of the problem arises from the fact that what economists call final products are not final at all. What we really need is something like the value-added concept applies to products -- perhaps "value extracted" -- as a measure of what is really "consumed." In fact, it seems to me that the question of what it is we are concerned about "economizing" may need fundamental redefinition.

MLHoffman/pnn



Ecology F

BSC

~~H. B. Baum~~
~~H. Baum~~

OFFICE MEMORANDUM

TO: Mr. B. Chadenet

FROM: James A. Lee *JAL*

SUBJECT: Issue Papers

DATE: November 5, 1970

While I have been with the Bank for only a few days it is not too early for me to start thinking about environmental issues as they relate to the Bank, and suggested steps we might take early on to discharge our responsibilities in that regard.

Accordingly, within the next few weeks I shall be sending up to you two issue papers as a basis for discussion with appropriate staff. One paper will briefly set forth the problem areas as I presently perceive them. The other will deal with mechanisms for coming to grips with them; e.g. an environmental advisory board, handbook of general criteria, etc.

JALee:vbr

Ecology

Mr. B. Chadenet

November 5, 1970

James A. Lee *JAL*

Issue Papers

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JALee:vbr

Ecology

November 2, 1970.

Mr. George M. Beal
Chairman
Department of Sociology
Iowa State University of Science
and Technology
Ames
Iowa 50010

Dear Mr. Beal:

In reference to your letter dated October 26, 1970, I would like to bring to your attention that a new non-profit corporation has been recently formed which deals primarily with problems related to the quality of life. The name of the corporation is Institute for Future Analysis and it is headed by a former Randite - a very capable individual - Mr. Fred Pardee. The address of the corporation is 12218 Paisley Lane, Los Angeles, California 90049.

Also, I believe, the Institute is planning an international conference on the subject to be held some time next year. Other individuals that might be of interest to you include the following:

Mr. Hasan Ozbekham, 4 Square Lamartine, Paris (16), France.
Dr. Marvin Adelson, Institute of Urban Planning, U.C.L.A.
Dr. Burt Nanus, Institute for Public Systems, University of Southern California.
Mr. Sterling E. Soderlind, Wall Street Journal.

I have a memorandum on the subject from SDC days and as soon as I can put my hand on it, I will send you a zerox copy. Please keep me informed of your progress and put me down on your mailing list. I definitely think that your subject matter has international significance and if at all possible you should try to come up with a general system that could be conveniently applied to any nation.

With best wishes for success, I remain,

Sincerely yours,

Nake M. Kamrany.
Western Africa Department.

NMKamrany/dve

nk

Ecology

Mr Robert E Wieczorowski

October 27, 1970

John A King *gak*

Environment - Bank Activities to Date

1 In answer to the questions you raised last Thursday, there follows a summary of the actions taken to carry out the Bank's policy of examining the environmental aspects of its projects, since that policy was adopted some eight or nine months ago.

- (a) The post of Environmental Adviser in the office of the Director of Projects has been created and terms of reference have been prepared for him. In general, the terms of reference require the Environmental Adviser to work with the Projects Departments in making sure that the environmental consequences of projects are taken into account in all phases of project preparation, appraisal and implementation and that, to the extent that the state of the art permits, these consequences are quantified and made an integral part of project analysis. Dr James A Lee of HEW has been appointed to fill this post and it is expected that he will take up his duties at the beginning of November. We expect that he will be assisted by an international panel of distinguished experts in the field of environment. We also expect that much of the work in connection with the preparation and appraisal of projects will be done by consultants rather than by Bank staff.
- (b) During the past nine months or so, the Bank has been in close touch with a large number of groups and individuals active in the environmental field, including the Ecological Society of North America (which recommended a number of qualified individuals for work with the Bank), the International Union for the Conservation of Nature, the Conservation Foundation, the National Academy of Sciences, the International Biological Program, Resources for the Future, the President's Council on Environmental Quality, the Nature Conservancy (UK), the Smithsonian Institution, and, of course, a number of individuals in the State Department and US AID. We have also participated in a number of meetings sponsored by one or another of these groups at which environmental issues were discussed.
- (c) The Bank has also been working closely with the United Nations and the specialized agencies in the

preparation for the 1972 Conference on the Human Environment. We participated in two meetings of the ACC Ad Hoc Working Group on the Conference and have made comments on outlines of some of the papers to be prepared for the Conference.

- (d) Internally, the staff of the Projects Department has been alerted to the new policy and a number of steps have been taken to make sure the policy is carried out. Discussions on environmental aspects of projects are beginning to appear in appraisal reports, but it must be noted that the methodology for the analysis of the environmental aspects of projects within an overall appraisal is largely lacking and still has to be worked out. In several cases, we have commissioned or plan to commission outside consultants to make specific environmental studies related to projects: e.g. hydroelectric schemes in Guatemala (Lake Atitlan), Uganda (Murchison Falls) and Tanzania.
- (e) We have tentatively identified the public health consequences of our projects as being one of the most, if not the most, important aspect of the problem from the Bank's point of view and we are discussing with the World Health Organization how these aspects could best be studied and evaluated in project work.

2 Bank staff are aware of the importance of environmental questions, but it will be some time before the Bank will be able fully to implement its stated objectives in this field. One obstacle is the lack of methodology already referred to. As noted by Mr Hoffman in his recent article in Finance and Development, most of the work by ecologists to date has been retrospective and anecdotal and is not useable in shaping and appraising projects. Another is the lack of information available to analyze completely some of the very difficult choices which the introduction of environmental considerations requires: e.g. the known risks of the increased use of fertilizers and pesticides and the necessity for using them in order to get the full benefits from the new seed varieties; or the known risks of an increase in water-borne diseases, arising from changes in the patterns of water use and distribution and the necessity for such changes in order to achieve agricultural goals. A third element is the necessity for demonstrating to the developing countries that concern for the environment is compatible with the economic development they desire; this necessity requires the Bank to adopt a positive view rather than a purely conservationist one.

cc: Mr Mendels

JAK/lmcm

GU 545
ec Ecology

October 23, 1970

Dr David Challinor
Smithsonian Institution
WASHINGTON DC 20560

Dear Dave:

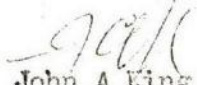
Thank you for your note of 20 October concerning the Lake Atitlan project. I will pass on Dr Deevey's comments to the Area Department and the Public Utilities Projects Department. From his letter I infer that the feasibility report which he saw was not the most recent one.

It is a little difficult to determine whether this project is "dead" or only resting. As a result of the change of government, there has been a change in the administration of the power authority. Consequently, the proposed discussions between the Bank, the power authority, the consultants working on the current feasibility study and the Smithsonian Institution have never taken place. I also understand from several sources that the project has been attacked on environmental grounds at a quite high political level in Guatemala, and I have been told that the government is looking for other alternatives to meet its needs for electric power. On the other hand, the Bank has no official knowledge that the government is no longer interested in this project.

Thanks for your continued interest,

With best wishes,

Sincerely yours,


John A King
Training Adviser
Office of the Director, Projects

cc: Messrs Weiner, Lari

JAK/lncm

Ecology

October 23, 1970

Mr Elmo A Jensen
Research Triangle Institute
Post Office Box 12194
Research Triangle Park
NORTH CAROLINA 27709

Dear Mr Jensen,

Mr Hoffman has asked me to reply to your letter of September 18 concerning environmental issues connected with economic development.

The Bank is just starting to include environmental considerations in its work on the preparation, evaluation and supervision of development projects and is building up its knowledge of those who might be able to assist it in this aspect of its work. The material which is provided will be studied and placed on record and we may be in touch with you in the future.

With many thanks for your interest,

Sincerely yours,

John A King
Training Adviser
Office of the Director, Projects

cc: Mr Finne

JAK/lmcm

Ecology

October 23, 1970

Mr John J Zwolinski
Chemical Construction Corporation
320 Park Avenue
NEW YORK N.Y. 10022

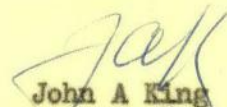
Dear Mr Zwolinski:

Mr Hoffman has asked me to reply to your letter of September 15 concerning environmental issues connected with economic development.

The Bank is just starting to include environmental considerations in its work on the preparation, evaluation and supervision of development projects and is building up its knowledge of those who might be able to assist it in this aspect of its work. The material which is provided will be studied and placed on record and we may be in touch with you in the future.

With many thanks for your interest,

Sincerely yours,



John A King
Training Adviser
Office of the Director, Projects

cc: Mr Finne

JAK/lmcm

Ecology

October 23, 1970

Mr Stanley D Tanenholtz
President
Electric Transport Systems, Inc.
103 Pincushion Road
Framingham
MASSACHUSETTS 01701

Dear Mr Tanenholtz:

Mr Hoffman has referred your letter of October 19 to me for consideration in the light of our current and future staffing needs.

In view of your interest in participating in our activities, we have given considerable thought to the possibility of utilizing your services. Since we are only beginning to become involved in any systematic way in the environmental aspects of development, our staffing needs in this field are extremely limited. For this reason, I regret that, despite your relevant and impressive background, we do not have a suitable opening on our regular staff to suggest to you at this time.

We expect the Bank to become increasingly associated with this aspect of development, and we can well visualize circumstances in which we might hope to avail ourselves of outside consultants from time to time for short-term assignments. If such an assignment would be of interest to you, we will be glad to add your particulars to our list of potential consultants and will be in touch with you again as and when a suitable opportunity develops.

In the meantime, please accept our sincere thanks for your interest in our operations and for your wish to be of service.

Sincerely yours,

JAK
John A King

Training Adviser
Office of the Director, Projects

cc: Mr Clarke

JAK/lmcm

Ecology

OFFICE MEMORANDUM

TO: Files

DATE: October 23, 1970

FROM: John A King *JAK*SUBJECT: Development Sciences Inc.

1 On October 8, 1970 Dr Morton Gorden, President of Development Sciences Inc. of East Sandwich, Massachusetts, visited the Bank to explore the possibilities of his firm working on environmental questions for the Bank. His interest was stimulated by Mr Hoffman's article in Finance and Development.

2 He believed his firm had special competence in two fields which could be of special use to the Bank:

- a) A concept of industrial planning based on the recycling of waste materials which would aid economic development by making it compatible with concern over the environment and by enabling the poor countries to get richer without, at the same time, reducing the quality of life.
- b) A concept of ratios and standards for measuring the impact of various developments on the environment, including forms of cost/benefit analysis.

3 Dr Gorden left papers dealing with these two aspects of his firm's work.

cc: Mr Finne

JAK/lmcm

WHO -
cc Ecology

October 21, 1970

Dr Leo Kartman Sc D
Scientist
Parasitic Diseases
Division of Communicable Diseases
World Health Organization
1211 Geneva 27
SWITZERLAND

Dear Dr Kartman:

Forgive my delay in replying to your letter of September 24, but I have been traveling almost constantly since I saw you in September. Thank you very much for the enclosures which I am reading and planning to distribute within the Bank. I agree with you that it is most important that an examination of the public health aspects of large development schemes be carried out at a very early stage. We are now discussing, within the Bank, how best to do this and I hope to have further discussions with Dr Mochi when he is in New York next week.

I would be very interested in being kept informed of the proposed meeting on the economic implications of communicable diseases.

With best wishes,

Sincerely yours,


John A King
Training Adviser
Office of the Director, Projects

JAK/lmcn

WHO
ACC Biology

October 21, 1970

Dr A Mochi
Acting Director of Coordination and
Evaluation
World Health Organization
Geneva
SWITZERLAND

Dear Dr Mochi:

When I was in Geneva last week, I tried to get in touch with you to discuss further with you the question of how to deal with certain public health aspects of Bank projects affecting water use and water distribution. I learned to my regret that you were ill and I hope you are feeling better now.

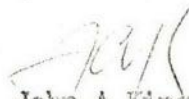
I understand that you will be in New York next week and I wonder if we might get together for lunch on Thursday, October 29, in order to discuss this subject further. I will be in New York anyway for a meeting of the ACC Functional Group on the Environment so that if you could leave a message for me at the Bank's Office in the UN (3097).

If this is not convenient, perhaps I could see you later in Washington as I understand you are also coming here.

Looking forward to seeing you,

Best wishes,

Sincerely yours,



John A King
Training Adviser
Office of the Director, Projects

W10
Ecology

October 21, 1970

Dr John Higginson M D
Director
World Health Organization
International Agency for Research
on Cancer
16 Avenue Marechal Foch
69 Lyon (6eme)
FRANCE


Dear Dr Higginson:

The Director of the Special Projects Department has asked me to reply to your letter of October 8. The Special Projects Department has three divisions; one concerned with development in the Mekong Basin, one concerned with agriculture and water studies in East Pakistan, and one concerned with the developmental aspects of urbanization. All these divisions are faced with environmental problems in their work, which is of course concerned with the preparation, appraisal and supervision of investment projects to be financed by the Bank.

As you may know, the Bank has announced its intention to take environmental considerations into account in the preparation, appraisal and supervision of all its projects. As a step toward achieving this objective, the position of Environmental Adviser has been created in the Office of the Director of Projects. It will be the responsibility of the Environmental Adviser (whose appointment will be announced shortly) to make sure that environmental considerations are taken into account in the work of all the Projects Departments in the Bank.

I hope this information is of help to you. If I can be of any further assistance, please do not hesitate to write.

Sincerely yours,


John A King
Training Adviser
Office of the Director, Projects

Ecology

October 20, 1970

Catherine Ann Balsis
Church Women United
777 U.N. Plaza
New York, New York 10017

Dear Miss Balsis:

I am happy to reply to your letter of October 9 enquiring about the increasing emphasis on ecology in the Bank's thinking and in its day-to-day work.

From a policy viewpoint, Mr. McNamara has repeatedly emphasized, both in his public utterances and to the Bank staff, that the Bank must pay specific attention to ecological factors that may be present in the individual projects which we finance. To this end, we have recently engaged a qualified ecologist as a senior advisor in the Office of the Director (Projects). It will be the responsibility of this man to see that the Bank's project studies (including studies by consultants working for our borrowers) should take proper account of whatever ecological consequences may be present. This advisor will also be the Bank's main point of contact for people outside the Bank concerned with ecology. The advisor on ecology, Dr. James L. Lee, is expected to take up his Bank post sometime next month.

The Bank has already begun to include in many of its project appraisals assessments of whatever ecological considerations may be present. We have also played a role in arranging for consultants in ecology to participate in studies affecting projects under preparation that might later be submitted to the Bank for finance. The above remarks summarize the state of the Bank's present concern with and organization for ecological questions. We have no publications to offer on this subject beyond the enclosed public address by Mr. McNamara (see p. 11).

Please give my warm regards to Murray MacInnes. If either of you should be in Washington, I hope you might find time to drop in to the Bank.

Sincerely yours,

G.B.B.

George B. Baldwin

G.B. Baldwin:cg

Enclosure: Mr. McNamara's address to the
Columbia University Conference on
International Economic Development

Ecology

Mr. John A. King

October 19, 1970

D. S. Ballantine *DSB*

Draft Universal Declaration on Human Environment

We have studied your memorandum of October 9 with the attached document "Universal Declaration on the Human Environment" which has been drafted by the Ad Hoc Working Group currently preparing the U.N. conference on human environment.

The draft's Article XVII reads:

"Educational authorities should ensure that a proper appreciation of the value and need of maintaining the quality of the human environment forms an essential part of the curriculum at all stages of education."

We would have no objection to such an article and have, in fact, included a paragraph in the Bank's "Guidelines for Education Sector Reviews and Pre-Investment Study Programs", which requests the sector reviewers to see if "possible problems of environment, over-population ...are reflected in the education content".

At staff meetings we have also asked our staff to pay attention to ecology when reviewing curricula during project appraisals.

MH/mms



Ecology
cc SID

Mr John A King

October 19, 1970

R W Van Wagenen

SID Washington Chapter Meeting on Environment and Development

1 In your absence I attended this panel and discussion on 14 October from 8 to 10 pm at the Roger Smith Hotel. The participants are shown on the attached program, with notes on their backgrounds. Only one of the five was an economist - Dr Brown, who before joining the Overseas Development Council had been for several years with the US Department of Agriculture. You probably met him at the Williams Conference.

2 You would not have learned anything from this session because I did not learn much myself, although it was all good constructive talk. There were many words about the need for changed attitudes among the people of all countries, and there was a general atmosphere of practicality in the sense that most speakers pointed to the need for development in spite of a certain amount of ecological damage. As the man from AID said, we should not tell the LDCs "Don't build that dam". Instead, we should ask them where the dam can be built instead. There will have to be ecological sacrifices. Another example is DDT; we cannot insist upon prohibiting it, because while it might be damaging it is necessary for malaria control.

3 The Bank was mentioned once during the talks and once during discussion. Mr Buechner cited the Murchison Falls Dam as an example of a very difficult ecological problem and complimented the Bank for looking into the ecological effects of that proposal, saying that this was a sign of changing attitude on the part of lenders. During the discussion someone mentioned the Bank and/or AID as having financed agricultural tractors for India and said he had been told in India that the tractors were useless because spare parts had not been provided. The Chairman asked whether anyone wished to respond on behalf of the Bank or AID, and after a pause I made a one-sentence response to the effect that if the Bank financed tractors it had certainly taken care of the spare parts as well. Nobody responded for AID.

4 Mr Talbot devoted himself entirely to the Mekong program, but not specifically the portion involving the Bank. He mentioned that AID was now making a study of projects in various parts of the world which had been completed long enough to show the environmental consequences. One of these, the Nam Pong Dam in Thailand, was finished in 1966 and was considered a disaster, not only in the ecological sense but in the fulfillment of its main power and irrigation purposes. I hope someone is in touch with these studies, but we should bring the matter to Mr Lee's attention after he arrives.

continued.....

5 Toward the end of the meeting a note from Mr Chadenet was read. It stated that he was sorry he could not attend, that he did want to announce that the Bank was constantly examining the environmental consequences of its work, that Mr McNamara had decided to appoint an Ecological Adviser, and that Dr Lee had been recruited from HEW to take this position. I reported this to Mr Chadenet early the next morning.

WV
RWV/lcm

Ecology

OUTGOING WIRE

TO: REARDON
BOHICO

DATE: OCTOBER 13, 1970

CLASS OF
SERVICE: LT

COUNTRY: LONDON, S.W.1

England

111

TEXT:
Cable No.:

CONFIRM LEASON REPORT AND DRAFT BILL ON POLLUTION CONTROL RECEIVED TODAY
STOP THIS MUST NOW BE EXAMINED BY BANKS CONSULTANT STOP HIS REPORT NOT
EXPECTED BEFORE MID NOVEMBER AND UNABLE ADVISE OUR COMMENTS UNTIL THIS
IS RECEIVED

WYATT
~~HOWELL~~
INTBAFRAD

NOT TO BE TRANSMITTED

AUTHORIZED BY: Mr. F. H. Howell, Deputy Director

NAME

DEPT. Public Utilities Projects Dept.

SIGNATURE *F. H. Howell*
(SIGNATURE OF INDIVIDUAL AUTHORIZED TO APPROVE)

REFERENCE:

ORIGINAL (File Copy)

(IMPORTANT: See Secretaries Guide for preparing form)

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OCT 13 8 12 PM 1970

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Serial No:
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COMMUNICATIONS DIVISION

CLASS OF SERVICE

10: BOMBO
REVENUE

DATE: OCTOBER 13, 1970

ORIGINATOR NAME

ASSOCIATION
INTERNATIONAL DEPARTMENT

REGISTRATION AND DEPARTMENT
INTERNATIONAL DEPARTMENT

COMMUNICATIONS
INTERNATIONAL DEPARTMENT

Canada - CIDA
✓ CC Ecology

October 13, 1970

Mr Escott Reid
Canadian International Development Agency
Ottawa 4
CANADA

Dear Mr Reid,

Forgive my delay in replying to your letter of September 28, but I have been very busy since I have been back and I am leaving the Bank for Geneva this afternoon. I find your letter to Dr Budowski magnificent; it sets just the right tone and I wish I would have said it myself. I particularly like your comments on the second page that ecologists should "avoid talking about the environmental approach to development and instead talk about the necessity of including environmental considerations among the many considerations that must be taken into account".

I have gone through my files and I enclose copies of two memoranda by me on environmental issues. I also quote below the terms of reference for our Environmental Adviser. I hope this is of some help although it is not very much.

The Environmental Adviser would have the following functions:

- (1) He would review all projects being processed for Bank/IDA financing with a view to identifying those which, if carried out, would be likely to have important ecological effects. He would then advise the particular Project Department concerned what kind of investigation should be made in connection with the project in order to assure that appropriate measures are taken to preclude or counteract any seriously adverse ecological effects. He would also help the various Projects Departments recruit, as consultants, specialists to carry out these investigations. In any case where the investigation reveals that the project would have unusually serious ecological consequences which it would not

Continued.....

be technically or economically feasible to avoid or counteract, he would be consulted before any final decision was reached to proceed with Bank financing.

- (2) He would perform a similar function in connection with Bank-financed projects which are under construction. If a review of these projects by him should indicate that any of them were likely to have seriously adverse ecological effects which remedial measures might still mitigate, he would so advise the relevant Projects Department and would assist that Department in organizing an appropriate investigation.
- (3) He would also be responsible for consulting with the Economics and Area Departments on the terms of reference and composition of the Bank's comprehensive country missions, and for reviewing draft reports of such missions, in order to assure that the reports, in recommending development strategies and Bank action programs, take environmental matters adequately into account.
- (4) Finally, he would be responsible for establishing appropriate links between the Bank and the numerous groups, international and national, which are now dealing with ecological problems. In this connection the members of his Unit would serve as the Bank's representatives in preparation for the U.N. Conference on Human Environment to be held in Stockholm in 1972.

After having heard so much about you and profited from your good-bye thoughts on leaving the Bank, I was delighted to meet you at last. I hope to see more of you in the future, though I will be leaving the environmental field next month.

With best wishes,

Sincerely yours,

Lyons A. McHardie

John A King
Training Adviser
Office of the Director, Projects

Enclosures

JAK/Lmcma

✓ Ecology
cc Fellowship Training

Mr John A King

October 12, 1970

R W Van Wagenen

Some Program Proposals

A couple of items we have already discussed very briefly, but which take shape better for me, at least, if I can develop them a little in writing after week-end reflection.

1 Anthropology in the Bank's work: Whatever brought Professor Cochrane to our attention, I think it was useful and timely, whether or not he himself is the appropriate man to insinuate the anthropological viewpoint into the Bank's work.

2 As a preliminary to what he proposed and what you and he doubtless discussed, I wonder if it would not be wise to give him a pass to live in the Bank for a month and look at our work in both Projects and Area, with no commitment about future relationship and no financial obligation. This should accomplish three things:

- (a) get a little scratching started on this long-standing itch (I mentioned to you my own guilt feelings at not having followed up more vigorously in my former job the anthropological dimension, although it would not have been encouraged in Personnel and although Professor Niehoff may not have been the man to do the work);
- (b) give us a chance to study Mr Cochrane and his personality vis-a-vis our own tough-minded staff members, in case he should later be proposed as an instructor or consultant; and
- (c) force him to show rather precisely why we need this expertise in our work in concrete cases.

3 Could Gunnar Myrdal be persuaded to give us a push on this front? You have doubtless read pieces of his Asian Drama, where he brings forward the concept of the "soft state", but I am not sure you heard him speak here at one of the Economic Seminars last year. He gave us quite a dose of this, and if I recall correctly he said to a packed Board Room that our work would be "utterly without result" if we did not pay attention to this political-social (anthropological?) problem of the soft state. As he is highly respected by economists generally, and is certainly motivated to push development, he might be very effective if by chance he now has a little time to spend. (I admit to being a sucker for this sort of thing ever since brief contact with Clyde Kluckholm many years ago and also with Harlan Cleveland and his emphasis upon institution-building as the object of the exercise.)

continued.....

4 I wonder exactly what Mr McNamara had in mind when he said in Copenhagen: "... we believe economic progress remains precarious and sterile without corresponding social improvement. Fully human development demands attention to both. We intend, in the Bank, to give attention to both."

5 Meetings with Division Chiefs on Training Problems: You said you thought this would be a good idea. Perhaps I could do some planning while you are away this time. Should there be a meeting with each Department's Division Chiefs, after talking with each Department Director and/or Deputy? I should think so. A session with assembled Division Chiefs of a Department could:

- (a) open-endedly seek their own ideas about the leading problems of training under our loans/credits, and
- (b) test our own tentative classification of those problems.

To do this, it would be necessary to get your critical comments on my proposed definition of "Training-Problem Projects" (memo to you dated 14 September). This already needs revision, as I think a couple of examples are overstated, so I hope we can discuss it before you leave on this trip.

rw
RWVW/lmcm

OFFICE MEMORANDUM

WHO
✓ see copy

TO: Files DATE: October, 9 1970

FROM: John A King *JAK*

SUBJECT: Discussions with World Health Organisation on the Public Health Aspects of Certain Bank Projects

1 In the course of our examination of the ways in which Bank-financed projects might affect the environment, we became aware that projects affecting water distribution and water use had a large potential for adversely affecting health through the spread of water-borne diseases. It seemed to me desirable, therefore, to have operational guidelines relating to such diseases prepared for Bank staff to assist them in preparing and appraising projects of this sort. After discussions with the Public Utilities and Agriculture Departments, a draft outline for guidelines on schistosomiasis was prepared, and it was decided that it would be useful for me to discuss with WHO the feasibility of the proposal and how it might be carried forward.

2 Accordingly, I visited WHO on September 22, 1970 and discussed the matter with Dr A Mochi, Acting Director of Coordination and Evaluation, Dr M Sentici of his department, Mr C L Atkins, Director of the Division of Environmental Health, and Drs Kartman and Barbosa of the Section on Parasitic Diseases of the Division of Communicable Diseases.

3 Their unanimous opinion was that it would be impossible to produce guidelines which would effectively meet the Bank's needs, because each project would present questions of professional judgment in deciding what were the risks and how they might be met for which guidelines or "a cookbook" could not substitute. They added that the production of guidelines of the type we had in mind, and subject to the objection made above, would take one to three years.

4 It was also their view that any project in tropical or semi-tropical regions which changed the use and distribution of water contained potential hazards to public health.

5 They did, however, make a counterproposal; if the Bank would provide general descriptions, including proposed location, size, scope, operating characteristics and the like, of projects of this sort, WHO would undertake to advise us of the particular public health risks which might be associated with each project and of the steps to be taken during preparation and appraisal to define them more precisely and to take the risks (and possible corrective measures) fully into account in shaping and evaluating the project.
It/

It was my understanding that this sort of advice would be provided from headquarters, but they also suggested that project identification and preparation missions might find it useful to discuss projects of this sort with WHO staff in the host country who would be familiar with local health conditions. I gathered that it was often the case that the Ministry of Health with whom these individuals would be working did not have effective communication with Ministries of Planning or Development. It was my understanding also that there might be a certain amount of headquarters staff which, under suitable arrangements, would be able to take part in sector, preinvestment, or preparation and appraisal work.

6 It seems to me that this counterproposal is, in principle, a more useful solution to the Bank's problem in this field than our proposal of guidelines or a manual and I recommend that we explore it further.

7 There was also some discussion of the potential usefulness of additional research on the engineering aspects of the problem -- such matters as canal design, flood-gate design, cheap waterway linings, mechanical devices for clearing weeds and the like. It was tentatively concluded that such research would be useful, provided that it was oriented operationally. Would this be an appropriate project for UNDP financing with the Bank and WHO as Executing Agencies?

cc: Messrs Chadenet, Demuth, Evans, Sadove, Weiner,
Bartsch, Haynes, Morse, Shipman

OFFICE MEMORANDUM

TO: Files

DATE: October 9, 1970

FROM: John A King *JAK*SUBJECT: British enquiry on the Bank's position with respect to the environment

1 On October 7, 1970 Mr Lynch met with Mr Chadenet and me to raise some questions of the Ministry of Overseas Development relating to the Bank's approach to environmental issues. The three most important questions were:

- (a) Did the Bank contemplate making loans or grants for projects whose sole objective was to correct pollution or improve the environment.
- (b) Did the Bank contemplate including **environmental** considerations in its appraisal of projects and quantifying their costs and benefits.
- (c) Did the Bank plan to undertake a missionary role with respect to environmental matters in the developing countries.

2 Mr Chadenet said that question (a) had not been considered by the Loan Committee, but that in his view the Bank should be prepared, in principle, to make loans of this sort. He referred to the proposal of a project to correct pollution caused by paper and pulp manufacture in Finland. He noted, however, that in most developing countries pollution probably was not sufficiently advanced to call for projects of this kind. He added also that he thought it more likely that any lending for environmental purposes would be as a part of a development project of the traditional Bank type.

3 As far as question (b) was concerned, Mr Chadenet said that the answer, in principle, was an emphatic 'yes', but he added that we were still some distance from quantification. In particular, he pointed to the difficulties in assigning numerical values to human life and health.

4 In response to question (c) Mr Chadenet said that the Bank certainly did not plan to undertake a missionary role, but rather planned to work for a rational balance between development activities and environmental considerations.

Ecology

OFFICE MEMORANDUM

cc. Africa - gen. mags

TO: Files

DATE: October 9, 1970

FROM: Abdallah El Maaroufi *AE*SUBJECT: Visit of Officials of the African Wildlife Leadership
Foundation on October 8, 1970

Messrs. Rhea and Wilson, respectively, Director and Deputy Director of the African Wildlife Leadership Foundation, called on Mr. Glaessner on Thursday, October 8, 1970. The main points made during the discussion were the following:

a) Mr. Wilson informed us that the Ethiopian authorities had requested financial assistance from the African Wildlife Leadership Foundation in the field of wildlife conservation. He said that the Bank's report on tourism in Ethiopia may prove helpful to his organization in assessing the merits of the request and inquired whether it might be possible to make available to him a copy of that report. Mr. Glaessner replied that we would be happy to make the report available to him, but that we would have to wait until the report was distributed to the Executive Directors of the Bank before doing so. The distribution to the Executive Directors of the Bank is expected to occur within the next two or three weeks.

b) Mr. Glaessner inquired about the objectives of the Foundation. Mr. Wilson and Mr. Rhea said that the objectives of the Foundation consisted primarily of the training of wildlife managers and of assisting various countries in drawing up and implementing wildlife conservation policies. The countries where they have projects at present are: Ethiopia, Kenya, Tanzania, Uganda, Botswana, Zambia, and Cameroon.

They work in close cooperation with FAO and UNESCO and they have a staff in Nairobi which consists of a mission director (Mr. Frank Minot), an ecologist, an educator and an audio-visual expert. The headquarters of the foundation are located on 1717 Massachusetts Avenue, N. W. in Washington.

c) They have put out a marine report on Tanzania and on Kenya. Another marine report on Ethiopia is in preparation. Mr. El Maaroufi will seek to obtain these from the Foundation.

d) Mr. Glaessner outlined for Messrs. Rhea and Wilson the types of tourism projects in which the Bank expects to be involved. He agreed in principle to their suggestions that we collaborate as much as possible and that we exchange information on those countries where we have mutual interests.

Cl with and cc: Mr. Glaessner

F. Colby

October 8, 1970

Dr James L Lee
11919 Stonewood Lane
Rockville
Maryland 20852

Dear Jim:

The 32nd Annual Conference of the Chemurgic Council being held October 22-23, is on the subject of environment. We think it would be useful for the Bank to be represented and Mr Chadenet and I wondered whether it might be possible for you to attend it for the Bank. As I remember your plans, you will be back in Washington by that time.

Could you let me have your reaction as soon as convenient.

With best wishes,

Sincerely yours,



John A King
Training Adviser
Office of the Director, Projects

JAK/lmcm

545 647

✓ Ecology

Miss Anne LaBastille, Ph.D.
Division of Environmental
Education
Stone Hall
Cornell University
Ithaca, New York, 14850

October 8, 1970

Dear Miss LaBastille:

Re: Loan 545-GUA
Ecology Lake Atitlan

Thank you very much for your letter of September 26 with the attached appendix on the ecology of Lake Atitlan. Both have been forwarded to our Projects Department which is primarily responsible for the appraisal of new projects.

I am looking forward to meeting you when you come to Washington, D.C..

With best regards,

Very truly yours,

Dr. T.M.C. Asser
Attorney

THCAsser:id

cc.: Mr. J. King (C305)

WORLD HEALTH
ORGANIZATION



ORGANISATION MONDIALE
DE LA SANTÉ

W.H.O. —
✓ Ecology

CENTRE INTERNATIONAL DE RECHERCHE SUR LE CANCER

INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

16, AVENUE MARÉCHAL FOCH — 69, LYON (6ème) FRANCE — TÉL. 52 33 26 / 52 32 40 — TÉLÉGR.: UNICANCER-Lyon

In reply please refer to: P. JH
Prière de rappeler la référence:

8th October, 1970

Dear Sir,

I understand that the World Bank has now established a Special Projects Department. I would be very grateful if you would send me details of the types of programmes undertaken by this department, together with literature, if available.

I believe that this information might be of interest to our organisation, which at present is developing studies in environmental pollution, with special reference to developing states.

SPECIAL PROJECTS DEPARTMENT CORRESPONDENCE

----- Division
Answered by -----
Date -----

Yours sincerely,


John Higginson, M. D.
Director

OCT 14 1970

Director,
Special Projects Department,
International Bank for
Reconstruction and Development,
1818 H Street N. W.,
WASHINGTON, D. C. 20433,
USA

1310 OCT 14 6 15:25

Mr. Don Stoops

September 29, 1970

S. Silbiger

Ecology - The Biome^{1/} Approach - Comments

1. Macro-objective of the study is to: perform a comprehensive ecological examination, within the framework of a preliminary mathematical-statistical model; of grasslands, their similarities in various areas of the world, and the applicability of the attained results to other commensurate regions and production-development patterns.
2. Micro-objective of the study is to: evaluate the (a) grazing capacity of grassland: under none, light, moderate and heavy utilization; (b) influence of irrigation on (1) grassland's production increase (2) other forms of life (insects, birds); (c) man's influence on environment, including the effect of pollutants.
3. Working Method - The grassland biome project is performed by an interdisciplinary team of scientists (entomologists, wildlife biologists, zoologists, ornithologists, aquatic biologists, range scientists, ecologists, biomathematicians, microbiologists, chimotologists, hydrologists and agronomists). The team is headed by Mr. Van Dyne, Colorado State University at Fort Collins is the academic center of the study and the site of the computer.
4. Summary - (i) The comparableness of ecologically similar grasslands in various countries of the world could be an expedient complementary element in appraising livestock development projects or preparing livestock preinvestment studies. However, the article does not mention whether the grassland ecological research work is (a) performed simultaneously in various parts of the world or (b) whether similar work - [fundamental or applied research, field studies, etc.] is coordinated in other countries with this study. (ii) to my knowledge UNDP and FAO finance some biological and biometrical studies especially in forestry. (iii) The article is written in a too general way in order to be able to form a judgment about the study's usefulness and applicability in regard to livestock development projects financed by the Bank or IDA. (iv) The possibility of the extrapolation of a mathematical ecological model evaluated in a country with highly developed and sophisticated technology could be jeopardized by socio-economic reasons in other countries which ask for cautious application of new technology. (v) However, I feel it could be useful if livestock and grassland specialists of the division would (a) receive more details about the study, its objectives and working methods; and (b) contact some of the livestock and grassland specialists of the research team.

^{1/} The statistical study of biological observations and phenomena (Biometrics).



*Op. Files
Ecology*

FILE NUMBER
DOSSIER N°

September 28, 1970

Mr. Peter Cargill,
International Bank for Reconstruction
and Development,
1818 H Street, N.W.,
Washington, D.C. 20433

Dear Peter:

I was delighted when I arrived at the Rome meeting to find that John King was there representing the World Bank. He was very helpful in pouring cold water on some of the more unrealistic proposals of some of the more unrealistic ecologists at the meeting.

He will be able to tell you of the results of the meeting.

With the best of good wishes.

Yours sincerely,

A handwritten signature in blue ink that reads 'Escott Reid'. The signature is fluid and cursive.

Escott Reid.

RECEIVED

22:10:22 1001-2

RECEIVED

COMMUNICATIONS
SECTION

1970 OCT -5 AM 10:55

RECEIVED

Васильев Петр

[Handwritten signature]

Домин Александр

Меню при входе в Банк

Не могу поехать по делу из-за болезни

при входе в банк. Входящий билет на автобус. Не могу поехать по делу из-за болезни. Я был в больнице.

Ваше имя:

Иванов И.И.
Тел. 12345
ул. Пушкина
г. Москва

1970 OCT 5

WORLD HEALTH
ORGANIZATION



WHO Mr King
✓ Cc Ecology
ORGANISATION MONDIALE
DE LA SANTÉ

1211 GENEVA 27 - SWITZERLAND
Telegr.: UNISANTE-Geneva

Tél. 34 60 61 Télex. 22335

1211 GENÈVE 27 - SUISSE
Télégr.: UNISANTÉ-Genève

In reply please refer to: 05/445/4
Prière de rappeler la référence:

24 September 1970

Dear Mr King,

Reference is made to your recent visit to WHO on 22 September 1970. Dr Barbosa and I were very happy to have had the opportunity to speak to you with regard to problems of water-related parasitic diseases. As you will recall, we were especially concerned to point out the need for a health component in large development schemes and other programmes for economic development, particularly in some of the new countries in Africa and other parts of the world.

We trust that we were able to convey to you the fact that attention to either prevalent diseases or those of potential importance during the planning phase of a programme is in the long run most favourable and most economical. As we indicated, the Parasitic Diseases Unit is particularly concerned with the economic implications of certain wide-spread parasitic infections and with the possible exacerbation of the prevalence of some of these diseases as a consequence of water development schemes, especially those concerned with irrigation and the production of man-made lakes.

I promised to send you some literature which may be of help in your work with the Bank. Accordingly I enclose herewith two papers; (1) "The Economic Aspects of Parasitic Diseases;" and (2) "The Role of WHO in Water Resources Development for Agriculture". I trust these may be of some use to you.

As you will recall I mentioned the possibility of a meeting in late December on the economic implications of Communicable Diseases. This meeting is in the early stages of planning and as yet a formal request has not been made for it to be held at WHO Headquarters. You indicated some interest in this meeting and if it should become a reality I will inform you of the exact dates, participants, and subjects for discussion.

With best regards, I am,

Yours sincerely,

A handwritten signature in dark ink, appearing to read "Leo Kartman", written over a horizontal line.

Leo Kartman, Sc.D.
Scientist
Parasitic Diseases
Division of Communicable Diseases

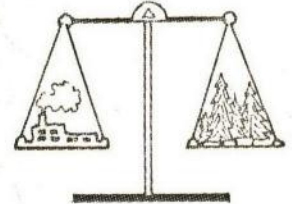
Mr John A. King
Training Adviser
Office of the Director,
Projects
International Bank for
Reconstruction and Development

Ecology

DEVELOPMENT SCIENCES INC.

BOX 77
ROUTE 6A
EAST SANDWICH, MASS.
02537

(617) 868-0101



Mr. Michael L. Hoffman
International Monetary Fund & World Bank Group
19 th and H NW
Washington, D.C. 20230

Dear Mr. Hoffman:

I was delighted to hear of your interest in assessing environmental impact of economic growth in developing countries. This problem has been a concern of mine for the past few years and I would like very much to talk to you about it. I will either have reached you by phone before you get this letter or you may take this letter as an introduction.

I am enclosing a paper which some staff members and myself have recently written. While it is a short form of a larger report we are doing for the National Air Pollution Control Administration, the implications should be clear for developing countries.

We have assembled a staff of different skills needed to look at the ecological impact of industrialization and are especially concerned that the transfer of technology abroad must be done with more responsibility than heretofore.

We are also developing an ecological early warning system and a cost accounting scheme for assessing environmental impact and are seeking development funds to render the ideas operational.

Look forward to meeting you at your earliest possible convenience.

Sincerely yours,

A handwritten signature in cursive script that reads "Morton Gorden".

Dr. Morton Gorden
President

September 22, 1970

Ecology

September 21, 1970

Mr. C. Fariss
1015 Locust Street
St. Louis, Missouri 63101

Dear Mr. Fariss:

We have received the program of the fall seminar of the Missouri chapter of the American Society of Traffic and Transportation to be held this week.

The World Bank is concerned, as you possibly know, with the ecological consequences of its work in various parts of the world, including the results of its transportation lending, and would be very interested in learning what took place in the discussions at the seminar which you are conducting.

Would it be possible for someone to send a copy of each of the papers to me? We would appreciate this very much.

Sincerely yours,

R.W. Van Wagenen
Training Officer
Office of the Director - Projects

RWW:pc

cc: Messrs. King
Morra

Ecology

September 21, 1970

Mr. J. Spenser Huston, Manager
Operations Research Laboratory
The Franklin Institute Research
Laboratories
The Benjamin Franklin Parkway
Philadelphia, Pennsylvania 19103

Dear Mr. Huston:

Thank you for your letter of 17 September to Mr. King. He is away on missions in Europe for two weeks and will be interested, I know, in reading your letter and its enclosures.

If he does see some way in which we could take advantage of your kind offer to help in this matter of weighing the ecological factors connected with our loans, he will certainly get in touch with you.

Sincerely yours,

R.W. Van Wageningen
Training Officer
Office of the Director, Projects

R&WV:pc

Ecology

RESEARCH TRIANGLE INSTITUTE
POST OFFICE BOX 12194
RESEARCH TRIANGLE PARK, NORTH CAROLINA 27709



18 September 1970

Mr. Michael L. Hoffman
Associate Director, Development Services Department
International Bank for Reconstruction and Development
1818 H Street, N.W.
Washington, D. C.

Dear Mr. Hoffman:

Your article "Development Finance and the Environment", in the publication Finance and Development, was read here with great interest.

It seems to me that there are three closely inter-related problems none of which can be investigated fully without reference to the others. These are population growth, future food supplies and the maintenance of a viable ecological balance. It is this latter that may always be subject to disequilibrium as a consequence of taking action to supply food, goods and services for a growing population.

In addition to its work in the laboratory divisions and in economic and statistical research the Research Triangle Institute has done and is doing research into environmental and population problems. A selected list of completed research studies of this kind follows. Abstracts of most of these studies are attached.

Client

Subject

Environmental Research

National Center for Air Pollution Control (NAPCA)	Chemiluminescent Ozone Measurement Program
NAPCA	Design and Development of a Course entitled, "Air Pollution Data Evaluation."
NAPCA	A Study of National Emission Standards for Stationary Sources.
NAPCA	Cost to Industry of Compliance with National Emission Standards.
NAPCA	Abatement Division Studies Air Quality Control Region Intelligence Analysis and Report.
Environmental Science Services Administration	Physical Oceanography Feasibility Study Using Satellite Data.
NAPCA	An Evaluation of Techniques for the Measurement of Trace Gases in the Atmosphere.

Mr. Michael Hoffman
Page 2
17 September 1970

Client

Subject

Population Research

School of Public Health
University of North Carolina

Department of Administration
State of North Carolina

*Proprietary

University of North Carolina

Excess Fertility in a Population

Systematic Procedures for Population
Estimates and Projections for North
Carolina

Notes on Oral Contraceptive Clinical Trials

A Simulation of a Postnatal Family
Planning Program

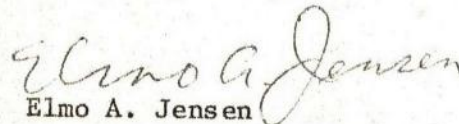
* Contractual obligations do not permit release of client's identity.

RTI has also designed a population simulation model for projecting populations under a variety of assumptions. The model, known as POPSIM, is quite flexible in its possible applications. A description of the model is attached.

The Research Triangle Institute has considerable competence to assist in the analysis of population and associated problems and the ecological consequences of various kinds of economic activity.

The Research Triangle Institute is interested in offering its environmental, population and economic research capabilities to the World Bank and its customers. A copy of this letter and its attachments also is being furnished Mr. Christian Finne, Consultant Services Officer.

Yours very truly,


Elmo A. Jensen

EAJ/jb

Enclosures: Selected study abstracts
Typed brochure
Investment Digest re-print
Durham Morning Herald re-print
Hypotenuse POPSIM edition
List of Consultants
1969 Progress Report

Ecology

September 16, 1970

Mr. W.L. Dowdy
Program Development Manager
Earth Applications
Advanced Programs, Space Division
North American Rockwell Corporation
12214 Lakewood Boulevard
Downey, California 90241

Dear Mr. Dowdy:

It was very kind to send me your interesting and persuasive paper on environmental management. I am taking the liberty of passing this on to some of my colleagues in the Bank.

I am just literate enough in systems analysis and control to feel quite confident that environmental pollution can be controlled and that the control can be costed, but I think the key sentence in your paper is at the top of page 5 where you say "above all" individuals must be willing to vest appropriate powers in government that will enable a management system to act effectively. It is not the sort of thing I would want to say in an article, but I begin to have grave doubts as to whether environmental management of the kind you outline, which I am thoroughly convinced must come about, will prove to be consistent with a political system founded essentially on eighteenth century philosophies governing individual and property rights.

Again, many thanks for your thoughtfulness.

Sincerely,

Michael L. Hoffman
Associate Director
Development Services Department

cc: Mr. John King *[Signature]*

MLHoffman/jg

Fin-gen nego
ec Ecology

Mr. S.R. Cope

September 16, 1970

John A. King *gaf*

Finland -- Possible Water Pollution Control Project

1. This strikes me as an extremely interesting proposal and, assuming that an institutional framework for carrying out a coherent project could be created, it appears to be one that the Bank could appropriately finance. As you know, Mr. McNamara is keenly interested in environmental problems and wants the Bank to take them into account in designing and implementing projects. To help us do so, the Bank has just hired Dr. James A. Lee of HEW to be Environmental Adviser in the Office of the Director, Projects and he will be on the job in late October. To make a loan for a project of this sort would not only demonstrate the Bank's interest in the environment but also show that concern for the environment need not be equated with an anti-developmental approach.
2. The justification for lending seems to me that, if the Bank were lending for facilities for the production of pulp and paper, the project to be financed could, in principle, include items to minimize the pollution caused by such production. For example, we are currently thinking, in the case of projects which affect the use and distribution of water, of including as part of the project, items to control or limit the tendency of such projects to increase water-borne diseases such as schistosomiasis, malaria or river blindness.
3. Furthermore, it is desirable in all countries to postpone investment in facilities which are not immediately required wherever possible and this policy seems to be equally applicable in the construction of waste disposal facilities. Where either the volume and strength of waste are limited at the outset or the receiving body of water is sufficient to ensure that dilution will be effective in preventing unacceptable conditions, postponement of investment for treatment facilities would seem warranted. As time goes on and the capacity of the receiving waters to cope with the increasing load is reached, something must be done. The Bank, therefore, is perfectly consistent in considering pollution control projects which call for constructing facilities previously postponed.
4. In Finland's case, pollution control measures have not been installed previously for several reasons:
 - (a) the impact of the development of the pulp and paper industry on municipal water supply, tourism and recreation, and fisheries has not become fully evident until recently;
 - (b) the impact of any single mill might not have been sufficient to justify the installation of pollution controls at the time of its construction, though the combined effect of the industry appears to warrant the provision of such facilities now;

- (c) since pollution control measures add to the cost of production, their provision is not financially feasible for any individual enterprise and, as has been noted, it is also not possible for the industry as a whole to install such facilities by itself and remain competitive internationally.

5. It seems to me, therefore, that a project of pollution control and abatement, if properly formulated, could be considered an infrastructure project necessary to support an industry which is economically very important to the country, as well as to provide other economic benefits in the form of better water supply, tourism and recreation, and fisheries. Such projects appear technically feasible. For example, great strides have been made in clearing up the Willamette River in Oregon which had been badly polluted by the paper industry; the salmon run is reported to have increased from 79 fish in 1965 to almost 7,000 in 1969.

6. It may well be that in a significant number of countries, the Bank's role in catalyzing a national approach to pollution control will be a more important contribution than actual investment. In Finland's case, it seems that a strong case can be made for moving forward in a first effort which would permit exploration of approaches and the gaining of further insight into what the Bank's role should be in projects of this type.

JAK:asg

Cleared in principle and cc: Messrs. Chadenet, Horsley and Shipman

cc: Mr. Knapp



Ecology

Chemical Construction Corporation

(Subsidiary of Ebasco Industries Inc.)

320 PARK AVENUE • NEW YORK, N. Y. 10022

TELEPHONE: PLAZA 1-3900 • CABLE ADDRESS: CHEMICONST, NEW YORK

September 15, 1970

Mr. Michael L. Hoffman
International Bank for Reconstruction
and Development
1818 H Street, N.W.
Washington, D.C. 20433.

Dear Mr. Hoffman:

A recent article in the New York Times mentions your and World Banks' concern over the pollution problems associated with industrial plants being built in the developing countries. It further notes that the World Bank is seeking help from ecologists to prevent the establishment of similar pollution problems that plague industrial countries of this world. The ideas expressed in your article are of considerable interest to me personally and our organization which specializes in providing consulting services in industrial development of the emerging nations and pollution control. We believe that with proper planning many causes of the river and air pollution can be eliminated at the design stage and result in considerable savings over cleaning up the environment after the plant is in operation. For that reason, since we have developed a considerable know-how in pollution prevention and elimination our organization and the type of services that we provide may be of interest to the Bank.

To acquaint you more specifically with the consulting services that we provide, I am taking the liberty of enclosing a brochure on the activities of our organization. As you will see from the enclosed brochure, we have worked in many of the developing nations and in practically all cases of new industrial installations have endeavored to pinpoint the necessity of eliminating pollution.

We would like to hear from you regarding any problems in which you may require assistance within our area of competence and would like to assure you that our services are provided on a confidential basis for the sole benefit of our clients only.

I will be glad to meet with you at your convenience to discuss this matter further.

Very truly yours,

CHEMICAL CONSTRUCTION CORPORATION



John J. Zwolinski

JJZ/dg

Enclosure



Ecology

Westinghouse Electric Corporation

Power Systems

Environmental Systems Department

~~XXXXXX~~ PO Box 355
Pittsburgh Pennsylvania 15230

September 15, 1970

Mr. John King
World Banking
Room C-305
1818 H Street NW
Washington, DC

Dear Mr. King:

Thank you very much for arranging the meeting with Mr. Chadenet and yourself for Mr. Cotter, Dr. Terrill and me to discuss Environmental interests of the World Bank.

I should like to repeat the three areas where our expertise in environmental problem solving and education could be of benefit to the World Bank:

1) Establish a Procedure on Environmental Review and Action

Each of the many projects handled by the world bank go through a number of stages of proposal, investigation, acceptance, and implementation. We could provide a review of the existing processes, and determine the best means for formalizing environmental considerations in each stage. This would require us to survey the types of projects which you have in operation and to review at length all projects in considerable detail. It is possible than an environmental questionnaire format could be established at the stages of proposal and review which would provide for environmental considerations throughout the project.

2) Environmental Training for Project Personnel

Environmental Systems Department has just completed the highly successful Westinghouse School for Environmental Management. While this particular course was far more extensive than required for your project people, it clearly indicates that the material currently in hand could be designed for your specific purpose. I would suggest that this special training school have as its objective the training of your personnel in recognizing and identifying environmental problems associated with their projects. The school, handled in three to five

Original for Mr J. King
Date: 9-25-70
Communications
Section

days of contact time, could provide your people with sufficient background in Environmental Sciences and Environmental Protection Systems, for adequate supervision in this area.

3) Consultation on Environmental Problems

As potential environmental problems on each project are identified, it is most likely that your projects would need help from time to time such as expert capability for analyzing these problems in detail and providing recommendations for solutions to certain of these problems. Our department is most amply qualified to serve you in this area and could provide a field team complete with an air-lift laboratory for any location on the globe. In addition to gathering the field data, we are specialists in interpretation of these data and projecting possible environmental impacts. We could also establish a liason and training procedure whereby the country originating the project could participate in the environmental investigations.

Again, let me thank you for arranging the meeting at World Bank, and please recognize that we would be most happy to serve you at the earliest opportunity in any of these areas. With best wishes, I remain

Sincerely yours,


J. H. Wright, Director
Environmental Systems Department

JHW/hd

cc: F. Cotter

Ecology

OFFICE MEMORANDUM

TO: Files

DATE: September 14, 1970

FROM: John A. King *JAK*SUBJECT: Environment: Westinghouse Visit

1. On September 9, 1970 Drs. Wright and Terrell and Mr. Carter of Westinghouse visited the Bank at our invitation to discuss Westinghouse's activities in the environmental field. Dr. Wright is Director of their Division of Environmental Studies, Dr. Terrell is a consultant specializing in water problems, and Mr. Carter, a former Deputy Inspector-General of AID, is a Vice-President in charge of the Washington Office of Westinghouse.

2. They met with Mr. Chadenet and me for lunch, and with me alone for about an hour before lunch. I explained the Bank's organization, the project cycle and the Bank's present approach to environmental problems. Dr. Wright indicated that he could see three principal areas in which his organization could make a useful contribution to the Bank's work in this field.

- (a) A specific pilot study. This study would be directed at a critical analysis of how environmental issues related to Bank projects. Its principal end-product would be a questionnaire to be used in project identification and preparation which would flag critical environmental issues at an early stage. Dr. Wright pointed out, in this connection, that many environmental problems could be solved simply by identifying them and taking simple, corrective action;
- (b) A course on environmental problems for Project Departments staff. This course would be based on the experience gained by Westinghouse not only in the general course on the power sector which they offered at Colorado State last summer, but also on smaller seminars they had organized for other corporate clients. Though the general course had been directed at power, it could be easily adapted to cover other sectors. Dr. Wright thought a course lasting six days for 25-30 participants would be effective;
- (c) The provision of specific assistance in the case of particular projects. Dr. Wright pointed out that he had a broadly-based team on which the Bank could call to investigate specific environmental problems and propose solutions to them, including a portable laboratory for analyzing pollution problems which could be flown in to any area on short notice.

3. Mr. Chadenet asked Dr. Wright to write the Bank, giving greater information and more specific proposals.

JAK:asg

September 14, 1970

Dr. James A. Lee
11919 Stonewood Lane
Rockville, Maryland 20852

Dear Jim:

I am very pleased that you have decided to join the Bank. Enclosed is a memorandum which I prepared a month ago, for Mr. Chadenet, on what seemed to me important issues in the environmental field. When I discussed it with him, he said that most of them could await the arrival of the Environmental Adviser and so I am passing them on to you. You may want to think about some of them before you join us officially.

Some action has been taken with respect to some of the items and I will summarize that action as follows:

1. Water-Borne Disease

I did visit Dr. van der Schalie at the University of Michigan in August, and discussed schistosomiasis with him. There have also been a number of internal discussions within the Bank on the problem of water-borne disease, and I plan to discuss this issue with Dr. Paine of WHO during my forthcoming visit to Geneva. The proposal is that WHO prepare, or supervise the preparation of, a manual for Bank Projects staff to use in their appraisal of projects which significantly affect the use and distribution of water.

2. Man-Made Lakes

I have taken no further steps with respect to this problem. However, since writing the memo, we have become aware of UNDP-financed projects which are studying man-made lakes in Africa, and we are in the process of trying to get reports from these studies. Man-made lakes will be a topic of discussion at the conference on the Environment and Development which I will be attending at Williams College at the end of this week.

3. Pesticides

For the time being, nothing further has been done on this problem.

4. Rats

For the time being, nothing further has been done on this problem.

5. Social Anthropology

Nothing significant has been done on this problem. I understand that Thayer Scudder will play an important role at the Williams Conference referred to above. I have also been in touch with a professor of anthropology at Syracuse, who is working on a program to train anthropologists for applied work in connection with development. I have invited him to visit the Bank later this fall. In some respects, problems in this area may apply as much to the work of the Training Adviser as to that of the Environmental Adviser.

6. Environmental Consultants

This concept has been generally accepted within the Bank, as I believe I told you, but the selection of specific individuals will await your arrival.

7. Westinghouse Course

The Westinghouse people visited us last Wednesday and made several specific proposals including (a) one for a pilot study, the principal end-product of which would be a questionnaire to be used in project preparation to flag environmental issues; (b) a one-week seminar on environmental issues for Projects Departments staff; and (c) the general availability of their environmental team for ad hoc assignments on specific projects. Mr. Chadenet asked the Westinghouse people to write him with specific proposals.

8. Meetings

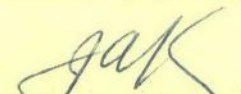
As I told you, I will be attending the meetings at Williams College and in Rome. I will also attend the meeting of the ACC Ad Hoc Working Group on the Stockholm Conference in the week of October 13. Mr. Chadenet concluded there was no reason for you to change your plans to attend this meeting. Julian Grenfell of our Paris Office will be attending the Malta Meeting of the Commonwealth Human Ecology Council in the following week.

9. Environmental Seminar

Mr. Chadenet was, in general, sympathetic to the idea of this seminar, but wanted to await your arrival to make any definite plans.

I will be leaving the Bank at lunchtime on Thursday, September 17.
If you have any questions, please call me before then.

Sincerely yours,



John A. King
Training Adviser
Office of the Director, Projects

JAK:asg

Ecology



Space Division
North American Rockwell

12214 Lakewood Boulevard
Downey, California 90241

14 September 1970

Mr. Michael L. Hoffman
Associate Director, Development
Services Department
The World Bank
1818 H. Street, N.W.
Washington, D.C. 20433

Dear Mr. Hoffman:

I enjoyed your article "Development Finance and the Environment" in the September issue of Finance and Development. I am forwarding a copy of a paper prepared recently by myself and two of my colleagues dealing with environmental quality. The approach to problem resolution and the prime factors of consideration may be of interest to you, particularly if you plan to pursue further the concept of external diseconomies.

Sincerely,

NORTH AMERICAN ROCKWELL CORPORATION

A handwritten signature in cursive script that reads "W. L. Dowdy".

W. L. Dowdy
Program Development Manager
Earth Applications
Advanced Programs, Space Division

spd

Meeting - Misc
VCC Ecology

September 11, 1970

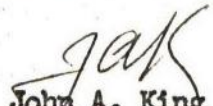
Professor S. Busuttil
Chairman Organising Committee
Commonwealth Ecology Conference
Royal University of Malta
Msida, Malta

Dear Professor Busuttil:

I am very grateful for the invitation to attend the First Commonwealth Conference on Development and Ecology to be held at The Royal University of Malta between October 18 and 24, 1970. I regret very much that I will be unable to attend, but the Bank will be represented, as you probably know, by Mr. Julian Grenfell of our Paris Office.

I am very interested in the Conference and wish you every success.

Sincerely yours,


John A. King
Training Adviser
Office of the Director, Projects

JAK:asg

✓ Ecology
CC Fellowship Training

September 11, 1970

Dr. Anthony Paine
Assistant Director General
World Health Organization
Geneva, Switzerland

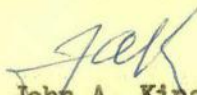
Dear Dr. Paine:

I expect to be in Geneva on other business on Monday and Tuesday, September 21 and 22, and on the morning of September 23. I would be very grateful for an opportunity to meet with you during that time to discuss certain aspects of the Bank's concern over the indirect environmental consequences of the projects it finances.

The primary purpose of my visit to Geneva is to discuss training problems with ILO, and my schedule there is being arranged by Mr. A.G. Paul, Chief of the Planning Branch of the Technical Cooperation Department. I would be grateful, therefore, if you could advise him of what time it might be convenient for you to see me. I have already asked him to reserve time for a possible meeting with you.

With many thanks for your cooperation,

Sincerely yours,


John A. King
Training Adviser
Office of the Director, Projects

JAK:asg

Meeting-wise
cc Water
cc Ecology

September 10, 1970

Mr. George J. Halasi-Kun
University Seminars
On Pollution and Water Resources
Columbia University
1100 West 118th Street
New York, NY 10027

Dear George:

Further to our telephone conversation of early July concerning the date and subject of the seminar in Washington on which the Bank will be host, I should like to suggest that the December 2nd date would be most suitable to us and we would appreciate confirmation if this is satisfactory to you.

We are proposing as the topic for the evening, "Urban Water and Waste Problems in the Developing Countries". The discussion would be prefaced by a review of World Bank policies and procedures as they concern investment in water supply and sewerage projects. The paper which would be prepared and made available to you in advance, would be oriented to a brief statement on sources of finance available to developing countries for water and sewerage projects; the World Bank's role and contribution in this regard; the Bank criteria employed for investments and the mechanisms for supervision of loans to facilitate achievement of objectives.

Following the background presentation, which could be brief if the participants have read the advance paper, two or three of our staff would discuss some of the major problems confronting the developing countries in their water and waste programs using project histories as examples. We could have several projects ready for discussion and depending on the time required for seminar comment following each, the number could be tailored to ensure the meeting's closing on time.

I attach herewith a draft of a covering page to accompany the paper when it is sent out to the members. As indicated by phone yesterday, we would plan to have sufficient copies of the paper in your hands by early November. Your advice on the number of copies is requested.

We would appreciate your comments on the above.

Very truly yours,



Harold R. Shipman
Chief, Water Supply Division I
Public Utilities Projects Department

Enc:
HRShipman:is

cc: Messrs. Armstrong

DRAFT
HRShipman:gpl

September 9, 1970

COLUMBIA SEMINAR - COVERING MEMO

TO: All members - Columbia University Seminars on
Pollution and Water Resources

The attached paper will provide you background for the discussions which will take place at the December 2nd meeting in Washington, D.C. hosted by the World Bank. Reference will be made to this paper in the seminar presentation but it will be assumed that everyone has read the paper, in particular Chapter V and VI on the General Criteria for Project Appraisal. Reference will be made to these criteria in the case studies to be presented and familiarity with the five items by the participants will facilitate the discussions which follow.



Record Removal Notice



File Title Bank Administration and Policy - Ecology - 1969 / 1971 Correspondence - Volume 2		Barcode No. 1525563		
Document Date 9/9/1970	Document Type Letter			
Correspondents / Participants To: M. F. I. J. Bijleveld From: T. M. C. Asser, Attorney				
Subject / Title Loan No. 545-GU Lake Atitlan Project Ecology				
Exception(s) 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 or other disclosure policies of the World Bank Group.		
		<table border="1"><tr><td>Withdrawn by Bertha F. Wilson</td><td>Date June 5, 2017</td></tr></table>	Withdrawn by Bertha F. Wilson	Date June 5, 2017
Withdrawn by Bertha F. Wilson	Date June 5, 2017			

Ecology

September 9, 1970

Professor D.G. Cochrane
Department of Anthropology
Syracuse University
943 South Crouse
Syracuse, New York 13210

Dear Professor Cochrane:

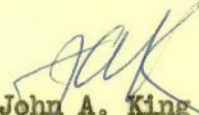
Thank you for your letter of September 1 with its enclosures, which I found very interesting. It does seem rather unlikely that I should be visiting upper New York, but I would be very pleased to talk with you should you be coming to Washington on other matters. As I indicated in my letter of July 27, I doubt very much that I will be able to give you any accurate estimates of the Bank's needs in the field of applied anthropology or development anthropology, but it would be helpful for me to learn more about it.

Incidentally, the Bank is now in the process of recruiting an Environmental Adviser who, in the long run, will be concerned, I assume, with anthropological questions relating to the Bank's projects. For the time being, however, I will continue to be interested both from the environmental point of view and from the point of view of training and institution-building, particularly where large-scale agriculture-rural development is concerned, such as East Pakistan.

Please let me know what your plans may be. I expect to be out of the country between September 17 and 28, and again during the week starting October 12.

With best wishes,

Sincerely yours,



John A. King
Training Adviser
Office of the Director, Projects

JAK:asg

90 545

VCC Ecology

Mr. T.M.C. Asser

September 4, 1970

John A. King *JAK*

Environment: Lake Atitlan Project

1. Your letter to Professor LaBastille on this subject has been dispatched.
2. I have a few suggestions with respect to your letter to your friend on this subject. First, the name of the Smithsonian is the Smithsonian Institution rather than the Smithsonian Institute. Second, I would suggest the following changes:
 - A. I would replace the first sentence of the second paragraph on page 2 with the following: "In the past, the Bank has invariably taken into account certain environmental considerations in appraising projects, including such aspects as watershed control, erosion control, problems of salinity and water-logging, and the like. It is now in the process of establishing procedures to make a systematic review of the environmental aspects of the projects which it finances in the course of their preparation and appraisal, and a beginning has been made in this respect."
 - B. I would add to the sentence in the same paragraph now ending with the words "in the complex ecological equilibrium of the Lake Atitlan region" the phrase "or that Lake Atitlan and its wildlife constituted an important potential for tourism, and that the proposed development would adversely affect that potential".
 - C. I would insert before the last paragraph two new paragraphs roughly as follows: "I would like to stress two other points which are very important. The first is that, in the last analysis, it is the Government in question and not the Bank which decides whether or not a project goes forward. If the Bank says 'no' to a project on economic or other grounds, the project may well go forward if the Government so decides with other financing. Many examples of this can be cited where the grounds for the Bank's disapproval were economic, and I understand that there is one case where the Government is searching for alternative sources of finance because it fears the Bank may be opposed to the project on environmental grounds. The second point, which is related to the first, is that developing countries do not look at environmental issues in the same way as developed countries; in many cases, they consider that these issues and problems are of concern only to the developed countries or, worse, that they are a device to impede development and development aid."

It seems to my colleagues who have been working on these problems, therefore, that it is very important that concern for the environment not be equated with immobility and preservation of the status quo, and that means and concepts must be discovered for making economic development and concern for the environment compatible. Very much off the record, they tell me that organizations such as WWF often seem to place governments in the position of having to choose between their own people and a few endangered species of interest to the rich, developed ex-colonials. This, you will agree, is a difficult position and counter-productive."

3. You may not approve of my language, but I think the ideas expressed are important for conservationists to understand, and they are, at least for the present, a basic element of our thinking on this subject.

JAK:asg

Ecology

Mr. William Clark

September 4, 1970

John A. King *JAK*

Attendance at Meetings

1. In accordance with administrative circular dated September 3, concerning this subject, I am advising you that it is proposed that I attend three meetings relating to environmental questions:

- (a) Conference on Economic Development and Environmental Problems, sponsored by the Center for Environmental Studies and the Center for Development Economics, both of Williams College, to be held on September 18 and 19;
- (b) a meeting of the Working Group on Environmental Considerations in Development Projects, sponsored by the International Union for the Conservation of Nature and Natural Resources and the Conservation Foundation, to be held on September 24 and 25, in Rome, and
- (c) the Commonwealth Conference on Development and Human Ecology, to be held in Malta under the sponsorship of the Commonwealth Human Ecology Council during the week beginning October 19.

2. Attendance at all these meetings has been approved by Mr. Chadenet and I have already indicated to the sponsors of the Rome meeting that I am attending. I hope my attendance at the other meetings meets with your approval.

JAK:asg

Ecology

September 4, 1970

Mr. Charles C. Johnson, Jr.
Administrator
Environmental Health Service
Public Health Service
Department of Health, Education
and Welfare
Washington, D.C. 20201

Dear Mr. Johnson:

Since our discussions with you, we have given a great deal of thought to the role of the Environmental Adviser both within the Bank and in relation to the sources of information which he will need to guide the Projects Departments in their analysis of the environmental consequences of development projects. In the light of this review, we have reluctantly concluded that your high qualifications and broad experience are not ideally suited to our needs. As I noted in our discussions, the Environmental Adviser would have no administrative functions, so that your long experience as an administrator would be wasted. Furthermore, within the Bank there is a large reservoir of experience in engineering and in those aspects of public health relating to water supply and sanitation, rather comparable to your own experience. We believe that the Environmental Adviser should bring to the Bank skills and experience which are scarce within the Bank and, in particular, training and experience in the biological sciences and a working acquaintance with the scientific community. It is with great regret, therefore, that I must advise you that we cannot consider you for the position of Environmental Adviser in the Office of the Director, Projects.

Needless to say, we reached this conclusion after careful consideration and with reluctance because of your high qualifications and achievements as a public administrator. It was a great pleasure to meet you and to discuss these problems with you.

Sincerely yours,

B. Chadenet
B. Chadenet
Deputy Director, Projects

JAK
JAK:asg

Cleared with and cc: Mrs. Stone

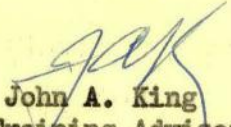
September 3, 1970

Mr. Gerardo Budowski
Director General
International Union for Conservation
of Nature and Natural Resources
1110 Morges, Switzerland

Dear Mr. Budowski:

Thank you for your letter of August 24 with its enclosures. We are still in the process of appointing our Environmental Adviser and, consequently, I will be representing the Bank at the Working Group Meeting on September 24 and 25. I am looking forward to meeting you.

Sincerely yours,


John A. King
Training Adviser
Office of the Director, Projects

JAK:asg

Mr. Wilfried Thalwitz

September 2, 1970

John A. King

JAK

Forest Development

1. I have run across several transport projects in countries in your Division which depend, at least in part, for their economic justification on expanded development of forestry - Cameroon Port, Gabon Railways and Gabon Highways. Perhaps there are others in the mill. These projects have environmental consequences in the sense that if the projects were not carried out, the expansion of logging would probably not occur. In the light of the Bank's increasing concern over environmental questions, it would, therefore, be interesting to know whether the countries in question have ever made any studies as to the optimum rate of utilization of their forest resources and whether the proposed expansions fit in with any such optimum use.

2. If no such studies have been made, might it not be wise to urge the countries in question to undertake such studies, perhaps financed by UNDP, so that Bank projects will not be contributing to environmental damage and an unsound use of natural resources. It is probably too late, however, to take these factors into account in the projects referred to.

3. May we discuss this at your convenience.

JAK:asg

cc: Messrs. Chadenet
Knox

✓Ecology

cc 110 -

September 2, 1970

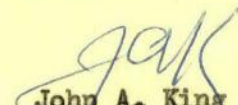
Mr. Aamir Ali
Chief of the Relations and
Conference Department
International Labor Office
CH 1211 Geneva 22
Switzerland

Dear Mr. Ali:

Thank you for your letter concerning the preparation of a preliminary draft of the Universal Declaration of the Human Environment. Our thinking here has not advanced sufficiently far to have firm ideas on the detailed contents of such a Declaration, but we would think it most important that the Declaration take into account the needs and expectations of the developing countries and play up the compatibility between concern over the environment and economic development.

The proposed structure of the conference, with pollution as a major topic, will, it seems to us, emphasize the needs and concerns of developed countries. It seems to us that it is very important to make sure that the Universal Declaration not stress conservation and the prevention of pollution in such a way as to imply a perpetuation of the status quo of standards of living in poorer countries.

Sincerely yours,


John A. King
Training Adviser

Office of the Director, Projects

JAK:asg

Ecology

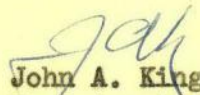
September 2, 1970

Mr. Christian A. Herter, Jr.,
Special Assistant to the Secretary of State
for Environmental Affairs
U.S. Department of State
Washington, D.C. 20520

Dear Chris:

Thank you for sending me the list of participants for the CF/IUCN Conference in Rome. I thought you might be interested in knowing that it did not reach me until 5:00 p.m. on August 31. It did not come via the U.S. mails but rather via what I assume to be your messenger service. It seems to me we discussed this at least a week ago; not that it is important in this case, but does it really take a week for mail to get from the State Department to the Bank?

Sincerely yours,


John A. King
Training Adviser
Office of the Director, Projects

JAK:asg



Record Removal Notice

File Title Bank Administration and Policy - Ecology - 1969 / 1971 Correspondence - Volume 2		Barcode No. 1525563		
Document Date 9/2/1970	Document Type Letter			
Correspondents / Participants To: Professor Ann LaBastille From: T. M. C. Asser, Attorney				
Subject / Title Loan No. 545-GU Lake Atitlan Project Ecology				
Exception(s) 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 or other disclosure policies of the World Bank Group.		
		<table border="1"><tr><td>Withdrawn by Bertha F. Wilson</td><td>Date June 5, 2017</td></tr></table>	Withdrawn by Bertha F. Wilson	Date June 5, 2017
Withdrawn by Bertha F. Wilson	Date June 5, 2017			

Ecology

SYRACUSE UNIVERSITY

DEPARTMENT OF ANTHROPOLOGY | 943 SOUTH CROUSE | SYRACUSE, NEW YORK 13210

September 1, 1970

John A. King
Training Adviser
Office of the Director, Projects
International Bank for Reconstruction and Development
1818 H. Street
Washington, D.C. 20433

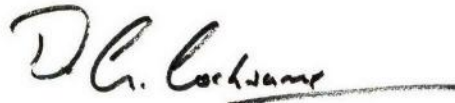
Dear Mr. King:

Thank you for your letter of July 27 which I received on my return from N. Africa yesterday. Plans here are going forward but as you can well imagine a great deal will depend on the reaction of agencies and governments. It occurs to me that few of your people are likely to visit upstate New York! And it is possible that if the bank has had limited experience in this field then it may be difficult to assess the potential contribution that could be made by suitably trained persons.

It will be some time before I receive advance copies of my new book on Development anthropology -- I shall send a copy -- therefore it might be useful for us if I could call on you or give a talk to interested officials on the present status and prospects for applied anthropology. This might be more efficient than protracted correspondence. Could you let me know if you think this would be worthwhile?

With many thanks

Yours sincerely,



D. G. Cochrane (M.A., D. Phil. Oxd U.)
Associate Professor

DGC/kd

PERMANENT CROSS REFERENCE

Onchocerciasis filed AFRICA-
RIVER BLINDNESS IN TROPICAL
AFRICA

Schistosomiasis filed AFRICA - SCHISTOSOMIASIS