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CLOSE - OUT SHEET

This file is closed as of Aug. 31, 1977.

For further correspondence, please see Vol. IV.

RECORDS MANAGEMENT SECTION

Agrie + Rural Dev

Mr. G. Donaldson, AGP

August 31, 1976

Ragnar Overby, OE&HA



Forestry: Sector Policy Paper

1. I have been notified of your return September 13, 1976.
2. Regarding our input to the subject paper please call to arrange a meeting with us at your convenience.
3. The draft policy paper was most encouraging to read, but there are issues in need of much stronger emphasis as we see it, and we would like to discuss them with you.

cc: Mr. C.M.F. Bruce

ROverby:mad

Agriculture +
Rural

Distribution Below

August 30, 1976

G.F. Darnell

Draft Paper: "Raising Farmers' Incomes through a Professional Extension Service"
by Messrs. Benor and Harrison

A number of your staff made valuable comments on the above draft paper recently. These were forwarded together with a note from me (attached) to the authors on August 19. As you will see, I anticipated that it would be profitable to discuss the draft with its principal author, Mr. Benor, when he visits the Bank next month. I propose therefore that there should be such a discussion on Thursday, September 9, at 9:30 a.m. in room D860. In order not to have too large a meeting, I should be grateful if you would limit the representation from your division to no more than two persons who have read the draft paper and who have something positive to contribute. Will you please indicate the names of probable participants to my office ext. 2591/2.

DCPickering:hrv

To: Agric. Projects Division Chiefs
Mr. D. Benor

cc: Assistant Directors (Agriculture)
Messrs. J.C. Collins
Y.O. Elkana

Attachment

OFFICE MEMORANDUM

DATE August 19, 1976

TO: Mr. James Q. Harrison

FROM: G.F. Darnell

SUBJECT: Raising Farmers' Incomes Through a Professional Extension Service

1. In confirmation of my cable 934 of August 17, I forward herewith copies of comments made by a selection of agricultural staff in both Regional and Central Projects departments who have reviewed the above paper. It is anticipated that there will be some amplification of these views in September when Mr. Benor is in Washington.
2. I share the general agreement that the draft is well prepared and presented and that, with some modifications, it is deserving of wide circulation. The diverse backgrounds of the anticipated audience must have presented a major problem of drafting. We are not convinced that the problem has been fully solved in this draft. It has too strong a flavor of a public relations type document for my taste, particularly the Introduction. I should prefer to see it replaced by a section outlining the part which extension can play in promoting rural development. This should emphasize the complementarity of factors such as credit, input supply, and marketing with an extension service rather than give the impression, as at present, that good extension is the sole answer to obtaining increased production. Further, it should draw attention to the present limitations of geographical, sociological, and technological experience with the system. More specifically, experience to date has been with three or four-crops, grown mainly under irrigation and mainly in Asia. The feasibility of the system for, say, rainfed production of sorghum and millet under rainfed conditions in Africa or livestock production in Latin America does not necessarily follow.
3. If the foregoing limitations are accepted, it follows that there is a need throughout the paper to be substantially more flexible in both the assertions and recommendations. Such flexibility appears to me and others to be particularly important in view of the probable broad spectrum of anticipated readership. Thus, apart from the basic question as to the effectiveness of the system under conditions different from those encountered, there is a need to tone down such claims as that made on Impact on page 31. This, I suggest, should not read that "... about half a million farmers ... will learn directly from the VEWS ...", rather that "... about half a million farmers will have the opportunity to learn directly from the VEWS ...". Further, in the same paragraph: "... The indirect impact on other farmers could (rather than "would") be even more widespread". Similarly, the wording of some of the recommendations needs to be toned down or omitted. That at the foot of page 42 to the effect that the Agricultural Extension Officer should receive an allowance to cover costs of meals taken in the field is one of a number of recommendations which might be considered for exclusion or softening.

August 19, 1976

4. I draw your attention to the comments of a number of readers on the paper's treatment of the impact of intensive extension, pages 48/56. In addition to acknowledgment of the effects of other factors there is need for a more comprehensive treatment of the quantification presented. How many farmers were involved in the Seyhan or Chambal Projects, for example? Who collected the statistics and carried out the crop cutting surveys? Page 11 states categorically that: "... collection of statistics, etc. ... should not be the responsibility of the extension staff."

5. Finally, I wonder if the title and focus of the paper are entirely appropriate. Would it not be more appropriate to be more specific and perhaps state that experience is still somewhat limited, albeit very promising? How about "The Training and Visits System of Agricultural Extension" with a subtitle: "Recent Experience with the Establishment and Operation of Low Cost Professional Extension Services in India", or something along these lines? The paper would then focus on the India experience on a case study basis and also indicate the extent to which the philosophy and methodology was being tried in other countries. Apart from giving a rather more balanced picture, such an approach could well result in a document which would have the potential to play an important role in the Bank sponsored extension seminar scheduled for March 1977 at Los Banos, Philippines.

6. I regret that I have been unable to meet the deadline requested in Mr. Benor's letter but the depth of interest evoked by your paper here has warranted the slight delay involved. I look forward to further discussions on the subject in September.

DCPickering:hrv

cc: Messrs. Benor
Yudelman
Collins
Elkana

Attachments

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

AGRICULTURE &
RURAL DEV

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POLICY REVIEW COMMITTEE

WBG ARCHIVES

PRC/s/M/76-12

August 18, 1976

THE WORLD BANK AND THE SETTLEMENT OF AGRICULTURAL LANDS:
AN ISSUES PAPER

STAFF REVIEW

✓ - DUC'S
Attached is a draft paper entitled "The World Bank and the Settlement of Agricultural Lands: An Issues Paper," prepared by the Economics and Resources Division of the Agriculture and Rural Development Department.

A meeting for staff level review will be held in September. Date, place and time will be announced later.

Shahid Javed Burki
Secretary
Policy Review Committee

DISTRIBUTION

Attendance

Messrs. van der Tak (Chairman)
Bruce
Chernick
de Azcarate
Dubey
Gilmartin
Goering
Goffin
Hablutzel
Haq
Hasan

Haynes, D.
Hendry
Hofmeister
Holsen
Karaosmanoglu
Leiserson
Rowe, R.E.
van Gigh
Vergin
Yudelman

Copies for Information

IBRD Department Directors
Program Coordinators

Mr. Jean Waelbroeck, Adviser, EPD

August 26, 1976

Choeng H. Chung, EPDCE *HC*

Further Work on the Agricultural Prospects Exercise

1. As requested, this memo is a summary of my views on the subject.
2. In my opinion, the most important contribution of the agricultural prospects exercise is the "uncovering" of the phenomenon of diminishing returns (higher rates of input growth accompanied by stagnant or lower rate of output growth) in world agriculture. Diminishing returns have important implications for future emphasis in agricultural development and the Bank's emphasis in assisting the process. It is, therefore, important to confirm whether this phenomenon is "real" or just an apparent result stemming from our methodology and basic assumptions in the prospects exercise. If the phenomenon is real, an assessment of the key explanatory factors 1/ is imperative. Further investigations towards this direction should be along the following lines:

- (a) Certain output omissions should be remedied (e.g., rubber, palm oil, sugar cane, coconut, millet). Without this, productivity of agriculture is underestimated.

1/ The factors which may be used to explain this phenomenon are:

- (a) Declining quality of inputs used -- as exemplified by
 - (i) increasing use of marginal lands in rainfed agricultural expansion in "population pressure" countries,
 - (ii) improved technology (HYV seeds) expansion is hampered by stringent requirements for growth, hence forced expansion to non-irrigated, more marginal areas means lower production response,
 - (iii) production has expanded to the limits of supporting services (e.g., fertilizer distribution, extension, improved seed production and distribution, credit, etc.) -- particularly important in South Asia.
- (b) Shifting emphasis from "high yielding" (in value terms) or cash crops to "lower yielding" or subsistence crops as a result of rural development focus -- particularly applicable to West Africa.
- (c) Irrigated infrastructure development has not generated production benefits -- partly due to time-lag effects in construction, but primarily related to (a)-(iii) and lack of concern in developing irrigation and water management at the farm level -- particularly for rice production.

- (b) Disaggregation of output into foodgrains and its competitors (e.g., cotton, jute, sugar, oilseeds, pulses) as one category, and "permanent"/perennial crops (e.g., rubber, palm oil, coconut, tea, coffee, cocoa) as another. This is necessary because the present generalization of input use does not, for example, capture the well known situation of high usage of fertilizer among cash crops (especially perennial crops) in comparison with food/subsistence crops. Such a disaggregation may well show that the diminishing returns phenomenon is only present in one sector. For policy purposes, such a sub-categorization is, therefore, critical.
- (c) An assessment is needed to determine whether separating the contribution of irrigation, fertilizer, and improved technology (mainly seed) to output increases is indeed possible, given the poor data base at the global level. The overall contribution of fertilizer to output increases seems to be inordinately high in comparison with more careful country analyses. I contend that the way fertilizer and irrigation is separated in the exercise is artificial, especially for foodgrains, because fertilizer use is highly linked with other improved technology components (improved seeds, agricultural chemicals) and irrigated areas. For example, the method used in imputing fertilizer shares (i.e., 1 kg. of fertilizer nutrient would contribute to 10 kg. of foodgrains output) normally includes the irrigation factor.
- (d) A reevaluation of certain coefficient used is also necessary, in order to obtain a more realistic attribution of inputs to outputs (e.g., 1:10 fertilizer factor, 3:1 productivity of irrigated land to non-irrigated land, etc.).
- (e) Assessment of actual investments in agriculture (per your suggestions).
- (f) Country perspective of the diminishing returns problem. This is necessary to illustrate the relative importance of the explanatory factors (para 2, footnote 1) and to get concrete reaction from regional Bank staff on the phenomenon.

3. The next step calls for an evaluation of the above to determine what is feasible and the time needed to undertake the investigations. Our initial discussion indicates that (b) and (c) would be most difficult. If, indeed (b) and (c) cannot be undertaken, an expanded country case study perspectives would be needed. The selection of countries for more intensive study would be crucial.

cc: Messrs. Tims (o/r)
Takeuchi
Choe
Osterrieth

C.Chung:cjl

*Agriculture +
Rural*

Mr. T. J. Davis (through Mr. C. Bruce)

August 20, 1976

Bill Cuddyby *BC*

Monitoring and Evaluation of Agricultural and Rural Development
Projects, by Guido J. Deboeck

1. This is an interesting paper into which a lot of deep thought and work has gone. However, I cannot find in it any topic that has not been thrashed around in previous Bank literature nor any new ideas. Neither are there specific guidelines for operational staff. No one disputes the need to get a "good idea" of the impact of Bank intervention and it should not be argued further. Everyone agrees that the minimum information should be collected. I have attached a copy of my memo on Mr. Israel's draft CPM which is along similar lines.
2. Most borrowing countries do not have good basic farm budget data or household expenditure data. Generally, it is not sufficiently disaggregated or frequently updated. Project management may be deficient in accounting skills or recording procedures. Credit institutions usually have a mine of information rendered rather useless because of aggregation or insufficient detail. It seems to me that if these bodies could be motivated and guided to do their jobs properly all the information required for "monitoring and evaluation" would be contained therein.
3. As a practical suggestion, could I ask that standard farm budget data, household expenditure data surveys, normal accounting items at project management levels and actual credit institution data be examined to see what is lacking. Everything from human nutrition levels to phosphate response of potatoes can be gleaned. With a few minor additions and an extra focus on the project area, sufficient knowledge of the rate of change of human welfare due to Bank intervention should be available through the regular channels provided the requirements are made clear at the start of the project cycle.
4. If the above bodies default on their normal obligations, then the project unit could well carry out basic farm budget and household expenditure sample surveys on a regular basis. There is nothing new or unusual required and all the information needed for whatever purpose to whoever wants it should be available. There seems to be a danger of turning "Monitoring and Evaluation" into a sacred cow with a life of its own.

cc: Mr. Pickering
Mr. Sutherland

BC:oh

OFFICE MEMORANDUM

Yellow
Agriculture +
Rural

DATE August 19, 1976

TO: Mr. James Q. Harrison

FROM: G.F. Darnell

SUBJECT: Raising Farmers' Incomes Through a Professional Extension Service

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4. I draw your attention to the comments of a number of readers on the paper's treatment of the impact of intensive extension, pages 48/56. In addition to acknowledgment of the effects of other factors there is need for a more comprehensive treatment of the quantification presented. How many farmers were involved in the Seyhan or Charbal Projects, for example? Who collected the statistics and carried out the crop cutting surveys? Page 11 states categorically that: "... collection of statistics, etc. ... should not be the responsibility of the extension staff."

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DCPickering:hrv

cc: Messrs. Benor
Yudelman
Collins
Elkana

Attachments

WORLD BANK / INTERNATIONAL FINANCE CORPORATION

OFFICE MEMORANDUM

TO: All Agriculture and Rural Development Staff
FROM: D.C. Pickering
SUBJECT: From Agronomic Data to Farmer Recommendations

DATE: August 16, 1976

WORLD-223.5

I attach for your information a copy of the above publication issued recently by CIMMYT. In addition to illustrating the high quality of the material CIMMYT and other CGIAR sponsored institutions are making available in their training programs, the bulletin may well be of value to Bank staff in course of project work. In the latter connection however, it should be stressed that this is a manual designed for field agronomists. Treatment of economic aspects is somewhat simplified and should not necessarily be taken to be acceptable in the economic analysis of Bank projects. In particular, the rule of thumb recommendations with respect to allowances for risk and uncertainty need to be treated with caution as farmers' perceptions of risk and uncertainty must vary greatly and are project, area and time specific.

DCPickering:hrv

cc:and cleared with: Colin Bruce

cc: Messrs. van der Tak
Ray
Lejeune
Coulter

Attachment

Agriculture

Mr. Curt Carnemark, Policy Implementation Adviser,
TRFDR
Colin Bruce, Chief, AGPER *CB*

August 16, 1976

Appropriate Vehicle for Small Farmers in Developing Countries

The following are suggestions for improving the proposed catalog for development planners:

- (i) the data on machine characteristics should be made fully comparable, e.g.:
 - (a) measurement units should be standardized and not a mixture of metric and imperial ones;
 - (b) some measurements, such as clearance, are given for some but not all vehicles.
- (ii) some assessment on the suitability for alternative uses, e.g. different road surfaces, fields, wet/dry etc. would be helpful;
- (iii) the availability of attachments--trailers, implements, pumps, threshers etc. would also be helpful;
- (iv) the listing is not exhaustive, example of omission are "Pasquale" (Italy), "Holder" (Germany, "Ferguson"-Grey Ghost" (U.K.)--no longer being made but could be manufactured again; and
- (v) a number of the items--e.g. Ford's "DNT" and the NCAE "Snail"--are no longer made or under test.

In general, we think this could be a useful document. I presume that the quality of the photographs could be improved?

cc: Messrs. Yudelman o/r
Darnell/Pickering
Donaldson

CBruce:ssp

Mr. S.J. Burki, Acting Chief, Policy Planning

August 16, 1976.

Jean Waelbroeck, Adviser, EPD

August 13 Draft - Lending for Foodgrains in the Poorest Countries

1. I find this draft full of interesting ideas. I have two types of disagreement with it. One is about the general approach; but here we can perhaps agree to differ; the other remarks are on the numbers and are probably more important.

(i) General Approach:

2. The differences are (as they have been since the beginning) that (a) since foodgrains are about 40% of agricultural output in LDCs it is agriculture as a whole rather than foodgrains sector which should be the focus of policy measures.

(b) I feel rather strongly that increased capital requirements should arise as a consequence of a broad effort to develop agriculture and that policies which give the impression that the agricultural problem can be solved merely by investing are likely to prove disappointing.

3. But I don't want to stress these points too much. What you say about foodgrains (e.g. about a reduction of the rate of growth of output, and an increase of the balance of payments gap) is true for agriculture as a whole. You also do describe a broad range of policies; my only suggestion would be that Section III A should follow III B and III C. But it is up to you to decide where the emphasis should lie.

4. I do have problems about the crucial pages 13-15.

(a) I question whether the nutritional deficit of 25 million tons can be eliminated by 1985 unless there is a revolutionary change in income distribution. Do you want to recommend grain distribution to the poor, and could developing countries afford such distributions? How can these 25 million tons be put into the right mouths?

(b) If I understand your figures \$2.2 out of \$4.6 billion of agricultural investment in 1975 was financed by foreign aid. This is quite an impressive proportion.

(c) In the first paragraph of page 14 you interpret implicitly Sandra Hadler's "unchanged policies" assumption as constancy of investment at the 1975 level, whereas what she meant is better approximated by constancy of the share of investment. On the latter basis there would be under unchanged policies \$27.3 billion of investment in the five years 1976-1980 (using your 5.8% per annum rate of growth of gross domestic investment). You are proposing adding \$24 billion of investment to these 27 billions: I don't think that the

agriculture of lower income countries could absorb that much money so quickly.

(d) The \$4.6 billion cover all agricultural investment and not just foodgrains. If say 40% is for foodgrains your calculations would imply raising investment in foodgrains from \$10.9 billion under unchanged policies to \$35 billion: this seems extremely high.

(e) I do not know where you found the 11% rate of growth of ODA mentioned on page 15. Your table 9 implies 4.4% increase in real terms; the figure from the prospects paper is somewhat lower.

The objective which you propose is I think not achievable. It seems to me that you should scale down the goals which are to be achieved to more modest ones which can be reached.

cc: Mr. Goering

JWaalbroeck:lb

Agiculture

OFFICE MEMORANDUM

TO: Those Listed Below

FROM: Curt Carnemark, Policy Implementation *DWM for C*
Adviser, TRPDR

SUBJECT: Appropriate Vehicle for Small Farmers
in Developing Countries

DATE: August 12, 1976

Enclosed is a sample presentation of a proposed catalog for development planners to be entitled "Salient Features of Appropriate Vehicles for Rural Transport." The catalog will provide information on a wide range of vehicles designed to meet the transport needs of small farmers in developing countries.

I would appreciate any comments that you or your staff may have on this sample presentation.

Enclosure

Messrs. Yudelman (AGP)	van der Tak (Office-V.P., Projects Staff)
Christoffersen (AGP)	Paterson (IFC)
Bruce (AGP)	Ritchie (CGIAR)
Turnham (AGP)	Mensah (CGFPI)
Allison (AGP)	Mrs. Lele (EAP)
Reid (EAP)	Miss Sato (EAP)
Soges (WAP)	Mr. Harrall (TRP)
Young (AEP)	Mrs. Mitchell (TRP)
Shields (ASP)	Messrs. Coukis (TRP)
Howard (EMENA)	Dunkerley (TRUDR)
Malone (LAC)	Gisle (IRD)
Walton (EAP)	Downing (AEP)
Walden (EAP)	Hogg (EDI)
Wadsworth (WAP)	Gittinger (EDI)
van Gigch (WAP)	Peprah (ASP)
Sutherland (AEP)	King (Office-V.P., Projects Staff)
Powell (AEP)	Ray (Office-V.P., Projects Staff)
Golan (AEP)	Haynes (EMENA)
Parsons (ASP)	Roth (URB)
Spall (ASP)	Kalim (AEP)
Pranich (ASP)	Slade (ASP)
French-Mullen (EMENA)	Jaycox (URB)
Frank (EMENA)	Loh (AEA)
Goffin (LAC)	Calika (LAC)
Haasjes (LAC)	Frankel (EAP)
✓ Greening (LAC)	Fuchs (NDP)
Weiss (Office-V.P., Projects Staff)	

DMiller:ice

STUDY ON APPROPRIATE TRANSPORT SYSTEMS FOR RURAL COMMUNITIES
IN DEVELOPING COUNTRIES

Sample presentation of a proposed catalogue for development planners entitled: "Salient Features of Appropriate Vehicles for Rural Transport."

Transportation Department
World Bank

June 1976

In many developing countries, the absence of appropriate means of rural transport forces small farmers to rely on headloading, or some other equally primitive method, for transporting farm produce and inputs. This is especially true for tropical African countries where women continue to be used as beasts of burden.

Despite the fact that an increasing number of low-standard roads are being constructed, little attention has been given to the vehicles that should be used on these roads. Trucks or similar heavy vehicles that are commonly imported by developing countries are designed for major highways and are unsuitable for low-standard roads because of their size, heavy axle loads and the low-volume transport requirement often prevailing in rural communities.

A study has been initiated to examine this problem of rural transport. As a part of the study, information was collected on various types of rural transport vehicles, both in existing usage and in the prototype stage. These included automotive vehicles, single axle and four-wheel tractors with cart attachments, manual-powered vehicles like tricycles and their variations, and animal-driven carts.

The difficulties in collecting this information from diverse and scattered sources, suggested the need for compiling a comprehensive reference catalogue on appropriate vehicles already developed for use by development planners concerned with rural transport. This booklet presents a sample of the range of vehicle designs that will be covered in the proposed catalogue.

Comments on the content, format of presentation, and information on other types of vehicle designs that should be included in the catalogue, will be very much appreciated.

Curt Carnemark
Policy Implementation Adviser
Transportation Department
World Bank
1818 H Street, N.W.
Washington, D.C. 20433
USA

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLES: FOUR-WHEEL TRACTORS

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	TRANTOR	W. S. H. Taylor, Engineering Development Ltd. Station Road Mersey Industrial Estate Heaton Mersey Stockport, Cheshire SK4 3Q7 England	1973	Starting commercial production		<ol style="list-style-type: none"> Four wheel vehicle which can work as tractor, agricultural transport vehicle, general purpose vehicle, commercial lorry. 75 h.p. engine (at 2600 r.p.m.) Diesel 4 stroke, 4 cylinder, water cooled Dimensions: <ol style="list-style-type: none"> Vehicle loading area: Approx. 15 sq. ft. Length 140" Width 76" Height 86" Weight 4600 lbs. approx. Speed: Variable up to a maximum of 60 m.p.h. for vehicle 22 m.p.h. as tractor. Speed: 4-speed for vehicle; 2-speed for power take-off. Transmission: Mechanical 	Currently production is limited to demonstration models for developing countries. See Fig. 1.11	
2	TINKABI TRACTOR	Alan Catterick National Industrial Development Corporation, Manzini, Swaziland	1972	Commercial product in Swaziland	\$1,500 - \$2,000	<ol style="list-style-type: none"> Small four wheel tractor with trailer. 20 h.p. (at 2000 r.p.m.) Diesel engine Dimensions: <ol style="list-style-type: none"> Wheel base: 2 meters, wheel track 1.70 m. Ground clearance: 0.60 meters (23") Weight: 2,000 lbs. Overall width: 1.80 m. (72") Overall length: 2.50 m. (100") Speed: Infinitely variable up to a maximum of 8 k.m.p.h. Payload of trailer: 500 kgs. Hydrostatic transmission with drive motor on each wheel 	About 1,000 tractors have been produced till 1976, mostly for use in Swaziland. See Fig. 1.12	
3	ST-1300 TRACTOR	Satch Agricultural Machine Manufacturing Co. Ltd. Hibiya Kokusai Bldg. No. 2 2-Chome, Vchisaiwai-cho Chiyoda-ku, Tokyo, Japan		Commercial product	\$1,512 for tractor \$464 for trailer	<ol style="list-style-type: none"> Small four wheel tractor with trailer. Two cylinder water-cooled diesel engine, 13 b.h.p. at 2,700 r.p.m. Dimensions: <ol style="list-style-type: none"> Length: 74.4" Width: 39.2" Height: 44.1" Wheelbase: 48" Ground clearance: 10.2" Turning Weight: 1,036 lbs. Speed: 6 step forward speed up to 7.67 m.p.h. & 2 step reverse speed up to 3.54 m.p.h. Payload of Trailer: 350 kg. to 500 kg. (½ ton) Transmission: Mechanical 	Several Japanese companies manufacture similar small four-wheel tractors, mainly for domestic use. See Fig. 1.13	
4	UTIL UNIVERSAL 10	UTIL INTERNATIONAL INC. Michigan, U.S.A.		Commercial product	Not available	<ol style="list-style-type: none"> Small four-wheel tractor with trailer. Power: 10.3 h.p. in air-cooled gasoline engine, or 8.9 h.p. in air-cooled kerosene engine. Dimensions: <ol style="list-style-type: none"> Length: 84" Width: 42" Ground clearance: 14" Weight: 1,220 lbs. Payload: 1 ton Speed: ¼ to 5 m.p.h. forward and reverse. Transmission: Mechanical 		
5	BOLENS 1050 HUSKY TRACTOR	Bolens Port Washington Wisconsin, U.S.A.		Commercial product	\$1,100 including cart)	<ol style="list-style-type: none"> Small four-wheel tractor with trailer. 4 cycle single cylinder, air-cooled engine, 10 h.p. at 3,800 r.p.m. Dimension: <ol style="list-style-type: none"> Length: 63" Width: 34" Height: 40" Wheelbase: 43" Ground clearance: 7" Shipping weight: 645 lbs. Speed range: ¾ to 6 m.p.h. Transmission: Mechanical 	Many other similar small four-wheel tractors are produced in the U.S. for gardening and horticultural application. See Fig. 1.15	

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLES: FOUR-WHEEL TRACTORS (cont.)

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
6	BASIC TRACTOR for developing countries	National Institute of Agricultural Engineering, West Park, Silsoe Bedford, U.K.	1964	Prototype Testing Stage		<ol style="list-style-type: none"> 1. Small three-wheel tractor (Features of the 1964 model) 2. 2-cylinder, 9.5 b.h.p. at 2,000 r.p.m. diesel engine 3. Wheelbase: 5½ ft. Wheeltrack: 5 ft. 4. Speed: Maximum 7½ m.p.h. 5. Transmission: Mechanical 	<p>Trials were stopped in 1964 because of a lack of interest in African countries.</p> <p>See Fig. 4.26</p>	
7	UGANDA SMALL TRACTOR	Professor W. H. Boshoff Head, Agricultural Engineering Department Makerere University, Uganda	1972	Prototype Development was stopped in 1972	E250 to E380 (in 1972)	<ol style="list-style-type: none"> 1. Four-wheel small tractor 2. 14 b.h.p. petrol engine 3. Wheel center distance 48" Axle clearance: 15" 4. Speed: ½ m.p.h. to 12 m.p.h. 5. Transmission: Mechanical 	<p>The project was dropped because of the political situation in Uganda</p>	
8	ISEKI TRACTOR TS & TX series	ISEKI Agricultural Machinery Manufacturing Co. Ltd. 1-3 Nihon Cashr 2-chome, Chuo-ku, Tokyo, 103 Japan		Commercial product	\$2,500	<ol style="list-style-type: none"> 1. Four-wheel tractor, 4-wheel drive varying from 13 h.p. to 35 h.p. 2. 13 h.p. at 2700 r.p.m., 2 cylinder water-cooled engine 3. Dimensions: <ol style="list-style-type: none"> (i) Length: 1920 mm. (ii) Width: 980 mm. (iii) Height: 1230 mm. (iv) Wheelbase: 1220 mm. (v) Minimum ground clearance: 270 mm. (vi) Weight: 500 kgs. 4. Speed: Maximum 12.80 m.p.h., with nine variations, for forward and 6.60 m.p.h., with 2 variations, for reverse 5. Transmission: Mechanical four-wheel drive. 		

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLE: SINGLE-AXLE TRACTORS

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	'SUZUE' CeCoCo Power Tiller	Chud Beeki Goshi Kaisha CeCoCo Agricultural and Small Industrial Center in Japan P.O. Box 8, Ibaraki City Osaka, Japan		Commercial product	\$1,550 to \$1,870	1. Single axle power tiller with trailer 2. 2 models: (i) 6-8.5 h.p. water-cooled diesel engine (ii) 8-11 h.p. water-cooled diesel engine 3. Dimensions: Length: 87" (221.5 cm.) Width: 26" (68 cm.) Height: 43" (112.2 cm.) Tilling width: 18 to 23" (48 to 60 cm.) Weight: 345 to 385 kgs. 4. Speed: 6 steps forward 2 steps reverse tilling shaft: 4 steps	Many similar models of single axle tractors are produced in Japan. See Fig. 2.11	
2	FORD DMT	Ford Tractor Operations Ford Motor Co. 2500 East Maple Road Troy, Michigan 48064, U.S.A.	1967		\$560 & \$160 for implements (in 1970)	1. Single axle tractor with trailer. 2. 7 b.h.p. single cylinder air-cooled engine using gasoline. 3. Dimensions: Wide: Outside dimension 28" Inside dimension 16" Narrow: Outside dimension 23.5" Inside dimension 11.5" Gross weight: 450 lbs. 4. Speed: 1.8 m.p.h. to 2.5 m.p.h. 5. Transmission: Mechanical all gear drive	Only 700 units were produced till 1970. After that Ford abandoned the project because of the low sales volume attributed mainly to the absence of workable credit for small subsistence farmers	
3	IRRI THREE-WHEEL MOTORIZED CART	IRRI P.O. Box 933 Manila, Philippines	1975	Prototype	Not known	1. One-wheel single axle tractor with a two-wheel cart capable of threshing, tilling, etc. besides transporting farm goods. 2. 7 h.p. B & S engine. 3. Maximum speed 15 k.p.h. on roads up to 15% grades. 4. Payload: 1 ton.	IRRI has developed other two-wheel single axle tractors with carts (four-wheel vehicles) that are being commercially produced in the Philippines. This three-wheel model is designed to be simpler and cheaper but is still in the prototype stage.	
4	KRISHI POWER TILLER	Krishi Engines Ltd. A-7 Unit, Sanatnagar Hyderabad-500018 India	Not known	Commercial product	Approx. \$1,800 including trailer	1. Single axle tiller cum trailer. 2. Diesel engine, 7 h.p. at 2200 r.p.m. 3. Dimensions: Overall length: 1854 mm. Overall width: 763 mm. Overall height: 990 mm. Road clearance: 228 mm. 4. Weight: 340 kg. 5. Transmission: V belt from engine to main drive. 6. Capacity of trailer: 1½ ton. Trailer has mechanically operated brakes on rear wheels. 7. Maximum speed for transport: 21 k.p.h. on 10% grade in off-road conditions.	This equipment is stated to per- form a variety of functions like pumping, puddling, tilling and transport. See Fig. 2.14.	

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLE: AUTOMOTIVE VEHICLES

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	BTV	General Motors General Motors Overseas Operations 767 Fifth Avenue New York, New York 10022	1971	Commercial product	\$2,500	1. Four-wheel transport vehicle 2. 1300 cc. four cylinder, 59 h.p. engine 3. Maximum speed 65 m.p.h. (120 k.p.h.) 4. Two-wheel drive 5. Fuel consumption: 23-26 m.p.g. 6. Pick-up cab payload half-ton	See Fig. 3.11	
2	ROBIN	Reliant Motor Co. Tamworth, Staffs. B77 1HN England		Commercial product		1. Four-wheel lightweight, transport vehicle 2. Four cylinder, 748 cc. engine, 32 h.p. at 5500 r.p.m. 3. Overall length: 131" (3327 mm.) 4. Overall height: 54" (1372 mm.) 5. Overall width: 56" (1422 mm.) 6. Ground clearance: 5" (127 mm.) 7. Wheelbase: 85" (2159 mm.) 8. Payload: 254 kg. 9. Fuel consumption: 40 m.p.g. 10. Body built of lightweight all-glass fibre.		
3	AUSTIN UTILITY VEHICLE	Austin Morris Group U.K.	1975	Design stage	Not known	1. Four-wheel transport vehicle 2. Engine 72 b.h.p. at 5500 r.p.m. 3. Two-wheel drive 4. Wheelbase: 2320 mm. 5. Ground clearance: 256 mm. 6. Overall length: 1240 mm. 7. Overall height: 3416 mm. 8. Overall width: 1640 mm. 9. Gross vehicle weight: 1390 kg. 10. Payload: 500 kg. 11. Fuel consumption: 25 m.p.g. (urban) 12. Maximum speed: 111 k.p.h.		
4	SWB LANDROVER	Land Rover U.K.		Commercial product	E1308 (1975)	1. Four-wheel transport vehicle suited for off-road conditions 2. Engine 86 b.h.p. at 4500 r.p.m. 3. Wheelbase: 2230 mm. 4. Ground clearance: 203 mm. 5. Overall length: 3620 mm. 6. Overall height: 1970 mm. 7. Overall width: 1680 mm. 8. Gross Vehicle weight: 2590 kg. 9. Payload: 3 persons and 363 kg. 10. Fuel consumption: 14.3 m.p.g. 11. Maximum speed: 111 k.p.h.		

TYPE OF VEHICLE: MISCELLANEOUS DESIGNS

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	SMALL FARM VEHICLE	Ray Wijewardene Farming Systems Engineer I.I.T.A. Oyo Road, P.M.B. 5320 Ibadan, Nigeria	1970-71	Prototype stage	\$1,500 (1970 prices)	<ol style="list-style-type: none"> 1. Four-wheel vehicle that can be used as a transport vehicle and also perform agricultural tasks like tilling, mowing, compaction, etc. 2. 14 h.p. gasoline engine (later version used an electric battery) 3. (i) Four-wheel drive (ii) PTO (iii) Body of plywood (iv) Weight: 400 lb. 4. High clearance permits easy off-the-road usage 5. Can work on various off-road conditions like (a) soft soil (by fitting an idler wheel and tracks), and (b) boggy land (on three wheels and tracks). 	Development Work Abandoned since 1971 See Fig. 4.11	
2	SNAIL	National College of Agricultural Engineering Silsoe, Bedford MK45 4DT U.K.	1973	Prototype testing in Malawi	£100 (1973 prices)	<p>The machine consists of a self-propelled winch powered by a 3 h.p. engine and a modified ox tool frame implement (which is attached by a cable to the winch unit).</p> <p>Two operators are required, one for each part. The operation (described below) is intermittent, allowing the operators to rest alternately.</p> <p>(Operation: The winch unit is driven forward about 30 meters with the cable, while the implement remains stationary. A simple control on the tractive unit then allows the drive to be disengaged from the wheels and engaged to the winch. As the cable tightens, it causes an inclined plate in the rear of the tractive unit to penetrate into the ground so that it acts as a winch anchor. The winch then draws the implement towards the tractive unit.)</p>	See Fig. 4.12	

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLE: BICYCLE FAMILY

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	ELECTRIC BICYCLE	Sedgeminster Technical Developments U.K.	1976	Prototype	Not known	<ol style="list-style-type: none"> 1. Bicycle powered with a permanent-magnet, brushless D.C. electric motor. 2. The motor, together with its plastic gears, forms the front wheel hub. The combined motor/gearbox unit is only $8\frac{1}{2}$" diameter and $3\frac{1}{4}$" thick. It fits into the front forks of a standard pushbike, without modification. 3. Two rechargeable batteries, 12 volt, 12 amp-hour are carried besides the rear wheel and the electronic control are housed in a 5" x 4" x 3" box. 4. Speed up to 8 m.p.h. on a 1 in 12 grade 5. 30 miles on a single 3 hour charge costing 2p. 6. Regenerative braking. 		
2	OXTRIKE	S. S. Wilson Engineering Science Dept. Oxford University U.K.		Prototype	Not known	<ol style="list-style-type: none"> 1. Three-wheel tricycle with cart for transport on level surfaces 2. Two-wheels in the rear are driven by a simple differential mechanism based on two standard sprockets and freewheels 3. Standard 3-speed gearbox 4. Band brakes on each rear axle 5. Front wheel and fork are standard carrier bicycle type, able to carry heavy loads; rear wheel of the chopper type 6. Design is based on standard bicycle components, and 16 SWG (1.6 mm.) thickness sheet steel 7. Payload: 2 passengers or 150 kg. 	See Fig. 5.12	
3	PEDAL ROVER	S. S. Wilson Engineering Science Dept. Oxford University U.K.		Prototype	Not known	<ol style="list-style-type: none"> 1. Four-wheel pedal-powered vehicle adapted for off-road conditions (rough, steep or soft ground) 2. 45" diameter wheels (to ensure lower rolling resistance compared to smaller wheels) carried in a semi-circular housing made of two semi-circular panels connected by a channel-shaped mudguard which carries the saddle and the handlebar 3. Four wheel assemblies are connected by two open box bodies to form an articulated vehicle. The two halves are pivoted for steering purposes (they would also be able to twist to accommodate rough ground) 4. All wheels are pedalled to give good traction (similar to a four-wheel drive vehicle) 5. Steering is by means of a cable wrapped around a windless drum under the steering wheel and led by sheaves to points on either side of the rear chassis. 	See Fig. 5.13	

STUDY ON APPROPRIATE VEHICLES FOR RURAL AREAS
IN DEVELOPING COUNTRIES

TYPE OF VEHICLE: ANIMAL-DRIVEN CARTS

NO.	NAME OF VEHICLE	COMPANY OR INSTITUTION	YEAR OF DEVELOPMENT	PRESENT STATUS	CURRENT PRICE	VEHICLE FEATURES	REMARKS	COMMENTS ON APPROPRIATENESS
1	WANANCHI OX-CART	Originally designed by Rev. V. Swenson of Singida Mission and later developed further at Tanzania Agricultural Machinery Testing Unit, Tanzania			Not known	<ol style="list-style-type: none"> 1. Pulled by two-oxen 2. It can carry a load of 1400 lbs. (636 kgs.) 3. An important design feature of this cart is the wood-block axle bearing. Each bearing is made of two pieces of wood, impregnated by soaking in hot oil. The axle bearing hole, $1\frac{1}{2}$" (38 mm.) diameter, is drilled centrally through the blocks. (This bearing design facilitates ease of maintenance and renewal of the bearings by carpenters in rural areas). 4. Each wheel assembly is an integral unit. The wheel spokes are welded to the axle shaft. 	See Fig. 6.11	
2	OX-CART (using old car wheels)	Developed by Rev. L. H. Robertson, Mlanje, Malawi			Not known	<ol style="list-style-type: none"> 1. Pulled by two-oxen 2. This cart makes use of the front wheels from an old car or lorry 3. The wheel mountings are welded on to a box section axle, fabricated from angle iron. (A car rear axle, complete with differential can be used, but this would add unnecessary bulk and weight to the cart) 4. The cart chassis and body are constructed of wood; all parts are bolted together. 5. The body side and end boards are made of planks $\frac{3}{4}$" (19) in thickness, and are detachable. 	See Fig. 6.12	
3	CART for one draught animal	J. Wirth, Engineer at the Tanzania Agricultural Machinery Testing Unit, Tanzania			Not known	<ol style="list-style-type: none"> 1. Pulled by a single ox or donkey 2. The wood-block axle bearings fitted underneath the cart body are oil-impregnated by soaking in hot oil before drilling and assembly 3. The front and back boards of the cart body are removable 4. The cart shafts can be made of tubular metal pipe instead of timber if extra-strength is found necessary. 	See Fig. 6.13	



TRANTOR

Figure 1.11

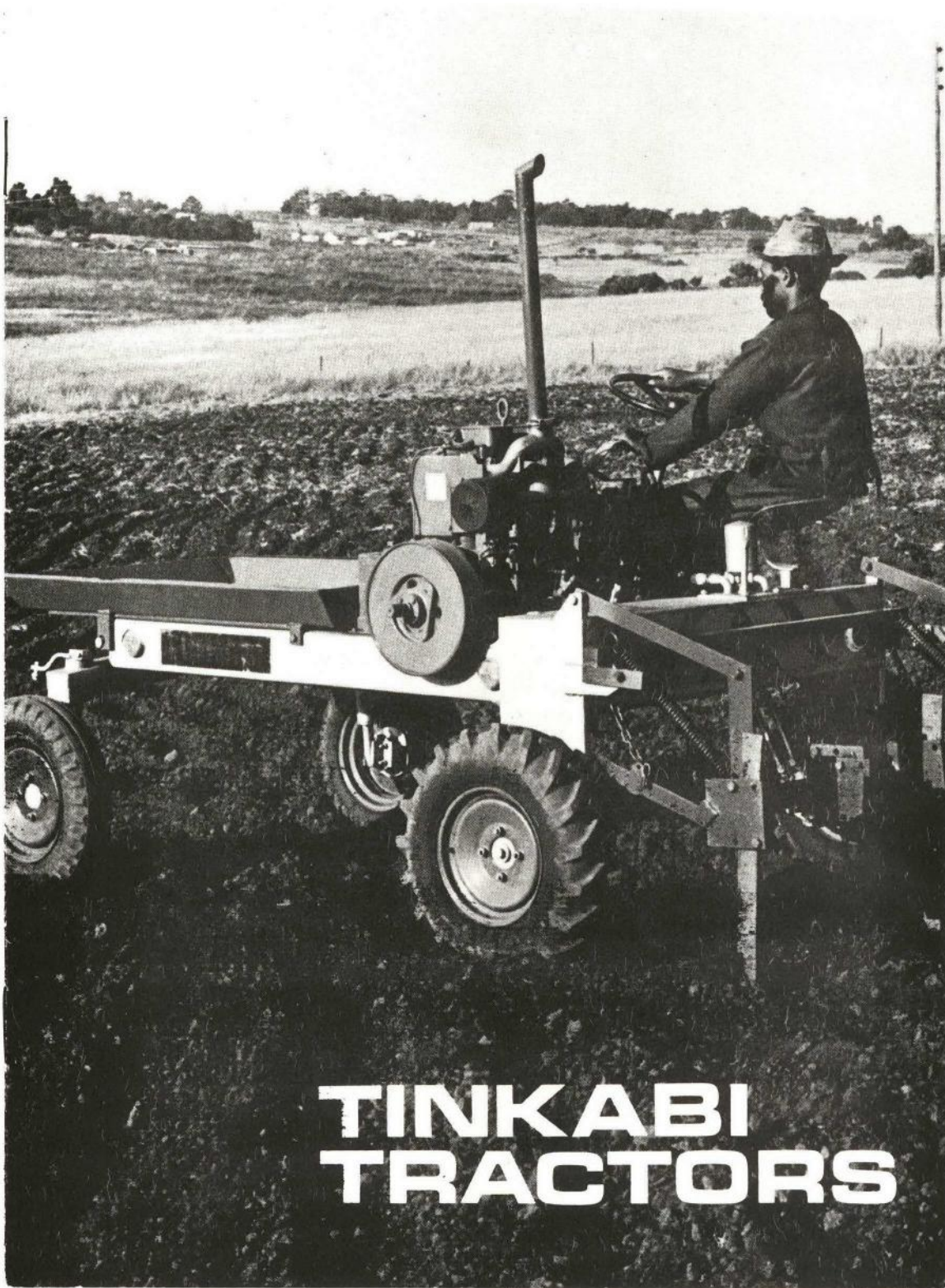
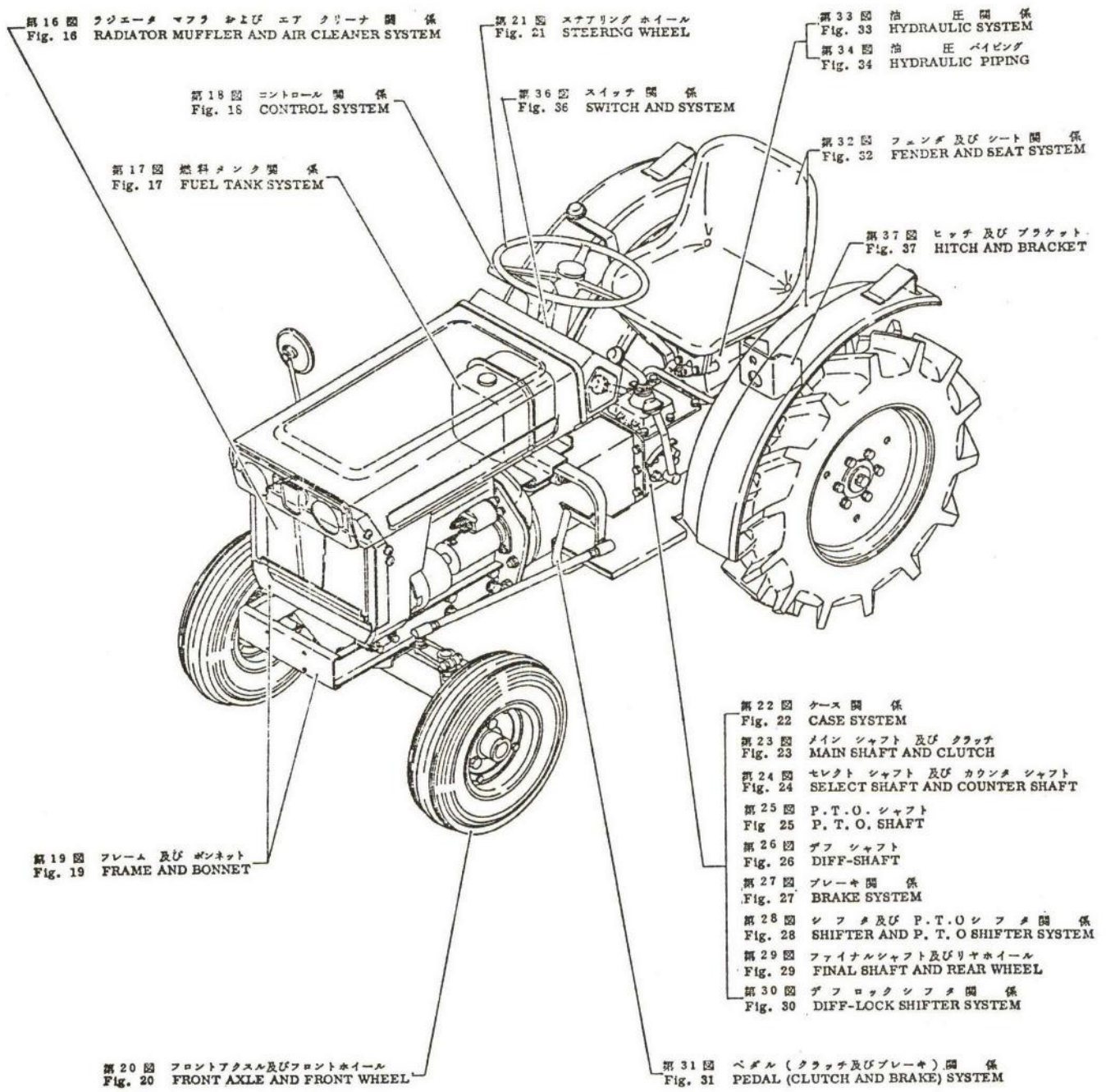


Figure 1.12



ST - 1300 SATOH TRACTOR

Figure 1.13



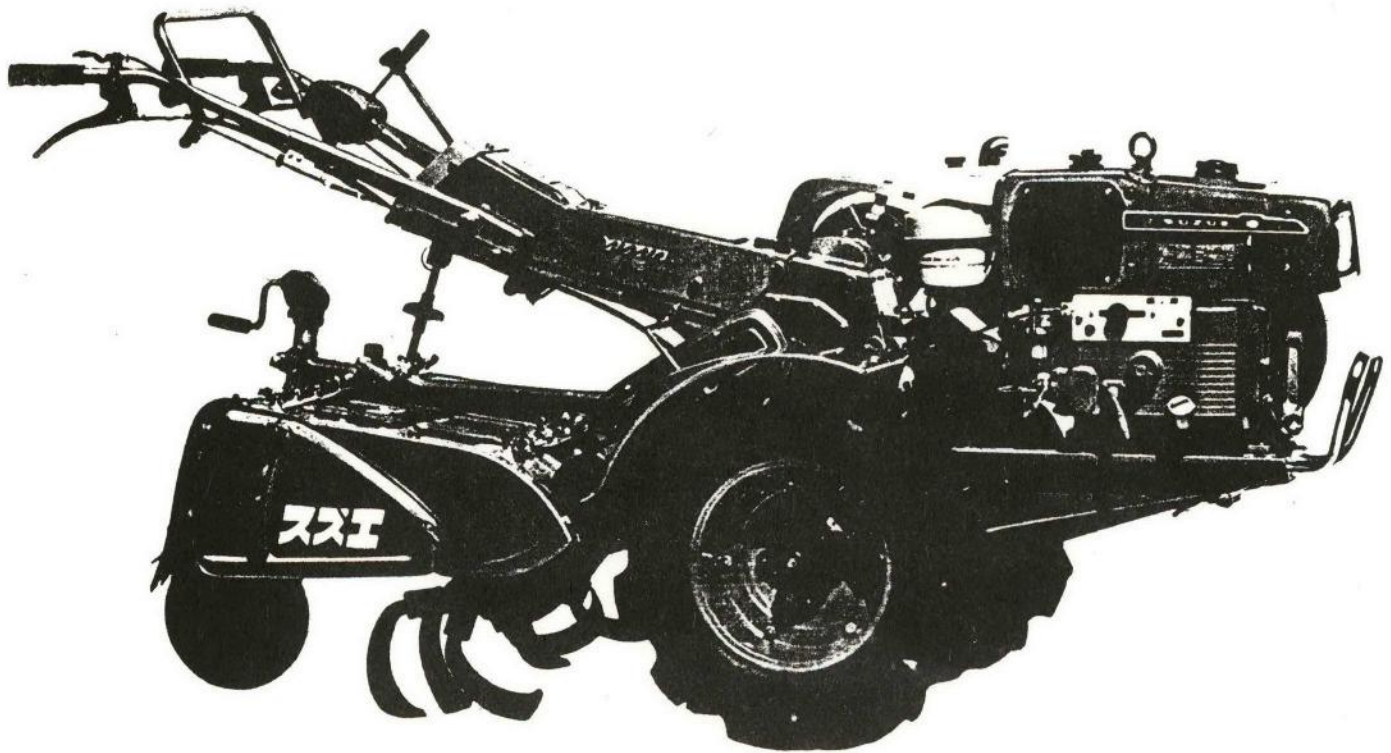
BOLES 1050 HUSKY TRACTOR

Figure 1.15

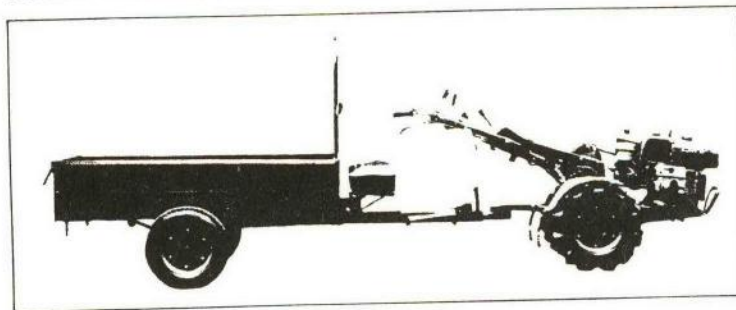


Basic Tractor for developing countries

Figure 1.26



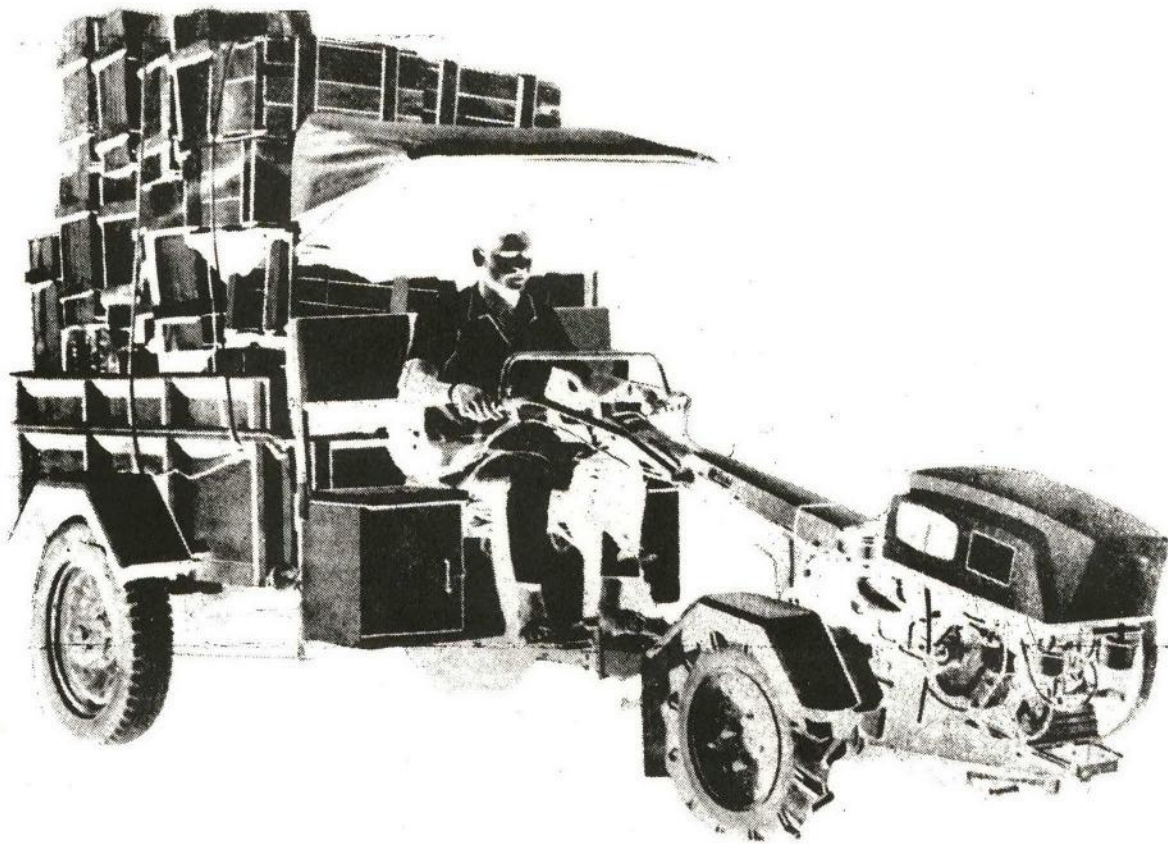
Be able to use as a truck with a trailer.



SUZUE POWER TILLER

Figure 2.11

Krishi



HIPPO HAULER

KRISHI

Figure 2.14

BTV

Basic Transportation Vehicle



THE ORIGINAL BTV (BA VERSION)

Figure 3.11

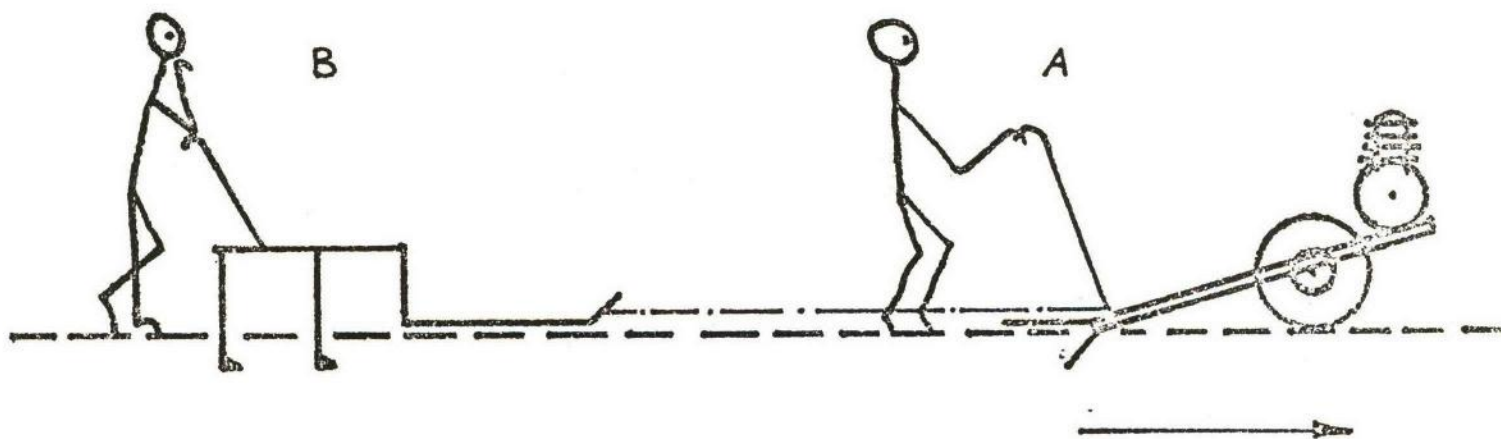


SMALL FARM VEHICLE

Figure 4.11

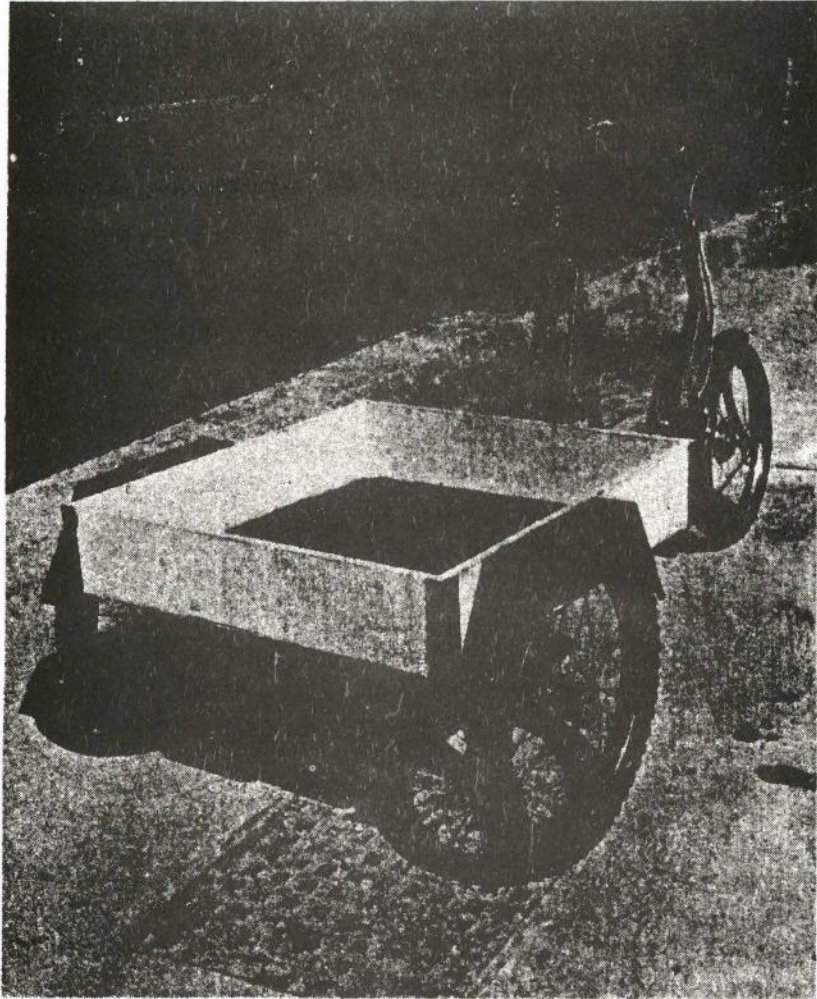
Winch operation is not a new concept. It was used in the last century with steam ploughing, and is still used today in European vineyards for cultivating steep slopes. In both these cases however the anchored power unit stands on the headland and when the implement has been drawn up to the headland it is necessary either for the plough to reverse its direction or for it to be dragged back to its starting point manually. Another alternative, investigated by N. I. A. E. (Ref. 8) used a winch and plough mounted on a single axle tractor which drew itself up to an anchor on the headland and then reversed across the field to its starting point.

With the Snail, neither the anchor nor the reversing is necessary. Operation is intermittent, allowing the operators to rest alternately. This aspect is regarded as important since in many tropical conditions it is not possible to operate continuously at even moderate levels of activity without exceeding the body's anaerobic limit



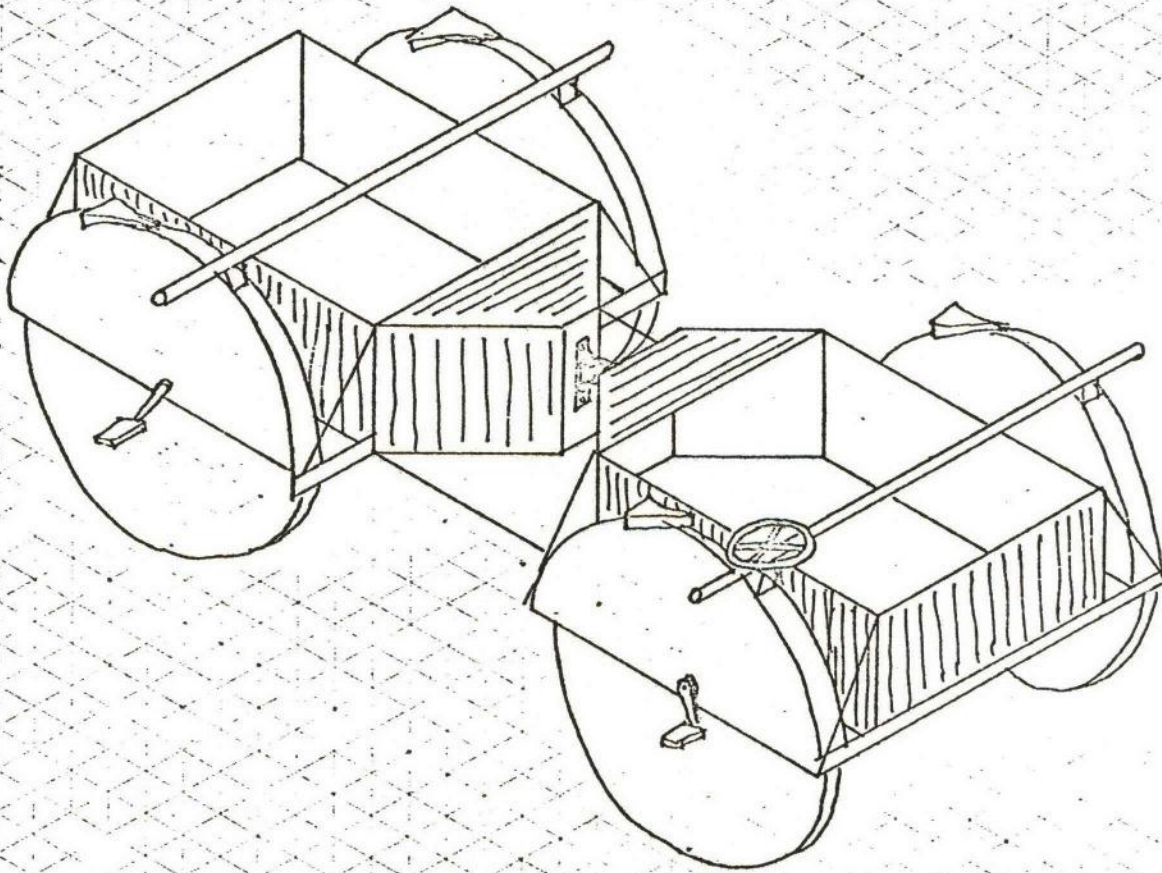
Principle of the SNAIL

Figure 4.12



OXTRIKE

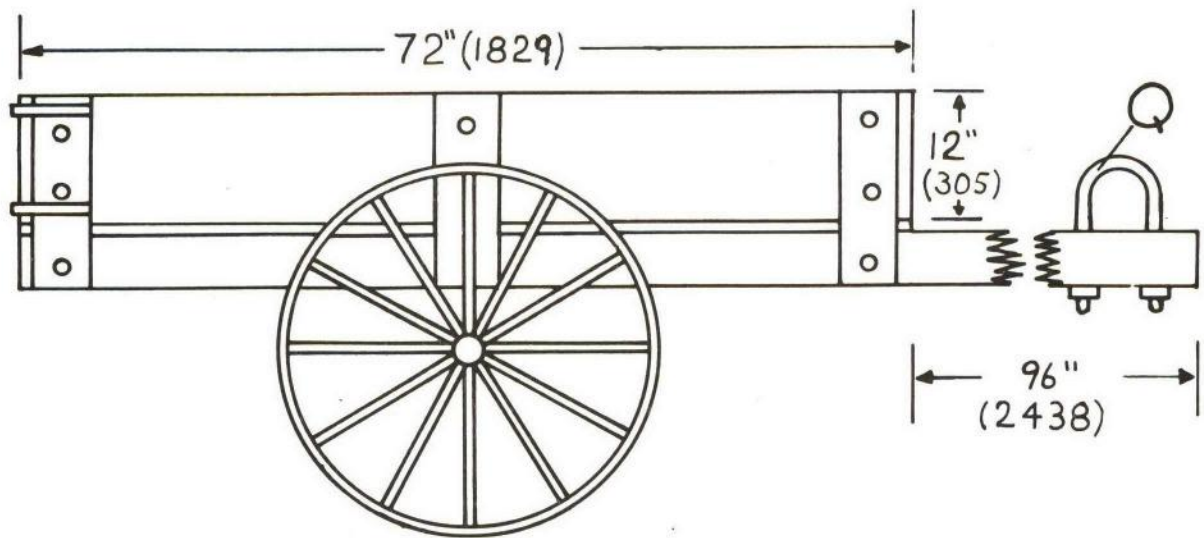
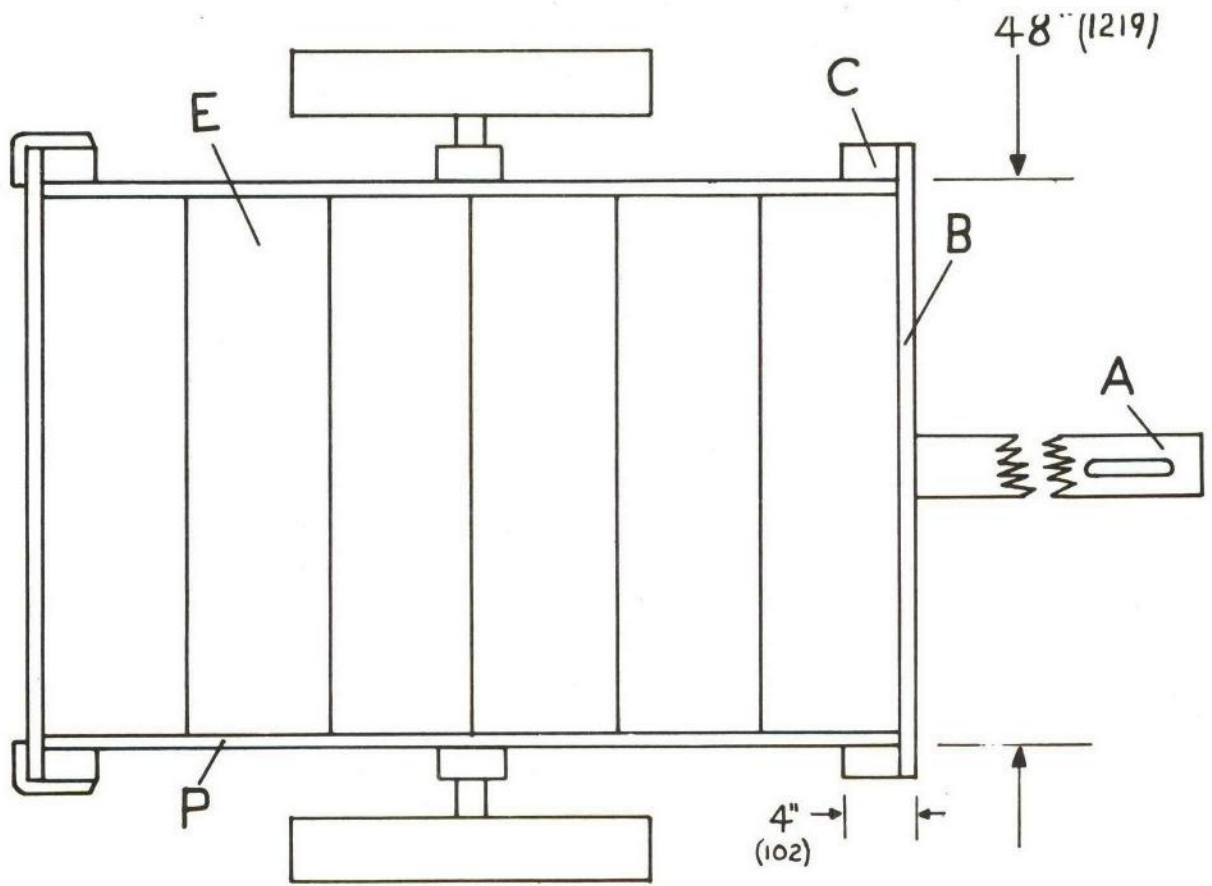
Figure 5.12



S.S. Wilson, 3 Oct. 1975

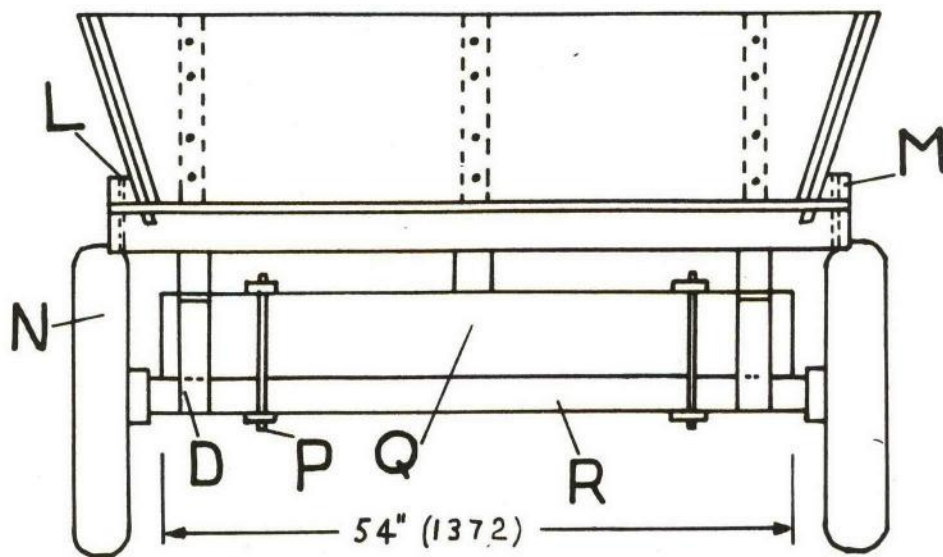
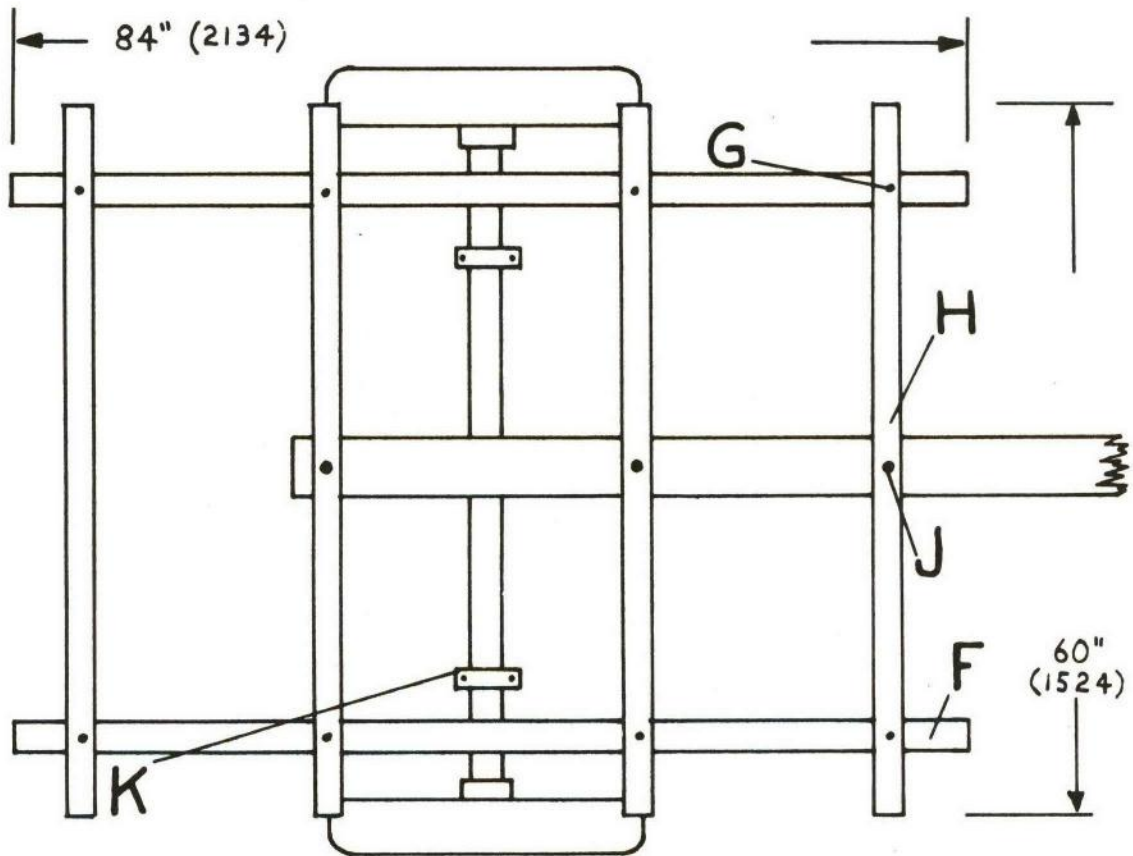
ARTICULATED
PEDAL ROWER

Figure 5.13



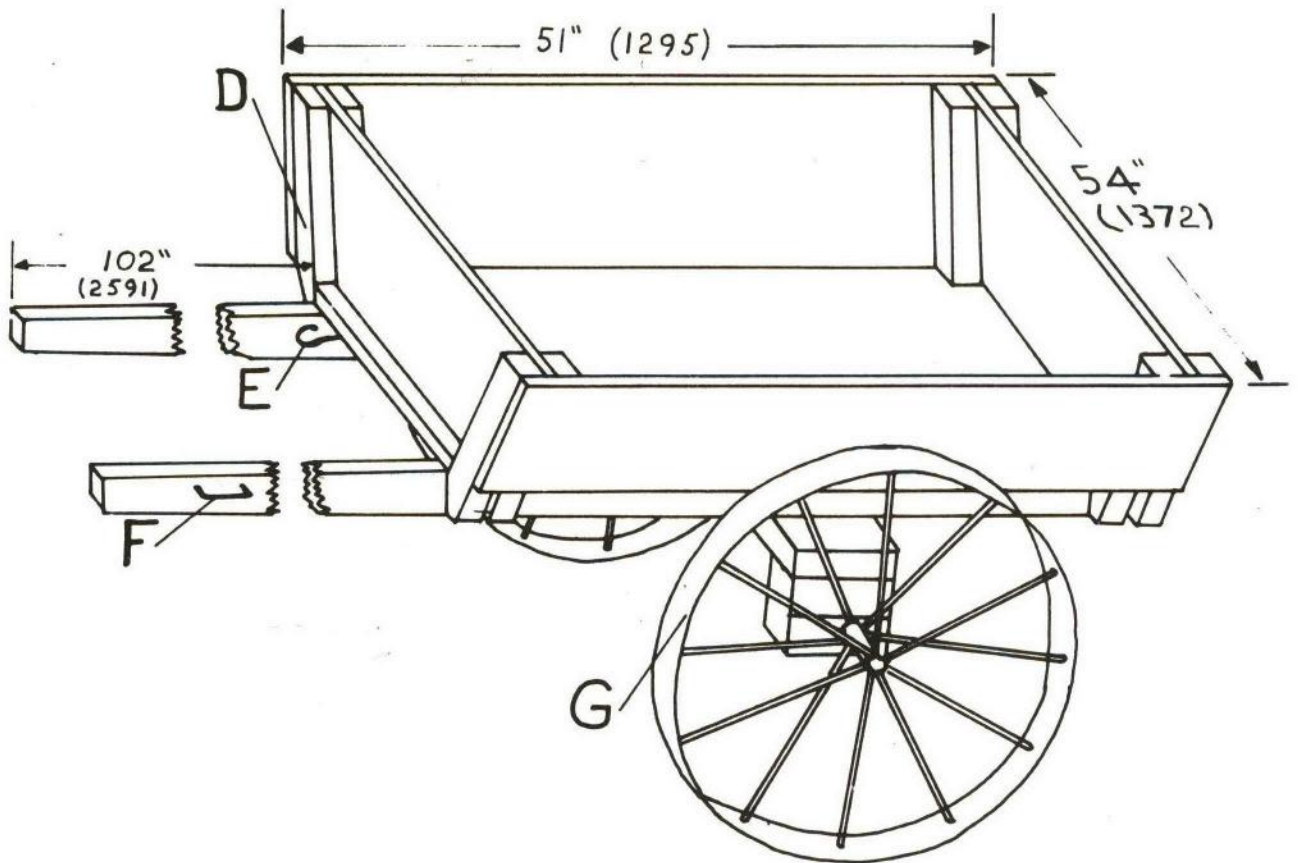
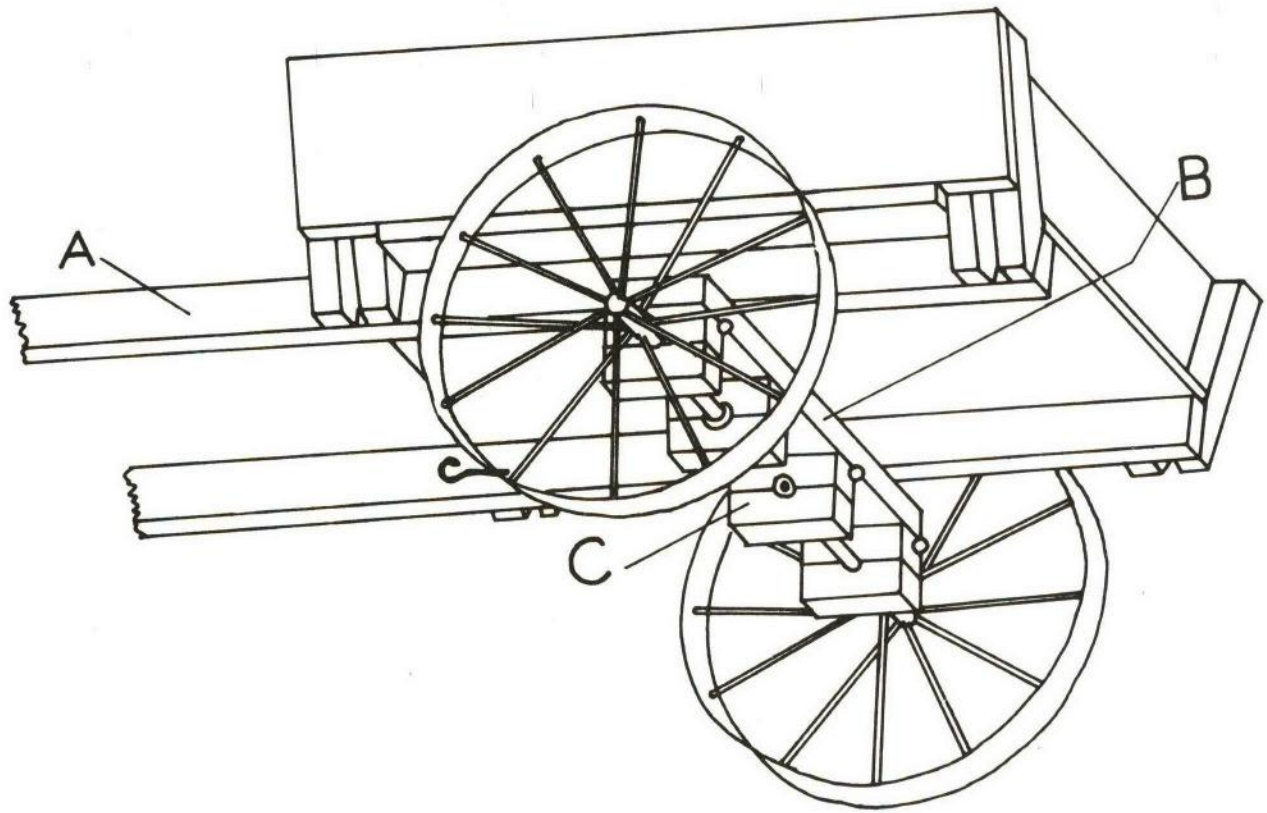
WANANCHI OX-CART

Figure 6.11



OX-CART USING OLD CAR WHEELS

Figure 6.12



CART FOR ONE DRAUGHT ANIMAL

Figure 6.13



RURAL TRANSPORT VEHICLES FROM OTHER
DEVELOPING COUNTRIES:

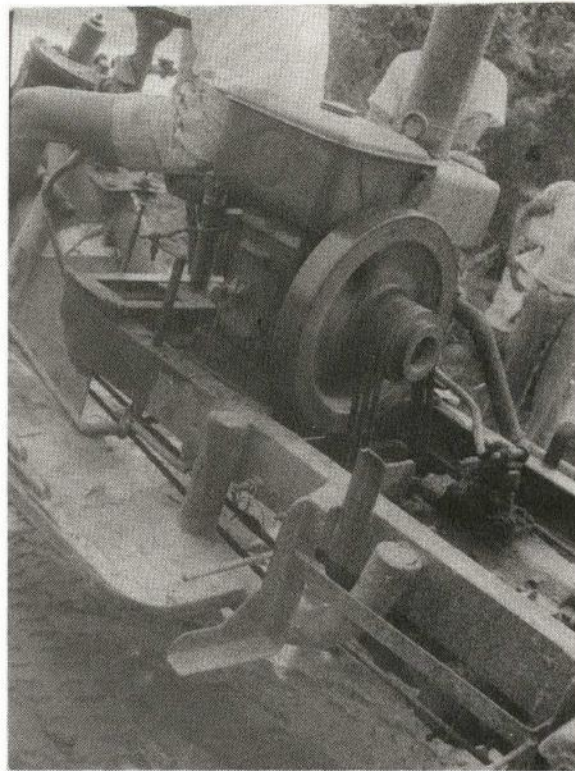
INDIA



5 to 7-hp tiller for land preparation
and transport

RURAL TRANSPORT VEHICLES FROM OTHER
DEVELOPING COUNTRIES:

PHILLIPINES



RURAL TRANSPORT VEHICLES FROM OTHER
DEVELOPING COUNTRIES:

TAIWAN

Agriculture &
Rural

Mr. Ted Davis

August 9, 1976

Mats Hultin

Comments on "Monitoring and Evaluation of Agricultural and Rural Development Projects: Basic Concepts, Designs and Illustrations"

1. Please find below my comments on your paper "Monitoring and Evaluation of Agricultural and Rural Development Projects: Basic Concepts, Designs and Illustrations" of July 15, 1976. You will also receive comments from the Education Department Agriculture Training Expert, Mr. Bernard Woods.
2. The paper is interesting. I focus my attention below to some major points of the paper but I am not commenting on the specific case studies.
3. The paper provides a good analysis of project evaluation. It should be useful to staff in agriculture and rural development and it could serve as a model for evaluation activities in other Bank sectors. It is important that you clarify to the Bank readers that surveys of target groups and interviews with beneficiaries might often form a justifiable and necessary part of project evaluation. Such surveys and interviews by the Bank would have been unthinkable some years ago but are important if we aim at an improvement of the situation of underprivileged population groups.
4. You discuss in paragraph 2.22 the problems to measure the impact of projects. You also explore the correlation between input and output, effects and impact. The difficulty to measure the correlation between project input and project impact should not be taken as an excuse to avoid attempts to conduct such measurements. On the contrary, the Bank should press for such measurements and if necessary, support pertinent research. The Bank is an agency, which better than many others, can contribute to an increased knowledge of the correlations between input and output in the socio-economic development sector. The bank should therefore play a major role to assess correlations between inputs in agriculture, rural development, population and education projects, etc. and outputs in the form of improved socio-economic conditions of the target groups. Improved knowledge of the cause and effect relations in socio-economic development activities would, of course, have effects outside Bank projects.
5. Your paper does not fully consider the institution building objectives of evaluation. The evaluation of Bank projects should be conducted in such a way that it would help create indigenous evaluation machineries which should be intact and continue to function after project completion. The Borrower should be made to appreciate fully the value of

August 9, 1976


evaluation machineries for decision making, program monitoring and other management work. This implies that evaluation, as much as possible, should be conducted by nationals and not by outside expatriates on parachute missions. You refer in your paper to "self-evaluation" as an activity by the Bank's project divisions but I would primarily see it as an activity by the Borrower.

6. The Education Department has produced a short paper on evaluating education projects and you might find it of interest, particularly the figure on page 4.

7. Finally, a minor point, your paper distinguishes between "on-going evaluation" and "ex-post evaluation". We in Education used the word 'formative' for what you call 'on-going' evaluation and I feel that the expression 'formative' better describes the activities. The "formative evaluation" is supposed to measure and, if needed, lead to amendments of the project process, objectives, scope and content.

Attachment

MH/nm

A handwritten signature in blue ink, consisting of a large, stylized 'M' followed by a vertical line.

cc: Messrs. Ballantine & Kapur (for info)

Mr. Attila Karaosmanoglu, Office-VP, Dev. Policy

August 6, 1976

Jean Waelbroeck, EPDOR

Working Paper on Developing Country Foodgrains Projections

1. Further to our memo of July 19 it may be noted that: -

(i) This paper forms the basis for the joint CPS/PFR department's food policy paper and also the basis for the technical note on food prepared by PFR for Mr. McNamara.

(ii) The paper has undergone a series of drafts, all of which, in the course of the year, have been circulated to the regions and their comments and suggestions fully incorporated. With respect to the final draft (June 30, 1976) written comments have been received from the following: -

Mr. F.D.C. Wijesinghe, Foodgrain Specialist, Commonwealth Secretariat
Mr. Jim Green, World Food Council
Mr. Christian Merat, EMENA
Mr. Jim Goering, CPS
Mr. Willem Bussink, East Asia
Mr. John Wall, South Asia
Mr. S. Rajapatirana, South Asia
Mr. A.R. Whyte, West Africa

These comments have been dealt with appropriately. Virtually all other senior or chief economists have responded favourably (by telephone) to the conclusions of this paper.

cc: Ms. Hadler

Attachments

Distribution:

Director-General
Members of the Technical
Activities Board

Jed J. Davis
PROG/TAB.76/M.3/1
8.4.76

file UN-
ACC Study

MEETING OF THE TECHNICAL ACTIVITIES BOARD

IN-DEPTH REVIEW OF RURAL DEVELOPMENT

Note by ECOSO

Attached is a paper prepared by ECOSO on the In-Depth Review of Rural Development for discussion at the meeting of the Technical Activities Board on 29 April 1976.

D. Skerrett
Bureau of Programme Budgeting
and Management

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IN-DEPTH REVIEW OF RURAL DEVELOPMENT

Position Paper by the Bureau of Economic and Social Analysis

I. Nature and Scope of this Paper

1. This is the position paper called for in the Record of Director-General's Decisions of 2 May 1975, document PROG/TAB.75/M.2/RD, paragraphs 4-7. It is a position paper for internal discussion and not a draft Governing Body document.

2. Paragraph 4 of the Record of Decisions required this paper, insofar as it was to be prepared in the Bureau of Economic and Social Analysis, to:

- Who is that?*
- (a) contain an assessment of the state of the ILO's knowledge on rural development and of its programmes in this field;
 - (b) identify the ILO's responsibilities and mandate in rural development, as distinct from those of other agencies, and thus determine the areas on which the ILO's programmes for rural development should focus in the future, taking account of the conclusions of the recent session of the Advisory Committee on Rural Development and of the recently published report by the World Bank on its future policies in this field;
 - (c) to indicate the best mix of ILO means of action to attain specific objectives in these areas;
 - (d) specify the arrangements that exist or may need to be made for joint action with other agencies.

3. It seemed more convenient to deal with these matters in a slightly different order, beginning with item (b) and then proceeding to, respectively, (a), (c) and (d). The present paper is organised accordingly.

II. General Approach

4. For the purpose of taking stock of the ILO's current work and thinking on rural development, the present paper draws heavily on the Office Report to the Advisory Committee on Rural Development entitled Technical Review of ILO Rural Development Activities since 1965 and Suggestions for the future orientation of the ILO's Work, of 1974; this is referred to below as "Technical Review". Other documents used for

this purpose include ILO Submission on Inter-Agency Co-operation and Planning for Rural Development of 16 December 1975 (referred to below as "Submission"), and World Employment Programme Research in Retrospect and Prospect of 25 February 1976, referred to below as the "Green Book". In addition, various Office units provided written and/or oral information; for certain purposes, a number of files concerning field projects were examined.

5. For the selection of major issues to be considered in this paper, the point of departure was the Report of the Advisory Committee on Rural Development concerning its Eighth Session, document ACRD.VIII/1974/R.2, referred to below as "Advisory Committee". The Advisory Committee's recommendations, it may be recalled, were "welcomed" in the Resolution concerning Rural Development adopted by the International Labour Conference at its 1975 session and they can, therefore, be regarded as an authoritative statement of "the ILO's responsibilities and mandate in rural development".¹

6. Special attention is given in the present paper to the following observations and conclusions mentioned in the Committee's Report:

- (a) "The ILO's rural activities have lacked focus"; they should focus on "the improvement of the lot of the poorest sectors of the rural population which have suffered most from lack of means for productive and gainful employment opportunities" (page 20).
- (b) "Past rural activities of the ILO had attempted to cover too many fields - given the limited resources available"; the majority of the Committee members also "expressed concern about the apparently limited impact which the rural development activities of the Office have had in the last decade in comparison to the immense needs; this apprehension pertained to all programme components" (page 3).
- (c) Many members of the Committee felt that in the past the ILO had been "too much concerned with research and surveys at the expense of more directly action-oriented activities" (page 6); in future, the ILO "should primarily aim at advising and assisting member countries in the formulation and implementation of programmes" and it should be able to do so "by means of a geographically and functionally well-balanced programme of research, technical co-operation and standard-setting". (page 21).

7. The poverty focus recommended by the Advisory Committee proved very similar to the focus of the World Bank's Rural Development Sector Policy Paper of February 1975, to which paragraph 4(b) of the terms of reference refers and which served as the point of departure for the ACC-sponsored Inter-Agency Joint Planning Exercise mentioned in paragraphs 5 and 7 of the terms of reference. This "poverty orientation" is therefore the focus, not only of the Submission but also of the Joint Planning

¹ Official Bulletin, Volume LVIII, Series A, No. 1, page 78 (which erroneously speaks of a "Resolution" of the Advisory Committee).

Employment on a sustained basis -
does not imply productive -
- who has Menschlike quality³.

Exercise as recommended by the ACC Task Force entrusted with this Exercise and to which the ILO is a party.¹ Accordingly, where appropriate, the analysis in this paper of issues posed by the Advisory Committee and by the terms of reference for the in-depth review draws on the Report of the Inter-Agency Task Force on Rural Development, COORD/R.1144 provisional, of 11 March 1976, referred to below as "Task Force".

III. ILO Responsibilities and Mandate

The Concept of Rural Development

8. The ILO's mandate in the field of rural development has been formulated in a variety of texts, beginning with a resolution adopted by the International Labour Conference in 1960. The most recent statement is found in the recommendations adopted by the Advisory Committee on Rural Development at its 1974 Session. These recommendations were "welcomed" in the 1975 Conference resolution concerning rural development and thus constitute a true mandate.

9. The Committee's key recommendation would seem to be that ILO activities "should primarily aim at advising and assisting member countries in the formulation and implementation of programmes which will offer, immediately and on a sustained basis, employment opportunities to the poorest sections of the rural population who, for want of means, lack such opportunities".² The Committee went on to say that the ILO should be able to provide assistance "for the encouragement and development of rural workers' organisations and their members and for the training of skilled rural manpower, especially at the lower levels".

10. These recommendations, together with further ones regarding the means of action to be used for implementing them, should also guide the ILO "in its collaboration with other international agencies in the field of rural development".

11. Briefly, the mandate is for a special focus on "the poorest sections of the rural population". From other parts of the Committee's Report it is clear that these sections include, in particular, small farmers, tenants and sharecroppers, in addition to landless wage earners, i.e., the categories also envisaged in the Convention and Recommendation

¹ The "poverty orientation" is, of course, also entirely in line with the "basic needs approach" proposed in the Director-General's Report to the World Employment Conference: Employment, Growth and Basic Needs, Geneva 1976.

² Advisory Committee, page 21.

concerning organisations of rural workers which the Conference adopted at its 1975 Session. While plantation workers are not mentioned separately, when their incomes are at or below the poverty level they would be involved, either as landless wage-earners or as some category of self-employed workers.

12. The organisation of rural workers, their training and fuller employment, are the main methods on which, in the Committee's view, the ILO should concentrate in helping to improve conditions among the rural poverty groups. In its conclusions on ways of raising the incomes of the rural poor, the Committee further drew attention to a number of necessary national measures which the ILO, in collaboration with other United Nations Organisations, should encourage countries to take. These measures include, for instance, overall planning, the reorientation of public expenditure and investment to rural areas, improved distribution of land and access of the poor to water, credit and other inputs, minimum wage standards, and proper arrangements of land tenure, including rents.¹

13. Most of these recommendations are not for new types of ILO action, but reflect the Committee's views on areas of concentration for ILO action, in order to meet the problem "that ILO's rural activities have lacked focus regarding activities for which the ILO is generally recognised as having a primary responsibility and a clear mandate."²

14. In fact, many elements of the strategy that the Committee had in mind have for some years been part of ILO policies and programmes. For instance, the view that a major means of relieving rural poverty lies in increasing employment and that this, in its turn, calls for better access of the poor to land, capital, and knowhow, is clearly reflected in the employment policy instruments of 1964 and has been further developed since 1969 in the World Employment Programme. More recently, the notion of a "basic needs approach" has been added to this programme, implying that individual countries would set specific targets to be achieved by certain dates in terms of food, shelter and education. At the regional level, an approach to rural development along the lines mentioned above was proposed in the Director-General's Report to the Eighth Asian Regional Conference and broadly endorsed by it.³

15. The overall approach to rural development as it has evolved in the ILO in recent years is reflected in the Submission on ILO rural development policies and programmes for an experimental exercise in joint planning in the field of rural development sponsored by the Administrative Committee for Co-ordination for submission to the Economic and Social Council.⁴

¹ Advisory Committee, pages 25-27.

² Ibid., page 20; see also page 3.

³ The Poor in Asian Development, an ILO Programme, Chapters 2 and 5; Secretary-General's Reply in Provisional Record No. 15 of 9 October 1975, page 3.

⁴ Submission, op. cit. ACC document CO-ORDINATION/R.1130, October 1975, page 14. ECOSOC Resolution 1967 (LIX), of 30 July 1975, paragraph 2.

16. The approach in the Submission was found to be very similar to

- (a) the concept proposed in the Report of the Consultants for the first phase of the Joint Planning Exercise.¹
- (b) The approach of the World Bank Policy Paper on rural development, from which the Consultants' concept had been derived.
- (c) The concept eventually adopted by the ACC Task Force for the Joint Planning Exercise, for endorsement by the ACC, the Economic and Social Council, and the Governing Bodies of all the UN agencies concerned.

17. Thus, according to the Task Force Report:

"The ACC should recommend to the ECOSOC that organizations of the UN system orient their programs in rural development to ensure that the benefits accrue primarily to the rural poor. The goal of poverty-oriented rural development over time encompasses all sectors of economic and social development, and, therefore, should be of major concern to each agency. The alleviation of poverty should thus become a major criterion influencing the total spectrum of each agency's activities and be reflected in the design of these activities and in the allocation of resources to them.

A primary objective must be to improve the quality of life of the rural poor. This implies the involvement of the rural poor in the development process and requires their participation in the decision-making process and the implementation of those decisions. It presupposes that the rural poor will gain increased economic opportunities through productive and remunerative employment, increased access to resources and an equitable distribution of income and wealth. The mobilization of the energies and resources of the rural poor themselves emerges as the key factor in increasing both their productivity and their self-reliance. Such mobilization will require the formation, adaptation and strengthening of community structures, including organizations of the rural poor. Moreover, special attention should be given to the situation of women to enable them to contribute their full potential in improving the quality of life of all the rural poor, in the present and for future generations.

The ACC should recommend that ECOSOC endorse a poverty-oriented rural development approach and commend it to the governing bodies of the organizations in the UN system and urge them to take the appropriate decisions to foster the above objectives, and express their commitment to them. The commitment of this system as a whole, and of individual organizations, should be reflected in the allocation of increased resources to poverty-oriented rural development in their forthcoming and future program budgets.

¹ A.Z.M. Obaidullah Khan and J. Tomas Hexner: Poverty-Oriented Rural Development and the United Nations System, a Turning Point, a Working Document for the ACC, 31 January 1976.

Considering the decision of the General Assembly at its Seventh Special Session (Resolution 3362 (S-VII) Chapter V, para. 3) which called upon member states to promote integrated rural development and international agencies to cooperate financially and technically in achieving this objective, considering further that ECOSOC Resolution 1967 (LIX) called upon the ACC to work toward the creation of a joint inter-agency program of rural development, this prime recommendation is submitted as the basis for such an inter-agency program."¹

18. Elsewhere, the Task Force suggests that United Nations agencies might define the "rural poor" in terms of: "(a) an income level required for minimum nutritional and non-nutritional needs: (b) decile groups, e.g., bottom 30, 40 or 50% of various applicable income and/or social measures: (c) nutrition and health status: (d) access to basic services: (e) social or occupational or age groups such as landless workers, share croppers, and small farmers operating a minimum area of land: or (f) other proxies for identifying the poor".²

19. It seems clear that the Task Force's concepts combine most if not all of the essential elements on which the Advisory Committee wants the ILO to focus. In other parts of this paper further parallels between the two will be noted, for instance with regard to research, the dissemination of information and experience, and experimental projects.³ Of equal importance is the fact that the Task Force's concept is shared by the other UN agencies that are working in the field of rural development. This should enable another recommendation of the Advisory Committee to be fully implemented: "In its collaboration with other international agencies in the field of rural development, the ILO should maintain the focus recommended by the Committee in the foregoing paragraphs".⁴

20. The next question is how, within this overall concept, the ILO's responsibilities should be distinguished from those of the other agencies and, thus, to meet the Advisory Committee's objection that resources have been spread too thinly over too many activities. The next section deals with this question. But it is useful first to spell out the concept in some greater detail than can be found in the Task Force's Report, but which is available in the World Bank's Policy Paper and the Consultants' Report on which the Task Force's recommendations are

¹ Task Force, paragraphs 18-21.

² Task Force, page 5, N.1

³ Advisory Committee, page 21, paragraph 3.

⁴ Loc. cit., paragraph 4

based and the basic elements of which can easily be seen to parallel essential components of the basic needs approach and of The Poor in Asian Development.

21. This breakdown of the concept of rural development might be as follows:

- (a) Rural development is in the nature of a "productive programme against poverty", focussing upon "progressive and sustainable improvements in the condition of the rural poor" (Consultants' Report, page I.115).
- (b) This improvement is to be brought about by enabling specific "target groups" of rural poor to increase their productivity and incomes through fuller employment, access to land, capital and information; the "target groups" are the same as the groups mentioned in the ILO Advisory Committee's Report and in the instruments concerning the organisation of rural workers.
- (c) The comprehensive programmes that are necessary to this end cut across customary boundaries between departments of national governments, but also of international agencies.
- (d) The objective includes providing the poor with minimum standards of food, clothing and shelter, health and education (Policy Paper, pages 17, 19 and 25).
- (e) Implementation of programmes must be based on a combination of central co-ordination, regional planning, effective local-level organisation and the participation of the rural people in the planning and implementation process (Policy Paper, pages 6 ff. and 33 ff.); to these ends, and also in order to overcome political opposition to rural development, the rural poor should be able to organise (Consultants' Report, pages I.19 and 88).
- (f) Rural development along these lines will normally be opposed by groups that are not poor but often politically powerful and by the sectoral departments of national government and international agencies whose technical fields of competence must be integrated into a comprehensive approach (Consultants' Report, pages I.86 ff. and 94 ff.).
- (g) Monitoring and evaluation are essential components of effective rural development programmes.

22. It will be noted that the concern is, not simply with ILO or UN work in rural areas, but with the alleviation of misery by increasing the productivity of specific groups of rural poor. Who constitute these groups will vary with the programmes of an agency and also from country to country. As observed above, the Recommendation on the Organisation of Rural Workers and the Advisory Committee both define rural poverty groups in terms of occupational status (tenant, wage-earner, etc.) which may or may not, in any particular case, include the plantation workers.

Similarly, they may or may not include forestry workers or ethnic groups, such as "indigenous workers". Depending on over-all priorities, resources and the actual possibilities of raising productivity, they may or may not include the disabled. Depending on whether the members are poor by the criteria adopted in a particular case, co-operatives may or may not be an instrument of poverty-oriented rural development.

23. The non-inclusion of some group or activity in the concept of poverty-oriented rural development would not mean that existing ILO programmes covering such groups and activities should be discontinued or reduced; only that they were not part of rural development programmes as envisaged by the Advisory Committee and the Task Force. In practice, this would mean, for instance, that:

- (a) These activities would not be included in ILO presentations or reports, nor affected by programme and resource decisions, concerning rural development.
- (b) They would not have to be co-ordinated with the rural development programme, and their managers would not need to be consulted about the development and presentation of the programme, whether internally or in the framework of inter-agency machinery.

The Spectrum of ILO Activities

24. Now that inter-agency agreement has been reached on pursuing a productive programme against poverty, presumably some structure will have to be established for the division of labour and co-ordination among agencies, especially the "sectoral agencies", as regards the international activities needed at country and headquarters levels to achieve the common objectives of that programme. The agencies are not to be competitors, or to be played off against each other, (Consultants' Report, page I.114) but they should engage in concerted action on the basis of system-wide medium-term planning.¹ It is proposed here that this structure should be in terms of policy instruments (such as various types of training, specific kinds of institutional change, fiscal and financial measures) rather than objectives (such as increasing production or employment, land reform, better income distribution, or improving conditions of life).

25. The distinction between objectives and instruments will not always be clear or easy. For instance, employment and land reform are listed here as objectives but from a more global point of view they look like instruments. However, both are so broad and require so large a variety of means of implementation as to be inadequate criteria for dividing and co-ordinating activities among the various agencies.

26. A further consideration must be the Advisory Committee's finding that past rural activities of the ILO had attempted to cover too many fields. The question must be examined as to how this range of activities could be reduced.

¹ See A New United Nations Structure for Global Economic Co-operation, Report of a Group of Experts, United Nations, N.Y. 1975, paragraphs 121 ff., in which the Joint Planning Exercise in Rural Development is welcomed as a "first step towards genuine system-wide medium-term planning".

1) employment + unemployment

2) women

3) seasonality

9.

27. The logical point of departure for determining the main fields of ILO activity would seem to be that, within the United Nations system, the ILO has most experience and knowledge in regard to questions of work (whether in self-employment or for wages), manpower and labour relations. This may be broken down into such aspects as people's availability for work, their capacity for work, the organisation of their work (supervision, incentives, safety), income from work and the procedures through which the organisation, remuneration and other conditions of their work are decided upon. In the case of rural development these concepts should be interpreted broadly, to take account of widespread self-employment; thus, procedures for fixing remuneration of work include, not only ways of wage-fixing but also of determining rent and shares in the case of tenants, and of distributing obligations and income in the case of co-operatives.

28. On this basis ILO action would seem to be particularly called for in the following fields of poverty-oriented rural development:

- Women →
- (a) Assessment of the rural manpower and employment situation: information on the rural labour force in its seasonal and geographical variations, and rural-urban migration, as a basis for the design of local and regional programmes for the more productive utilisation of available human resources and of projects for skill development both in agricultural and non-farm occupations. This heading could also include household income and expenditure data, for the purpose of defining target groups, bench-mark poverty data and performance indicators.
 - (b) Work-oriented education, and training in occupational skills, including a variety of specific management skills.
 - (c) Conditions of land tenancy (shares, rent, security of tenure), land ownership (individual, communal) and wage-fixing.
 - (d) Organisation of rural workers, for the provision of common services of various kinds (e.g., through co-operatives of the rural poor) and of participation at all levels in the formulation and implementation of rural development programmes, including political negotiations about broad policy and resource decisions.
 - (e) Roles of rural men and women workers; the primary concern is, of course, with women but, as noted in Ingrid Palmer's position paper of 10 November 1975, on "Women in Rural Development", no substantial change in women's conditions can normally be expected unless there is a thorough review also of male roles, especially in the agricultural sector of developing countries.
 - (f) The organisation of labour-intensive rural works.

29. On the other hand, it is not clear that the ILO should continue trying to embrace the following aspects:

- (a) Integrated rural development/rural employment promotion projects (Technical Review, pages 12 ff.); while some, and perhaps most, of these have been valuable pioneering acts, it would seem to be beyond the terms of reference and the capacity of the ILO to take primary responsibility for such broad projects and for the considerable economic effort and risks they involve.
- (b) Micro-economic employment-oriented models of growth (*ibid.*, page 18); these, again, would seem to go beyond the terms of reference of the ILO as one member organisation of the United Nations system.
- (c) New agricultural settlements and rural employment: the choice between "developing new land" and "application of more intensive technologies on land under cultivation" (Technical Review, page 20). The same comment can be made as under (b).
- (d) "Social aspects of agrarian reform and community development programmes" (Programme and Budget, 1970-71, Director-General's Introduction, paragraph 83). It is implied in the previous paragraph that conditions of tenancy, and the training and organisation of workers in the framework of agrarian reform programmes are legitimate ILO concerns. Some other specific aspects might be added. But the phrase used in the 1970-71 Programme Budget seems too broad and indeterminate and, in any case, "the dialectical antithesis of 'economic' and 'social' belongs to the past" (Director-General's Report to the 1973 International Labour Conference, page 4).

30. More generally, it would not seem appropriate to maintain, within a system of joint inter-agency planning and concerted action for rural development, ILO activities attempting to embrace "rural development as a whole". Thus, according to Technical Review, page 4, "the WEP is now turning major attention to the elaboration of a comprehensive framework for a systematic inter-agency effort in the field of rural-urban employment promotion" (emphasis added). Elsewhere, "a package programme extending over a period of five years" is proposed including, for instance, "country studies to take stock of all socio-economic factors which form the basis for the present policy and strategy for rural development" (page 66).¹

¹ The package programme is further specified in the Green Book, pages 65 ff. and 117 ff.

31. The Technical Review also proposes "a comprehensive inter-agency country programme for an employment-oriented strategy of rural development" (page 21) which would last approximately five years. As regards technical co-operation, the Submission states (paragraph 91): "It has become evident that, in most countries, general economic policies are very important in combatting agrarian poverty. Accordingly, we shall place more emphasis than heretofore on land tenure policies, emphasising in particular the social and employment aspects of agrarian reforms; measures which affect factor prices, fiscal policies, including land taxes; programmes in the field of science and technology; public investment plans, etc." (emphasis added).

32. The underlined aims and fields of action would generally seem to go beyond the ILO's terms of reference as commonly understood. It seems unlikely that other agencies would be prepared to fit their activities into a framework elaborated by the ILO or that countries would seek ILO advice on their fiscal policies and public investment plans. These aspects are, of course, of crucial importance to successful rural development, employment-oriented development strategies and basic needs approaches, and it might have been necessary for the ILO to undertake substantial work in these fields if it was the only international agency pursuing these overall objectives. But this is no longer the case; the Joint Planning Exercise has shown that the poverty, employment and basic needs approaches are becoming widely accepted and a common basis in these terms for the United Nations system as a whole has now been established.

33. It would, therefore, appear that future ILO programmes should not normally include field projects embracing "comprehensive" or "integrated" rural development as a whole or covering technical fields that are not directly related to manpower, work and labour relations. The suggestions in paragraph 29 above illustrate the implications of this proposed conclusion. It would be appropriate and, indeed, essential for a Headquarters' unit from time to time to take a comprehensive view in order to understand how partial studies and field projects interact with the rural sector as a whole. But the ILO should not seek to play a major role in this regard.

34. The preceding paragraphs suggest, respectively, areas of ILO action that should be retained and others that might be deleted from existing programme statements, with a view to fitting the ILO's work for rural development into the inter-agency approach established by the ACC Task Force, while meeting at the same time the Advisory Committee's complaint that past activities have tried to cover too much ground with too few resources. The following paragraphs refer to fields of ILO action that may need further consideration from this point of view: could they be deleted or reduced in scope, or must they be maintained, resuscitated or created?

Keep pushing + analysis from this viewpoint -

Nomadic and Indigenous Populations

35. For instance, the comprehensive statement on rural development in the Director-General's Introduction to the Programme and Budget for 1970-71 refers to improvement in living and working conditions for "nomadic populations" and to "programmes leading to the integration of indigenous populations". The Technical Review contains a chapter on "Special programmes for the poorest sections of rural populations" (pages 51 ff. and 64-65) while in 1975, following discussions with Mr. Rens and Mr. Efron, the question was raised in the Office as to whether work on behalf of indigenous populations, and especially the Andean Indian Programme, should not be resuscitated as a separate area of ILO concern.¹

36. Although the meeting of the Advisory Committee was attended by representatives of some of the countries that have participated in the Andean Indian Programme, and while the Committee stressed the need for ILO action to focus on the poorest sections of the rural population, its report and recommendations did not respond to the special chapter on nomadic and indigenous people and these groups were not included in the Committee's enumeration of "poverty groups".

37. The ILO has a specific responsibility for promoting the application by member states of Convention 107 and Recommendation 104. Also, although in some quarters the Andean Indian programme appears to be regarded as a "welfare project" rather than a productivity-oriented programme, the statements of objective and implementation in the Technical Review suggest that the intention was to help the populations concerned to raise their incomes by improving their productivity. Thus, it would seem to fit the concept of rural development on which the present analysis is based. The question seems to be whether and why the ILO should, within its rural development programme, go beyond the normal supervision of the application of the instruments and give indigenous rural populations a special priority over other groups of rural poor and assume in regard to indigenous groups a higher degree of primary responsibility than it should assume in regard to other rural development programmes.

¹ Mr. Griffin has pointed out that the terms "indigenous populations" and their "integration" have pejorative and misleading connotations, at least in Latin America. The ILO instruments, it will be recalled, concern "tribal or semi-tribal populations" of less advanced condition than other sections of their country or "regarded as indigenous on account of their descent from the populations which inhabited the country at the time of conquest or colonisation".

38. The Convention and Recommendation are exceptionally comprehensive and detailed, providing for the protection of the groups concerned from exploitation and discrimination, and for a variety of measures to help them increase their agricultural and non-agricultural output by better access, for instance, to land, training, education and health services, on a basis of freedom and participation. All this is entirely in line with the general approach to rural development adopted by the ACC Task Force and in this paper. The Technical Review, page 65, stresses another point which the Andean Indian Programme has in common with rural development in general, i.e., the need for "full government commitment".

39. In the light of the above, it is suggested that the ILO's and the whole UN system's concern with rural poverty should most definitely include concern with the protection and advancement of indigenous peoples. But, as suggested by the Advisory Committee's lack of reaction at its Eighth Session, there seems to be no ground for separate or preferential planning within the rural development programme, on behalf of this category compared with other poverty groups. Individual governments committed to a poverty-oriented development strategy may, of course, well decide to give priority to specially handicapped indigenous groups. Also, concrete projects for these groups will normally include somewhat different measures than those for other poverty groups living in otherwise comparable situations. But in reality, no two rural development programmes of any kind will be the same; all will have to be adapted to the special conditions of the individual country and poverty group. In the context of a productive programme against poverty, there would seem to be no basic difference setting indigenous peoples in general apart from other rural poverty groups in general. Within that context, there would seem to be no case for a separate programme or organisational unit for indigenous peoples in the ILO. Whether there is such a case in some other context is a question beyond the scope of the present paper.

Living and Working Conditions

40. According to paragraph 83 of the Director-General's Introduction to the 1970-71 Programme and Budget, the ILO "has a significant contribution to make" in the field of "living and working conditions of rural populations". This would be in addition to and presumably separate from employment, institutions, agrarian reform, etc. The phrase corresponds to the overall objective of rural development as understood in the present paper, but without describing a specific ILO contribution to its achievement. Chapter IV of the Technical Review deals with the same topic, specifying that it includes "general conditions of work" in addition to social security and occupational safety and health. Under "general conditions of work" reference is made to surveys of living conditions and incomes and to minimum wage regulation. In the Technical Review's "Tentative Conclusions" it is proposed (pages 63 and 64) to intensify studies of agricultural incomes, to take measures for the extension of social security to rural workers,

while "the occupational safety and health of rural workers should continue to be a major preoccupation to the ILO". A number of special references are made to plantation workers.

41. In EMPLOI, several country studies are under way for the purpose of "constructing the anatomy of poverty as it exists at present and estimating the change in the degree of poverty over time during recent decades". Further studies are proposed for the future. Once this programme of country studies is complete, "an attempt will be made to develop a general account of how rural labour markets function and to explain the nature and causes of rural poverty".¹

42. The studies and surveys of EMPLOI and those referred to in paragraph 40 would seem to risk duplication and overlapping. It should be sufficient for one department to make such studies and preference should then presumably be given to EMPLOI because of its responsibility for designing effective methods of rural development on the basis of an analysis of "the nature and causes of rural poverty". This now appears to be the case since the 1976-77 Programme and Budget does not provide for such studies in either TRAVAIL or REL PROF. But, in view of the Advisory Committee's comment on excessive concern with surveys:

- how many more country studies will be needed for this purpose?
- to the extent that it remains necessary to make country studies of the anatomy of poverty, is not some division of labour with other agencies required? According to the World Bank Policy Paper, page 71, country studies are made by the Bank, FAO and ILO, the former two "actively coordinating their sector work and [having] established informal cooperative arrangements with ILO in order to avoid duplication". What are these arrangements and how have they helped avoiding duplication?
- no mention is made of the household income and expenditure surveys undertaken within the Statistical Programme. Yet, the data provided by such surveys may be essential not only in throwing light on the nature and causes of poverty, but also on the impact of rural development programmes, thus providing a basis for evaluating and adjusting these programmes.

43. Landless workers depending on wages are among the "target groups" of rural development and minimum wage regulation is one means of improving their conditions, though it does not directly increase their productivity and employment and is, therefore, perhaps best regarded as

¹ Green Book, pages 66, 217 ff.

an interim measure, to be supplemented by other steps.¹ The ILO should no doubt be active in this field.

44. The same conclusions might be appropriate for "rural social security". However, some questions might be as follows:

- What would be the main contingencies to be covered and how would these be financed?
- To the extent that the purpose is to provide better health care (Technical Review, pages 47 and 64) what kinds of ILO contributions are needed in the field of social security?
- To the extent that rural social security would involve substantial income transfers from the rich to the poor, how do its costs and benefits compare with those of using the funds concerned for action to improve employment and productivity of the poverty groups directly? This question relates to the broader problem of choice between income transfers to the poor for consumption or investment; cf. Employment, Growth and Basic Needs, ILO 1976, pages 37, 52, 174.

45. As described in Technical Review, pages 48-50 and 64, occupational safety and health seems to be of marginal relevance to regional development as defined in this Report, the main concern being with modern farming plant and equipment. Safety in this context is very important, but it can be kept separate from "rural development". However, in the Director-General's Reply to the 1975 Conference debate he proposed ILO action for "the setting up in rural areas of elementary safety and health systems which could be extended to the whole of the rural environment".

46. Meanwhile, the ACC Joint Planning Exercise in Rural Development has got under way with a major contribution by WHO. This provides for a set of priority programmes for improved nutrition, the control of infectious diseases, reproductive health/fertility, and environmental sanitation. Is there anything that the ILO could add to these proposed activities within the field of rural development?²

47. The above considerations will no doubt be borne in mind in the elaboration of the rural development component of the proposed International Programme for the Improvement of Working Conditions (PIACT). At the time of writing, no specific outline of this programme existed as yet, but it was intended to include it in the programme proposals for action concerning rural working hours, safety and health, housing and social services.³

¹ Cf. Hollis Chenery et. al. Redistribution with Growth, Oxford University Press, 1974, page 134.

² The WHO Submission, Health and Rural Development, Summary, Geneva 1975 (mimeo.), pages 15-24.

³ Minute of 12 March 1976 from Mr. Spyropoulos.

48. The following points seem to be of special importance:

- (a) "To improve the quality of life" is the basic inter-agency objective of rural development (Task Force, paragraph 19) which is to be achieved primarily through improved productivity of the poverty groups themselves, although supplemented by certain measures of social protection concerning safety and health, minimum wage regulation and perhaps social security. It would cause confusion if the impression was created that, apart from rural development, a separate programme existed for "improving rural conditions of work and life"; specific measures for the protection of the rural poor should be part and parcel of the rural development programme.
- (b) While the Director-General's Reply to the debate in the 1975 Session of the Conference referred to rural occupational safety and general health, it would seem best to elaborate the former (clearly addressed to the rural poor, not to modern farming) while leaving the latter mainly to WHO.
- (c) In any case, all specific activities of PIACT that are to be presented as part of rural development should be clearly designed for inclusion in the inter-agency framework that is now being established. If this cannot be done, these activities should not be considered part of rural development.

Labour Administration in the Rural Sector

49. The Technical Review does not mention this as a special area of ILO action for rural development, although on page 35 reference is made to plans for "publications or detailed research on governmental services which ensure rural workers some degree of social protection". In the course of the in-depth review, attention was drawn to an ILO document on Labour Administration in the Rural Sector, describing ways in which the labour administrations of Asian countries might involve themselves in the rural sector.

50. The approach to rural development envisaged in the present paper and by the ACC Task Force will require collaboration of a number of national government departments in the framework of highly integrated programmes. Various regional ILO meetings have stressed that labour ministries must be among these departments and this is clearly so in the case of the protection measures mentioned in the previous section. As already noted above, the Consultants for the Joint Planning Exercise believe that opposition to integration is likely to be a major problem in the implementation of integrated rural development programmes. It will be helpful if ILO activities in the field of labour administration will foster willingness to accept integration; but this would probably not require a special sub-programme for this purpose within the rural development programme.

Technology

51. The ILO has no particular competence in the general field of technological development per se. But the ILO cannot remain indifferent to technology because it is such an important determinant of changes in output, productivity, employment and incomes. What contribution can the ILO make to technological progress in the rural sector?

52. The over-all aim should be to seek and to promote the adoption of a pattern and form of technological change which minimises conflicts between economic efficiency and social equity goals and maximises the welfare of the community at large. This concern can be translated into concrete programmes in a variety of ways:

- (a) Research to assess the impact of technology on rural development, as a basis of identifying technologies that are appropriate to rural development, and ways of getting them adopted.
- (b) The collection and dissemination of information about appropriate technology.
- (c) The promotion of the development of appropriate rural technology in the poor countries themselves.

53. As regards the first point, comparative studies can assess the impact of different kinds of technologies on the rural population in specific situations. The purpose would be to increase our understanding of the interrelationships between technology and important economic and social variables and to identify those policy instruments which induce harmonious technological change. Specific examples from recent and current ILO programmes include: (1) the green revolution, mechanisation and employment; (2) employment and the adoption and diffusion of technology in rural Bangladesh; (3) the effects on employment of change in technology in coffee and tea plantations in India; (4) employment effects of technologies and techniques in Asian crop production; and (5) research and development in labour-intensive methods in forestry operations in the Philippines.¹

54. Secondly, it is recognised that there is an information gap on "appropriate technology" (i.e., technology which satisfies both economic and social development criteria) because the usual communication channels tend to concentrate on the technology designed to meet the particular needs of the developed countries. The ILO, through its contacts with employers' associations (who often sponsor technological research institutions for their sectors) and through its management consultancy programmes in developing countries, could assemble information on the less familiar items on the existing technological "shelf". It could then disseminate this information through its training programmes, extension

¹ Green Book, pages 98 ff.

services of small industry development institutions, employers' federations, and perhaps especially to rural workers' organisations. Taking account of past ILO programmes and the composition of national delegations to ILO conferences, it would seem that ILO experience would be most relevant in certain non-agricultural activities which are or could take place in rural areas (e.g., food processing, agricultural engineering, textiles and leather products, housing and construction). But there are some specialised agricultural sectors (e.g., plantations and forestry) where ILO knowledge of technological alternatives could be tapped.

55. Thirdly, the ILO could help to develop more appropriate technology for rural activities by (a) training machinery designers and draughtsmen from LDCs (e.g., at the Turin Centre), (b) upgrading the skills and know-how of village blacksmiths and carpenters who could be the source of much improved equipment for small-scale farmers and artisans (e.g., the Tanzania village technology project described in ILR, February 1975), (c) general skill formation in industry, (d) strengthening the R and D and product/material testing capacity of small-industry development institutions set up with ILO support and (e) preparation of technical standards and manuals incorporating ILO experience in the field of safety and health and ergonomics and their dissemination to firms and institutions engaged in technological development: the aim would be to ensure that low-cost technology suitable for rural activities did not exact a high cost in injury, disease or wasted energy among those who can least afford the loss of output/income which results.

56. All this is needed; much of it has been done in the ILO; more remains to be done; on what aspects should the ILO concentrate? When considering this question, it should be borne in mind that, in a general way, the application and transfer of technology are matters of concern to several UN agencies who, for this purpose, work through an ACC Sub-Committee. Furthermore, work in this field requires the close collaboration of engineers and technologists (with highly product-specific knowhow) with social scientists and management specialists. In the circumstances, it seems necessary for the ILO to rely increasingly on other agencies discharging their responsibilities in this field, with whom it might co-operate in joint projects, while concentrating its own independent activities on a few relatively narrow fields in which it has clear special advantages. At a time when the ILO was almost alone in recognising the interdependence of technology and poverty, there was a strong case for pioneering and demonstration projects by the ILO. But, in the field of rural development if not in a more general sense, this message has now been widely accepted.¹

57. As regards research, the Technical Review, page 19, proposes some lines of further development which are elaborated in the Green Book, pages 23 ff. Among these, the study of ways in which technology can be

¹ Cf. Employment, Growth, Basic Needs, page 150.

diffused among peasants, rural craftsmen and small-scale industrialists would seem entirely within the terms of reference of the ILO as an agency concerned with learning and training. There is also a task for the ILO in seeking and disseminating technologies that would relieve the work burdens of rural women, both as mothers and as rural workers.¹

58. The Employment Conference is to consider the establishment of a Consultative Group on Appropriate Technology for the purpose of promoting and steering research in this field. Another proposal is for the establishment of an International Appropriate Technology Unit. Both would be closely co-ordinated with various "clearing houses" that already exist in the UN system. Depending on how the proposals are received and the arrangements for the collection and dissemination of information develop, the ILO's own research for purposes of identifying technologies appropriate for rural development and the general collection and dissemination of information (as distinct from specific training activities) might be largely discontinued.

¹ Green Book p. 25; Palmer op.cit., p. 15.

IV. State of ILO Knowledge and Programmes in the Field of Rural Development

59. This chapter could (and perhaps should) have been the longest of the paper. It certainly raises more difficult questions than the others. By what criteria does one "assess" ILO programmes? What objective indicators of the "state of knowledge" could be used? Even if such questions of principle could have been answered in some satisfactory fashion, the information for providing also concrete practical replies would probably not exist. These points are elaborated below, under "Evaluation and Management Control".

60. In the circumstances, however, ambitions for this chapter had to be set low. Except on one important point, the reader is referred for assessment of the state of ILO programmes to Advisory Committee and Submission. For assessment of the state of ILO knowledge in various fields of rural development a few sketchy and subjective comments are all that can be offered.

The Submission

61. Despite its limitations, Submission is a relatively comprehensive self-contained and self-critical statement of ILO rural development activities. It shows figures of the total volume of budgetary and extra-budgetary work since 1970 which correct the erroneous impression the Technical Review had given of a very small ILO operation: estimated expenditures in 1974-75 were at an annual rate of more than \$10 million. The figures are broken down and accompanied by substantial qualitative comments according to nine fields of work which do not entirely coincide with those proposed in the present paper as areas of concentration of future ILO efforts but which, nevertheless, give a reasonably clear picture. The Submission does not deal with internal ILO questions, such as organisational problems, except for a reference to the mention in the 1975 Conference Resolution of this point (paragraph 72 of Submission).

62. Since the Submission had to be prepared before the in-depth review had much advanced, it reflects to a large extent the views of Office units which do not always coincide with those put forward in the present paper. An important example of discrepancy is the statement in paragraph 91 of Submission on the future orientation of technical co-operation activities; several fields are suggested there which, according to the present analysis, should not be matters of ILO concentration: measures which affect factor prices, fiscal policies, public investment plans, etc. But the general spirit of the Submission is clearly one of poverty-oriented rural development in accordance with earlier policy statements (for instance, Advisory Committee and The Poor in Asian Development) and with the basic needs approach and the recommendations in Task Force.

63. The Submission contains several evaluative statements which should help in the assessment of ILO programmes. For instance, it mentions the following shortcomings on the part of the ILO (as distinct from problems encountered by governments of which the Submission also gives a number of examples):

Paragraph 16 - The poorest have not always been the beneficiaries of ILO projects.

Paragraph 20 - Some projects have not been "replicable" because they were too costly to be capable of extension to a whole country or to large areas of it.

Paragraph 34 - Training projects have tended to benefit local élites and to be over-centralised.

Paragraph 37 - A more specific rural orientation is needed for management development.

Paragraph 40 - The range and scope of assistance provided in the field of organising rural works have fallen short of requirements.

Paragraph 42 - Rural co-operatives have not always benefitted the poorest groups.

Paragraph 93 - The preponderance of Ministries of Labour in ILO contacts has sometimes been a handicap.

Paragraphs 97 ff. - Inter-agency co-operation has not always been what it ought to be.

64. This brief list may illustrate the refreshing frankness for which the Consultants for whom it was written commended Submission (Consultants' Report, page I.19). It will also lend credibility to the many statements of positive achievement in the Submission and to the Consultants' finding that "while the Advisory Committee called for better focussing of the ILO work in the field of rural development and while the organization is undertaking an in-depth review to bring this about, the ILO seems to have a clear notion of what the organization has done in the sector and what it intends to do." (page I.22).

Resources

65. Most of the Advisory Committee's major comments on the state of ILO programmes are mentioned at the beginning of this paper and need no repetition here. A further important recommendation of the Committee, however, concerns the volume of ILO resources for rural development:

"Considering the need for substantial programmes in the rural field, the ILO should ensure a more equitable distribution of its resources for rural development, through reallocations within its budget, and through the mobilisation of additional resources especially by endeavouring to obtain more resources from the United Nations Development Programme." (Advisory Committee, page 21, paragraph 7).

66. In making this recommendation, the Committee may to some extent have been misled by the picture painted of the level of resources in the Technical Review. Nevertheless, if eradication of mass poverty is to be the major ILO concern, which the Medium-Term Plan and the Governing Body's reactions to it suggest that it ought to be, it is difficult to see how important results could be achieved without some increase in resources, including budgetary resources. It would be premature to suggest here any specific figure; the appropriate sums depend on the specific nature of plans for future action in a limited number of areas of ILO concentration no less than on the future overall financial situation.

67. An important point in this connection is the recommendation by the Task Force, which is most likely to be endorsed by the ACC, that "the commitment of [the United Nations] system as a whole, and of individual organisations, should be reflected in the allocation of increased resources to poverty-oriented rural development in their future programme budgets" (Task Force, paragraph 20, emphasis added). Moreover, implementation of some of the Task Force's recommendations (e.g., development of criteria for management control and early assistance to a small number of countries, Task Force, paragraphs 22 and 25 ff.) would require some funds in the current biennium, which might be found through appropriate allocation of regular budget technical co-operation funds in 1977.

68. In view of the importance of this and of several other recommendations by the Task Force, it should perhaps be mentioned at this stage that these recommendations were foreshadowed in the Consultants' Report and that the ILO members of the Task Force sought and obtained from the departments concerned a brief enabling them to support the recommendations.

Evaluation and Management Control Systems

69. Perhaps the most severe limitation of the possibility of assessing, with any degree of rigour, the rural development programmes of the ILO and most other agencies is the absence of hard information. Most agencies have no clearly defined operational objectives to be achieved by their action, nor any systematic collection of the results actually obtained through this action, as a basis of either reviewing policies and methods of work or assessing the personal performance of programme and project managers, for instance, in their annual reports.

70. This difficulty became clear from the beginning of the Joint Planning Exercise. The Consultants asked agencies for quantitative information on their "target groups", on the past allocation of resources for activities that had "directly and predominantly" been designed for the benefit of these groups, and on the actual benefits these groups derived

from the action (Consultants' Report, page II.4 ff.). Hardly any agency could answer these questions with any degree of precision. Thus, while some agencies (by no means all, but including the ILO) professed to have poverty-oriented rural development programmes, they found it difficult to say how many resources they exactly devoted to these programmes, had at best vague ideas about the numbers of rural poor whom the programmes were supposed to help, and were almost ignorant about the extent to which results had been achieved.

71. Accordingly, the Consultants recommended, the Task Force endorsed, and the ACC will most probably accept, a number of steps to remedy this situation. These include the following:

- (a) In order to enable progress to be assessed and improved, both within each agency and for the UN system as a whole, a consistent set of criteria for performance evaluation and management control should immediately be established by an inter-agency working group (Task Force, paragraph 22). *Urban*
- (b) Each agency should have an internal management system to monitor its projects and programmes, especially resources used and measured results "in terms of impact on the rural poor" (Task Force, paragraph 23). "Impact" should be measured by the proportion of the benefits generated by projects and programmes that accrues to the rural poor (paragraph 24(b)).
- (c) For the above purposes, each agency should, in the framework of the working group, "define operationally the rural poor in terms of such measurement against which the agency assesses its aims, focus and performance" (paragraph 24(a)).
- (d) Each agency should improve its evaluation techniques, and countries should be helped in doing the same (paragraph 24(c), (e)).

72. It will be clear from the above that the ILO's commitment to poverty-oriented rural development as envisaged by the Task Force would involve an exacting drastic change in concepts and methods of work. Very much more is involved than substituting the words "mass poverty" for "development" or "social justice". As it happens, however, work is now in progress in the Office for purposes very similar to those mentioned in the preceding paragraphs. Thus, according to the Record of the Director-General's Decisions, PROG/MAB.76/M.2/RD of 11 March 1976, paragraphs 4 ff., a system of project evaluation is to be set up which would seem to be very much along the lines indicated above. Moreover, according to paragraph 7 of the Record of Decisions, proposals are to be made "for the introduction of an Office-wide system and method of project design and evaluation", which language appears to suggest that this system would not be limited to field projects but also include Headquarters' work. Again, under the

heading of "Service and Support of Technical Co-operation", paragraph 3 of the Record calls for an information system which would serve, inter alia, "the needs of top management"; there can be no doubt that these needs include, for instance, knowledge of the "impact" of rural development activities.¹

73. Implementation of these decisions will be arduous. In the Management Activities Board, Mr. Jain therefore suggested that this be done in the first instance on an experimental basis, covering part of the ILO programmes only. If this were to be decided, it would seem most desirable to select rural development as the first area of experiment.

74. Implementation of the decisions and recommendations mentioned in this section could also have a bearing on a question with which this paper is not directly concerned, but which has aroused considerable interest in the Office and, to a surprising extent, in the Advisory Committee and in the 1975 Conference Resolution: what is the best internal Office organisation for rural development? It would seem that

- once it is very clear what results or impacts are to be achieved through various programmes and projects on rural development;
- once it is equally clear who is or are to achieve which of these results;
- once, in addition, information is systematically collected in order to establish to what extent each of these responsible persons has in fact done so;
- and if, finally, it is clearly understood that careers and future budgets will depend to a large extent on this performance;
- then the precise way in which organisational units are formally structured and related to each other is no longer a question of crucial importance.

Units would consult and co-operate not because some chief or instruction tells them to, but because failure to do so would affect the outcome of the work in which they would have a vital interest. Therefore, several different patterns of organisational structure might be roughly equally effective from this point of view. On the other hand, as long as tasks are not precisely spelled out, and performance is not carefully monitored, no organisational structure will enable the Office to deliver good results.

¹ It will be recalled that the Advisory Committee reported an "apparently limited impact" of ILO activities. Steps to measure and control impact should meet also the Committee's concern.

State of Knowledge

75. Presumably, the object of this item in the terms of reference for the in-depth review was to establish training and recruitment needs that would have to be met if the ILO is to make a worthwhile contribution to the eradication of rural poverty. Presumably again, the "state" of ILO knowledge would then not necessarily have to be judged in terms of the intrinsic difficulty of substantive problems, but it might be sufficient to try and compare it with "the state of the art" in the sense of the state of general professional understanding of these problems.

76. Basically, it has not been possible to assess the state of ILO knowledge from either point of view. A few possible ways of throwing light on the question were considered, but proved unpracticable. For instance, the scanning of P files of the staff of Headquarters' units and of ILO field experts concerned with rural development might have shown educational achievements and practical experience of, and major reports written by these persons. Or, ILO reports, manuals and other publications might have been examined, their sales figures and reviews in professional journals traced and members of their target audiences interviewed, in order to see how these publications were received.

77. Even disregarding the time factor, these approaches would have been hazardous, in the first place because they would assume on the part of the reviewers powers of technical judgment that they do not possess. Secondly, for a variety of reasons, publications cannot be assumed to be reliable indicators of the state of knowledge in an ILO programme area. In the case of one sample area, the technical level of publications proved significantly below the state of knowledge that was evident from an examination of the reports of field experts. One reason may simply be that the report contributors have not themselves had rural experience; not many Headquarters' officials seem to have. Or it may be that, in the units concerned, Headquarters' supervision of field projects is separated from research and studies, so that the personnel involved in the latter is not familiar with the reports coming in from the field. Or it may be that report writing in the ILO does not provide sufficient motivation or time for the authors to deal with their topics in any depth.

78. For these and other reasons it would not have been inappropriate for this chapter to end here. But as, in the course of its preparation, some partial impressions were gained, these are reflected below in case they could stimulate further comment or enquiry. They follow the list of six topics of rural development which paragraph 28 above suggests as areas of concentration for future ILO efforts. However, in order to underline their tentative nature, these observations are not presented under formal sub-headings, except for "Organisation of Rural Workers", on which subject more work could be done than on the others.

79. The "Assessment of the Rural Manpower and Employment Situation" suggested as the first topic of concentration reflects EMPLOI's contribution to Submission (Paragraph 96(a)); data on household income and expenditure were added later and the topic as presented above really tries to describe the statistical framework for "drawing the rural poverty map" of individual countries as a basis of policy formulation and the assessment of progress. The emphasis is on statistics, not on general surveys of living and working conditions discussed in Chapter III.

80. The casual observer may note that in 1971 the Editor of the International Labour Review chose to publish three articles in succession by ILO officials Bartsch and Richter, on the specific aspects of "Rural Manpower Assessment and Planning in Developing Countries". A broader long-term research programme was proposed in the Technical Review (page 19) under the headings of Rural Employment, Unemployment and Under-employment; Income Distribution, Savings and Employment; and Rural-Urban Migration and Employment, most of which seem reflected in the Green Book. In 1972-73 the Chief of RPD and the Chief Statistician attempted, but failed, to obtain World Bank support for a more strictly statistical proposal embracing household employment and income data; the current Programme Budget (paragraphs 139 ff.) appears to provide for basically the same proposal.

81. Meanwhile, at least one relatively advanced proposal for a statistical framework covering incomes, employment, skills and other assets of rural households now exists, which should make some of the work envisaged in the Programme Budget simpler, if not unnecessary.¹ Further progress along these lines might be made in consultation with the World Bank and in the framework of the in-depth review of the ILO statistical programme.

82. The conventional object of "manpower planning" as discussed, for instance, in the Bartsch/Richter articles is "the balancing of supply and demand at the aggregate level and of surpluses and shortages of rural manpower in individual occupations and skills". This does not now appear to be prominent in EMPLOI's programmes, although the current Programme Budget (paragraph 121) provides for a study in the least developed countries, presumably for implementation in FORM, "to demonstrate methodologies for assessing rural training needs and to establish initial data on the nature and skills and related training existing in the rural areas of these countries". It is suggested below that the ILO's overall approach to rural training needs seems to need clarification. Whether the conventional manpower planning approach would be an effective method and whether the question is more urgent or important for the least developed countries than for other nations remains, perhaps, to be seen.

¹ See Redistribution with Growth, op. cit., "The Poverty Profile", pages 237 ff.

83. The second area of concentration suggested in paragraph 28 is "Work-oriented education, and training in occupational skills, including a variety of specific management skills". The presentation in the Technical Review illustrates well how work in these fields is spread over several organisational units without much co-ordination. Chapter I on "Rural Employment" refers to WEP research on rural education and employment; Chapter II on "Rural Vocational Training and Education" does not really deal with education and has nothing to say on management training for poverty-oriented rural development. Chapter III on "Rural Institutions", however, contains some references to management training for co-operatives (pages 37 and 38) as well as a separate section on "Workers' Education". The reader cannot help feeling that much of this material tends to be rather abstract and lacks coherence. The chapter on vocational training does not show that the work discussed there should be part and parcel of comprehensive rural development programmes and it tends to stress agricultural training, although the ILO's main contribution would seem to be in training for non-agricultural occupations.

84. To some extent all this is a matter of presentation. Thus, examination of the files concerning some 30 field projects showed the existence of a large variety of mostly non-agricultural training activity, including the management of small-scale rural enterprises; indeed, the Submission stresses that ILO rural training activities focus on non-agricultural skills (paragraph 33). The Submission describes, in paragraphs 36 ff. a number of management activities in rural areas. An exchange of views with FORM revealed clear awareness in that Department that rural training projects should not be undertaken in isolation and should be set up with due regard to a country's long-term rural development programmes. The Department also knows that rural training must be for employment and it "likes to see that a rural training project follows a rural manpower planning and assessment project". These and other lessons have been learned from experience from less than fully successful projects.

85. Nevertheless, the overall picture seems diffuse and the precise nature of training requirements within a comprehensive framework does not come out nearly as clearly as, for instance, in the World Bank Policy Paper:

- The shortage of trained manpower is perhaps the most serious obstacle to large-scale rural development efforts (page 9).
- The shortage of skilled staff to implement rural development programmes should be a major consideration in their design. In many countries the scarcity of skills is found at all levels: experienced and junior staff, technical and administrative (page 38).
- If decentralisation is to be effective, regional and local government, development authorities and co-operative-type organisations must be provided with the trained manpower to fulfill their obligations. Present systems of training are weak, especially in the handling of relationships with the local population (page 39).

- training method*
- More consideration should be given to the possibility of training community opinion leaders, such as primary school teachers, religious leaders and village co-operative secretaries as agents of change. A multiplier approach should be adopted, for instance, by establishing internationally-financed regional training institutes for training development managers, regional and project planners, co-operative staff, agricultural extension agents and other specialists (pages 39 and 40).
 - Rural education should be functional in serving specific target groups and in meeting identified needs (page 53).
 - Rural education programmes should be designed as part of a total education delivery system; they can themselves become the focus of co-ordinated action through the use of multi-purpose centres to serve other activities, such as co-operatives and health services (page 53).
 - Rural education projects should be integrated with other development activities, and linked to the provision of other appropriate inputs and services (page 54).
 - Because the shortage of indigenous supervisory and managerial staff is chronic in most developing countries, the training of development managers is a matter of top priority (page 74).

86. Many of these principles are well known, some have already been applied by the ILO, others may be debatable. But they do seem to illustrate the shape which a firm, clear and comprehensive policy of training and education for rural development might take.

*Incentives
ability
to achieve*

87. In shaping such a policy for the ILO, special attention could perhaps be given to management training activities. FORM is well aware of the need for vigorous action in this field which was stressed in the in-depth review of the management development programme in 1973. The Submission, paragraphs 36 ff., lists a number of ways in which the development of rural areas could benefit from better management and so does the section on "Management inputs in rural development" of the ILO brochure on Effective Managers for Development. A number of management development field projects have included rural components.

88. But as noted in the Programme Budget, management training for rural development schemes "is a new field for the management development programme" and the Submission found that "a more specific rural orientation of course material and case studies is needed" (paragraph 37). Moreover, it would seem that, although some management development activities and statements are clearly directed at rural areas, they do not show a poverty orientation. In the brochure, "the primary aim is to increase output and raise productivity" but there is no reference to poverty groups or even any mention of small-scale enterprise. Nor is it clear that FORM's field projects for small industry have been for the direct or indirect benefit of the rural poor; this does seem clearer in the case of the handicraft projects executed by EMPLOI.

89. These remarks should not be construed as criticisms; they are merely to suggest that, if management training is to be a major component of the ILO's poverty-oriented rural development programme, some further new approaches remain to be developed.

90. More generally, it would seem desirable to review the various ILO programmes for rural training on their poverty orientation and, perhaps, to reduce their number.

91. The third area of concentration of ILO effort proposed in paragraph 28 covers certain aspects of land ownership and tenancy, i.e., matters that are prominent in discussions of agrarian reform and some of which are also the subject of Recommendation 132 concerning the Improvement of Conditions of Life and Work of Tenants, Share-Croppers and Similar Categories of Agricultural Workers. Agrarian reform as a whole is a very broad field in which the ILO co-operates with FAO and the United Nations. The intention of the suggestion in paragraph 28 is to spell out those aspects on which the ILO should focus its own efforts.

92. The Technical Review, the Submission and the Green Book all stress the importance of agrarian reform and a few research projects and meetings are proposed. While the general direction of the programme does not seem very clear, some of the staff concerned with the subject are obviously authorities of international repute in their field. Should the general objective of work in this field not be to promote wider application of Recommendation 132?

93. The Technical Review and most of the other sources used in the present document say little that is specific about work on the role of men and women workers, i.e., the fifth proposed area of concentration. However, the position paper on "Women in Rural Development" would seem to provide an excellent basis for developing a useful programme.

94. Finally, EMPLOI's programme for Emergency Employment Schemes, as described in the Green Book (page 70) appears to include some very practical research projects which, according to the Programme Budget, paragraph 56, are to be followed as from early 1976 by field projects and training courses.

The Organisation of Rural Workers

95. For the ILO this is an important new field of action, the basis of which is found in Convention 141 and Recommendation 149, both of which envisage "poverty groups". The importance of the organisation of the rural poor is now widely recognised. It features not only in Advisory Committee (page 21, paragraph 2), the Submission (paragraphs 52 ff.) and the Medium-Term Plan (paragraph 158), but it is also part of the Task Force's basic concept of rural development (paragraph 19), it is supported in the World Bank Policy Paper (page 38) and it is also part of the FAO's programme of work.

Programme
96. Thus, FAO's current programme budget provides for a \$1 million programme entitled "Farmers' and Rural Workers' Organisations and Co-operatives" and last year FAO was reported to be operating 38 field projects under this programme which is implemented in "collaboration with international trade unions".¹ Under a "Case Study Programme on Area Development" FAO, with financial assistance from SIDA and other bilateral aid organisations, is implementing at present a research project which should cover ten developing countries on the subject of "The Role of Rural Organisations to involve the Poor in Development".² This apparently also involves "collaboration with international trade unions".

97. Organisation of the rural poor is complex and difficult. A range of different functions can be distinguished for the organisations and a variety of organisational forms already exists and more may have to be invented. The aim is to foster the establishment and growth of such organisations and questions arise as to why in the past not many of these have grown spontaneously, or have failed, and how obstacles to their development can be removed, the absence of growth factors remedied, and freedom of association preserved.

98. For instance, the new recommendation envisages three different main purposes of the organisations: to represent the workers and to negotiate for them at all levels; to involve them in the implementation of programmes on their behalf; and to provide services and training (Recommendation 149, paragraph 5). Existing organisational forms include trade union type of associations (for instance, in Latin America) but also farmers' associations and co-operatives, all of which may or may not be capable of action "at all levels". In Tanzania a structure has been built on the basis of local committees consisting of villagers and low-level officials; at various higher levels of decision-making, machinery combining representation of the people with government officials exists.

¹ FAO, Programme Budget 1976-77, document C.75/3, page 52.

² Johann Gudmundsson, Report on a Mission to Paris, 11 December 1975.

99. Among the obstacles to the growth of rural workers' organisations have been:

- Opposition, sometimes violent, of land owners and the rural élite in general (traders, money-lenders and administrators).
- No existence of the right of freedom of association.
- Low social and economic status of agricultural workers which makes them dependent on the landlords.
- Illiteracy.
- Geographical dispersion of the peasants.
- Passive attitudes and, in some cases, persistent loyalty to traditional groupings (e.g., caste, ethnic) on the part of the poor, even though these groupings do not aim at improving conditions of their poorer members.

100. This variety of purpose and structure of organisations, and the many different kinds of obstacles to their development, should be warnings against exclusivism and dogmatism in programmes for promoting them. According to an ILO report: "Some thought should also be given to the type of organisation that best meets the requirements of rural workers. It is clear that the traditional trade union structure does not necessarily suit the rural situation and that a somewhat different type of organisation may have to be evolved, possibly combining the functions of industrial trade unions, rural co-operatives and service organisations." ¹

101. Provided that freedom of association is preserved, it would also seem wrong to discard a role for the government in the organisation of the rural poor. It has been observed that South Asian countries, "cannot wait for an infra-structure to emerge spontaneously from below" and that "there is no choice but to create the institutional infra-structure by government policy and to spur its growth by governmental intervention." (Gunnar Myrdal, Asian Drama, Pantheon, 1968, page 869).

102. As the concern here is with the rural poor, it is important to note the widely held view that "co-operatives have rarely served this purpose". This statement is taken from Human Resources Development in Rural Areas in Asia and Role of Rural Institutions, Report II to the Eighth Session of the Asian Regional Conference, September-October 1975.

¹ Report VI(1) to the International Labour Conference, 59th Session, 1974, page 56.

It is confirmed by a study by Inayatullah: "In none of the three countries¹ have the cooperatives deeply moved the peasants to improve their lot through cooperative action and engage in struggle against those who could exploit them or retard their development. The cooperatives are essentially marginal institutions which survive as instruments of governmental policy. They distribute certain benefits to the rural population, and appear incapable of threatening any vested interests which could destroy them. Under certain circumstances, they reinforce the existing power structure and survive for that reason."² According to another observer: "The rural masses have always been exploited by the more privileged among them. To expect this to change to seeking to develop agricultural 'co-operatives' on a local basis, led by privileged members of the community, can hardly be expected to bring voluntary involvement of the rural masses. Rather, and as I have indicated, such co-operatives have (where successful) strengthened the position of the more affluent sector in their capacity for such exploitation, to the further detriment of the rural poor".³

103. Although the organisation of the rural poor must involve a high degree of co-operation among the people concerned it is, therefore, not to be assumed that conventional co-operatives can be relied upon to contribute much to a productive programme against poverty. Also, again, as noted by E. Owens and R. Shaw: "The Government's role is to help small free-holders, tenants, and sharecroppers have access to the modern agricultural system and to protect them from traditional forms of exploitation. This suggests a role of government which runs counter to the principles of cooperatives in free societies. To say this may disturb Western cooperative theorists who want cooperatives to be relatively free of government control in the European and North American tradition.

Where cooperatives have been effective - Japan, Taiwan, Korea, Egypt - the government itself has intervened on behalf of farmers and created and sustained the conditions of access for all. Thus, the question over the role of government in developing countries is not whether the government should be involved, but rather, how the government

¹ Iran, Pakistan, Sri Lanka.

² Cooperatives and Development in Asia, Vol. VII, page 264, United Nations Research Institute for Social Development, Geneva 1972.

³ Organization of Peasants in Asia, page 186. Regional Experts Workshop organised by Friedrich-Ebert-Stiftung in co-operation with FAO and ILO, Bangkok 1974.

is involved, and whether the government is willing to withdraw gradually as the conditions of access are created and farmers learn how to manage their own cooperative business enterprises. Hence, the long-run role of governments might be described as beginning as champion, continuing as partner, and abiding as friend."¹

104. In view of these various considerations it would seem premature to designate COOP as the Office unit responsible for collaboration with FAO in its research on rural organisations to involve the poor.² Similarly, there would not yet seem to be a basis for "clearly establishing that "the responsibility for assisting the development of such organisations rests with the Workers' Education Programme".³

105. The first problem is to design a policy and strategy for ILO action to promote the organisation of the rural poor, on the basis of much clearer knowledge of what has so far prevented these organisations from growing in various types of developing countries; what can in practice be done to overcome these impediments; what factors have so far been found favourable to the development of such organisations; and what could be done in practice to strengthen such favourable forces. In no field of ILO action for rural development seems "the state of knowledge" so weak as in regard to these questions. Moreover, little work is envisaged at present with a view to meeting this discrepancy. The only Regular Budget proposal is for a workers' education study "of the educational requirements for the development of organisations of rural non-wage earners; which would follow up a symposium on workers' education methods and techniques for rural workers and their organisations, to be held in 1975" (paragraph 228).

106. The urgent need, it would seem, is for a much broader concept of an ILO strategy to be followed in this field. Some suggestions to this end were made in The Poor in Asian Development, but further imaginative ideas are needed. Once these have been assembled and organised, specific responsibilities for their implementation can be assigned. To do so now would be to put the cart before the horse.

¹ Development Reconsidered, Lexington Books, Lexington, Mass., 1972, page 181.

² Mr. Gudmundsson, page 36.

³ Minute by Mr. Whitehouse, 15 March 1976, paragraph 5.

V. ILO Objectives and the Best Mix of Activities for Achieving Them

A. Objectives

107. It would be beyond the scope of this position paper to enter into a detailed discussion of what the ILO objectives for rural development might be. A few brief remarks should suffice.

108. First, in accordance with current principles of programme planning and evaluation in the Office, and with the recommendations of the Task Force, it is suggested that the objectives should be in terms of results to be achieved, within a certain period of time, and in the nature of "specific changes in situations outside the ILO itself" (PROG/GC.76/M.3/1, paragraph 16). Of course, such objectives can rarely be achieved by the Office; they should normally be adopted by the member countries, acting through the Organisation as they do, for instance, when adopting conventions, recommendations and resolutions. In this connection, the Task Force made the important recommendation that ECOSOC urge the governing bodies of the organisations in the UN system to take appropriate decisions to foster the objectives of poverty-oriented rural development (paragraph 20). This recommendation is most likely to be endorsed by ACC. Perhaps the ILO Governing Body could, without awaiting an appeal by ECOSOC, be invited on the occasion of the in-depth review to endorse both the Task Force general objectives and certain more specific ILO objectives to be achieved within this framework.

109. Second, it would seem logical for specific ILO objectives to be in terms of the fields or means of action which the ILO is particularly qualified to handle. Thus, the six fields suggested in paragraph 28 and further developed in Chapter IV, or any alternative list of such fields, could provide the general terms in which these objectives were expressed. In the specific formulation of the objectives it would be logical to start from existing ILO policy statements. For instance, first consideration could be given to objectives in terms of

- Implementation of the relevant provisions of the 1975 Conference Resolution concerning small and medium undertakings and of Convention 142 and Recommendation 150 as regards vocational guidance and training.
- Implementation of certain provisions of Recommendation 132 concerning tenants and share-croppers.
- Implementation of Convention 141 and Recommendation 149 concerning organisations of rural workers.
- Implementation of relevant provisions of the Declaration and the Resolution of Equality of Opportunity and Treatment of Women Workers which the 1975 Session of the Conference adopted.

110. In the formulation of objectives, further consideration should, of course, be given to, for instance, the conclusions of the World Employment Conference, those of the Eighth Session of the Asian Regional Conference, those of research activities within and outside the Office, the position

paper on women in rural development, etc. A solid basis would still have to be found for stating an objective in regard to the collection of data on rural poverty, i.e., the first of the fields of action suggested in paragraph 28. Last but not least, the elaboration of objectives should obviously take account of any further inter-agency action in the framework of the Joint Planning Exercise, i.e., the follow-up of the recommendations of the Task Force, ACC and ECOSOC.

111. A third important consideration in the formulation of objectives must be the concern of the ILO, and of the UN system in general, with mass poverty in the developing world as a whole, whether urban or rural. The two are interrelated. For instance, measures against rural poverty affect rural-urban migration; so do measures against urban poverty. There may also be an element of competition in the sense that, if more resources are put to the alleviation of urban poverty, this reduces the availability of resources for rural development and vice versa; a balance must be struck which takes account of the comparative costs and benefits of programmes competing for resources. Of course, rural poverty may also be affected by urban programmes other than poverty programmes (for instance, backwash effects of urban modern industry on rural handicrafts). Therefore, the adoption of a rural development programme must be reflected also in the objectives and implementation of other programmes.

112. These interrelationships between urban and rural poverty are also relevant to the question of internal organisation. An advantage of having a "Rural-Urban Employment Unit" is that they can be constantly borne in mind; a separate "Rural Development Department" risks losing sight of them.

B. Mix of ILO Means of Action

113. The main issue under this heading appears to be the optimal combination of research and operational activities. Many members of the Advisory Committee felt that the ILO had in the past been "too much concerned with research and surveys at the expense of more directly action-oriented activities" (Report, page 6). The point was not made in these direct terms in the Committee's conclusions. But it is said there (page 21) that the ILO "should primarily aim at advising and assisting member countries in the formulation and implementation of programmes" and that it should be able to do so "by means of a geographically and functionally well-balanced programme of research, technical co-operation and standard setting" (emphasis added). It will be recalled that, in a more general way, the Office has on various occasions and notably in connection with the Programme Budget for 1976-77, been criticised for what was considered an excessive reliance on research work which was not always seen to be relevant to the Organisation's other activities.

114. Similarly, following some findings of the Consultants, the Task Force concluded that "much [research], often financed by the Regular Budget, is not always directly related to field operations. Presently only a few agencies have a research programme specifically designed for poverty-oriented rural development (paragraph 34). It recommended, therefore, that each agency assess its current and planned research, study

or seminar activities relating to rural development and that "there should then be a review at the inter-agency level with a view to assessing the relevance of these activities to poverty-oriented rural development and to operational work" (paragraph 36). It would, however, seem that such an assessment could also be very useful in the case of field projects, for instance, those in the field of small industry.

Research

115. The question is, of course, not simply whether there should be more or less research. Rather, it is a problem of research orientation. Some research will be indispensable before field projects can be offered. As noted earlier, research under the WEP Programme for Emergency Employment Schemes was intended to lead, as from now on, to the preparation of a manual and to direct assistance to member countries. It is also hard to see how important progress could be made in the organisation of rural workers without some prior research into the questions mentioned in the previous chapter and which at present seem to be the object of enquiry in FAO to a much larger extent than in the ILO. As noted below, in the fields of handicrafts and small-scale enterprise, more research may also be needed; moreover, the evaluation and management control which the Task Force considered so important will call for a good deal of research.

116. In any case, to some extent the Advisory Committee's comments may have been due to, on the one hand, the misleading impression that the Technical Review gave of a very small total volume of ILO resources devoted to rural development and, on the other hand, the relatively large emphasis and specificity in the descriptive parts of the report dealing with research as compared with other activities. Thus, according to page 2, after 1969 "no further consolidated statements about earmarkings for the rural sector were made in the ILO budgets - a feature which reflected the dissolution of the Rural Workers Division". Moreover, "the Regular Budget financing of rural activities has practically ended since the financial crisis" (of 1970-71). The reader is left with the impression that, after "a peak of some \$800,000 maintained until 1969", the Regular Budget provided only small and not entirely known resources for rural development, and that this was due at least in part to the dissolution of the Rural Workers Division. This impression may well have prompted the Committee's conclusions, not only that "the ILO should ensure a more equitable distribution of its resources for rural development", but also that it should examine the necessity of setting up a separate rural development department (page 21).

117. However, the impression is false. For instance, the 1972-73 Programme Budget clearly shows four (uncosted) projects on rural employment (page 42), in addition to \$270,000 appropriations for rural training (page 48) and \$420,000 for rural institutions (page 56), not counting another \$1.1 m. for Regular Budget field projects in the two latter areas, i.e., a total more than double "the peak" of 1969. Furthermore, the Technical Review was entirely silent on the volume of extra-budgetary resources for rural development. As shown on page 8 of the Submission,

these have been relatively substantial so that the ILO's total "expenditure has been at an annual rate of between \$7.6 and \$10.5 m.". The latter figure was reached in the 1974-75 biennium.

118. While the Advisory Committee's comments on research may, therefore, have been based in part on misunderstanding, for another part they may well reflect the kind of uneasiness that members of the Governing Body have expressed and it may be helpful to review briefly the current volume and direction of research on rural development. Information on these points appears in the Programme Budget for 1976-77, paragraphs 120-122 of which deal with rural training, while paragraph 228 refers to the organisation of rural workers. The Green Book deals with technology in agriculture (pages 23 and 98 ff.) and industry (pages 26 and 107 ff.) and with rural poverty (pages 65 ff. and 217 ff.).

119. One's impressions are that

- (a) There is a clear, but uneven awareness of the fact that research must be in support of field work.
- (b) Nevertheless, some projects seem to be directed at rather abstract or elementary questions, without it being clear that these have arisen or will arise in the implementation of ILO field projects.
- (c) Some of the work seems to go beyond the ILO's terms of reference or should be better co-ordinated with other agencies.

120. For instance, studies concerning rural training "are planned for use in future technical co-operation activities" (Programme Budget, paragraph 120). A Workers' Education study "is designed to enable the ILO to launch a vast programme of practical assistance" in the organisation of rural non-wage-earners in developing countries (paragraph 228). One major objective of WEP research "is to achieve a much closer integration of research and operational activities at the national level" (Green Book, page 10). Yet, although the Office is responsible for technical co-operation activities for the improvement of existing and the promotion of new rural handicrafts and small industries (Technical Review, pages 14 and 59) no research seems planned or under way in this field. On the other hand, future work on income distribution will be "strongly oriented towards examination of the instruments of government action relative to income distribution such as taxes, government expenditure, and particular elements of economic and social legislation". Also, "more detailed investigations of the efficiency of government programmes in reaching the poor will be carried out. Education and health care are the two major items here but other infrastructural activities such as environmental sanitation, drinking water programmes, etc., will also be covered". (Green Book, page 35). While these questions are highly relevant to rural development, it is hard to see to what ILO operational activities they are to be linked.

121. To illustrate the point about specific questions selected for research, consider the following:

- An examination is to be made of "the organisational requirements of non-formal education in rural communities to follow up the proposals made in the World Bank study" (Programme Budget, paragraph 120). While it is not clear to what Bank study this refers or what proposals it makes, and assuming that non-formal education is the ILO's responsibility, the topic seems at the same time extremely broad in dealing with all organisational requirements, but also very limited by being restricted to organisational requirements only. To what practical problems experienced in ILO field work can this study give an answer?
- The only study on rural development in the management development programme (for which "this is a new field", paragraph 121) is "to determine the adjustments required in management techniques to meet the needs and conditions of the rural sector, especially as regards improvements in supply, distribution and service functions". Again, one might wonder what practical field experience has given rise to this particular statement of problems to be researched.
- Reference was already made (paragraph 41 above) to EMPLOI's country studies for the purpose of "constructing the anatomy of poverty" and its evolution. This is a clear and important question and the proposed method of tackling it seems scientifically impeccable. But is it of sufficient direct relevance to operational activities to require study by the ILO now?

122. In answer to the Advisory Committee's complaint about the balance between research and other action, the justification of a relatively extensive research programme is, of course, that no responsible advice or assistance can be given before the problems one hopes to overcome, and their causes, are properly known and understood. From this point of view it would, for instance, be entirely right to implement all three of the illustrative cases mentioned in the previous paragraph. Against this position there is the view that practical action and decisions in the country cannot wait until there is full or even approximately full knowledge and understanding of the problems and that intelligent professional advice of the kind that one expects from international organisations would at least increase the likelihood of success and reduce the risk of failure of the action taken even on an inadequate basis of information and understanding. There are elements of truth in both views and the problem of formulating a "well-balanced programme of research, technical co-operation and standard setting" is to find a reasonable compromise.

123. The World Bank Policy Paper may be an instance of such compromise. This gives an informed and highly intelligent statement of major problems of rural poverty, a broad strategy for tackling them, and a programme of action for the World Bank culminating in an annual lending target of \$1 billion to be attained by 1979, i.e., double the lending rate of 1975 (page 66). This would call for a "major effort to support

and further develop innovative approaches to project design and implementation" (page 67). The paper covers a vast range of matters on which knowledge and understanding are very far from adequate; this is recognised and the Bank itself is implementing a sizeable research programme in agriculture and rural development, while stimulating further research in this field by individuals and institutions in its member countries.¹ It is also recognised that the approach is risky: "the innovation and experimentation in rural development will inevitably yield some failures. But the risks can be reduced by providing facilities for monitoring and evaluation, so that the lessons of experience are learned" (page 69).

124. The World Bank research programme is interesting from another point of view. Comparing it with the ILO's Green Book one is struck, not only by the outstanding quality of both publications, but also by a degree of apparent overlapping in such fields as income distribution and population, but also technology and rural development. It seems likely that comparing the ILO's research in rural development with the programmes of other UN agencies (to say nothing of universities and other national institutions) would reveal other instances of overlapping.

125. In conclusion, it could perhaps be said that there is very probably scope for reorientation, if not reduction, of some of the ILO research activities relating to rural development:

- (a) Better co-ordination with outside bodies, in order to reduce duplication and overlapping, should make it possible to reduce the total volume of research work without corresponding loss of new knowledge and information. The Joint Planning Exercise should bring this about, at least among the UN agencies, including the World Bank.
- (b) The statements of problem and purpose of some research projects suggest that a more rigorous determination of priorities would also enable the total volume of research to be reduced without corresponding loss in the ILO's capacity to provide advice and assistance to member countries.
- (c) In setting research priorities for the ILO itself, more systematic attention might be given to needs for information and understanding arising from experience with field activities that are clearly within the ILO's terms of reference; the ILO might encourage outside bodies to undertake research less directly related to field work, and it might accept to undertake such work itself if requested to do so by providers of extra-budgetary funds.

¹ World Bank Research Programme, Abstracts of Current Studies, October 1975, pages 19-33.

- (d) In the determination of research priorities it would also be desirable to review the relative importance and urgency of research in various directions of immediate interest to the ILO's activities, somewhat in the nature of the chapters on statistical priorities and research directions for rural development as a whole in Redistribution with Growth.
- (e) In order to ensure that operational and research work are properly linked and that field experience is fed back into the Office programme of work, the new ILO procedures for monitoring and evaluation of technical co-operation projects and those recommended by the Task Force should be very useful; indeed, achieving this should be their main purpose. As already noted, Mr. Jain has suggested that these procedures are best introduced on an experimental basis in a selected field of ILO work; that field could be rural development.

126. As regards the last point, it should perhaps be agreed that substantive project monitoring and evaluation is in fact research. It consists of observation and analysis of a project and the conditions in which it is operating, with a view to identifying obstacles and opportunities for further action and the nature of the action that is most likely to succeed. This appears to be the philosophy also of the Green Book (pages 10 and 13) although the descriptions in that paper of individual research areas and prospects does not show clearly to what extent and how the principle is applied in practice, for instance, in the field of Rural Poverty and Employment. A clear example of practical application of the philosophy can be found in certain of the larger technical co-operation projects in the field of small-scale industry, the staff of which has included economists with specific responsibility for evaluative research arising from the projects concerned.

127. The above considerations seem to be valid also for technical meetings and seminars.

Standard Setting Activities

128. The main interest of standards is the relatively high degree of international commitment their adoption implies. In the battle against mass poverty these could be of the utmost importance.

129. It is widely felt that rural development is not popular with governments; they view it with indifference, if not hostility. The reason may be that a government represents interest groups that stand to lose from the objectives of rural development; or the government may consider rural development too difficult, or economically unsound. According to the World Bank Policy Paper (page 29), "whatever the reasons, unless more governments commit themselves formally to devising strategies and policies to raise the standards of living of the rural poor, the lot of millions of people will not improve significantly."

130. The Consultants' Report for the Joint Planning Exercise goes further: "the initial premise is that the processes inherent in a poverty-oriented rural development strategy are to a great extent contrary to natural, political, and bureaucratic instincts. Political and bureaucratic self-interest - even enlightened self-interest - dictates against the steps which such rural development processes involve" (page I.86). Therefore, "when apparently relevant resolutions are passed by the governing councils [of international agencies], they may well have a hollow tone because they are not pursued or adopted by the governments" (page I.113). Such resolutions may not mean more than "tokenism". Nevertheless, the report's main recommendation is "that each agency prepare a resolution for adoption by its governing council which expresses a formal support for and commitment toward the programmes focussed upon the progressive and sustainable improvement in the condition of the rural poor" (page I.115). But this, according to the Consultants, will be difficult to achieve. Indeed, it is quite uncertain whether "we have reached a turning point where the poor can enter (if not be welcomed into) the mainstream" (page I). It will not happen without the organisation of the rural poor (pages I, I.19 and I.88).

131. In the ILO the problem has also been recognised although not in such dramatic terms. The Technical Review refers to "full government commitment at the highest levels" as a prerequisite of integrated rural development (pages 13 and 58). But the point is not pressed, and its achievement would probably not be regarded as "a turning point". Perhaps the Consultants exaggerated the problem somewhat. Alternatively, the reason why it has been less forcefully made in the ILO may be that few governments have asked for ILO help with rural development (Technical Review, page 3) and that, as a majority of members of the Advisory Committee noted with concern, during the past several years the rural development activities of the Office have had little impact (paragraph 13). Even though the Consultants' Report may have been unduly sombre, it would be surprising if, for instance, a vigorous ILO programme for the organisation of rural workers or for the improvement in conditions of tenure as provided in Recommendation No. 132 did not encounter considerable difficulty and opposition in several countries. The rate of ratification of the new instruments on rural workers will be an interesting indicator of the extent of true support for the eradication of poverty in developing countries.

132. However, for purposes of testing and maintaining government commitment, procedures of the kind through which International Labour Standards are established and followed up are of considerable interest. Other agencies might wish to adopt some of them. In particular, the Constitutional obligation to submit adopted instruments to national legislative bodies, and to report from time to time on non-implementation as well as on implementation, sharply distinguishes ILO instruments from "hollow resolutions".

133. In the ILO itself, the benevolent Employers' attitude in the Governing Body to the poverty programme proposed in the Medium-Term Plan, and the presence of a Workers' Group which is sympathetic to poverty groups, should be very helpful in advancing the cause of rural development through

the setting and follow-up of standards. The Director-General's Report to the Eighth Asian Regional Conference proposed some relatively far-reaching action of this kind: early reviews of the implementation of the instruments on rural workers' organisations under Article 19 of the Constitution, preceded by reviews in the Regional Advisory Committee, while the Conference itself "might find the topic important enough to make it a permanent item on the agendas of both these bodies for the next few years, and/or to establish a standing committee to keep developments in the region under constant review and to make recommendations as to ways of speeding up progress in the organisation of rural workers" (page 77). Perhaps significantly, however, there seems to have been no response to these proposals.

134. Similar proposals might be made with regard to the implementation of Recommendation 132 concerning tenants and share-croppers. That instrument, too, provides for measures which, if fully implemented, could have a more significant impact on rural poverty than almost any other action within the ILO's field of competence.

135. If these ideas were to commend themselves it would, no doubt, be desirable to make quite specific recommendations to the Governing Body for the agendas of the Conferences and Committees concerned during the next four or five years. Otherwise, they might well share the fate of hollow resolutions.

Field Projects

136. On the basis of information provided by COORD, the Submission shows relatively impressive figures for operational activities in the field of rural development (page 8).

137. Since, at present, "rural development" is not a separate class of ILO field projects, this information was not easy to assemble and to divide among the nine categories shown in the Submission; to some extent the figures are bound to be somewhat arbitrary. Also, although most if not all of this field work will have been in rural areas, not all of it has been poverty oriented. Neither the Technical Review nor the Submission is explicit on this, but it seems likely that a certain proportion of technical co-operation in the three largest categories have not been so oriented. For instance, the Technical Review, page 25, appears to say that training activities have been instrumental in creating "a rural élite, including in particular managerial personnel", and that adjustments are now necessary in order to service this élite better. As noted in Chapter IV, co-operatives in general have not been of primary benefit to the rural poor either. The extent to which the "Promotion of Advisory Institutions for Non-Agricultural Activities in Rural Areas and Advisory Services for Rural Development Programmes" have had a poverty orientation is difficult to judge from the descriptions in the Technical Review and the Submission, or, for that matter, from the project files.

138. All this need not give rise to alarm and certainly not to criticism of the Office. For although the Advisory Committee and the Conference (the latter in endorsing Advisory Committee and in adopting

such instruments as Recommendation 132, Convention 141 and Recommendation 149) have firmly established poverty orientation as the ILO policy, most of this is of recent date and has not yet been generally endorsed by either the government agencies requesting technical co-operation or UNDP, which is financing it. Indeed, the lack of commitment or the opposition to rural development in these quarters is one of the main themes of the Report of the Consultants for the Joint Planning Exercise. Thus, reorientation of field projects can take place only gradually.

139. It would seem necessary for ongoing projects now to be reviewed from this angle and for the poverty orientation to be reflected as clearly as possible in the design of new projects.

140. But it is well to remember in this connection the general problem of reconciling the country orientation of UNDP programmes with the global policies and priorities promulgated through the UN system, including the ILO. Countries may subscribe to one global policy in one agency and endorse another, possibly inconsistent with the former, in a different agency, while observing neither in their requests for technical co-operation. UNDP has felt that it should not take a position on such issues, regarding governments as the sole judges of their policies and the nature of the international co-operation they require. Indeed, according to a recent statement of its representative in the Programme Working Group, "the United Nations Development System was a service institution and recipient countries were entitled to some degree of choice within their IPFs".¹

141. This illustrates the great importance of the Task Force's first recommendation: that ECOSOC should urge the governing bodies of all agencies, presumably including UNDP, to commit themselves to the new concept of rural development. Moreover, through the evaluation and management control systems to be established under another recommendation of the Task Force, this commitment would be controlled and, as much as possible, enforced.

142. Another important recommendation by the Task Force concerns "a special inter-agency effort to be launched by ACC in support of [rural development programmes] and to be concentrated at the country level" (paragraph 25). Initially, this would be done in a small number of countries at various stages of development. After a two-year period these countries would conduct an **initial** evaluation of progress and recommend whether the work should be continued in their own case and in other countries. A process for eliciting interest from a group of countries would be set in motion through UNDP.

143. Provided that a number of governments are prepared to participate in it, this particular part of the follow-up of the Joint Planning Exercise should be of great interest and the ILO should play as active a role in it as possible. Presumably, this role should be roughly along the lines suggested in paragraph 28 above or of any other description which may be decided upon to "determine the areas on which the ILO's programmes of rural development should focus in the future". It would, therefore, be prudent to reserve some of the 1977 funds for technical co-operation under the Regular Budget to finance all or part of such participation.

¹ Document CB/21/2 of 2 April 1976.

144. The recommendation for a country-based programme should clearly replace the proposal for a comprehensive inter-agency country programme in Technical Review, page 21.

VI. Arrangements for Joint Action with Other Agencies

145. This chapter can be very brief:

- (i) For the long-run the Submission, paragraphs 104 ff., reflects the Director-General's support for the types of inter-agency relationships envisaged in the Report of the Group of Experts on the Structure of the UN System¹;
- (ii) For the immediate future, the ILO should obviously join in whatever inter-agency arrangements are set up in further implementation of the Joint Planning Exercise, not only for the country projects mentioned above, but also for the elaboration of joint or co-operative activities in research and other Regular Budget work.
- (iii) Special attention should be given to the Task Force recommendation (paragraph 32) "that the World Bank should attempt to include in its country economic reports an analysis of public sector programs in terms of their 'poverty' implications, and was glad to note that the World Bank had already begun this work. It was felt that this would further enhance such Bank reports as important inputs into existing country programming exercises of other UN agencies. It also recognized that such World Bank analyses would require full cooperation of the governments whose data systems would need to be strengthened, particularly in the area of developing the social data necessary for effective planning. In turn, the World Bank should endeavor to utilize in the preparation of these reports information and analysis generated by other agencies. Inter alia, these measures would help avoid unnecessary duplication of agency requests for information to countries. For such countries for which World Bank reports are not prepared, financial assistance might be sought from UNDP or other sources to carry out special country assessments." Implementation of this recommendation may require an effort on the part of the ILO to contribute to and participate in the preparation of World Bank country reports.

¹ A New United Nations Structure for Global Economic Co-operation, op. cit.

VII. Summary and Conclusions

146. This paper has dealt with the various questions raised by its terms of reference. In attempting to answer these, it has been guided by, especially, the recommendations of the Advisory Committee on Rural Development and of the Inter-Agency Task Force for the Joint Planning Exercise in Rural Development. The Committee's recommendations were endorsed by the Conference in its 1975 Resolution and they constitute, therefore, a mandate. The Task Force's recommendations are important, not only because of their innovative nature, but also because they set a clear inter-agency framework within which the ILO's specific contributions could fit. These recommendations had been foreshadowed by a set of very similar conclusions in a Consultants' Report; the ILO members of the Task Force consulted the various departments concerned about these conclusions and, in subscribing to the Task Force's recommendations they acted in accordance with the brief that they had thus obtained. At the time of writing, most of the recommendations seemed likely to be endorsed by the ACC.

A New Concept of Rural Development

147. The key concept of rural development underlying the recommendations of the Advisory Committee and the Task Force is that of a productive programme against poverty. Rural development must be poverty oriented. In line with the "Basic Needs Approach" which is being proposed to the World Employment Conference, the benefits must accrue primarily to the poor including, in particular, the categories envisaged in the ILO instruments concerning tenants and share croppers and concerning organisations of rural workers. The processes of rural development through which poverty is to be alleviated and eventually eradicated must involve the poverty groups themselves; it must give them opportunities to raise their productivity, incomes and self-reliance, by giving them access to land, education and other resources, and by encouraging them to establish their own organisations.

148. In the practice of development policy this concept of rural development is by no means universally accepted. It is in contrast with the "trickle down" idea, according to which the overriding need is for increasing output through existing arrangements, in the expectations that the fruits of higher production will ultimately percolate to the poor even though these were not directly involved in the efforts to raise output. So, poverty-oriented rural development is not the same as the development of rural areas; much of the work that is going on in these areas is not poverty focussed and it is, therefore, outside the key concept of rural development with which this paper, following the Advisory Committee and the Task Force, is concerned.

149. The key recommendation of the Task Force is for the Economic and Social Council to urge the governing bodies of all UN agencies that they commit themselves to this concept, devote increasing resources to it, and control its application and results through a system of evaluation and management controls, much along the lines of recent decisions within the Office for establishing a system of evaluation and monitoring of field projects.

Areas of Concentration

150. The paper recommends that, within this framework of an inter-agency approach to rural development, the ILO should focus on the following areas:

- (a) The production and collection of data on household income and expenditure, employment, skill requirements and skills available.
- (b) Training.
- (c) Rents, shares, security of tenure, minimum wage regulation.
- (d) The organisation of rural workers.
- (e) The roles of men and women workers.
- (f) The organisation of labour-intensive rural works.

151. It is further suggested that the rural development programme should embrace, though not as a separate programme, "nomadic and indigenous populations" and that some attention may have to be given also to social security, certain questions of safety and, perhaps, health and to appropriate technology. But the limits to technological research need definition, and it does not seem desirable for the ILO to undertake comprehensive rural development projects on its own, or to embark on substantial work in such fields as price and fiscal policies or overall public investment plans. Nor need many general surveys of conditions of life and work be undertaken. In any case, country studies require proper co-ordination with the World Bank and FAO. It would also seem necessary for any work under the PIACT clearly contributing to rural development to be included in the inter-agency framework that has been established for the Joint Planning Exercise, while public health may be left to WHO.

152. The purpose of these recommendations is to reverse the trend, noted by the Advisory Committee, for the ILO's work in rural development to cover too many fields with too few resources. The recommendations should be interpreted with reasonable flexibility. For instance, some comprehensive research remains needed in order to understand how partial studies and field projects interact with the rural sector as a whole. Similarly, ILO field experts should be able to draw attention to problems that are outside their terms of reference but substantially affect the outcome of their work (e.g., tax problems).

153. Provided that ongoing ILO activities in rural areas do not conflict with the rural development concept of this paper, it is not suggested that these be discontinued, even if they do not fit the concept. But it is proposed to keep such activities clearly outside "the rural development programme". This would mean that:

- (a) The managers of such activities need not be consulted, so that the immense burden of negotiating policies and programme implementation with a large number of technical units can be reduced.
- (b) If it is decided, following the 1975 Conference Resolution concerning rural development, and the recommendations of the Advisory Committee and the Task Force, to increase the share of ILO resources for rural development, this would be limited to activities that do fit the general concept.

154. For instance, it does not seem necessary to distinguish a separate component of labour administration in rural development and much of the current safety and health programme in rural areas does not seem to fit the basic concept.

State of ILO Knowledge and Programmes

155. This item in the terms of reference for the in-depth review proved especially difficult. Few objective criteria and even fewer objective data exist for judging "the state" of programmes and knowledge. But it is disturbing to note that, according to the Advisory Committee, the ILO's activities for rural development have had "an apparently limited impact".

156. As already mentioned, the Task Force recommended, and the ILO is in any case intending, the introduction of a system of evaluation and monitoring, so that the state of programmes will not only be better known but can also be corrected when and where necessary. If these steps are to be taken on an experimental basis, the first experiment might be with rural development. Implementation of these plans will show how demanding the new concept of rural development is. On the other hand, it may simplify the problem of the best organisational structure for rural development within the Office.

157. Meanwhile, the paper notes that a number of ILO programmes have not always primarily benefitted the rural poor. This appears to be the case with some training projects, the management development programme and COOP. Reference is also made to the preponderance of ministries of labour in the ILO's contacts at the country level as a factor hampering the ILO's access to the policy makers for rural development in a number of countries. A few years ago this used to be regarded as a self-evident fact. But it no longer seems to be so, some saying that it is not true, others feeling that it should not be said even if it was true.

158. The paper then turns to the areas of concentration suggested earlier. But, because of a number of qualifications, the following comments are tentative.

159. The current programme budget provides for the development of a system of data collection on poverty which might, however, be cut short since an interesting statistical framework for diagnosing poverty and designing remedial policies is now available in the book Redistribution With Growth.

160. There are many ILO programmes for the training of rural people, though not necessarily the rural poor. Perhaps in part as a result of this dispersion, a firm and coherent ILO training policy cannot easily be detected. In attempting to formulate such a policy it might be useful to examine a list of training requirements drawn from the World Bank Policy Paper on Rural Development. More particularly, it would seem necessary to determine the best scope and nature of a poverty-oriented rural management development programme.

161. Some clearer formulation of ILO policy and programme development may also be needed with regard to those questions of agrarian reform for which the ILO may properly feel responsible (security of tenure, shares and rents) and in respect of the roles of men and women workers. A solid technical basis on which to do so seems to exist in the Office.

162. While the organisation of rural workers may become one of the most important fields of ILO action for rural development, it also seems one of the most difficult ones, both politically and substantively. Organisations of the rural poor have to perform a variety of functions and they must take a variety of forms. While the latter will include associations more or less similar to trade unions, it is not to be assumed that these will be the only or most important kinds. Certain types of co-operatives should also play an important role, but it is necessary to bear in mind that in the past co-operatives have rarely benefitted the rural poor of the developing countries.

163. It seems far from clear by what means organisations of rural workers can be established on a large scale, without infringing on the principle of freedom of association and without their becoming dominated by other interests. Whether one likes it or not, in many cases it may be inevitable for governments to play an active role.

164. The main immediate need seems to be for a clear policy and strategy of ILO action in this field, on the basis of much more knowledge than appears to be available now of what it is necessary and possible to do. Workers' education will be an important tool but can by no means be the only instrument of such a strategy. The paper notes that in FAO questions surrounding this area of action are studied more closely than in the ILO. Some of the suggestions for action made in the Director-General's Report to the recent Colombo Conference may deserve further thought and implementation, with the help of the Governing Body and of regional major meetings.

Objectives

165. Not only is the overall objective of poverty-oriented rural development fully in line with existing ILO policies as demonstrated, for instance, by the Conference's endorsement of the Advisory Committee's recommendations, but various existing ILO instruments would also seem to provide the basis for setting more specific programme objectives. For instance, a high degree of implementation by member countries, within a certain period of time, of key provisions of Recommendation 132, Conventions 141 and 142, and Recommendations 149 and 150 might be adopted as objectives to be achieved with the means of action that are open to the Organisation.

Such objectives would be in the nature of "specific changes in situations outside the ILO itself" (namely, in the member countries) in accordance with current Office policy.

166. The paper suggests that, even without awaiting an ECOSOC appeal following the Joint Planning Exercise in Rural Development, the ILO's Governing Body be invited on the occasion of the in-depth review to endorse certain objectives of this kind. It might then also be asked (perhaps at its November 1976 Session) to approve resource allocations for an effective programme in pursuit of these objectives.

167. However, our concern is with mass poverty in general, whether urban or rural, and the two are interdependent. So, any rural development programme should take account also of urban poverty and vice versa. From this point of view a rural-urban development unit would be preferable to a rural development department.

Mix of Means of ILO Action

168. The Advisory Committee, and the Governing Body in a more general way, have found that the ILO is doing too much research and surveys compared with "practical" action. Although the question cannot be one of more or less research, but rather of the proper research orientation, the paper suggests that there is scope for reducing the volume of research on rural development without inflicting great harm on the programme as a whole. Research should remain within the limits of ILO's responsibility (which does not, for instance, comprise drinking water programmes) and clearly relevant to policy and programme development, especially the requirements of technical co-operation. But there is no scope for indiscriminate cutting; useful technical advice cannot be given without some background research and, in some cases, the outcome of a research project may itself be an excellent piece of technical advice.

169. The paper expresses doubt on whether there is sufficient inter-agency co-ordination of research on rural development. This question, and also the overall problem of keeping research relevant to policy and programme development, should be reviewed in the framework of the Joint Planning Exercise. The application of evaluation and management control techniques also to research seems necessary.

170. Standard setting and implementation according to ILO procedures may be of special interest in the field of rural development, because these procedures involve a much higher degree of government commitment than resolutions and recommendations adopted in other international agencies. This is important, because rural development is not popular among national government administrations and, in the absence of somewhat compelling procedures of follow-up, international agreements on the topic might easily

be forgotten. The paper suggests, therefore, that other agencies concerned with rural development might like to adopt some of these procedures and it suggests that in the ILO itself vigorous action should now be taken to bring about a high degree of implementation of rural development instruments.

171. Like research and other Office activities, field projects in rural areas need reviewing, in order to ascertain that they also serve the objectives of rural development. This may have to be a relatively slow process because of, inter alia, an apparent lack of commitment on the part of UNDP not just to rural development but to any particular "global policies and priorities". It is to be hoped that an appeal by the Economic and Social Council to the governing bodies of all agencies, including the Governing Council of UNDP will correct this.

172. Meanwhile, the ILO should seek full participation in the inter-agency country projects recommended by the Task Force for the Joint Planning Exercise and for this purpose set aside a suitable sum of Regular Budget funds for technical co-operation.

Joint Action with other Agencies

173. Joint action in the field of rural development is now being organised in the framework of the Joint Planning Exercise and perhaps needs no further comment at this stage. For the long term, questions of joint and collective action in general should find answers in the framework of the restructuring of the UN system which is under way under Resolution 3362 of the Seventh Special Session of the General Assembly.

174. A more limited but important point could be the ILO's involvement in World Bank country missions if, as recommended by the Inter-Agency Task Force, the reports of these missions were to pay special attention to rural development and would be used for purposes of country programming.

Mr. J. Waelbroeck

July 30, 1976

B. Choe, EPD/CE *Choe*

Measurement of Inputs into Agriculture of Developing Countries

Introduction

1. This paper summarizes the results of an attempt to measure inputs into agriculture in developing countries from 1961 to 1973. The ultimate purpose of the exercise is to shed some light on the agricultural supply capability of developing countries in the near future. The focus is on the land, irrigation, labor, and fertilizer inputs. It is thought that the farm machinery is less important in developing countries where abundance of labor is a predominant characteristic. The level of fertilizer consumption is considered to represent the level of agricultural technology and, hence, may be considered as a proxy for the degree of insecticides application and high yielding seed varieties. In what follows, each input will be enumerated and then an aggregate index of inputs will be formed. The last part will discuss the contribution of inputs to the value of agricultural output.

Labor Input

2. Labor input is measured by the number of economically active population in agriculture. Ideally, one would like to have man-hours worked and adjust them for quality changes. So far as work intensity of the labor force has been increasing and labor quality has been improving over the years, our estimates of labor input will be biased downward.

3. The FAO's Production Yearbook (1973) provides the number of economically active population in agriculture, total economically active population, and total population for 1960 and 1970. The following method is used to estimate economically active population in agriculture for other years.

4. The first step is to obtain a complete series on total economically active population. It is assumed that total economically active population increased at a constant annual growth rate from 1960 to 1970 to give us estimates for 1961 through 1969. To extrapolate beyond 1970, it is assumed that the proportion of economically active population to total population in 1970 was maintained in the succeeding years and that total population increased at the same constant annual rate as between 1960 and 1970.

5. The next step is to estimate the share of economically active population in agriculture in total economically active population. The actual shares are available for 1960 and 1970; the 1970 actual shares are

considerably lower than those for 1960, suggesting that the shares decline as the economy develops. Using combined cross section data of 39 countries for 1960 and 1970, Honda obtained

$$\begin{aligned} \ln \text{SHARE} = & - 4.652 + 1.947 \ln Y - 0.212 (\ln Y)^2 \\ & (5.4) \quad (-6.4) \\ & + 0.093 \ln A + 0.02 D \\ & (3.8) \quad (0.5) \end{aligned} \quad \begin{aligned} \bar{R}^2 &= 0.73 \\ D-W &= 1.8 \end{aligned}$$

where SHARE is the share of agricultural working population in total working population, Y is the per capita GNP, A is the per capita arable land, and D is the year dummy. This equation confirms what the actual share figures suggested. Using only the per capita GNP variable, the equation can predict the shares and let these be denoted by SHARE*. In order to reduce bias in SHARE*, we assume that the ratio of SHARE to SHARE* increased (or decreased) at a constant exponential rate, i.e.,

$$\text{SHARE}_{60} / \text{SHARE}_{60}^* = \alpha_0,$$

$$\text{SHARE}_{70} / \text{SHARE}_{70}^* = \alpha_0 e^{10p}.$$

The share for 1974, for example, is then estimated by using

$$\text{SHARE}_{74}^{**} = \text{SHARE}_{74}^* \cdot \alpha_0 e^{14p},$$

where SHARE_{74}^{**} is the estimated share for 1974. It is this estimate which is then used to estimate the number of economically active population in agriculture, i.e.,

$$\text{AL}_{74} = \text{SHARE}_{74}^{**} \cdot \text{TL}_{74},$$

Where TL_{74} and AL_{74} are respectively the total economically active population and economically active population in agriculture in 1974.

6. Table 1 shows the number and the share of economically active population in agriculture. For all the regions, the percentage shares decline consistently. The estimates of labor input increase consistently until 1972 but decrease slightly in 1973 and 1974 in several regions.

Land Input

7. FAO's Production Yearbook provides data on arable land and land under permanent crops for most of the developing countries but for selected years. Arable land refers to land under temporary crops (double-cropped areas are counted only once), land temporarily fallow, temporary meadows or pasture, and land under market and kitchen gardens. Land under permanent crops refers to land under tree crops. It does seem, however, that the definition varies among the reporting countries and even among the years in the same country.

8. Data on arable land and land under permanent crops were compiled from the various issues of the Production Yearbook. Of the 1961-73 period, data are available for only three to four years on the average for each country. Richer with data are the countries in East Asia, South Asia, and North Africa and the Near East. Most deficient are the countries in Africa, South of Sahara.

9. Although the available data are by no means complete, they do appear indicative of the order of the magnitude and the rate of change for about three-fourths of the countries, particularly for big countries. When figures are available for two distant years and look reasonable, the gap was filled in by applying linear interpolation and, when necessary, the trend was further extended forward and/or backward. Ten countries have data for only a single year, in which case an arbitrary rate of increase of 0.5% or 1% was assumed. Eight of these belong to Africa, South of Sahara, and their total for 1961 accounts for only 13% of the regional total. This procedure, therefore, is not expected to introduce significant bias in our estimates. Four countries show apparent contradiction in the series, sometimes increasing by as much as twice in a few years. When this is the case, the later year figures were considered more reliable. Other than these, it should be mentioned that a number of minor problems had to be resolved on the basis of what common sense dictates for each case. Results are shown under Column A of Table 2.

10. Clearly, total harvested area has more direct bearing on output than agricultural land in existence or what we termed arable land and land under permanent crops. Data on harvested land by country were compiled from the FAO and USDA tapes. This set of data, however, is not comprehensive enough in that areas under some of the crops are not included, notably rubber, various citrus crops, palm oil, sugar cane, coconut, and millet. Table 3 shows the results incorporating the area under rubber obtained from the Bank source.

11. The harvested area totals come out substantially lower than those of arable land and land under permanent crops for all the regions. Especially, the harvested area of the sub-Sahara African region is less than one-third of the total agricultural area. This may be expected in the land-abundant regions where considerable part of the land remains fallow, and, as in Africa, slash-and-burn is the prevalent agricultural technique. On the other hand, where land is scarce and often double cropped as in Asia, the harvested area should exceed the total agricultural area. Only the fact that areas under a number of crops are not counted withholds the judgment that our estimates of arable land and land under permanent crops are grossly overstated.

12. The omitted crop areas will be incorporated in a later version of this study. We may proceed for the moment under the assumption that the harvested area figures are in fact representative of the trend in land input. Column B in Table 2 is obtained by setting the harvested area total for 1965 equal to that of arable land and land under permanent crops. The last two columns of Table 2 compare the average annual growth rates of the two series. The growth rates are closely comparable for the oil-exporting countries and the Latin American and Caribbean. Among East Asian countries, Philippines is primarily responsible for the faster increase in arable land than in harvested area. Harvested area increases faster in all the other regions. One explanation for this could be more intensive land use, especially in South Asia.

Irrigation Input

13. Data on irrigated land, also collected from the FAO's Production Yearbooks, have more or less the same kind of problems as those on arable land and land under permanent crops. It appears that virtually no irrigated land exists in eleven of the sub-Sahara African countries. A single bench-mark is available in eight countries, seven of them in Africa, and an annual growth rate of 1% was assumed in each case. The irrigated acreage series seem relatively more consistent and reliable for countries in South Asia, East Asia and Pacific, and North Africa and Middle East than those in Latin America and Caribbean and Africa, South of Sahara.

14. Required interpolation and extrapolation were done in much the same way as before. Results are shown in Table 4 together with the percentage of irrigated land to arable land and land under permanent crops. As can be expected, the percentage is lower for the relatively land-abundant regions, i.e., Africa, South of Sahara and Latin America and Caribbean. It is interesting to note that the percentage irrigated increases for the same regions where harvested area increases faster than arable area.

Fertilizer Input

15. FAO's Production Yearbooks provide relatively comprehensive data on consumption of commercial fertilizers in terms of plant nutrient content. Total fertilizer consumption is obtained simply by adding nitrogen, phosphate, and potash fertilizers consumed. This will provide an adequate index of fertilizer input if the proportion they are used does not change over time. Figures were taken from the later volumes to the possible extent. Data are comprehensive except that a few small countries do not have data for earlier years. Linear extrapolation was applied in this case.

16. Table 5 shows the resulting fertilizer consumption figures together with consumption per hectare of arable land and land under permanent crops. The most outstanding feature is the rapid increase in total consumption and consumption per hectare. This may be due in part to the fact that most of the developing countries started from very low level of fertilizer application. The level still remains considerably low compared with about 250 kg. per hectare in high income Western Europe, for example.

Contribution of Inputs to Output

17. Contribution of inputs to output has usually been assessed by estimating aggregate production functions in numerous previous studies. It is thought, however, that meaningful estimates of production functions can be obtained with more refined data than are presently available. Instead, we adopt the following ad hoc procedure for evaluating the inputs.

18. Labor input is valued at the marginal value product of labor in 1961 for each region. Marginal value product of labor is assumed to be half the average value product of labor. Contribution of labor input is simply the number of economically active population in agriculture times the marginal value product of labor.

19. Fertilizer input is valued at \$914.375 per ton of plant nutrients. A generally accepted formula for developing countries is that a nutrient ton of fertilizer input produces about ten tons of food grains. The weighted average price of foodgrains comes out to \$91.4375 per ton when computed from the 1970-72 world average export unit values of wheat, maize, barley, grain, sorghum, and rice. Fertilizer input is valued at ten times the average price for all the regions and years.

20. To measure the contribution of land, it is first assumed that irrigated land is three times more productive than unirrigated land. Under this assumption, total land input is measured by "effective land" which is arable land and land under permanent crops plus twice the irrigated land. The average value product of effective land is the per hectare residual value of output obtained after subtracting the contributions of labor and

and fertilizer from the total value of output. For the base year of 1961, contribution of effective land is measured by its average value product so that inputs exhaust output. For the succeeding years, contribution of effective land is measured by the following procedure:

$$EL_{61-73} = EL_{73} - EL_{61},$$

$$V_{61-73} = V_{73} - V_{61},$$

$$FV_{61-73} = (F_{73} - F_{61}) \times \$914.375,$$

$$NV_{61-73} = N_{73} \times MVP_{N(73)} - N_{61} \times MVP_{N(61)},$$

$$MVP_{EL(61-73)} = (V_{61-73} - FV_{61-73} - NV_{61-73}) / EL_{61-73},$$

and, for example, and, the contribution of effective land in 1974 is,

$$ELV_{74} = (EL_{74} - EL_{61}) \times MVP_{EL(61-73)} + EL_{61} \times AVP_{EL(61)},$$

where

- EL: effective land,
- V: total value of output,
- F: fertilizer consumption,
- N: economically active population in agriculture,
- MVP_N : marginal value product of N,
- MVP_{EL} : marginal value product of EL,
- AVP_{EL} : average value product of EL,
- ELV : contribution of EL to V.

This method assures exhaustion of output by inputs for 1973 but not for other years.

21. Following the procedure above, contribution of land was first computed using the arable land estimates in Column A of Table 2. The average and marginal value products of effective land obtained from this were used again in a similar calculation using the estimates in Column B of Table 2. The reason for this is to maintain comparability between the input indices thus obtained.

Conclusion

22. Table 6 shows the aggregate input values computed accordingly. Table 7 shows the annual percentage growth rates of inputs. It appears from Table 7 that inputs increased at accelerated rates particularly when the

Mr. J. Waelbroeck

- 7 -

July 30, 1976

Column A data are employed. This trend is primarily due to the rapid increase in fertilizer consumption in many developing countries. Since our fertilizer consumption data are more reliable and fertilizer input is the leading factor, the trend seems to hold rather strongly despite many shortcomings in our estimates of arable land and irrigation.

BChoe; dbr

Agriculture

Mr. Arturo Israel

July 28, 1976

D.C. Pickering

Revision of CPM 9.1

I attach amendments to pages 1, 2, and 4 of the schedule attached to Mr. van der Tak's memorandum of July 9.

DCPickering:hrv

cc: Messrs. Yudelman
Darnell
Hotes
Stoops

Attachments

OFFICE MEMORANDUM

TO: Mr. Arturo Israel
FROM: D.C. Pickering
SUBJECT: Revision of CPM 9.1

DATE: July 28, 1976

I attach amendments to pages 1, 2, and 4 of the schedule attached to Mr. van der Tak's memorandum of July 9.

DCPickering:hrv

cc: Messrs. Yudelman
Darnell
Hotes
Stoops

Attachments

I. AGRICULTURE

A. General Investments^{1/} ..

<u>Land Clearing</u> (Tropical Forest)	<u>Cost/ha</u> US\$	
Manual	90 - 350	
Mechanical	525 - 680	
 <u>Land Clearing</u> (Scrub)		
Manual	65 - 70	
Mechanical	70 - 175	
Chaining and Burning	300 - 400	
 <u>Pasture Improvement</u>		
Conventional plus Cultivation but without fertilizer	63 - 110	
Sod Seeding/over Seeding	23 - 65	
 <u>Establishment of Tree Crops to Maturity</u> (excluding land clearing)		<u>Annual Upkeep</u> (After maturity) US\$/ha
Oil Palm (total cost to year 4) ^{2/}	510 - 800	190 - 230
Rubber (total cost to year 6) ^{3/}	1340 - 1460	70 - 90
Tea (total cost to year 3) ^{4/}	1870	400 - 420
Cocoa (Smallholder; total cost to year 4)	390 - 640	45 - 125

^{1/} Costs are based on recent experience on Bank financed projects in West Africa, East Asia and LAC regions. Wide variations are a function, inter alia, of prices of labor and other inputs together with the nature of the vegetation and terrain.

^{2/} Addition of land clearing, infrastructure and processing costs would give an overall cost per ha in the order of \$3,000 to \$3,500 to year 4.

^{3/} Addition of land clearing, infrastructure and processing costs would give an overall cost per ha in the order of \$3,500 to \$4,000 to year 6.

^{4/} Based on a sample of one estate in Indonesia.

B. Basic Tractors and Implements

Cost per Unit F.O.B. US or Europe

Crawler Tractor

US\$

62-65 BHP	16,000 - 23,000
75-88 BHP	23,000 - 25,000
98 -126 BHP	32,000 - 42,000

Wheeled Tractor

44-49 BHP	7,430 - 7,750
58-60 BHP	7,500 - 7,800
78-84 BHP	9,000 - 9,200
110 BHP (4-wheel drive)	15,000

Trailer (Agricultural)

6 ton	4,200
3 ton	3,500
Tipping, 5 ton	3,800

Plow

Trailed, 5 discs	3,000
Mounted, 4 discs	3,000
Reversible, 4 discs	4,000
Three bottom, mould board	2,500
Seven tine chisel	1,500

Rome Plow (for crawler)

16 x 24" (straight)	17,500
15 x 28" (offset)	12,600
24 x 30" (offset)	12,500

Cultivation and Seeding

Heavy duty cultivator for wheeled tractor	2,500
Spike tooth harrow	1,600
Four Row Unit Planter with tool bar	4,500
Four Meter Seed Drill	2,800
Combination Seed/Fertilizer Drill	3,200
Fertilizer Spreader	1,000
Ridger or Weeder	2,000
Low Volume Sprayer (without motor)	1,200
Stationary Thresher	6,000
Self-Propelled Combine Harvester	
2.5 meter cut	23,000
4.5 meter cut	32,000

D. Indicative Yield Ranges of Selected Crops^{1/}

<u>Cereal</u>	<u>kg/ha</u>
Rice	1,000 - 4,500 as paddy, irrigated in upper yield range
Wheat	600 - 3,000 as threshed grain, irrigated in upper yield range
Maize	450 - 4,000 as threshed grain
Sorghum	400 - 2,500 as threshed grain
Millet	350 - 2,000 as threshed grain
<u>Oil Seeds</u>	
Groundnuts	350 - 1,000 as shelled nuts
Soya bean	500 - 1,200 as shelled beans
Sesame	275 - 500 as threshed seed
Oil Palm: palm oil	1,000 - 5,000 at full bearing (12 years)
palm kernel oil	150 - 500 at full bearing (12 years)
Coconut	300 - 3,000 as copra, at full bearing (15-20 years)
<u>Grain Legumes</u>	
Field Beans	300 - 2,000 shelled, irrigated in upper yield range
Cowpeas	200 - 900 shelled
Pigeon Pea	350 - 1,500 shelled
Chickpea	400 - 1,200 shelled, irrigated in upper yield range
<u>Root Crops</u>	
Cassava	3,000 - 45,000 as tubers
Yams (Dioscorea)	3,000 - 15,000 as tubers
Sweet Potato	2,500 - 20,000 as tubers
Irish Potato	3,000 - 10,000 as tubers
<u>Fiber Crops</u>	
Cotton	200 - 2,000 as seed cotton, irrigated in upper yield range
Jute	500 - 1,500 as retted fiber
Kenaf	700 - 2,000 as retted fiber
<u>Beverages</u>	
Coffee	500 - 1,200 as dry beans
Tea	800 - 1,600 as made tea
Cocoa	600 - 1,200 as fermented beans
<u>Other</u>	
Rubber	1,000 - 1,500 dry rubber at full bearing (15 years)
Sugarcane ^{a/}	20,000 - 60,000 as cane in plant and first ratoon crops with a sugar content between 8-11%. Irrigated in upper yield range.
Sugar Beet	15,000 - 45,000 as beets at about 13% sugar content. Irrigated in upper yield range.

a/ Assumes a growth cycle of about 12 months. When longer growth cycles are practiced, yields will be proportionally higher. Yields normally decline in second and subsequent ratoons. The rate of decline and yield level below which the field should be abandoned and replanted is determined by local physical conditions and sugar price respectively. For comparison of cane and sugar production at different locations, seasons and cycles it is convenient to use Kg/ha/month rather than total yield.

^{1/} Variations in soil, climate and management factors account for the very wide yield variations shown. Yields can be higher or lower than the extremes indicated. The indicative nature of generalized information of this type cannot be overemphasized.

OFFICE MEMORANDUM

G.O.P.
 ✓ cc Agric & Rural
 cc Public Utilities

TO: Program Coordinators
 Program Coordinators

DATE: July 27, 1976

FROM: H. G. van der Tak

SUBJECT: DRAFT CPM - COST RECOVERY POLICIES FOR PUBLIC SECTOR PROJECTS:
 GENERAL ASPECTS

I attach a draft CPM, or possibly OMS, on Cost Recovery Policies for Public Sector Projects, prepared by Anandarup Ray. It intends to provide a general statement of the Bank's approach to these questions and to outline the basic principles common to cost recovery policies in all sectors. The statement is based on Staff Working Paper No. 206. The same principles are elaborated with regard to irrigation charges in CPM 3.4.

I should be grateful if you would coordinate comments on the draft CPM within your Region. Comments should be sent to Mr. Ray, if possible, by c.o.b. August 20.

Attachment
 HGvanderTak:jn

cc: CPS Directors
 Mr. Alter
 Mr. Baum
 Mr. Ray

AGRICULTURE & ANIMAL IND.

ANNUAL REPORT

OFFICE MEMORANDUM

TO: Leif E. Christoffersen, Assistant Director
for Rural Development and Nutrition

FROM: Ted J. Davis, Chief, Rural Operations Review
and Support Unit

SUBJECT: End of Fiscal Year Reports on Monitoring the Agriculture
and Rural Development Lending Program

DATE: July 26, 1976

1. Attached are two reports reviewing the FY76 lending operations in agriculture and rural development and also the projections for such projects in the pipeline for FY77 and FY78. These reports are based on an analysis of the appraisal reports for FY76 and on the PLE system for FY77 and FY78. References to FY75 lending are based on our progress report of July 21, 1975.
2. The general picture emerging from the review of FY75 and FY76 as well as from the pipeline for FY77 and FY78, indicates that agriculture and rural development will most likely attain and surpass the target of US\$7,000 million lending in the agriculture sector for FY75-79 as set forth in the Rural Development Policy Paper (the first 2 years of this period account for about 50% of this amount).
3. The monitoring of Bank's lending in agriculture and rural development is based on expectations of project impact. In comparison with most other types of projects, the new style rural development projects which aim at improving the living conditions of the rural poor in developing countries may involve higher risks. Interestingly, an analysis of the supervision performance of rural development projects 1/ shows that in general they compare favorably with other agriculture projects. Rural development projects appear less prone to delays in project completion, they show less shortfalls in disbursements, and have smaller cost overruns. Such projects have also a better "problem rating" than agricultural projects, although both agriculture and rural development projects are more likely to have major problems than the Bank-wide overall average. Only with respect to delays in project effectiveness do rural development projects have a lower rating than other agriculture projects.
4. The previous quarterly reports of December 1, 1975 and March 4, 1976 were based on P & B's lending estimates at that time. In March the lending program projected 78 projects with a total lending of US\$1879.6 million. On that basis we indicated that the expected beneficiary families would be about 3.7 million and also stated that average project costs per directly benefiting farm family would be about US\$1300. At the end of FY76, however, there were in fact only 65 agriculture and rural development projects, 2/ which had been submitted to the Board, with a corresponding decrease in the number of beneficiaries to 2.7 million and a change in the expected gross cost per benefiting farm family. On final analysis of the appraisal reports the gross cost per benefiting farm family is now about US\$1400 as compared with US\$1550 in FY75.

1/ See, A Review of Agriculture and Rural Development Projects Under Supervision
(Memorandum dated May 24, 1975 from Mr. Christoffersen to Mr. Baum).

2/ Including Romania's Flood Recovery Project which was originally classified by the P & B as a program loan, but which has been subsequently reclassified as two separate agriculture and industry projects.

FY76 LENDING OPERATIONS IN AGRICULTURAL AND RURAL DEVELOPMENT

1. In FY76 the Bank Group approved 65 projects^{1/} in agriculture and rural development totaling US\$1628 million (Table 1). This represented a 12% decrease in lending compared to the previous fiscal year, which was a record year for agriculture and rural development operations. The sector lending in FY76 was 25% of total Bank Group lending, a drop from the record 32% of last year (Table 2). IDA projects account for US\$418 million and Third Window projects for US\$301 million. IDA credits and Third Window "loans" were relatively more important (44%) within total sector lending than their share in the total Bank Group lending (32%). This reflects the fact that poor countries are relatively more dependent on agriculture.

Rural Development

2. A review of the 65 FY76 projects indicates that 38 projects may be classified as rural development, conforming to the criteria that direct project benefits are anticipated to accrue mainly to the rural poor. These 38 projects account for Bank Group lending of US\$792 million or about 50% of total agriculture and rural development lending in FY76. Generally, the lack of explicit analyses in appraisal reports of expected distributional consequences for various income groups makes it difficult to judge which projects in fact conform to our definition for rural development. Nevertheless, there seems to be a clear trend in Bank Group lending in the agriculture sector towards more projects assisting small farmers and subsistence farmers rather than large-scale commercial farmers. In FY76 agriculture and rural development lending, most projects are oriented towards the small-scale farmers. Only 7 projects in FY76, with a total loan amount of about US\$300 million, can be described as "traditional", or basically oriented towards large-scale commercial farmers.

3. Eight of the 38 rural development projects in FY76 have been classified as multi-sectoral, in the sense that more than 25% of the total project cost is in non-agricultural components. They account for US\$73 million of lending.

Expected Project Beneficiaries

4. At full development, some 2.6 million farm families or 16 million beneficiaries are expected to benefit directly from FY76 projects in agriculture and rural development. This is the same result as under the FY75 projects. Most of these benefits are expected to be derived from "intensive" on-farm investments such as irrigation, land development settlements and livestock units. Investment costs per farm family vary greatly between projects. For example, among the direct beneficiaries are some 100,000 pastoral families in Somalia for which the direct investment costs per family is only about US\$1000, as well as 800 livestock owners in Turkey for which the average investment per farmer is US\$33,000. Of the expected 2.6 million farm families benefiting, some 1.5 million are in the Asian regions, about 0.9 million in the African regions and about 70,000 in Latin America. About 2.0 million farm families have food crops as their basic production (with or without combination of cash crops and livestock); some 0.3 million small farmers or nomads specialize in livestock; and about 0.2 million rely mainly on cash crops (rubber, cotton and cocoa).

^{1/} This excludes the Sidi Cheho-Al Massira Hydro Project (\$49 million Bank loan) in Morocco, which incorrectly has been listed as an agriculture project by P&B in Table IVb (June 30, 1976).

5. In addition to the 2.6 million farm families benefiting directly from FY76 projects, there is a much larger number of farmers that may potentially derive project benefits from programs such as seed production and distribution, extension services, agriculture research and technical assistance to national institutions and programs. A further 12 million farmers may eventually benefit by such projects; of these, 10 million are in Asia.

Financing

6. Total project costs of FY76 projects in agriculture and rural development were US\$3769 million. On average Bank/IDA financed 43% of project costs, but considerable variations existed among projects and among regions -- from an average of 63% for East Africa to 32% for Latin America.

7. Other multilateral or bilateral sources provided a further US\$91 million for these projects, or 2% of total costs. Among these, USAID accounted for about half of the additional financing.

8. Besides financing foreign exchange components, some local cost financing was included in more than half of the FY76 agricultural and rural development projects. In total such local costs added up to US\$291 million, or 18% of agriculture and rural development lending.

9. In FY76 the average loan or credit for rural development projects was US\$21 million, compared to US\$31 million for other agricultural projects. In part, this reflects the predominance of rural development projects in the two African regions (which generally have smaller projects), as well as the fact that rural development has a relatively high share of pilot projects or "first" projects in a particular country. Only 17 projects, or 45% of rural development lending, were "repeater" projects -- compared to 55% for agriculture.

The Rural Poor

10. Last year tentative income level ceilings were established to help identify in operational terms the appropriate poverty target group in each developing country. These estimates are presently being refined by the country economists in a joint exercise sponsored by the Urban Projects Department and the Agriculture and Rural Development Department. Based on existing estimates, it appears that as many as 80% of the overall direct beneficiaries from FY76 agriculture and rural development projects would indeed fall within the poverty target group.

11. Few appraisal reports so far give adequate details of the distributional aspects of the project. This precludes a thorough and clear project analysis of the expected benefits with regard to the poverty group in that particular country. Since it seems necessary that appraisal reports contain an explicit analysis of such distributional impact, more specific guidelines are now being drafted.

Investments in Social Infrastructure

12. Agriculture and rural development projects in FY76 concentrated heavily on directly productive investment components such as irrigation, land

development and extension service, and supportive infrastructure. Only a very small share of these investments were for more socially oriented investments. For example, the health components added up to US\$6 million or 0.1% of the total investments, education to US\$3 million, potable water supply to US\$26 million and housing to US\$2 million. From the appraisal reports reviewed, it seems that none of the agriculture projects have any direct investments for family planning, and only one project has a component specifically aimed at nutrition. On the whole there seems to be a trend towards less investment in the social sectors than in FY75.

Employment

13. Employment opportunities created by the Bank Group's agriculture and rural development projects are predominantly for farmers and their families within the scope of their own farms. Some additional employment is also created. Aggregate estimates for FY76 projects indicate that 0.8 million permanent jobs will be created directly as a result of project activities. In addition, some 0.3 million man-years of temporary or seasonal jobs are expected.

14. The anticipated off-farm employment created by FY76 projects in processing, marketing, rural industries, etc. is very small -- only some 20,000 jobs for all projects. The agro-industrial components of the projects are mostly capital-intensive. It has not yet been possible under Bank Group projects to create a large number of off-farm jobs for rural populations at low investment costs. Generally, there seems to be an increase in employment creation under FY76 projects as compared to last year when only some 0.15 million full jobs and 0.2 million man-years of temporary employment were reported. Unfortunately, the appraisals rarely contain an explicit analysis of the expected employment creation of the projects, which makes such comparisons difficult.

Local Participation

15. The Rural Development Policy Paper emphasizes the need for active involvement of the local population in planning and execution of rural development projects. According to the appraisal reports, only one project has clearly noticeable participation by the farmers through a special village association in both the planning process and the implementation of a project. A dozen other projects appear to have some degree of farmers' participation in project implementation, including training of farmers and staff in cooperative matters. Efforts to strengthen farmers' participation in planning and implementation seem still to be rather an exception than a rule in agriculture and rural development projects.

"New Style Projects"

16. The strategy of the Bank in rural development is mostly based on promoting projects that are expected to benefit a large number of rural poor, and have sufficiently low cost per beneficiary so that they may be extended or replicated over broader areas. The average direct investment per directly

benefiting family for Bank agriculture and rural development projects in FY76 is about US\$1150.^{1/} The average direct investment per farm family for rural development projects is US\$670, compared to US\$2320 for agriculture projects (see Table 3).

Production

17. From investments under FY76 projects, the total value of annual incremental agriculture production is estimated to be US\$1631 million at full development. Food production accounts for US\$1322 million or about 80% of the total value. ^{2/} Within this total, food-crop production is expected to increase by 6.7 million tons annually. This approximates the same output effect as under last year's projects, when lending for agriculture and rural development was at a higher level.

18. Rice is the most important food crop produced under these projects. An increase of about 1.8 million tons of paddy is expected annually at full development. Barley and millet together account for 1.3 million tons, and maize for about 1 million tons. Oil crops account for about 0.3 million tons; root crops for 0.4 tons; fruits and vegetables together, 0.7 million tons; and sugar for 0.3 million tons. The small amounts of "traditional" cash crops in FY76 projects (incremental output from tea, coffee and cocoa total only some 15,000 tons) indicate the recent strong shift in Bank Group lending toward food production.

19. In addition to the food-crops, FY76 projects expect an incremental output of meat and milk products worth US\$186 million and of non-food crops, US\$310 million. (Cotton is the most important non-food crop in FY76 projects accounting for a value of US\$160 million.)

Economic Rate of Return

20. Half of the 64 projects in FY76 have an expected rate of return over 20%. One of every four projects show a rate of return of over 30%. As with FY75 projects, rates of return for rural development projects generally show a similar pattern to that of agriculture.

Monitoring and Evaluation

21. Monitoring and on-going evaluation of project impact is receiving increased attention in the project design in agriculture and rural development projects; 85% of FY76 projects include such a component.

^{1/} In the last progress report an overall ratio between total project cost and number of beneficiaries was given showing US\$1300 in FY76 compared to US\$1550 in FY75. In the calculation above "non-project related costs" such as contingencies, support for national institutions, investments in social infrastructure and non-project related technical assistance have been excluded to give a more accurate figure.

^{2/} Excluded from these output figures are incremental output by processing projects or components for processing.

TABLE 1

AGRICULTURE AND RURAL DEVELOPMENT PROJECTS FY 76

	East Africa	West Africa	EMENA	IAC	East Asia/ Pacific	South Asia	Total Bank/IDA
<u>Total Agriculture and Rural Development</u>							
Number of Projects ^{1/}	8	11	11	8	15	12	65
Bank Lending (US\$ million)	93.4	92.2	402.0	224.5	470.0	345.5	1,627.6
Of which:							
IDA	84.2	57.2	87.5	14.0	-	175.5	418.4
TW	9.2	21.0	50.0	9.5	66.0	145.0	300.7
Bank	-	14.0	264.5	201.0	404.0	25.0	908.5
Total Project Cost (US\$ million)	149.2	195.1	980.1	709.0	1,022.0	713.7	3,769.0
Other Bilateral or Multilateral Financing (US\$ million)	12.7	21.7	54.0	-	-	2.6	91.0
<u>Rural Development</u>							
Number of Projects	7	10	4	3	6	8	38
Bank Lending (US\$ million)	83.4	78.2	155.0	25.5	189.0	260.5	791.6
Total Project Cost (US\$ million)	133.9	171.2	535.7	48.5	365.2	496.8	1,751.0
<u>Beneficiaries:</u>							
Farm Families Benefiting from Extensive On-farm investments ('000)	700	190	200	70	680	800	2,640
Indirect Beneficiaries from Extensive Agriculture Programs	100	100	200	2,000	4,400	5,600	12,400
<u>Average Direct Cost Per Direct Benefiting Family (US\$)</u>							
	300	700	3,000	6,300	850	480	1,150
<u>Employment:</u>							
On-farm ('000 permanent jobs)	3	1	1	3	54	700	762
Off-farm ('000 permanent jobs)			14		5	3	22
Temporary ('000 man-years)	7	16	95	2	115	80	315
<u>Production:^{2/}</u>							
Total Annual Incremental Output (US\$ million)	56.6	77.9	204.8	189.5	385.0	717.8	1,631.6
Food Crop Production							
Volume ('000 tons)	274	239	1,009	779	1,600	2,837	6,710
Value (US\$ million)	34.7	53.3	143.0	134.0	196.7	574.8	1,136.5
Animal Production (US\$ million)							
Livestock, Fishery, Dairy	21.4	10.5	43.5	48.8	51.0	10.4	185.6
Non-Food Crops (US\$ million)	0.5	14.1	18.3	6.7	137.3	132.6	309.5
<u>Economic Rate of Return:</u>							
Number of Projects:							
0-20%	4	2	5	3	9	5	28
21-30%	2	6	2	2	4	2	16
Over 30%	1	3	3	2	2	4	15
N/A	2	-	-	2	-	2	6

1/ Including three supplementary credits to Yemen, Afghanistan and Pakistan (US\$28.3 million) not counted as separate projects but included in Bank/IDA lending.

2/ The projected incremental output for South Asia includes estimated production impact of two seed projects. This gives high incremental output per invested dollar, relative to other projects.

NOTE: All data relating to beneficiaries, employment and production were compiled on the basis of 64 projects, i.e. before the Romania Flood Recovery Project was reclassified as an agricultural project.

Table 2

ACTUAL AND PLANNED BANK/IDA LENDING FOR
AGRICULTURE AND RURAL DEVELOPMENT
1968 - 1978

	<u>FY 1968-72</u> (Average)	<u>FY 73</u>	<u>FY 74</u>	<u>FY 75</u>	<u>FY 76</u>	<u>FY 77</u> ^{1/}
<u>Rural Development</u>						
No. of projects	7	17	25	38	38	51
IDA/Bank loans (US\$ mill.)	64	247	450	980	792	1,220
% of total agriculture loans	18%	26%	47%	53%	50% ^{2/}	53%
<u>Other Agriculture</u>						
No. of projects	22	29	31	32	27	32
IDA/Bank loans (US\$ mill.)	298	691	506	878	855	1,087
<u>Total Agriculture and Rural Development</u>						
No. of projects	29	46	56	70	65	83
IDA/Bank loans (US\$ mill.)	362	938	956	1,858	1,628	2,307
% of total Bank/IDA loans	17%	28%	22%	32%	25%	34%
<u>Other Sectors</u>						
No. of projects	41	102	118	120	150	143
IDA/Bank loans (US\$ mill.)	1,722	2,461	3,334	4,038	5,006	4,573
<u>Total IDA/Bank</u>						
No. of projects	70	148	174	190	215	226
IDA/Bank loans (US\$ mill.)	2,094	3,408	4,314	5,896	6,632	6,880

FY 77 data are tentative. Sources for FY 77 are P & B standard Table IVb, June 11, 1976 and PIBs

^{2/} Excluding Romania Flood Recovery Project which is subsequently added to agriculture sector lending.

TABLE 3

AVERAGE DIRECT INVESTMENTS PER DIRECTLY BENEFITING
FARM-FAMILY IN AGRICULTURE AND RURAL DEVELOPMENT PROJECTS FY76^{1/}

	<u>East Africa</u>	<u>West Africa</u>	<u>EMENA</u>	<u>LAC</u>	<u>East Asia/ Pacific</u>	<u>South Asia</u>	<u>Total Bank/IDA</u>
	----- US\$ -----						
<u>Rural Development</u>	280	640	1,820	1,450	580	480	670
<u>Other Agriculture</u>	890	1,550	7,300	8,500	1,040	-	2,320
<u>Total Agriculture and Rural Development</u>	300	700	3,000	6,300	850	480	1,150

1/ Data excludes Romania's Flood Recovery Project, which is reclassified as an agricultural project. In this analysis projects which are considered to have only indirect beneficiaries have been excluded. Also a few projects highly unrepresentative, in terms of cost/beneficiary, for the regions are excluded. Direct investments do not include national institutional support, technical assistance for project preparation, social infrastructure and contingencies.

TABLE 4

**PROJECT BANK/IDA OPERATIONS IN
AGRICULTURE AND RURAL DEVELOPMENT FY 77**

(Based on Lending Program June 1976)

	<u>East Africa</u>	<u>West Africa</u>	<u>EMENA</u>	<u>IAC</u>	<u>East Asia/ Pacific</u>	<u>South Asia</u>	<u>Total Bank/IDA</u>
<u>Total Agriculture and Rural Development</u>							
Number of projects	19	9	11	14	15	15	83
Bank Lending (US\$ million)	253	122	307	506	657	462	2,307
Total Project Cost (US\$ million) ^{1/}	455	261	1,367	1,290	1,246	998	5,617
Of which:							
<u>Tentative Rural Development^{2/}</u>							
Number of Projects	11	9	4	8	9	10	51
Bank Lending (US\$ million)	154	122	114	216	427	187	1220
<u>Expected Number of Beneficiaries^{3/}</u>							
Direct ('000 families)	380 (11)	150 (7)	190 (4)	110 (10)	400 (10)	290 (9)	1,520 (53)
Of which in target group	65%	80%	70%	70%	80%	75%	75%
Indirect ('000 families)	600 (5)	100 (5)	7400 (4)	300 (4)	3000 (8)	200 (5)	11600 (31)
<u>Average Cost/Benefiting Family^{4/}</u>							
	450	800	2900	4400	1500	800	1,400
<u>Expected Output^{4/}</u>							
Total Production (US\$ million)	142 (10)	112 (7)	110 (4)	267 (6)	176 (7)	75 (6)	882 (39)
Food crop production volume ('000 tons)	324 (10)	224 (7)	272 (4)	860 (6)	461 (7)	258 (6)	2399 (39)
<u>Expected Economic Rate of Return (Number of Projects):</u>							
Less than 10%	1	1	-	-	-	-	2
10-20%	6	3	6	5	6	6	32
Over 20%	4	2	4	6	2	3	21
N/A	8	3	1	3	7	6	28
<u>Average Year for Full Development^{5/}</u>							
	10.9	9.3	11.0	15.8	9.2	6.7	10.2

1/ For PIBs not showing total project cost, an estimate has been made based on an average Bank financing of 45%.

2/ Rural Development Projects have tentatively been classified based on the intentions of distribution of project benefits indicated in PIBs.

3/ Only projects indicating such beneficiaries in PIB. Figures in paranthesis indicate number of projects.

4/ Average for projects indicating direct beneficiaries. When direct productive cost is not available, it is assumed to be 65% of total project cost to allow for contingencies and infrastructure investments.

5/ Arithmetic medium for projects showing years until full development.

TABLE 5

SUBSECTOR DISTRIBUTION OF AGRICULTURE AND RURAL DEVELOPMENT PROJECTS

FY71-77
(US\$ million)

	<u>FY71-74</u> <u>Annual</u> <u>(Average)</u>		<u>FY75</u>		<u>FY76</u>		<u>Projected FY77</u>	
		<u>%</u>		<u>%</u>		<u>%</u>		<u>%</u>
General Agriculture	9.4	(1)	-	(-)	-	(-)	-	(1)
Agriculture Credit	124.0	(18)	236.5	(13)	127.6	(8)	386.0	(17)
Area Development	81.0	(12)	613.5	(33)	407.3	(25)	651.9	(28)
Irrigation & Drainage	205.8	(30)	513.6	(28)	528.0	(33)	663.0	(29)
Livestock	122.9	(18)	149.0	(8)	271.7	(17)	74.0	(3)
Agriculture Industries	60.9	(9)	44.0	(2)	87.5	(5)	201.5	(9)
Crops	65.7	(10)	179.2	(9)	118.5	(7)	254.0	(11)
Research	3.2	(-)	50.0	(3)	65.0	(4)	60.0	(3)
Fisheries	9.4	(1)	14.1	(1)	18.0	(1)	9.0	(-)
Forestry	<u>5.0</u>	<u>(1)</u>	<u>57.6</u>	<u>(3)</u>	<u>4.0</u>	<u>(-)</u>	<u>7.0</u>	<u>(-)</u>
Total	<u>687.3</u>	(100)	<u>1,857.5</u>	(100)	<u>1,627.6</u>	(100)	<u>2,306.4</u>	(100)

AGRICULTURE AND RURAL DEVELOPMENT FY78

	<u>East Africa</u>	<u>West Africa</u>	<u>EMENA</u>	<u>LAC</u>	<u>East Asia/ Pacific</u>	<u>South Asia</u>	<u>Total Bank/IDA</u>
<u>Total Agriculture and Rural Development</u>							
Number of Projects	15	14	18	13	10	17	87
Estimated Lending (US\$ million)	346	230	677	402	485	586	2,726
Estimated Total Project Cost (US\$ million) <u>1/</u>	726	478	2,248	905	1,049	1,254	6,660

1/ For projects not showing total project cost in PIBs, approximately 120% is added to the amount of Bank/IDA lending.

Source: P & B Standard Table IVb, June 11, 1976.

INCREMENTAL ANNUAL PRODUCTION OF BANK/IDA PROJECTS IN
AGRICULTURE AND RURAL DEVELOPMENT FY76^{1/}

TABLE 7

	E. Africa		W. Africa		EMENA		IAC		E. Asia		S. Asia		TOTAL BANK/IDA	
	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)	'000 Tons.	(US\$ mill.)
Cereals														
Paddy	7.2		67.7				24.5		1,099.0		923.8		1,822.8	
Maize	217.3		21.8		308.5		322.4		-		115.7		985.7	
Wheat	-		3.0		93.3		88.4		-		321.3		506.0	
Barley	-		-		9.8		1.5		13.0		-		24.3	
Sorghum/Millet	4.3		41.0		70.2		-		-		1,140.4		1,255.9	
Total Cereals	228.8	20.9	133.5	22.1	481.8	57.2	436.8	61.5	1,112.0	157.6	2,500.4	468.4	4,893.5	787.7
Food crop-free crops														
Pulses	-		9.7		24.8		-		17.0		18.8		70.3	
Roots	11.1		15.0		-		14.4		368.0		2.9		411.4	
Oil crops	5.1		53.9		6.2		2.0		25.8		188.8		281.8	
Vegetables	-		13.0		278.6		41.5		-		-		331.1	
Fruits	0.4		-		118.3		20.7		36.0		11.5		373.2	
Coffee	1.6		2.5		-		-		-		-		4.1	
Sugar	-		-		9.9		7.7		41.0		114.5		331.5	
Cocoa	-		11.6		-		-		-		-		11.6	
Total Other Food/tree Crops	18.2	13.8	105.7	31.2	526.9	85.8	341.9	72.3	487.8	39.1	336.5	106.4	1,817.0	348.8
Total Food Crops	247.0	34.7	239.2	53.3	1,008.7	143.0	778.7	134.0	1,599.8	196.7	2,836.9	574.8	6,710.5	1,136.5
Animal Production														
Meat	14.4		10.5		25.1		29.3		34.5		4.1		117.9	
Milk	3.2		-		18.4		19.5		5.7		6.3		53.1	
Fish	3.8		-		-		-		10.8		-		14.6	
Total Animal Product.	21.4		10.5		43.5		48.8		51.0		10.4		185.6	
Total Food Production	56.1		63.8		186.5		182.8		247.7		585.2		1,322.1	
Other Agriculture														
Rubber	-		-		-		-		190	120.0	-		190.0	120.0
Cotton	1.6	0.5	26.1	14.1	14.4	9.5	16.8	6.7	-	-	514.2	129.6	573.1	160.0
Jute	-	-	-	-	-	-	-	-	-	-	5.9	3.0	5.9	3.0
Fooder	-	-	-	-	236.5	8.8	-	-	-	-	-	-	236.5	8.8
Other (fuel-wood)	-	-	-	-	-	-	-	-	640	17.3	-	-	640.0	17.3
Total Non-food Product.	0.5		14.1		18.3		6.7		137.3		132.6		309.5	
Total Agriculture Prod.	56.6		77.9		204.8		189.5		385.0		717.8		1,631.6	

^{1/} Excluding processing projects or components.

J. A. Lee

July 26, 1976

J. Tixhon *JT*

World Bank financing of tuna fishing project

1. The World Bank has financed several projects, including tuna fishing vessels in several countries: Taiwan (1963 and 1967), Iceland, Indonesia, Iran, Panama, Philippines (1976), Tunisia, Yemen, Ecuador. IFC is considering a Mexican project reporting to the Board in September 1976.
2. Some species of tuna (yellow fin and skipjack) are associated with porpoises, mainly in the Eastern Pacific. Tuna fishermen often locate tuna by searching for porpoises. Some of those are trapped in the nets and drown or are injured in various ways. In 1976 the controversy about the accidental killing of porpoises became well known to the public.
3. Porpoises can only be caught in the case of net fishing. This requires big boats costing more than \$5 million each and is only done in the Eastern Pacific. In 1971, 91.5% of the catch was made by U.S. vessels. Elsewhere tuna are fished with long lines. The boats hauling the lines can be small.
4. Possible World Bank financing of purse seine fishing is limited to LDC's bordering the East Pacific from Mexico to Ecuador. But it is not likely that IBRD would expect to finance the purchase of such large and expensive vessels. The only case so far is the IFC project IPISA in Mexico. The sponsor has been requested to put porpoise release panels in the nets and to take all measures recommended by the U.S. Commerce Department. IFC is also in touch with the Inter-American Tropical Tuna Commission and is awaiting additional information from them.

JT:c

cc: Raymond J. Goodman, Ragnar Overby

Mr. Jean Waelbroeck, EPDDR

June 24, 1976

Sandra Hadler, EPDCE

Comments on the Prospects of Agriculture in Developing Countries

I. Agriculture and the Goals of Development Policy Making

7.5 This may be too optimistic about land availability. While some developing countries may only be cultivating a fraction of available lands, in aggregate, the developing countries probably cannot realize more than a doubling of cultivable area. In fact, East and South Asia - where the food deficit and a large proportion of the developing population is concentrated - have rather less potentially cultivable land. Thus, while Burma and Indonesia have large tracts of unused land, many other countries in Asia (namely, Korea, India, Nepal) must rely on increasing cropping indices and yields. Perhaps it should be mentioned that water availability may be the real constraint to expanding cultivation in the densely populated areas, rather than land per se?

7.9 With respect to Agricultural exports of Malaysia, Philippines being offset by imports into Korea, Taiwan - the own trade position of a country may be more relevant than net trade position of a region. With respect to Korea and Taiwan, the importation of basic foods is probably reasonable, given their strong advantage in industry and limited potential to expand cultivation. Second half of paragraph concerned more with explaining increased food imports than importance of agriculture to foreign trade.

7.11 Thailand has also discouraged rice production in an effort to diversify.

7.12 Not clear in parts. Can the food classification be footnoted here?

II. Developments in 1961-74

7.17 Green Revolution also coincided with excellent weather and high producer prices following grain shortfalls, in 1964/5. These (high prices) may also have provided the impetus for installation of private tube wells, which occurred at this time.

Growth rate periods too short to be statistically useful; 1962-65 period of grain shortfalls for CPE's and LDC's. Declining growth rates 1971-74 probably reflects bad weather rather than a loss in growth momentum.

7.28 Foodgrain imports of 48.2 million tons, presumably in 1974, are rather high. In the foodgrain projection we found a deficit of 34 million tons.

7.29 The disappearance of foodgrain stocks in 1973-4 was also the result of changes in developed country agricultural policies, and particularly the USA. At the time of the food crisis, and because of these policy changes, the developed countries had large tracts of usually cultivated land, lying idle. (similarly, paragraph 7.34).

III. Agricultural Prospects

7.43 Fertilizer prices began rising in 1973 - until this time, prices had been very low.

7.45 Developing countries importing foodgrains, not just because of a shortage of land, but as indicated early (para. 7.4) because of a lower productivity, which affects not only natural resource endowment (soil fertility, location, climate) but investment in land (human and physical capital, inputs, research services, etc.). T.W. Schultz (The Food Alternatives Before US: An Economic Perspective, Agricultural Economics Paper No. 74:6, May 25, 1974, University of Chicago) produced an interesting paper on this subject.

Additional comments are given in the margins of the attached draft.

Shire

Aggie + Rualdo

E DE LA GARZA, TEX.,
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U.S. House of Representatives
Committee on Agriculture
Subcommittee on Department Operations,
Investigations and Oversight
Room 1301, Longworth House Office Building
Washington, D.C. 20515

21 July 1976

Honorable Robert S McNamara
President
World Bank
1818 H Street, NW
Washington, D C 20006

Dear Mr McNamara

As you know, the State of Texas is a major United States producer of citrus products of all types, particularly grapefruit. Indeed, the famous Ruby Red variety of grapefruit grown in Texas is generally acknowledged to be among the finest grapefruit produced in the world.

The investment in citrus in Texas and the employment it provides is a major portion of the economy of our state. If anything were to happen to weaken this industry, it would have a very adverse economic impact on the citizens of the citrus producing area located in the Rio Grande Valley of Texas. Obviously, we are concerned at any governmental action which threatens to damage the citrus industry.

For this reason, I was shocked to learn that last year the International Bank for Reconstruction and Development allowed its staff to make a study on how developing countries could gain at the expense of the U S citrus industry. This study was known as Bank Staff Working Paper No. 193. The paper examined the potential for substituting sales of citrus to be produced in the developing countries for a large share of the consumer market in the United States and other major consuming countries that is presently held by the U S industry.

Not only does the paper assume that U S producers should lose a large portion of their hard-earned markets overseas but also that they should suffer a sizable loss of sales in their own domestic market. I am not aware of the paper recommending any ameliorating concessions from other countries to U S producers.

It is my understanding that the Bank has authorized a related

Original to: *Mr. Gudelman*
Date: JUL 28 1976
Communications Section

21 July, 1976

study regarding the most appropriate manner to market fresh citrus produced in developing countries. This citrus would be marketed in direct competition with U S citrus exports. It's incredible that an industry which needs a sizable and continued growth in its own export position should be asked to so participate through its tax revenues in any program of financing its competitors in whole or in part.

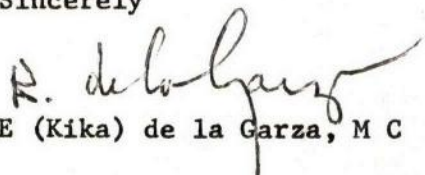
Certainly no one can support any such program. Nor can anyone agree that it is necessary to injure the U S citrus industry in order to assist developing countries.

Since the United States is a major contributor to the International Bank for Reconstruction and Development, I insist the Bank should not engage in activities which are flagrantly destructive to important United States' interests.

You are urged to reject the scheme discussed in these studies and I would appreciate it if you would confirm that the Bank will not pursue such a policy.

Looking forward to hear from you, I am

Sincerely


E (Kika) de la Garza, M C

dal

OFFICE MEMORANDUM

TO: Mr. M. L. Weiner (through Leif E. Christoffersen) DATE: July 16, 1976

FROM: Ted J. Davis

SUBJECT: Work Program of the Rural Operations Review and Support Unit
on Project Specific Monitoring and Evaluation

You asked me to provide you with some information relating to the work program for project specific monitoring and evaluation systems in agriculture and rural development.

The Rural Operations Review and Support Unit was set up with the basic purpose to monitor the Bank's lending program to determine whether or not the policies adopted by the Executive Directors as stated in the Rural Development Policy Paper are being realized. We attempt to monitor Bank Group projects in terms of the expectations which are stated in the appraisal reports. Besides utilizing supervision reports, we recognize that in the "new style projects" systems for monitoring and on-going evaluation are particularly important to determine whether project objectives are being met during project implementation.

Working with the Employment Rural Development Division of DPS, Dennis Anderson prepared a paper which was an internal review of all rural development projects since FY68 which showed a growing trend toward including monitoring and evaluation systems within projects. It also showed that there was little consistency and very little definition of what these monitoring and evaluation systems are expected to achieve. We have undertaken the following activities the ultimate goal of which will be practical guidelines for establishing and implementing project specific monitoring and evaluation systems:

- 1) Prepared and circulated a draft paper entitled, "Monitoring and Evaluation of Agriculture and Rural Development Projects: Basic Concepts, Design and Illustrations". We asked for comments on this paper by August 15.
2. Our staff will be participating in several regional project missions to help evaluate existing monitoring and evaluation systems and also to assist in setting up such systems.
3. We have engaged a consultant experienced in monitoring and evaluation to prepare a technical paper on information gathering systems.
4. We are considering a longer term research effort aimed at testing alternatives within specific projects on monitoring and evaluation.

- 5) The collection and review of reports from monitoring and evaluation systems which are established and ongoing.

It would seem to me that the above should be referred to in your annual report in general terms rather than citing specific documents which are in progress.

TDavis/cc

cc: Messrs. Yudelman, Christoffersen Turnham, Kapur, Bohr,
Rice, Schul

OFFICE MEMORANDUM

Yellow

TO: Mr. Jean Waelbroeck, Adviser, EPD

DATE: June 23, 1976

FROM: Choeng H. Chung, EPD *CP**Agriculture*SUBJECT: Prospects Report -- Special Chapter on Agriculture

1. As requested, the purpose of this note is to provide constructive comments on your draft chapter on agriculture for the Prospects Report. I must congratulate you at a good first attempt to tackle a very difficult and complex subject.

2. The biggest contribution in the special chapter on Agriculture is the putting together of consistent data globally (and by regions) on key agricultural indicators (agricultural GDP, labor force, the various productivity measures, supply, demand, trade, etc.), and a heroic attempt to weave a discussion of recent growth and prospects at the global level. What strikes me immediately after reading the paper is the following:

- regional differences were insufficiently detailed to be interesting;
- on the other hand, the global discussion was in fact too interspersed with caveats and apologies to push key messages across clearly;
- a number of very interesting phenomena illustrated by the statistics were not pursued to their logical conclusion;
- only international market trends and export prospects are discussed in the Prospects Section. Little mention is made of important steps to be taken to ensure a balanced growth between agriculture and non-agriculture (which presumably is the exhortation of the chapter).

3. Part of the problem, I'm sure is the nature of the animal (agriculture) itself, which defies easy generalizations. We are, however, in the business of doing so and must, therefore, make the attempt. Relatedly, part of the difficulty also arises from the fact that disaggregation into the regions necessary for Bank documentation is in many ways agriculturally artificial. Other caveats (tropical vs non-tropical agriculture, soil differences, etc.) aside, the theme could, perhaps, have been enhanced if countries were also split into land extensive and land intensive categories (say on the basis of population per unit cultivated area). This would have made a more relevant basis for discussing the potentials for agriculture to grow. For example, to use the land productivity of "developed countries" (DC) -- dominated by U.S. (with its land extensive, high cash inputs and fully mechanized agriculture) -- as an indicator of possible potential for South Asia -- dominated by India, Bangladesh (where holdings are relatively small and labor intensive) -- is hardly relevant. Similar comments could apply to labor productivity (para 7.6). Rather than emphasizing gaps in productivity between DC's and LDC's (which is difficult to compare) as an

illustration of the potential for agriculture to contribute to growth, I would suggest that the point (that LDC's have not come close to exploiting their production potential) could just as well be made by talking about the low level spread of high yielding varieties (HYVs) in nearly a decade, and the difficulties to be faced in further spread.

4. Although interesting conclusions can be gleaned from it, the discussion of production trends (paras 7.13-7.18) is rather confusing and often misleading. Para 7.16 reads as if rapid population growth is used to explain the slow growth in land productivity in LDC's compared with DC's! A less confusing approach to explain the land productivity gaps may be to discuss the explanatory factors for the physical aspects (yields) separately from the price aspects. 1/

5. The "neglect of agriculture" discussion (para 7.16) is very good and could be stressed more, perhaps as a separate paragraph. On this aspect, it can be generalized that, in shifting to an industrial base as the long run structural objective, most LDC's have tended to place agriculture in a subsidiary position as just a provider of basic food and some raw material, and as the residual employer of the labor force. The general results have been levels of LDC investments in agriculture much lower than its contribution to GDP and trade. Also, prices to urban consumers have generally been deliberately held down for political expediency. Not only has both opportunities and incentives to expand agricultural production been inadequate, but the failure to use agriculture more effectively in helping to bring about the desired structural change is worthwhile stressing.

6. Two very interesting phenomena emerge from table 4 (p.142) and table 6 (p.146) respectively, for which you offer little explanation:

- (a) a decline in the growth rates of agricultural output from 1971-74 (in comparison with 1966-70) despite "input" 2/ increase;
- (b) from 1961-72, income per head (labor productivity) in agriculture has increased proportionately more or have increased in virtually the same proportion (East Asia) than non-agriculture (except in oil exporting countries) despite the fact that agriculture is the residual employer of the labor force.

The understanding of these phenomena (if true) has important implications for agricultural policy and prospects. For example, (a) implies that we

1/ This approach would also be useful in the prospects section, when discussions of increased production could be separated from discussion of prices or terms of trade.

2/ The nature of what constitutes inputs is not very clear. It seems to be only area (irrigated and non-irrigated) and fertilizer. Presumably, improved seed is a component of both.

may be wasting our use of inputs and/or that future output increases are getting more and more difficult to elicit. Phenomenon (b) tends to confirm the thesis that marginal productivity of labor in agriculture equals zero, 1/ that, globally, labor absorption in non-agriculture has been significant in increasing the efficiency of agriculture (labor productivity terms), and/or agricultural labor has indeed responded to incentives for increased production in comparison with non-agriculture. Perhaps we should speculate more on the possible explanation of these phenomena.

7. The decline in the rate of agricultural output in 1971-74 cannot be satisfactorily explained by the factors mentioned in para 7.16 since "input" increase occurred at the same time. More important explanations may be found in terms of the declining quality of "inputs" used during this period. Firstly, with increasing population pressure, rainfed area expansion in many LDCs are moving into marginal arable lands (perhaps offsetting the pace of effective irrigation expansion). Secondly, HYVs with their stringent growing requirements has already spread to the easy expansion areas. Thirdly, production has, in many cases, expanded to the limits of available capacity of supporting services. An equally important explanation is probably the choice of years for the analysis. In South Asia, for example, of the five years chosen in 1966-70, there was only one drought year, the rest were either normal or "bumper". In the 1971-74 period there were at least two "bad" weather years and severe domestic disruption were present in others (e.g., Bangladesh liberation war).

8. Although the need to ensure a balanced growth between agriculture and non-agriculture is stressed in the chapter, the prospects section does little 2/ to outline the key steps required to bring this about. Awareness of this need is one thing, actual effort to improve the situation is another. Unless we can find out what causes the apparent decline of marginal returns on resources in agriculture, one cannot assume (as you did in para 7.42) that such a situation will not continue. In fact, if my suggested reasons (para 7) are correct, one cannot be as optimistic as you have been.

9. Real constraints will have to be faced, foremost being:

- pricing and marketing policies which penalizes agriculture;
- the lack of institutional capacity to provide necessary support services (which I understand has also been brought out in the main chapters as a real problem for helping lower income countries);
- HYV needs additional adaptation to local conditions before dramatic spread effects can come about.

1/ In the sense that one can withdraw labor from agriculture without adversely affecting agricultural production.

2/ The main discussion of relevance is only that of the need for adequate buffer stocks for grain to provide the incentive in increasing production (para 7.36).

Furthermore, opportunities are being lost in not cashing in on medium-term gestation undertakings 1/ which has not been emphasized in your long-term (1985) oriented chapter. Although one cannot provide overall prescriptions to alleviate these constraints, I feel that the prospects paper must flag the difficulties of overcoming them as a realistic understanding of the situation.

10. On the demand side, two developments could perhaps be further stressed:

- (a) the impetus, which is increasingly required, for LDC's to take up the demand slack for LDC's primary commodities;
- (b) the need for greater headway for DC's to liberalize their import policy to give LDC's a more competitive footing.

11. The above are my basic comments; other specific comments are given in the margins of the attached draft.

1/ For example, expansion of shallow tubewells and low lift pump irrigation, strengthening agricultural extension services to bring low cost improved techniques to the farmer, strengthening improved seed and fertilizer distribution.

Attachment

cc: Messrs. Tins, Foster

C.Chung:cjl

Agriculture

Agriculture Division Chiefs

June 22, 1976

D.C. Pickering

Quick Cost Estimates for Use of Agricultural Machinery

I attach two copies of the above working paper prepared by Franz Smeyers of the FAO/IBRD Cooperative Program. It may be of use to your staff if only as an indication of the methodology applied by CP staff in project preparation. Additional copies can be supplied on request. (ext. 5762).

Attachment

DCPickering:hrv

March 1976

WORKING PAPER

For the use of the FAO/World Bank Cooperative Programme

QUICK COST ESTIMATES FOR USE OF AGRICULTURAL MACHINERY

PER HOUR AND PER HECTARE

Prepared by F. Smeyers

This working paper updates and slightly changes the figures given in our 1969 paper.^{1/} These changes, discussed with AGSE's specialists (FAO), are mainly due to technical improvements of machinery.

The cost of agricultural machinery accounts for a large share of total production costs in the investment projects studied by the Programme. The importance of this share is further emphasised by the fact that it represents hard currency; furthermore, various countries are embarking on mechanization under the false assumption that it is a remedy against low yields. The costs of using machinery are also often under-estimated and/or subsidized.

In this context a simple method for deriving quick estimates of the cost per hour of a tractor and its implements appears useful. The proposed method is drawn from American, European and FAO publications and experience in developing countries, and it is applicable mainly for these latter countries.

I. Tractor cost per hour

This note will deal with the diesel engine tractor only, which is by far the more widely used tractor in developing countries.

The method takes into account the tractor's purchase price, its depreciation, cost of repairs and maintenance, costs of fuel and lubrication, interest on the mobilized capital, and finally the number of hours of work of the tractor per year and overhead costs. To this tractor cost per hour the driver's salary should be added.

The elements of the basic formula are obtained as follows:

(a) Depreciation

It is obtained by dividing the purchase value of the tractor (V) by the total number of working hours. The latter is hard to evaluate; a life of 8,000 hours for a wheel type tractor and 9,000 hours for a crawler type tractor can be adopted. At the end of this period the tractor would have a negligible value. However, most farmers would normally sell their tractors after 7,000 hours, or 5-6 years (8,000 hours, or 7-9 years for crawlers) for fear of major breakdowns disrupting their farming operations.

^{1/} "Quick cost estimates for use of agricultural machinery per hour and per hectare", March 1969.

(b) Repairs and maintenance

For wheel tractors it is estimated at 1.0 times the hourly depreciation and at 0.8 for crawlers; this relatively high proportion for wheel tractors is justified by the costly replacement of tyres. This proposed value includes the interest on the capital mobilized on the stock of spares.

(c) Fuel consumption

The fuel consumption per HP is estimated at 0.20 litres per hour, although consumption will obviously vary with the tractor's total power capacity. With the nominal power (P) of a tractor as a base, it is estimated that, on average, this power is used only at 50 percent of its capacity.

(d) Lubrication

Oil and grease costs are estimated at 20 percent of the fuel cost.

(e) Interest

Interest is calculated on the value of the tractor during its whole life. The average value of the tractor is roughly estimated at half of its purchase value. The rate of interest can be evaluated at 10 percent or any other rate known to prevail in the country for this type of purchase.

For costs per hour, the annual interest obtained has to be divided by the annual number of working hours of a tractor. Here again this figure is very variable; it will be much higher for a wheel tractor than for a crawler, the latter being of less general use. An order of magnitude could be 1200 hours for a wheel tractor and 700 hours for a crawler. However, these figures assume constant use of agricultural equipment pulled by the tractor.

(f) Overhead costs, insurance, etc.

Overhead costs and insurance are calculated on the basis of 10 percent of the other costs. This includes also the depreciation on the workshop. In practice, this figure varies from 7 to 12 percent.

(g) Total costs

The various costs above give the tractor's cost per hour. The driver's salary has to be added.

The cost calculation method can be summarized as follows:

	<u>Cost</u>
(a) Depreciation: $\frac{\text{Tractor's value (V)}}{8,000 \text{ hours (wheel tractor) or } 9,000 \text{ (crawler)}}$
(b) Repairs and maintenance: Depreciation x $\left\{ \begin{array}{l} 1.0 \text{ for wheel tractor} \\ \text{or} \\ 0.8 \text{ for crawler} \end{array} \right.$
(c) Fuel cost Nominal power (P) x 50% x 0.20 litre x F (price of fuel/l)
(d) Lubrication cost: Fuel cost x 0.2
(e) Interest $\frac{\left(\frac{\text{Tractor's value}}{2} \right) \times 0.1}{1,200 \text{ for tyre tractor or } 700 \text{ for crawler}}$
Sub-total	ST
(f) Overhead cost, insurance 10% of sub-total (ST)
Total	T

This method is illustrated in Annex 1.

For the financial analysis of a farm budget, depreciation and interest would not be taken into account to avoid double-counting: (replacement cost is normally included in the cash flow, instead of allowing annual depreciation, and interest is, in any case, charged on the loan to the farmer). In this case only items b. c. d. and f. are included in the formula. This reduced formula should also be used in the calculation of the internal rate of return of a project.

II. Agricultural equipment (not self-propelled)

The cost per hour of a tractor drawn agricultural machine will depend on depreciation, repairs and maintenance costs and interest on the mobilized capital; it appears as follows:

(a) Depreciation:

Obtained by dividing the purchase value (V) by the total number of working hours of the equipment or by the annual number of working hours (H) multiplied by the number of years for depreciation (A). These two data (especially the first) are very variable from one type of equipment to another; for instance, a trailer will obviously be used much more than a combine. Each case has to be figured out on its own merits.

(b) Repairs and maintenance

Repairs and maintenance are calculated as a percentage $\left(\frac{C}{100}\right)$ of the purchase value for each hundred hours of work. Here again, it is impossible to assume an average percentage, it has to be estimated in each case.

(c) Interest

Interest applies to the mobilized capital. Half of the purchase price can be taken as an average value. This figure is divided by the annual number of working hours.

Hourly cost of tractor equipment

(a) Depreciation

$$\frac{\text{Equipment value (V)}}{\text{Annual number of working hours (H) x Years' depreciation number (A)}}$$

(b) Repairs and maintenance

$$\text{Equipment value (V) x } \frac{\text{Repairs percentage}}{100} \times \frac{1}{100 \text{ working hours}}$$

(c) Interest

$$\frac{\text{Equipment value (V) x 0.1}}{2 \text{ x Annual working hours (H)}}$$

An example is explained in Annex 2.

Adding the cost per hour of the tractor, the equipment and the driver, one obtains the cost per hour of a specific work.

The cost per ha can be obtained by multiplying the cost per hour by the time needed to fulfil the work on 1 hectare. However, the figure obtained has to be increased by 15 percent to take unproductive time into account (travel from the farm to the field, round turns at the end of the field, etc.).

The cost of a specific work per ha requires the following data:

$$\left[(\text{Cost of tractor per hour} + \text{cost of equipment per hour} + \text{driver's salary per hour}) \times \text{number of working hours per ha} \right] \times 1.15.$$

Annex 3 gives a full example of cost per ha.

Annex 4 gives the following approximate data for some agricultural equipment:

- In March 1976, FOB purchase prices in Europe or the USA, expressed in US\$; these should be increased by about 20 to 50 percent to meet the price in developing countries; (for example: 20% in Mediterranean countries and up to 50% in Central Africa);
- Average number of years depreciation (A);
- Estimated number of working hours per year (H);
- Repairs, percentage (C) of the purchase value per hundred hours of work;
- Approximate number of hours required to do 1 hectare;
- Estimated hourly cost of implement (without tractor);
- Estimated hourly cost of implement excluding depreciation and interest;
- Tractor load for optimum performance, classified as heavy (H), medium (M) and light (L).

IMPORTANT

In the field do not forget to collect:

- (a) Fuel price.
- (b) Tractor and equipment purchase price with and without taxes.

Example A - Wheel Tractor

Cost per hour of an 84 HP wheel tractor; purchase value being US\$ 11,500 ^{1/} fuel price is US\$ 0.12 per litre; interest: 10%

	<u>US\$</u>	<u>%</u>
(a) Depreciation: $\frac{\text{Value}}{8,000}$ or $\frac{11,500}{8,000}$	1.44	28.7
(b) Repairs and maintenance: Depreciation x 1.0 or 1.44 x 1.0	1.44	28.7
(c) Fuel cost: 84HP x 50% x 0.20 L x US\$ 0.12 or 84 x 0.1 x 0.12	1.00	20.0
(d) Lubrication: Fuel cost x 0.2 or 1.00 x 0.2	0.20	4.0
(e) Interest: $\frac{(\text{Value})}{2} \times 0.1$ or $\frac{11,500}{24,000}$ $\frac{2}{1,200}$	0.48	9.5
Sub-total	<u>4.56</u>	
(f) Overhead cost, insurance = 10% of sub-total or 4.56 x 0.1	0.46	<u>9.1</u>
Tractor cost per hour	<u>5.02</u>	<u>100.0</u>

^{1/} FOB Europe price (US\$9,200) + 25%.

Example B - Crawler Tractor

Cost per hour of a 75 HP crawler tractor; purchase value US\$ 31,250 ^{1/}; fuel price US\$ 0.12 per litre; interest 10%.

		<u>US\$</u>	<u>%</u>
(a)	Depreciation: $\frac{\text{Value}}{9,000}$ or $\frac{31,250}{9,000}$	3.47	33.0
(b)	Repairs and maintenance: Depreciation x 0.8 or 3.47 x 0.8	2.77	26.4
(c)	Fuel cost: 75 HP x 50% x 0.20 L x US\$ 0.12 or 75 x 0.1 x 0.12	0.90	8.6
(d)	Lubrication: Fuel cost x 0.2 or 0.9 x 0.2	0.18	1.7
(e)	Interest: $\frac{\left(\frac{\text{Value}}{2}\right)}{700} \times 0.1$ or $\frac{31,250}{14,000}$	2.23	21.2
	Sub-total	<u>9.55</u>	
(f)	Overhead costs, insurance = 10% of sub-total or: 9.55 x 0.1	0.96	9.1
	Tractor cost per hour	<u>10.51</u>	<u>100.0</u>

^{1/} FOB Europe price (US\$25,000) + 25%.

Example C - Heavy Duty Cultivator

Let us take as an example a heavy-duty cultivator with a purchase price of US\$ 3,200 ^{1/} depreciation of 12 years and 350 annual working hours.

<u>Cost per hour</u>		<u>US\$</u>	<u>%</u>
(a) Depreciation:	$\frac{\text{Value}}{H \text{ (hours x A (years))}}$		
or:	$\frac{3,200}{350 \times 12}$	0.76	24.0
(b) Repairs and maintenance:			
	$\frac{\text{Value x Percent}}{100 \times 100}$		
or:	$\frac{3,200 \times 6 \text{ (2\%)}}{100 \times 100}$	1.92	61.0
(c) Interest:	$\frac{\left(\frac{V}{2}\right) \times 0.1}{H}$		
or:	$\frac{3,200 \times 0.10}{2 \times 350}$	0.46	15.0
	Hourly cost	<u>3.14</u>	<u>100.0</u>

1/ FOB Europe price (US\$ ^{2,500}~~2,500~~) + 25%.

2/ See Annex 4.

Example D - Wheel Tractor and Heavy Duty Cultivator

Example of a cultivator cost per ha (in a Mediterranean country) - we will suppose that the driver's hour costs US\$ 1.5.

For this equipment, the wheel tractor in Annex 1 is selected. The cultivator's work will cost, per hour: US\$ 5.02 (tractor) + US\$ 3.14 (cultivator) + US\$ 1.5 (driver) = US\$ 9.66. The cost of the cultivator's work per ha is US\$ 9.66 x 1.3 (see Annex 4) = US\$ 12.55. Taking losses of time into account, the real cost per ha is: US\$ 12.55 x 1.15 = US\$ 14.44 rounded to US\$ 14.5.

The breakdown of this cost appears as follows:

	<u>US\$/ha</u>	<u>%</u>
a) Amortization	3.30	22.8
b) Interest	1.40	9.7
c) Fuel and lubrication	1.80	12.5
d) Repairs and maintenance	4.72	32.7
e) Driver	2.24	15.6
f) Overhead costs	0.98	6.7
	<hr/>	<hr/>
TOTAL	14.44	100.0
	<hr/>	<hr/>

	US\$ FOB value in Europe or USA March 1976	(A) Number of depre- ciation years	(H) Number of annual working hours	(C) Percent of the purchase value for repairs	Number of working hours for 1 ha	Est. cost per hour US\$ 1/	Estimated cost per hour without depreciation or interest	Required power H-M-L
per 100 working hours								
A. Tractors								
1. Crawlers								
Caterpillar D4 SA (75HP)	25,000	9-10	400-800	-	-	10.5	4.8	-
" " D5 (98HP)	32,000	9-10	400-800	-	-	13.5	6.2	-
" " D6 (126HP)	42,000	9-10	400-800	-	-	17.7	8.1	-
Int. Harv. TD9 (65HP)	23,000	9	400-800	-	-	9.6	4.4	-
M - Ferguson 300 (88HP)	23,000	9	400-800	-	-	10.0	4.7	-
Fiat 70 c (62HP)	16,000	7-8	400-800	-	-	6.9	3.3	-
2. Wheel type tractor								
M - Ferguson 135 (44HP)	7,430	6-8	1,200	-	-	3.7	2.1	-
M - Ferguson 148 (49HP)	7,750	6-8	1,200	-	-	3.9	2.3	-
M - Ferguson 165 (58HP)	7,800	6-8	1,200	-	-	4.0	2.4	-
M - Ferguson 185 (84HP)	9,200	6-8	1,200	-	-	5.0	3.1	-
M - Ferguson 1200 ^{2/} (110HP)	15,000	6-8	1,200	-	-	7.8	4.6	-
J. Deere 2020 (60HP)	7,500	7-8	1,200	-	-	3.9	2.4	-
J. Deere 3020 (78HP)	9,000	7-8	1,200	-	-	4.9	3.0	-

1/ Assuming fuel cost at US\$ 0.12 and 25% increase over FOB price for transport etc..., and excluding driver cost.

2/ Four wheel drive.

US\$ FOB value in Europe or USA March 1976	(A) Number of depre- ciation years	(H) Number of annual working hours	(C) Percent of the purchase value for repairs	Number of working hours for 1 ha	Est. cost per hour US\$	Estimated cost per hour without depreciation or interest	Required power H-M L
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per 100
working hours

B. Agricultural equipment

Trailer 6T	4,200	12	600	2.5	Speed 15" km/h	2.5	1.3	M-L	
Tip trailer 5T	3,800	12	600	2.5	"	2.2	1.2	M-L	
Semi-trailer 3T	2,750	12	600	2.5	"	1.6	0.9	L	
Semi-trailer 5T	3,500	12	600	2.5	"	2.1	1.1	L	
<u>Rough</u>									
Plough trailed 5 discs	3,000	15	250	6	3	4.0	2.2	H	
Plough 4 discs mounted	3,000	15	250	6	3.5	4.0	2.2	H	
Plough 4 discs reversible	4,000	15	200	7	3.5	6.4	3.5	H	
Plough 3 bottom mould board	2,500	15	200	8	4	4.4	2.5	M	
Chisel plough (7 tine)	1,500	12	200	8	3.5	2.8	1.5	M	
<u>Rome Ploughs (for crawler)</u>									
16 x 24" (straight)	17,500	15	300	5	2	19.5	11.0	H (over 110 h)	
15 x 28" (off-set)	12,600	15	300	5	2	14.0	7.9	H	
24 x 30" (off-set)	12,500	15	300	5	2	13.8	7.8	H	
24 x 24" (9 foot cut)	4,600	12	250	5	1.5	6.0	2.9	H-M (over 80 hp)	
Heavy duty cultivator for wheel tractor	2,500	12	350	6	1.3	3.1	1.9	M	
Spiketooth harrow	1,600	12	200	4	1.5	2.1	0.8	M-L	
Combination spring tine, spike tooth and crumbler	4,000	10	250	7	1.5	6.3	3.5	M-L	
Rotavator 50'	5,000	10	150	10	4.5	12.5	6.2	H	
Unit planter 4 row with toolbar	4,500	15	150	9	1.2	9.5	5.0	L	
Seed drill (4 metres)	2,800	15	150	9	1.2	5.9	3.1	L	
Seed drill with fertilizer delivery	3,200	15	150	10	1.2	7.1	4.0	L	

	US\$ FOB value in Europe or USA March 1976	(A) Number of depre- ciation years	(H) Number of annual working hours	(C) Percent of the purchase value for repairs ^{1/}	Number of working hours for 1 ha	Est. cost per hour US\$	Estimated cost per hour without depreciation or interest	Required power H-M-L
Fertilizer spreader	1,000	15	250	8	1.0	1.6	1.0	L
Reciprocating harrow (spike tooth)	3,500	12	200	8	2.5	6.5	3.5	M
Ridger or weeding culti- vator	2,000	15	250	7	2.5	2.9	1.7	M-L
Sprayer low volume without motor	1,200	8	120	9	1.0	3.5	1.3	L
Mower 6'	900	12	100	13	1.5	3.0	1.5	L
Rotary cutter (66")	900	12	300	8	2.0	1.4	0.9	M-L
Rotary cutter for brush	2,000	12	300	9	2.0	3.4	2.2	M-L
Hay rake	1,000	15	150	8	2.0	2.0	1.0	L
Chopper flail type	3,500	10	200	6	40/50T/day	5.9	2.6	M
Baler pick-up	5,000	12	150	9	2.5	11.2	5.6	M
Baler with wire	6,000	12	150	9	2.5	13.4	6.7	M
Harvester stationary	6,000	12	500	8	-	8.0	6.0	
Combine (self-propelled)								
2.5 m wide	23,000	10	400	10	1.5	17.0	6.2	
4.5 m wide	32,000	10	400	10	1.0	23.6	8.6	

^{1/} Per 100 working hours.

Agriculture

Assistant Directors Agriculture, Agriculture Division
Chiefs

June 21, 1976

G.F. Darnell

Performance Judgments in Agricultural and Rural Development Project

1. One of the most strikingly consistent findings of performance audits on agricultural and rural development projects is their failure to meet key appraisal estimates. Experience to date is that in areas such as rate of uptake of improved practices and attainment of predicted yields, appraisal missions are almost invariably overoptimistic. The fact that, in the recent past, such overoptimism has been compensated by unexpectedly high prices for agricultural commodities is fortuitous and unlikely to continue.
2. As already mentioned at a recent Division Chiefs' meeting, the phenomenon, of the "congenital optimism of appraisal missions" must be overcome if we are to avoid financing projects which later prove to be uneconomic. I wish to emphasize therefore the importance of realistic assessment of all the factors likely to affect project performance, particularly at the preparation and appraisal stages of the project cycle. The temptation to assume that overall yields and adoption rates will approximate those of small, possibly atypical samples should be rigorously avoided. The fullest possible account should be taken of country conditions, in recognition of the importance of their impact on project implementation. Further, it is imperative that project documents contain a clear presentation of the justification for basic data and the assumptions employed in the construction of anticipated performance.
3. I should be grateful if you would impress on your staff the need to keep these matters very much in mind in the course of project preparation and appraisal. You can be assured that CPS review will pay particular attention to these aspects.

DCPickering:hrv

cc: Messrs. Baum
Weiner
Yudelman
van der Tak

Mr. S. S. Kapur, Director, Operations & Evaluations Dept.

JUNE 14, 1976

THROUGH: Mr. Mats Hultin, Acting Director, EDPDR
Edward H. Chittleburgh, Training Adviser, EDPDR

Evaluation of Technical Assistance in Agricultural Project Implementation

I have read this very good paper, produced by Mr. N. McKitterick, with interest and since it contains frequent references to training, I should like to make the following observations:

1. The total cost of Bank-financed training components included in Agriculture/Rural Development projects during FY75 was \$23,760,000. This compares with a figure of \$1,819,000 during FY72. Studies from which these figures are derived were carried out by the Training Unit of CPS and further details are contained in Attachment I.

2. Recognizing the increasing importance of training in such projects, and the fact that investments of the magnitude stated above require a quality of preparation, appraisal and supervision equal to that given to other project components, the Training Unit recruited, in November 1975, a Training Officer specialized in the fields of Agriculture and Rural Development. His services to provide operational support and advice are available to all Regional Agriculture Divisions on request and there is evidence that this is leading to a more in-depth assessment of the training needs associated with projects and to proposals and programs more likely to meet the training objectives without undue reliance on consultants and overseas training. As an example, Attachment II illustrates this point in connection with a recently appraised Sugar Industries Project in Indonesia.

3. I feel that many of the shortcomings regarding training identified in Mr. McKitterick's paper exist in other sectors of Bank operations, and it is the policy of the Training Unit to try to continually improve the preparation, appraisal and supervision of training components through the services of Training staff specialized in various sectors. So far, the staff available meets this requirement in the field of:

- a) Agriculture and Rural Development
- b) Highways
- c) Railways and Ports
- d) Power
- e) Water Supply and Waste

and I would expect that, as these services become more widely used by the Regions, future evaluation exercises will show an improvement in project-related training activities.

4. Attachment III gives a projection through FY78 of the likely magnitude of Bank training investments, together with a proposed work program by means of which the Training Unit would expect to continue to meet its commitments in this area.

5. Whilst agreeing with Mr. McKitterick's statement that semantic confusion exists in some parts of the Bank regarding the difference between "education" and "training", I feel that this is not widespread outside the Agriculture/Rural Development sector. A qualified training specialist, when forming a reasoned judgement as to how best to meet a manpower-development need associated with a project, automatically assesses the formal and non-formal educational facilities existing in the Borrower's country when considering all possible available alternatives. Liaison between project-related training and the education sector is, therefore, clearly desirable, for which reason I would dispute Mr. McKitterick's statement that the location of the Training Adviser (who is also the head of the Training Unit) in the Education Department is undesirable.

EHC:rek *JAG*

cc: Mr. McKitterick
Mr. Morra
Mr. Woods

no attachment
File: TAO 2/1

Attachments: I - Memo from EHC to DSB dated 17 September 1975
(An Analysis of Project-Related Training financed by the Bank During 1975)
II - Bernard Wood's Report: "Indonesia Sugar II - Training Annex"
III - Memo from EHC to DSB dated 6 October 1975
(The Training Unit : A Proposed Work-Program for 1976 through 1978 based on a recent study of Bank-financed project-related training during 1975).

OFFICE MEMORANDUM

TO: Mr. G. F. Darnell, Assistant Director, AGP

DATE: June 12, 1976

FROM: J. C. Collins, Senior Agriculturist, AGPDR *JCC*

SUBJECT: Project Completion Reports for Agriculture Projects - Review of Comments by the Regions on the Draft Instructions for Preparation of PCRs

1. Regional comments were in general brief and are limited to the following points:

- (a) The "instructions" cover a wide range of topics, and it will certainly be necessary to modify the list to some extent for any specific project. Selection of certain features particularly relevant to a specific project for more in-depth examination is suggested.
- (b) The need for a clearly defined and well supervised program to collect quite detailed data throughout the implementation period and beyond is recognized if many aspects suggested in the outline are to be adequately covered. In the absence of such data for most ongoing projects, full treatment of many topics may not be possible until a new generation of projects with mandatory data collection reach completion.
- (c) Staff inputs to produce a report in the detail proposed will be greater than have presently been budgeted for. Guidance is requested on the time to be allotted to preparing PCRs in future and on the priority which they should be given in relation to Supervision, Appraisal and other project work.
- (d) In view of the high cost of preparing PCRs along the lines proposed, the requirements should be carefully considered before any change in policy regarding PCRs is implemented. The costs would not only involve initial report preparation, but also considerable work on review and editing at various levels if the report is to be to Board circulation standards.
- (e) Though there was general support for in-depth review of projects with "no holds barred" in criticizing decisions made and actions taken, it was suggested that the "full treatment" should only be given on a selective basis. There was no proposal, however, as to how such a selection might be made nor at what stage, though it would need to be early enough to ensure all data needed was collected.

- (f) It was suggested that the "self evaluation" procedure with OED, usually only undertaking a superficial review, would not be consistent with OED's original function of providing an independent audit.
- (g) An initial trial period for use of the outline with a subsequent review of its usefulness and need for modification before permanent adoption was proposed. It was also suggested that a selective approach would be preferable during such a trial period though the likely lack of adequate data for most projects due for early completion would in itself likely severely limit the number of such projects for which a full review could be attempted.
- (h) It was apparent that staff were concerned that the "flexible" guidelines which was apparently now intended might become a rigid requirement. This probably arose in part through the unfortunate use of the world instruction in Mr. Rice's covering memorandum. One region also felt that the guideline was biased against employment of expatriates and favored income distribution per se rather than growth objectives. I do not think this was intended and would certainly support the suggestion that any feature of a project should be examined on its own merits in the context of that project and not in relation only to conformity with overall Bank policy considerations.

2. In my own view, the primary consideration should be the cost in terms of not only Bank Staff resources, but also even more scarce local staff resources which would be needed to mount a reliable data collection operation for an agriculture project. I have very considerable reservations concerning crop production statistics currently submitted as part of project reporting requirements. While total production can be determined with considerable reliability for a crop such as cotton which, as a rule, is marketed only to a local ginnery, the actual area cropped is much more difficult to determine (other than by sophisticated air photo interpretation methods) so yields are questionable. With crops which are sold through many outlets, total production cannot be determined, and one has to resort to crop sampling techniques to assess yield--a notoriously tricky procedure requiring close supervision and the services of a good statistician to ensure the sample is truly representative. The people involved in a fairly comprehensive data collection program would probably be otherwise very effective agricultural extension agents, and there is a considerable risk that good agents may, in fact, be diverted from their important work to undertake crop estimation.

3. There is a real danger that if we insist on covering the whole field included in the outline, the key issues for a particular project will be lost in a pile of statistics on which we may find ourselves ill equipped to draw

any very significant conclusions. In an effort to cover all the topics in the list without any established order of priority, staff may be left with little time for an expression of their own views as to the appropriateness of decisions made and positions taken by the Bank and the Borrower on matters which, in retrospect, have proven to be key features in preparation and implementation of the project.

4. In view of the fact that in many cases, at least over the next five years, projects being completed will have insufficient data to permit a PCR being prepared on anything like the proposed coverage, wouldn't it be better to:

- (a) Use the present guidelines as a checklist of possible topics to be considered for inclusion in PCRs where appropriate.
- (b) Require staff currently supervising a project to make a thorough examination of the project files about one year prior to project completion and prepare a draft outline for the completion report concentrating on key features of the project's implementation and effect.
- (c) Have the outline reviewed and commented on by OED and CPS.
- (d) Decide on any additional data required from the borrower over and above that already being provided for project monitoring purposes and request that arrangements be made to provide it.
- (e) Prepare the report following a project completion mission as presently required, and submit it to the normal review procedures.

5. Finally, I would suggest that the Bank should pay more attention to evaluating its own past and current decisions and positions taken with regard to a project, as well as those of the borrower during the normal course of project supervision. This could at least in some cases enable corrective action to be taken. The project strengths and weaknesses are often apparent much earlier in the implementation cycle than at the time of preparing a completion report. The PCR will be too late to do anything to benefit a project. It will only hopefully enable us to avoid the same mistake again (though I wouldn't like to bet on it). If supervision missions were encouraged to be more critical in their examination of Bank as opposed to Borrower decisions and attitudes, it may be the root causes of some project problems and may prove to lie in our own inability to face up to realities.

6. Concerning specific points in the draft under review, I would like to point out that:

- (a) The "positions adopted by the Bank" at various stages in the project's life (para. 6) may differ from those recommended by staff closely associated with the project for reasons about which such staff are unaware. Unless the reasoning behind such decisions is better documented than at present, it is likely to prove difficult later to reach any worthwhile conclusion on whether the decision were right (para. 8) or whether the objectives on which the decision was founded were in fact achieved.
- (b) It isn't clear from paras. 13 and 14 what the author considers reasonable in terms of page length or coverage for a PCR.
- (c) Is the re-estimation of the ERR (para. 15) to be given the same magic properties it now has for appraisal? I think most people recognize the multiple errors which can occur in such an estimate, and a repeat performance half way through project development would have the advantage only of a reliable capital cost figure--a value which is probably the most generally reliable in the appraisal report in spite of the spate of cost overruns recently experienced, I would suggest recalculation of the ERR might be left to the judgment of the completion mission possibly only to be undertaken if the project's economic justification is likely to differ significantly from that assumed at appraisal.

JCCollins:nw

Mr. Orville F. Grimes, Jr., Office of Vice President,
Development Policy

June 10, 1976

Heinz Vergin, East Asia & Pacific Projects

Research Proposal: Country Case Studies of Agricultural
Prices and Subsidies

A Panel, consisting of Messrs. Harris, Little, McGarry, Ray, Squire and Vergin (Chairman), met on June 4, 1976 to consider the above mentioned research proposal. Also present were Messrs. Ballesteros, Bruce, Donaldson, Egbert, Grimes, Hofmeister and Norton. An informal meeting of the Panel to review the proposal had taken place on May 12. In response to comments made in that meeting, Mr. Bruce provided the Panel with a memorandum dated May 24 (copy attached) which further elaborates on and modifies his April 29 research proposal.

The Panel agreed that the memorandum prepared by Mr. Bruce was responsive to the May 12 discussion. The Panel noted the reduced number of country case studies and endorsed the proposed coverage after some discussion about the way in which the selection criteria are met by the countries which are now to be proposed for study. A supplementary note by Mr. Bruce dated June 4, which elaborates further on the characteristics of each country case, is attached.

The Panel reviewed the "expected minimum results" (pp. 2-3 of Mr. Bruce's memorandum of May 24) and agreed that the proposed work program was feasible within the time allowed and with the resources requested and, moreover, was broadly supported by available methodologies. Questions were raised about the inclusion of an analysis of the "incidence of existing systems of administered prices, taxes and subsidies on the distribution of incomes as between agriculture and non-agriculture and between rich and poor" among the promised minimum results. Several Panel Members considered these analyses to be rather ambitious given the methodological problems which incidence studies have so far encountered. The researchers emphasized their "disclaimer" that the promised research output would only provide a broad analysis of incidence.

As regards possible additional results of the country case studies, the DRC representative stressed the need to consider specific questions of incidence resulting from supply response to policy changes in a general rather than partial equilibrium framework. He noted the existence of several country models which, although with some adjustments, could be put in the service of this research project and would allow them to analyze the effects of policy changes more comprehensively and at a relatively low incremental cost. It was agreed that, should it be necessary to change the selection of countries (it is as yet uncertain whether the Government of Turkey would cooperate in this research project) a substitute would be chosen from among the group of countries (Zambia, Brazil and Mexico) for which a suitable sector or general equilibrium model has already been designed and tested.

The Panel reviewed the bar chart setting out the schedules for the execution of the country case studies and noted that the scheduling of the individual country studies would allow a detailed review of the progress of the overall study and its methodology on the basis of two completed and one well-advanced country case study, in November 1976. Thus, research design, scope and methodology could be reviewed in November on the basis of a reasonably self-contained first phase of this research project. Subsequent discussion centered on the question of whether the research project was indeed divisible into two distinct phases as the bar chart could be taken to imply. The researchers argued strongly that the project had to be designed, started and executed as a whole and that a division of the project into two distinct parts with funding, design and scope of part two dependent upon a November 1976 review, would seriously undercut the timely execution of this research project which was to provide major inputs for the preparation of a Policy Paper on agricultural prices and subsidies.

As a result of these discussions it was agreed that regarding the phasing of this research project two options would be put up for Research Committee consideration:

- (a) The progress of this research project should be made the subject of a formal Research Committee review in November 1976. It should be the objective of this review to offer suggestions regarding research design, methodology and scope of study on the basis of a progress report which would summarize the study results obtained up to November. This would include draft reports on the two case studies in Argentina and Kenya which are scheduled to be completed in August and September respectively. However, the researchers would be authorized to enter into contractual commitments for the execution of the entire study subject only to such revisions in consultants' terms of reference as may result from the Research Committee review.
- (b) Progress review as under (a) above with the major difference that contractual commitments beyond those required for the execution of the case studies in Argentina, Egypt and Kenya, would be contingent upon the recommendations of the November 1976 Research Committee review.

The researchers pointed out that the deliberate phasing of the project resulting from acceptance of option (b) would most likely impose substantial delays upon the execution of the entire study. Such delays might add up to six months to the total elapsed time required for completion of the project. The majority of the Panel Members were in favor of recommending option (a) to the Research Committee. Mr. Ray's recommendation in favor of option (b) is attached.

The Panel reviewed the revised costs of the research project and found them acceptable at a total of \$187,000. At the Panel's request the researchers also prepared an indicative budget for a first phase of the project under option (b) above; this budget is appended.

The Panel recommends the project entitled "Country Case Studies of Agricultural Prices and Subsidies" for the approval of the Research Committee subject to a detailed progress review in November 1976 as proposed under option (a) above.

Cleared with and cc: Panel Members, Mr. Grimes

cc: Messrs. Ballesteros, Bruce, Burki, Donaldson, Egbert, Hofmeister, Norton

cc: (For information) Messrs. Kirmani, Votaw, Gibbs

HVergin:aj

T. Goering and S.J. Burki

June 2, 1976

S. Hadler *SH*

Comments on Developing Country Foodgrain Balances in 1985

1. Reflecting the judgement of South Asia Region, the overall production growth rate for India has been raised to 2.5%. This reduces India's 1985 total grain deficit to 13.9 million tons, S. Asia's Region's to 22.3 million tons, and the total developing deficit to approximately 74 million tons.
2. Para. 2: States that production growth rates over the projected period are higher than the 1960-74 period--this is not true of wheat.
3. Para. 7: EAPD is not projecting an additional million tons of rice exports annually from Thailand--rather population and income growth are expected to continue to reduce export availabilities. A continuing increase in Thailand's coarse grain exports is, however, anticipated. Growing and substantial deficit are also projected for Malaysia, Taiwan and Singapore. In 1985, the deficits in Indonesia, Korea and Taiwan alone may approach 13 million tons.
4. Para. 9: Should perhaps indicate that the projections for Burma and Nepal assume a "substantial" improvement over the historical production trends. Is it true that Pakistan has substantial grain export potential? South Asia Region is concerned about water availability in Pakistan.
5. Para. 11: States that projected deficits for rice and coarse grains will grow more rapidly than for wheat. The figures presented suggest the opposite.
6. Paras. 13-16: IFPRI projections differ substantially from those of EAPD--is it possible to use the EAPD country projections to determine the weight of the low income countries in the total deficit in this section?
7. It is commonly believed that future grain deficits will be essentially "rice" deficits; EAPD projections indicate that the deficit will be primarily one of wheat--this should, perhaps be brought into the open.

cc: J. Waelbroeck

SHadler:dbr

Assistant Directors

May 28, 1976

G. F. Darnell, Assistant Director, AGP

An Alternative to Machinery Cooperatives for Increasing Utilization of Agricultural Equipment

1. The University of Prince Edward Island Department of Economics and Extension is sponsoring the establishment of an "Agroservice Bank" on that island. This consists of a large (some hundreds of members) society of farmers and custom operators who pledge to provide hire custom services only through the "bank." Potential equipment users may also be members. The "bank" establishes standard prices for work undertaken and services provided by and for its members.
2. Members with equipment provide the bank with a list of the equipment and services they have for hire, full or part time, and the Agro-Manager of the bank coordinates requests for services with potential suppliers. Each individual member is, however, free to supply or use a particular service or not as he may wish.
3. The "bank" offers a range of ancilliary services including:
 - (a) collection of charges for services and payment with arrangement for credit if needed from normal banking facilities;
 - (b) information to persons considering purchase of particular items of equipment as to the local demand and existing local availability of that particular item;
 - (c) analysis of machinery performance to permit accurate costing of operations and the setting of reasonable prices;
 - (d) identifying local nonagricultural markets for equipment services in the off-season;
 - (e) bulk purchase of inputs such as fuels, chemicals, etc.
4. This seems to be an interesting concept, though probably only workable in a situation where:
 - (a) the farming community is relatively sophisticated;
 - (b) farmers with underutilised equipment (probably larger farmers) exist side-by-side with underequipped farmers (probably small farmers);

May 28, 1976

- (c) a situation exists under which farmers with machinery to hire can receive a sufficient financial reward from hiring it to those without;
- (d) the area served by the "bank" is large enough to generate an adequate return to the "bank" through commission charges to enable efficient staff to be retained to administer its operations.

5. The concept seems to offer interesting possibilities for making large machinery available to small farmers at reasonable rates. It also could be used to channel short-term production credit to small farmers for cultivations and medium-term credit for purchase of equipment to farmers who could demonstrate their ability to utilize it efficiently. Ease of administration might permit provision of such credit on concessionary terms to encourage membership.

6. A book is under preparation entitled Guide to Agro-Service Banks and an 80 page booklet "Agro-Service Banks - A Modern Way to Farm" by Walter Forbes, Associate Professor is available. The address for information is:

AGRO SERVICE BANKS PROJECT
University of Prince Edward Island
Charlottetown P.E.I.

7. We have a copy of "Agro Service Banks - A Modern Way to Farm" by Walter Forbes available on loan from Mr. J. C. Collins, Ext. 5315, giving further details of the concept.

8. I would be interested to know if any of the regions contemplates applying this concept to a future project.

JCCollins: *JCC*

cc: Messrs. Yudelman
Raizen

OFFICE MEMORANDUM

TO: Members of the Research Committee Panel (See
Distribution List Below)

FROM: Colin Bruce *CB*

SUBJECT: Research Proposals: Country Case Studies of
Agricultural Prices and Subsidies

DATE: May 24, 1976

1. At an informal meeting of the Research Committee Panel appointed to consider our research proposals for country case studies of agricultural prices and subsidies, we were requested to provide the following additional information:

- (a) the criteria used for selecting countries;
- (b) an outline of the minimum results we expect to obtain from all country studies, together with the methodology proposed to obtain the results;
- (c) an outline of additional results that we might hope for, given an adequate data base and country cooperation;
- (d) a bar chart, illustrating the scheduling of the various phases of the work program;
- (e) an inventory of issues that have been raised in Bank economic, sector and appraisal reports; and
- (f) a specification of our contact points in the Regions for adequate liaison.

2. Before responding to each of these requests in turn, let me first confirm that, in response to the comments and criticisms made earlier with respect to the proposal being too ambitious, we have reduced the number of countries from 10 to 8 by removing Colombia and Ivory Coast from the list. Moreover, since much of the work has been carried out already in the Balassa Study of West Africa, the Senegal study would be equivalent to only about half a study or less. Finally, in this respect I should report to the Panel that, due to the sensitivity of the Turkish authorities, we may have to abandon the proposed study of Turkey, in which eventuality the number of studies would be reduced to 7, or about $6\frac{1}{2}$ if Senegal is regarded as about half a study.

(a) Criteria for Selecting Countries

3. A number of criteria were used to arrive at a typology of countries selected for the prices and subsidies case studies. Among them were the following:

- (i) a history of government intervention/non-intervention with respect to administered prices, taxes and subsidies;

- (ii) diversity of types of intervention;
- (iii) intensity or magnitude of intervention;
- (iv) frequency of policy changes;
- (v) dual/non-dual nature of economy--existence/non-existence of a non-agricultural "milch-cow";
- (vi) dual/uniform nature of the agricultural sector;
- (vii) market oriented/centrally planned orientation of the agricultural sector;
- (viii) structure of the agricultural sector regarding the composition of output, e.g. existence or absence of a cash (export crop) subsector largely based on one or two products.

4. In making the final country selection, we endeavoured to obtain an adequate cross-section of the different types, while accommodating regionally expressed preferences, likely data availability, known existence of similar investigations and the likely attitude to the study of the governments concerned.

5. It was difficult to select any country which has a history of non-intervention, so all the countries selected are representative of (i), (iii) and (iv) but in widely varying degrees. Distortion of prices is severe in Senegal, Turkey and Thailand (until recently). Zambia, Chile and Zaire would have been good examples of (v), but were not selected for other reasons. However, a related DRC study of Zambia is underway and account will be taken of it. Yugoslavia is the only example of a centrally planned economy; Romania was considered but rejected because it was believed that the Government would not permit it. And so on.

(b) Expected Minimum Results

6. We would expect to get the following minimum results using the following methodologies:

From Country Studies

- (i) A description of and recent trends in the system of administered agricultural prices, taxes, subsidies and other policy tools. The information would be obtained from Bank economic, agricultural sector and special study reports, supplemented by official government publications and field investigations.
- (ii) An analysis of the importance of the various policy tools with respect to the government budget and public savings, agricultural

output and consumption. The ratios of: taxes on agriculture to total government revenue; subsidies to total government recurrent expenditure and public savings; value of net taxes/subsidies on producers to the value of output; and the value of net subsidies/taxes to consumers to the value of consumption would be calculated. These will be illustrated by charts as in Josling.^{1/}

- (iii) Preliminary analysis of the adequacy of economic incentives in relation to the country's comparative economic advantage. A limited number of key food and non-food commodities would be chosen and initially no attempt will be made to differentiate between agro-ecological zones. The methodologies used will be those used by Balassa and associates in the West Africa study--estimating the NPC, EPC and ESC--and estimating the NPV, measured in economic (efficiency) prices as developed by Little-Mirrlees/Squire-van der Tak. Data would be drawn from Bank Project Appraisal reports, official government publications, farm management studies and field work.

Sets of accounting prices and conversion factors are or will soon be available for half the countries: Thailand, Kenya, Turkey and Senegal. They will have to be estimated for Argentina, Egypt, Pakistan and Yugoslavia. This work will help speed up the transition to the use of economic efficiency pricing in Bank project analysis.

- (iv) Some broad analysis of the incidence of existing systems of administered prices, taxes and subsidies on the distribution of incomes as between agriculture and non-agriculture and between rich and poor.

From Wider Studies

- (v) A review of information regarding demand and supply elasticities for selected agricultural commodities. A literature search will be made by a Research Assistant, and data will be collected on field missions.
- (vi) A functional review of the treatment of administered prices, taxes and subsidies with respect to agriculture in Bank economic, sector and project reports. This is already in progress and is being carried out by Judith Graves and Hyung Kim of our Division.

^{1/} "Agricultural Protection and Stabilization Policies: A Framework of Measurement in the Context of Agricultural Adjustment", FAO mimeograph, October 1975.

(c) Possible Additional Results

7. Depending on the availability of reasonable data, the cooperation of government agencies, the existence of models and the development of methodologies:

- (i) a deeper, more dynamic analysis of the effects of changing policy variables on output, employment, the balance of payments and the distribution of incomes, will be carried out. We cannot identify with confidence those countries for which the more dynamic analysis can be carried out at this stage because to do this properly would require to have a greater knowledge of the chosen countries than we have at present. In any case, we envisage not two categories, but varying degrees of analysis. If we get the cooperation of the Department of Agriculture in Thailand, we are very hopeful that the LP models of the economy as a whole and the agricultural sector, broken down into about 17 different agro-ecological zones, will enable us to probe the effects of policy variables much more deeply. We shall also see how far the partial equilibrium methods used by Josling ^{1/} can be used to analyze the effects on output and trade of changing policy variables by applying ranges of demand and supply elasticities to his producer and consumer subsidy/tax coefficients.

Professor Dapice of Tufts University, on a Brookings Institute one year fellowship, will be joining the Agriculture and Rural Development Department some time in August. For the first two months he will assist us with the development of methodologies. Later in his year he will assist us to integrate the results of the case studies.

- (ii) The analysis in (a)(iii) above will be extended to estimating NPVs of the selected commodities in different agro-ecological zones, using different technologies. While we may not be able to look at projects at the margin of economic profitability we do have appraisal reports for projects in areas of some countries which are considered marginal for growing various crops.
- (iii) Construct time series of input/output price indices, if not for agriculture as a whole, then for key inputs, such as fertilizers, insecticides, farm machinery and labor and to correlate these with real agricultural output trends. Subsequently, some (crude) cross-country analysis will be attempted.

^{1/} Ibid.

(d) Bar Chart

8. A program, time schedule bar chart is attached. It should be noted that the length of the bars or sections of bars denotes elapsed time. The distribution of the various categories over time is approximate and illustrative.

(e) Inventory of Issues

9. It is difficult to supply an inventory of specific issues until our functional review of economic, sector and project reports has been completed, and I suspect that our functional review might reveal that, in general, Bank reports have paid insufficient attention to the incentive/disincentive effects of administered prices, subsidies and taxes. But clearly the weight of taxes on agriculture; whether, what kind and under what conditions subsidies are justified; and too low prices relative to input prices and to the risk avoidance propensities of many farmers, are all current issues of great interest within the Bank. I attach for the information of the Panel members a copy of an information note that was sent to the Regions to provide interim guidance.

(f) Specification of Central Points

10. In each case we have consulted and will continue to consult the Chief Economist, the Program Division Chief, the Assistant Director of Agriculture and the Project Division Chief, or their representatives.

Other Matters

11. Mr. Cuddihy briefly discussed our proposals with Professor Josling, Professor of Agricultural Economics at Reading University, on his way through London to Egypt. Professor Josling is very interested and is willing to serve as a consultant/adviser to our Economics and Resources Division with respect to the Policy Paper and the case studies. He is coming to Washington, D.C. in June and will have discussions with us. If a mutually satisfactory arrangement is agreed we would pay for Professor Josling out of Departmental funds.

Revised Costs

12. Partly as a result of taking account of Bela Balassa's experience in his West Africa Study and the time it took to complete the work, and partly because review of the consultancy position indicated that we may have to use firms of consultants rather than individuals, the revised estimate of costs attached shows an increase from \$170,000 to \$187,000, although Colombia and the Ivory Coast have been dropped. The consultants' cost estimates are now based on 4 months of 26 days @ \$225/day. We are still trying to find good individuals, and we shall endeavour to negotiate 3 months contracts, with an option to renew for a further month should this prove necessary and

meet our approval, and hope that three months (about four or five months elapsed time) will be sufficient, but it has to be recognized that this is unlikely. Also we shall try and negotiate fees lower than \$225/day, but in these inflationary times, it would be unrealistic to budget for less. If Turkey drops out, then the total budgeted amount would fall to \$157,000.

Attachments:

Distribution List:

Messrs. Vergin
R. Harris
Little
McGarry
Ray
Squire

cc: Messrs. Duloy, Burki, Balassa, B. King, Grimes
Yudelman, Ballesteros, G. Brown, Cuddihy, Donaldson, Egbert
and Temple

CBruce:ssp

OFFICE MEMORANDUM

TO: Assistant Directors, Agricultural Projects

DATE: May 20, 1976

FROM: Montague Yudelman *mt*

SUBJECT: Bank Policy on Farm Subsidies: An Information Note

The attached note is intended to clarify the official Bank position on farm subsidies at this time. A full review of these policies is underway but a full statement is not expected until late in 1977.

Meanwhile, you may want to bring this interim statement to the attention of mission leaders and agricultural economists in your Region.

Cleared in substance with: Mr. van der Tak

Dist: J.B. Hendry
F.S.B.L. van Gigch
H. Vergin
R.E. Rowe
D.W.M. Haynes
P.C. Goffin
G.F. Darnell
L.E. Christoffersen

GFDonaldson:mt

Bank Policy on Farm Subsidies: An Information Note

As you are aware, a detailed review of policies regarding farm subsidies is underway as part of the background studies for the policy paper on Agricultural Prices and Subsidies. A definitive statement is, however, somewhat off since work has only just begun on the background studies. In the meantime, the matter of farm subsidies has arisen again as an issue in the operations of several Regions, and some confusion has been evident as to what constitutes Bank policy on subsidies at this time. This memorandum is intended to clarify our interim position, which should hold until a more complete statement is available later next year.

The general position is a very flexible one as reflected in Operational Memorandum Number 2.61 which states:

"The extent of and the need for subsidies, if any, has to be demonstrated and justified. The case for subsidization takes account of the repayment capacity of beneficiaries, external benefits accruing to interests outside of the project, and any transfer distortions within the economy due to domestic terms of trade, exchange rates, etc."

This statement offers no explicit guidelines as to what constitutes necessary and sufficient conditions for subsidies; nor does it distinguish clearly between the use of subsidies as production incentives and as a form of transfer payment to target income groups. Both arguments have been used traditionally to justify subsidies and they should therefore be considered as separate possibilities.

Incentive Subsidies. The "Agricultural Credit Sector Policy Paper" indicates that subsidies on technical inputs are acceptable where additional incentives are required to catalyze the adoption of new farm technology, especially where production risk is judged to provide a disincentive to adoption. In such circumstances, subsidy should be terminated within a definite time period, the beneficiaries being, presumably, willing to continue with the new technology once the subsidy has been withdrawn. When providing incentives to technological innovation, it is strongly preferred that the physical inputs be subsidized rather than the credit which may accompany them. Similarly, it is generally considered more appropriate to subsidize inputs rather than output prices.

The "Policy Paper on Bank Lending for Foodgrain Production" indicates that, in addition, incentive subsidies may be appropriate where free market prices do not provide adequate incentive for food production. In these circumstances, the subsidy policy should be examined in relation to levels of protection of other sectors and the degree of freedom surrounding market prices for agricultural commodities. It is expected that

situations where such subsidies can be justified will be rare, save perhaps in short-run situations while other policies (such as those protecting secondary industries) are being modified. In this kind of situation, the subsidization of output prices may be more acceptable.

Transfer Subsidies. The Bank's concern with income redistribution has not yet been fully reflected in all operational policies. However, the recent CPM on "Irrigation Water Charges, Benefit Taxes and Cost Recovery Policies" suggests quite explicitly certain conditions under which it may be appropriate to subsidize irrigation through reduced cost recovery from certain target groups. Two guidelines are indicated; first, that those beneficiaries that remain below the "critical consumption level" (CCL) should not be required to pay additional taxes, and second, that those who remain above the CCL should be taxed a progressive proportion of their incremental benefits (rent). In other words, for target groups below the CCL, subsidies in the form of a once over capital grant may be considered acceptable, and for those target groups above the CCL progressive proportions of the investment costs might be subsidized. This does not include target group subsidies in the form of reduced interest rates, since, as indicated above, there are practical reasons for preferring the subsidization of physical inputs rather than interest rates (see the Agricultural Credit Sector Policy Paper).

The critical considerations associated with this type of subsidy are as follows: first, the quality of implementation, insofar as this determines whether the specified target groups do in fact receive the subsidy; second, the budgetary implications, since such subsidies can be a substantial drain on limited funds available for agricultural investment; and third, that the subsidy should be associated with technological innovation which will significantly increase the productivity of the beneficiaries, even though some may remain at little above subsistence level.

In respect of all subsidies it should be emphasized that the Bank will not lend to cover the amount of the subsidy. On the other hand, a subsidy associated with a Bank project component may be acceptable if it conforms to one or other above guidelines. In each case, however, the need for the subsidy should be demonstrated and justified.

COUNTRY CASE STUDIES OF AGRICULTURAL PRICES & SUBSIDIES

Country Case Studies

Staff Responsible

Argentina

Ballesteros

Egypt

Cuddihy

Kenya

Ballesteros

Pakistan

G. Brown

Senegal

Ballesteros

Thailand

Egbert

Turkey

Temple

Yugoslavia

Donaldson

Policy Paper

First Draft

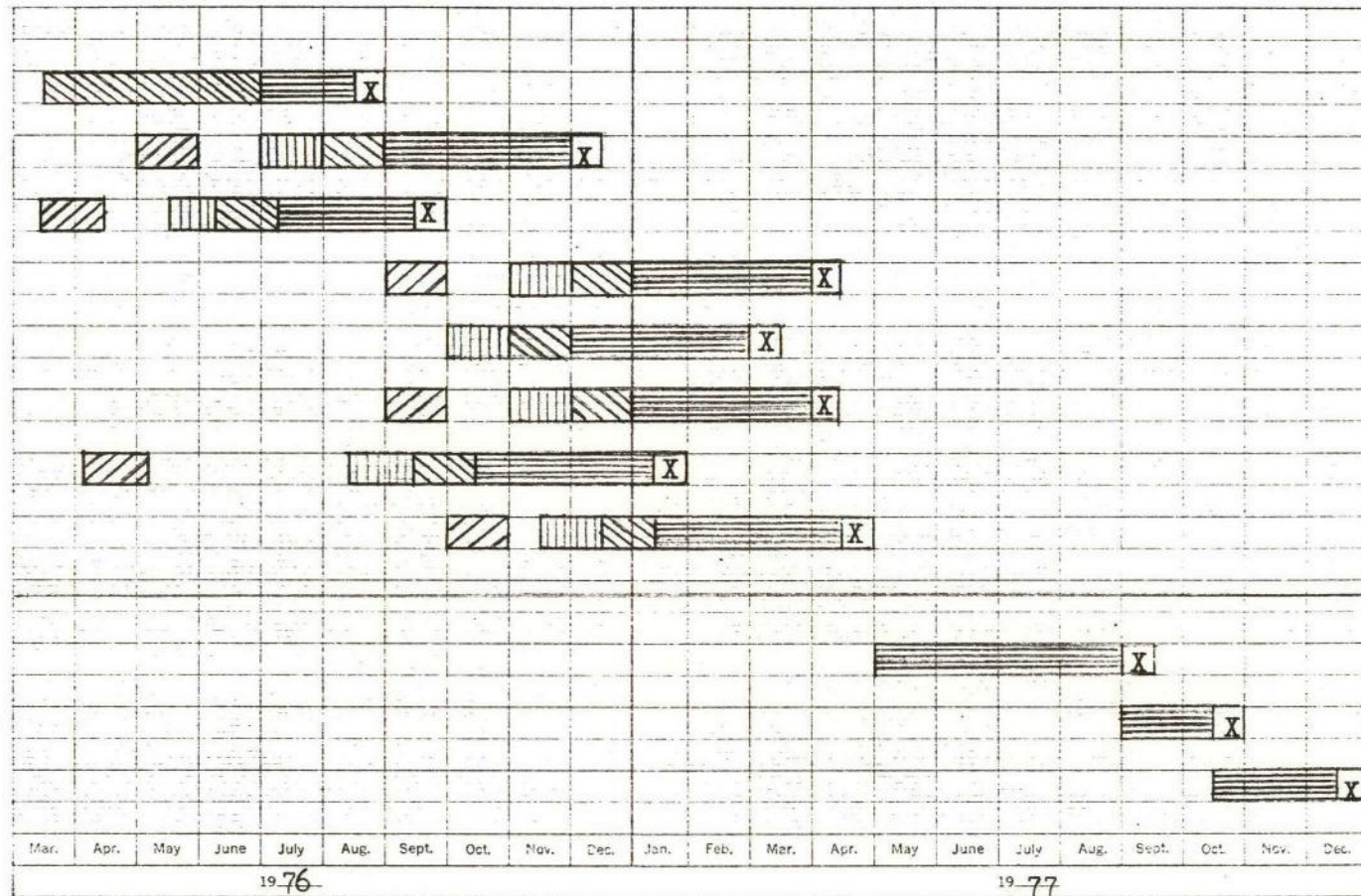
Bruce/
Ballesteros



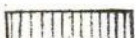
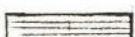

Staff Level Review

"

PRC Review

"



-  Staff member on economic or agricultural sector mission
-  Consultant doing field work
-  Consultant's preparation work
-  Analysis and report writing
-  Submission of reports

Note: The length of the bars denote elapsed times.

COUNTRY CASE STUDIES OF AGRICULTURAL PRICES AND SUBSIDIES

	FY76					FY77				
	Staff Travel & Subsistence	Consultants Travel & Subsistence	Total Travel & Subsistence	Consultants Fees & Sundry Expenses	Total Cost FY76	Staff Travel & Subsistence	Consultants Travel & Subsistence	Total Travel & Subsistence	Consultants Fees & Sundry Expenses	Total Cost FY77
Argentina	-	2,619	2,619	11,375	13,994	-	300	300	4,875	5,175
Egypt	3,479	-	3,479	-	3,479	-	4,980	4,980	25,400	30,380
Kenya	4,100	4,335	8,435	7,350	15,785	-	400	400	12,278	12,678
Pakistan	-	-	-	-	-	4,310	6,260	10,570	25,400	35,970
Senegal	-	-	-	-	-	-	2,500	2,500	13,000	15,500
Thailand	-	-	-	-	-	4,180	6,125	10,305	19,550	29,855
Turkey	3,100	-	3,100	-	3,100	-	4,792	4,792	25,400	30,192
Yugoslavia	-	-	-	-	-	2,100	3,470	5,570	11,700	17,270
Sub-Total	10,679	6,954	17,633	18,725	36,358	10,590	28,827	39,417	137,603	177,020
Data Processing	-	-	-	-	1,000	-	-	-	-	3,000
Research Assistance	-	-	-	-	-	-	-	-	-	7,000
Sub-Total	-	-	-	-	1,000	-	-	-	-	10,000
Grand Total	10,679	6,954	17,633	18,725	37,358	10,590	28,827	39,417	137,603	187,020

Say \$187,000

OFFICE MEMORANDUM

TO: Members of the Research Committee Panel (See DATE: June 4, 1976
Distribution List Below)

FROM: Colin Bruce *CB*

SUBJECT: Research Proposals: Country Case Studies of Agricultural Prices
and Subsidies

At the second meeting of the Research Committee Panel appointed to consider our research proposals for country case studies of agricultural prices and subsidies, we were requested to provide a list showing a distribution of the criteria relevant for selecting countries among the selected countries. This is attached. The wording of the criteria has been modified to suit the distribution table, and Zambia, N.E. Brazil and Mexico have been included in the list of countries in the event that one of them is chosen to substitute--probably for Turkey.

Attachment:

Distribution List

Messrs. Vergin, R. Harris, Little, McGarry, Ray and Squire

cc: Messrs. Duloy, Burki, Balassa, B. King, Norton, Grimes
Messrs. Yudelman, Ballesteros, G. Brown, Cuddihy, Donaldson, Egbert
and Temple

CBruce:ssp

Criteria for Selecting Countries

- (i) a history of government intervention with respect to administered prices, taxes and subsidies;
- (ii) diversity of types of intervention;
- (iii) intensity or magnitude of intervention;
- (iv) frequency of policy changes;
- (v) dual nature of economy--existence of a non-agricultural "milch cow";
- (vi) dual nature of the agricultural sector;
- (vii) centrally planned orientation of the agricultural sector;
- (viii) relatively diversified agricultural sectors in the sense that, generally speaking, alternative cropping patterns are feasible.

Distribution of Criteria by Country

	<u>Criteria</u>							
	<u>(i)</u>	<u>(ii)</u>	<u>(iii)</u>	<u>(iv)</u>	<u>(v)</u>	<u>(vi)</u>	<u>(vii)</u>	<u>(viii)</u>
Argentina	x	x	x	x		x		x
Egypt	x		x				x	x
Kenya	x	x				x		x
Pakistan	x	x	x			x		x
Senegal	x	x	x					
Thailand	x		x	x				
Turkey	x	x	x	x		x		x
Yugoslavia	x	x				x	x	x
<u>Possible Substitutes</u>								
Zambia	x		x		x	x		
N.E. Brazil	x	x		x		x		x
Mexico	x	x	x			x		x

Note: The above distribution is approximate.

APR 11 2023

WORLD BANK / INTERNATIONAL FINANCE CORPORATION

CONFIDENTIAL

WBG ARCHIVES

OFFICE MEMORANDUM

TO: Mr. H. Vergin

DATE: June 7, 1976

FROM: Anandarup Ray *AR*SUBJECT: Research Proposal: Country Case Studies of Agricultural Prices and Subsidies

1. Since our meeting on Friday I have once again reviewed the earlier and the latest submission and the correspondence with Messrs. Balassa and Duloy. I agree with you that the two options that the Committee should consider are:

- (a) Review the progress at a suitable time, say October or December, the objective being to offer suggestions, if warranted, on changes in research design, methodology and budget. However, sponsors will be allowed to enter into contractual commitments with outsiders subject only to such revisions in terms of reference as may result from the Committee review.
- (b) Introduce two phases, the first phase consisting of the development of a detailed design for the study, definition of the key issues of emphasis and possibly the provisional conclusion of the case study in Argentina. The latter will provide sample output for the Committee to review. The advice of outside experts such as Professor Josling, or Professor Rak Krishna of Delhi School of Economics (a former staff member who comes here off and on in connection with research), may be sought in this phase. The outcome of this phase should be reviewed around October or December before authorization of any further research in this area. I also note that this is one of those studies which needs a very well-knit discipline to make the various products comparable with each other in the end.

2. I vote for option (b), on the grounds that this has been the traditional policy of the Research Committee. I refer, for instance, to the document I produced in the early days with Hollis Chenery and Ernie Stern when we were setting up the Research Committee, viz The World Bank Research Program: Policies and Procedures, August 1973. Of course this rule has not always been followed. The results in such cases have generally been regrettable.

3. The cost of this proposal is perhaps a delay of at most six months in the policy paper on the topic. But we have lived without such a policy paper for a long time and a delay of six months should not be regarded as particularly upsetting.

4. I personally am extremely interested in the feasibility and desirability of using the analytical tools produced in our Development Research Center under the auspices of Messrs. Duloy and Norton. I would hope that such tools will be given as much play as feasible in a research of this type. I shall particularly welcome the association of Mr. Norton with this study from the early stages.

cc: Mr. van der Tak

AnandarupRay:mmm

Country Case Studies of Agricultural Prices and Subsidies

Budget: July 31 through October 31, 1976 ("Option (b)")

FY77

	<u>Staff Travel & Subsistence</u>	<u>Consultants Travel & Subsistence</u>	<u>Total Travel & Subsistence</u>	<u>Consultants Fees & Sundry Expenses</u>	<u>Total Cost FY77</u>
Argentina	-	-	-	-	5,175
Egypt	-	-	-	-	30,380
Kenya	-	-	-	-	12,678
Pakistan	4,310	-	-	5,100	9,410
Senegal	-	2,500	-	2,600	5,100
Swainland	4,180	-	-	4,000	8,180
Turkey	-	4,792	-	20,000	24,790
Yugoslavia	2,100	-	-	1,700	3,800
	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>99,513</u>
Data Process.	-	-	-	-	1,000
Res. Assist.	-	-	-	-	2,500
	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3,500</u>
Sub-Total	-	-	-	-	3,500
Grand Total	-	-	-	-	<u>104,013</u>

Health
Agriculture

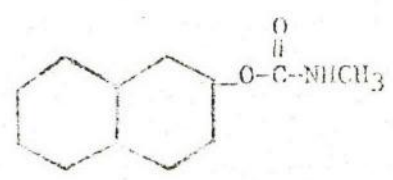
May 1976

RESOLUTION

Guidelines for Use

1. A pesticide sponsor is not very often incorporated in such specific legal proceedings. In some cases, the sponsor has received several requests for advice on the toxicity and the use of certain pesticides.

2. In some cases, the answer given was not complete because the name mentioned was a trade name unknown in the US. To prevent this, the sponsor should be asked to supply the chemical name and the common name generally used in the pesticides trade. For instance, if the sponsor only knows the name "SEVIN", there is no way here to identify the material. The sponsor should give the generally accepted common name CARBARYL, the chemical name 1-naphthyl methyl carbamate, and if possible the chemical formula.



or even the US trade name. In this case SEVIN.

Guidelines for Use

3. The criteria for classifying pesticides should be based on the following factors:

Biodegradability

Toxicity to Mammals and Fish

Risks of Application

Price

4. Biodegradability should be the most important criteria as stable chemicals will accumulate, and as this accumulation can be recognized by the presence of residues. The following criteria should be used and the U.S. Environmental Protection Agency based the following products: DDT, Aldrin, Dieldrin, Chlordane and Heptachlor.

5. Using these products in bank projects should be avoided if at all possible. If they are absolutely required, the detailed reason should be given; price differential is not a sufficient reason.

6. Depending on when the chemical is used and where it will end up, toxicity for mammals and/or fish should then be taken into account.

7. Toxicity figures show the relative toxicity of the product to laboratory animals (white rats unless otherwise specified). LD₅₀ is the dose that killed half of the experimental animals in any test expressed in milligrams of the chemical per kilogram of weight of the animals. The higher the LD₅₀ value, the lower the toxicity. The toxicity can be oral (mouth ingestion) or dermal (skin absorption). Special measures should be taken when handling products with high dermal toxicity.

8. The risks of application depend in part on the toxicity but also on the physical properties of the material and the way it is applied. The product can be solid or a coarse slurry, a solution, an emulsifiable concentrate, a wettable powder, or a dust. It is for instance safer to

apply a solution on the ground than a dust, but it may not be always possible to do so. Aerial spraying is potentially the most dangerous.

9. Price as an element of choice between two pesticides should only be considered after the other criteria have been decided.

Application of Pesticides

10. Even the safest of pesticides will probably involve some health risk. To avoid any further problems, the manufacturer should make sure that the people who are likely to be in contact with the product (dealers - formulators - applicators - farmers) have been properly trained in its use and know about the hazards of handling it. The product should be shipped in adequate containers with labels, clearly identifiable, showing how to use it, how to avoid any problems, and how to give first aid in case of emergency.

11. Disposal of containers should not be overlooked. In 1967 100 people died in Mexico from eating flour and sugar stored in Parathion drums.

12. Common transportation of pesticides and food in the same vehicle should be forbidden. In 1966 one 22 people died and 100 were seriously ill from eating flour contaminated with Parathion during transport by truck.

13. For additional details see UNIDO's book "Industrial Production and Formulation of Pesticides in Developing Countries" - 2 volumes - UN - New York - 1972.

14. Annex 1 contains the EPA tables showing how to replace the banned pesticides.

15. The following pesticides should not be used: LDT, Aldrin,

Dieldrin, Chlordane, Heptachlor, 2,4,5T (2,4,5 trichlorophenoxyacetic acid), EBDC (ethylenebisdithiocarbamate), all mercury compounds, all arsenic compounds.

16. The following pesticides are suspect of long-range chronic effects and should be avoided: endrin, toxaphene, strobane, 1000, strychnine, Kepone, lindane, cadmium, DDT, DDC, diazinon, dieldrin, triallates, chlorobenzilate, ethylene oxide, LDD, carbofuryl, fenitrothion, PCP, creosote, chloranil, monurea, benomyl, DDVP, chlordane, (DDT) DDT, piperonyl butoxide, rotenone, perthane, sulfrole, prothion and morphos.

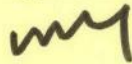
17. In view of the added potential damages to the environment and of the Bank's official policy favoring "Intermediate Technologies", aerial spraying of pesticides should be discouraged whenever it can be replaced by ground spraying.

<u>INSECTICIDES</u>					
<u>SUBSTITUTE FOR</u>					
<u>PRODUCT</u>	<u>DDT</u>	<u>Aldrin</u>	<u>Dieldrin</u>	<u>Chlordane</u>	<u>Heptachlor</u>
Phorate	o	o		o	o
Demeton	o				
Methyl parathion	o				
Parathion	o	o		o	o
Cuthion	o				
Aldicarb	o				
Azodrin	o				
Diazionon	o	o		o	o
Dimethoate	o				
Fenthion	o				
Methomyl	o				
Crotoxyphos	o				
Chlorpyrifos	o	o		o	o
Eux		o		o	o
Carbofuran	o	o		o	o
Counter		o		o	o
Dasanit	o	o		o	o
Disulfoton	o	o		o	o
Dyfonate	o	o		o	o
Landrin		o		o	o
Trichlorfon	o	o		o	o
Dacthal				o	
Aspon	o	o	o	o	
Siduron				o	
Ethion	o	o	o	o	
Propoxur	o	o	o	o	o
Acephate	o		o	o	
Methoxychlor	o		o	o	

<u>HERBICIDES AND FUNGICIDES</u>		
<u>SUBSTITUTE FOR</u>		
	<u>2,4,5-T</u>	<u>EBDC</u>
<u>HERBICIDES</u>		
Bromacil	o	
MSCA/DSMA	o	
Cacodylic acid	o	
Dinoseb (DNBP)	o	
Dicamba	o	
Monuron	o	
Simazine	o	
Trifluralin	o	
<u>FUNGICIDES</u>		
Captan		o
PCNB		o
Folpet		o

Assistant Directors, Agricultural Projects

May 20, 1976

Montague Yudelman 

Bank Policy on Farm Subsidies: An Information Note

↓
The attached note is intended to clarify the official Bank position on farm subsidies at this time. A full review of these policies is underway but a full statement is not expected until late in 1977.

Meanwhile, you may want to bring this interim statement to the attention of mission leaders and agricultural economists in your Region.

Cleared in substance with: Mr. van der Tak

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L.E. Christoffersen

GFDonaldson:mt

Bank Policy on Farm Subsidies: An Information Note

As you are aware, a detailed review of policies regarding farm subsidies is underway as part of the background studies for the policy paper on Agricultural Prices and Subsidies. A definitive statement is, however, somewhat off since work has only just begun on the background studies. In the meantime, the matter of farm subsidies has arisen again as an issue in the operations of several Regions, and some confusion has been evident as to what constitutes Bank policy on subsidies at this time. This memorandum is intended to clarify our interim position, which should hold until a more complete statement is available later next year.

The general position is a very flexible one as reflected in Operational Memorandum Number 2.61 which states:

"The extent of and the need for subsidies, if any, has to be demonstrated and justified. The case for subsidization takes account of the repayment capacity of beneficiaries, external benefits accruing to interests outside of the project, and any transfer distortions within the economy due to domestic terms of trade, exchange rates, etc."

This statement offers no explicit guidelines as to what constitutes necessary and sufficient conditions for subsidies; nor does it distinguish clearly between the use of subsidies as production incentives and as a form of transfer payment to target income groups. Both arguments have been used traditionally to justify subsidies and they should therefore be considered as separate possibilities.

Incentive Subsidies. The "Agricultural Credit Sector Policy Paper" indicates that subsidies on technical inputs are acceptable where additional incentives are required to catalyze the adoption of new farm technology, especially where production risk is judged to provide a disincentive to adoption. In such circumstances, subsidy should be terminated within a definite time period, the beneficiaries being, presumably, willing to continue with the new technology once the subsidy has been withdrawn. When providing incentives to technological innovation, it is strongly preferred that the physical inputs be subsidized rather than the credit which may accompany them. Similarly, it is generally considered more appropriate to subsidize inputs rather than output prices.

The "Policy Paper on Bank Lending for Foodgrain Production" indicates that, in addition, incentive subsidies may be appropriate where free market prices do not provide adequate incentive for food production. In these circumstances, the subsidy policy should be examined in relation to levels of protection of other sectors and the degree of freedom surrounding market prices for agricultural commodities. It is expected that

situations where such subsidies can be justified will be rare, save perhaps in short-run situations while other policies (such as those protecting secondary industries) are being modified. In this kind of situation, the subsidization of output prices may be more acceptable.

Transfer Subsidies. The Bank's concern with income redistribution has not yet been fully reflected in all operational policies. However, the recent CPM on "Irrigation Water Charges, Benefit Taxes and Cost Recovery Policies" suggests quite explicitly certain conditions under which it may be appropriate to subsidize irrigation through reduced cost recovery from certain target groups. Two guidelines are indicated; first, that those beneficiaries that remain below the "critical consumption level" (CCL) should not be required to pay additional taxes, and second, that those who remain above the CCL should be taxed a progressive proportion of their incremental benefits (rent). In other words, for target groups below the CCL, subsidies in the form of a once over capital grant may be considered acceptable, and for those target groups above the CCL progressive proportions of the investment costs might be subsidized. This does not include target group subsidies in the form of reduced interest rates, since, as indicated above, there are practical reasons for preferring the subsidization of physical inputs rather than interest rates (see the Agricultural Credit Sector Policy Paper).

The critical considerations associated with this type of subsidy are as follows: first, the quality of implementation, insofar as this determines whether the specified target groups do in fact receive the subsidy; second, the budgetary implications, since such subsidies can be a substantial drain on limited funds available for agricultural investment; and third, that the subsidy should be associated with technological innovation which will significantly increase the productivity of the beneficiaries, even though some may remain at little above subsistence level.

In respect of all subsidies it should be emphasized that the Bank will not lend to cover the amount of the subsidy. On the other hand, a subsidy associated with a Bank project component may be acceptable if it conforms to one or other above guidelines. In each case, however, the need for the subsidy should be demonstrated and justified.

Mr. Montague Yudelman

May 14, 1976

Don Stoops *D.S.*

Agricultural Credit Programs - Operations Evaluation Report
Predated May 29, 1976 (Final) Draft

1. After careful review of the May 29, 1976 and September 19, 1975 drafts I find that only minor changes have been made, except for the addition of the summary. It is clear therefore that our comments on the September 19, 1975 draft have not been seriously taken into consideration. A copy of these comments is attached.

2. In summary, I think the whole tone and tenor of the report is not constructive, and especially when taken out of perspective, can only lead to innumerable problems, particularly in the countries involved. The same material could have been used to dwell on what the elements were that made the projects as successful as they were, thus providing the operational regions with some guidelines for the future.

DStoops:mam

Encl.

cc Darnell
Pichering

Transportation & Urban Dev.
Agriculture

Mr. Graham Donaldson, AGP

May 13, 1976

Curt Carnemark, TRUDR

Your memo on Appropriate Vehicles for Rural Areas

Thank you for your memo of April 20, 1976. The delay in replying to it was because I felt concerned that the issue might drag on, triggering off a purposeless series of memos. However, the factual inaccuracies of your observations makes a reply necessary. Because many of the errors in your observations concern crucial questions on agricultural mechanization, it is important that they are brought up so that the same mistakes may not be repeated in the forthcoming Farm Mechanization Policy Paper for which you are currently responsible:

1. It is an elementary agricultural engineering design principle that a tractor must have sufficient weight to obtain the traction for land preparation. To claim that this statement is "not accurate in engineering terms" is to express ignorance of a basic engineering concept. Furthermore, it also reveals ignorance of a basic agricultural practice. Very few farmers operate a tractor without adding cast iron or water ballast even with a weight transfer system.1/
2. The use of two-wheel and small tractors for garden and horticultural applications in Western Europe does not imply that they would also be suitable for land preparation in dry rainfed areas of Tropical Africa, (where soil conditions are completely different). First, these tractors do not have the required tractive effort for rainfed agricultural applications. Second, the fatigue resulting from manual effort and vibrations transmitted from the hard ground to the operator make single axle tractors impractical for the prolonged operation necessary in rainfed cultivation.2/
3. The "Ferguson" or the "Ford system" for draft control of traction is not unique to them. All tractors utilize this or a similar system. But because draft control is limited only to a few agricultural implements which have downward draft force, like the moldboard plough, "traction transfer problem has not been effectively overcome in small tractors"; only alleviated for special operations.3/
4. The technical implications of the use of a tractor as a transport vehicle does not seem to have been correctly understood by you. A tractor needs to be heavy to provide the draft needed for land preparation. Besides a bulky pair of rear tires and increased body weight, its front end is especially weighed to ensure dynamic equilibrium. Additional power is required just to pull this extra weight. Furthermore, a tractor is designed for a maximum speed of about 15 m.p.h. as opposed to a regular transport vehicle's 60 m.p.h. or more. These factors cause the cost-per-ton-mile of a tractor to far exceed that of a regular transport vehicle.4/ There are, however, other more important reasons why a regular tractor should not be used for transport: (i) Tire life and engine life of a tractor are reported to reduce by as much as 50% when it is used for transport. (ii) A tractor's braking system comprises of independent brakes that can be applied to the rear wheels only (this is a deliberate design feature to suit its agricultural tasks). Also there is no system to coordinate the braking of the trailer and the tractor. These features make tractors extremely unsafe for hauling loads, especially on grades.

May 13, 1976

Several fatal accidents resulting from the road use of tractors have been reported world-wide.

5. The total costs of a tractor comprise of depreciation costs, plus the running and maintenance costs. If the tractor is lying idle for lack of work, then, according to your analysis, it should be used for transport so long as the benefits resulting from this use cover the marginal costs, in this case, the tractor's running and maintenance costs. But, as has been explained above (para. 4), the use of tractor as a transport vehicle increases its long term running and maintenance costs and reduces its life, thereby increasing the depreciation costs. When a farmer decides to buy a tractor, he considers the long term marginal costs which includes both depreciation costs, running and maintenance costs.

6. Incidentally, your criteria of economic efficiency for justifying the existing modes of transport seems to question the very basis of any development effort. Economic development, by its definition, implies moving from a lower equilibrium state to a higher one. If rural communities in developing countries have been using certain methods of transport which are economically efficient to their existing factor proportions, it does not mean that they should continue to remain in the primitive state in comparison to the rest of the advanced world. Economic efficiency cannot be used as the sole criteria for justifying development activities. In fact, no amount of economic theory can justify the use of women as beasts of burden, which is the case in Kenya and other African countries.^{5/}

7. The term Tropical Africa was used in the accepted geographical sense to denote location rather than climatic condition. The problem of transport in the rural communities of Tropical Africa, and especially in East Africa, is too well known to need evidence. In the case of Kenya, we have been closely working with the East Africa Region. In fact, the Kenyan government was already planning an appropriate vehicle development program for its rural communities before the East African Region approached them, and are only too keen that the World Bank supports this program.^{6/}

8. Finally, we have been studying alternative means of transport for small farmers in developing countries for over a year now. Although the alternatives include vehicles that can perform agricultural tasks as well, this is essentially a transportation problem in which we are bringing to bear all our expertise and experience. Like many of our other activities, this one too is aimed at finding a better solution to existing development problems in the transport sector, and, in the process, identifying viable projects that the Bank can support. Naturally, we do not claim to have all the knowledge required to solve such a complex problem. But we may in our probing trigger other efforts in this direction. As a matter of fact the International ^{mediate} Technology Development Group is joining forces with us in the Kenyan exercise.

cc: Messrs. Yudelman, Christoffersen, Darnell, Bruce (AGP).

SKChopra/~~CG~~mark:hf

FOOTNOTES

- 1/ Refer to any textbook on Farm Machinery. One good reference is the chapter on Traction Theory in Tractors and their Power Units by Barger, Liljedahl, Carleton, McKibben, 2nd edition, John Wiley and Sons, Inc., 1963. For references on the use of tractor ballast, see any tractor manufacturers "Operations Instruction Handbook". Also see SAE standard s346 "Liquid ballast for drive tires". Another source is the Nebraska Tractor Tests which require ballast to be as much as 40% of the tractor weight.
- 2/ See in particular, A Review of FAOs Role in Mechanization for Agricultural Development (based on the expert group meeting on the Agricultural machinery industry in developing countries, 18-22 August, 1969, organized by UNIDO) prepared by the Agricultural Engineering Services of the Food and Agriculture Organization of the U.N., Rome.
Also see W.H. Boshoff's Development of Uganda small tractor in World Crops, September/October, 1972.
- 3/ See Information Bulletin published by Agricultural Engineering Services FAO on Tractors and Traction. On page 5, it is stated: "Some implements are better suited to a draught control system than others, for example, a moldboard plough is ideal because not only the weight of the implement can be transferred but also the downward force (suck) of the plough. Very little weight can be transferred from a disc plough because the implement requires weight for penetration".
Also refer to Chapters 6, 7, and 8 in Principles of Farm Machinery by Bainer, Kepner and Barger, John Wiley, 1955 for a theoretical explanation of why draft control is suited to only a few agricultural implements.
- 4/ See Selection and costing of farm mechanization systems, Information bulletin from the FAO, 1973 for calculations of a tractor's fuel consumption. This bulletin states that a tractor consumes one liter of fuel per four effective H.P. The effective horsepower of a tractor is about 40% of its rated BHP. So for a 55 bhp tractor, effective hp is $55 \times 0.40 = 22$
fuel consumption is therefore $(22 \text{ eff. hp/hr}) / 4 \text{ H.P./liter} = 5 \text{ liter/hr}$.
Considering a maximum speed of about 8 m.p.h., a 55 bhp tractor would run about 8 miles per gallon. A transport vehicle of comparable horsepower gives more than twice this mileage per gallon of fuel.
- 5/ The use of women as beasts of burden in rural areas of Tropical Africa is discussed in Chapter II of Uma Lele's The Design of Rural Development, IBRD, 1975.
- 6/ John De Wilde's Experiences with Agricultural development in Tropical Africa, IBRD, 1967 has this to say on Mechanization in rural sector of Tropical Africa (Ch. 6): "The urgency of improving and increasing the equipment of African agriculture cannot be denied. The emphasis would then no longer be primarily on attempts to adapt the pattern of African agriculture to the requirements of existing machinery, but rather on efforts to devise implements and equipment that would meet the needs of the types of farms and kinds of farming obtaining in Africa".

Rural Development

Mr. Ted Davis

Michael Cernea

May 13, 1976

U.N. Request of Report on Popular Participation in Rural Development

In response to the U.N. request concerning the Bank's policies and activities relevant to popular participation in development, attached is a draft presentation of the basic issues and aspects of participation to rural development programs.

MC:jd

RURAL DEVELOPMENT AND POPULAR PARTICIPATION

The World Bank's activities in rural areas have related mainly to lending for agriculture. However, over the almost 30 years of its existence, the Bank's emphasis in agricultural lending has shifted considerable. From the more traditional irrigation and infrastructure projects, the Bank has gradually widened and deepened the purposes of lending, to include financing of agricultural processing, storage, marketing, fisheries and forestry projects, farm credit, agricultural extension and, more recently, financing of an increasing number of Rural Development projects.

The most important new trend in the World Bank's activities in the last five years is the emergence and implementation of its Rural Development policy. Within the overall scope of the World Bank's activities, Rural Development is the policy most directly related to the issue of popular participation.

Basically, Rural Development strategy is aiming (a) at promoting a much larger and more direct popular participation to the current development efforts, in particular the participation of the masses of rural population, and (b) at promoting a more equitable participation of the rural poor in sharing the benefits derived from development.

A. Policy Declarations

At the 1973 Annual Meeting of the Governors of the World Bank and IMF, the President of the Bank called attention to the critical relationship between poverty and economic growth. He pointed out that approximately 40% of the population of the developing country have neither been able to contribute significantly to national economic growth, nor to share equitably in

economic progress. He stressed the need to direct a major part of the Bank's lending and advisory efforts toward the goal of raising the productivity of the smaller farmers of the world, the largest single group of human beings living in subhuman conditions.

Following the Nairobi meeting, the Bank published its Rural Development Policy Paper, which defines the Bank's stand on the means and goals of development of rural areas. The Rural Development Policy Paper has been immediately followed by other two major Bank policy papers on Land Reform and on Agricultural Credit. They synthesize the experience accumulated by the Bank in this sector and spells out in detail the principles of the Bank's current approach to the problems confronting rural development in the contemporary world.

Subsequent World Bank papers have been published in 1975 and 1976 on "Rural Electrification" and "Village Water Supply" working out in detail the specific approach to the constraints and needs of these particular components of the comprehensive Rural Development strategy. Other more general World Bank papers recently issued -- a sector policy paper on Health and a sector working paper on Education -- devote particular attention to the problems of the rural population as well.

In all these policy statements the threefold aspects of popular participation as contribution to decision-making in setting goals, to the actual development effort and sharing equitably in the benefits derived therefrom are present as an explicit conceptual framework and are translated into operational concrete rules and recommendations for project work.

a) Definition of the Rural Development Concept

The basic concept of rural development, as defined in the policy declarations of the World Bank, relies on an understanding of popular participation, both as a means of achieving development and as a goal of development. The means and goals aspects of popular participation are mutually reinforcing. Once encouraged and actually started, popular participation has the virtue of a social self-perpetuating development mechanism which is capable of accelerating the pace of progress by unlocking the limitless resources of popular initiative and energy.

In the conceptual framework of the Rural Development policy, participation refers to a much broader set of behavioral activities than merely decision-making. Socio-economic rural development is expected to be generated primarily by and for the rural poor. The concept of participation is thus being given primarily, though not exclusively, an economic behavioral content. To translate popular participation to rural development into an actual fact of life, important financial, technological, cultural and institutional resources are being mobilized.

"The central concept of rural development presented here is of a process through which rural poverty is alleviated by sustained increases in the productivity and incomes of low-income rural workers and households. The emphasis is on raising output and incomes

rather than simply redistributing current income and existing assets, although the latter may be desirable or even essential in an overall rural development strategy which links production with distributive or equity objective.^{1/}"

Thus, the policy definition of rural development extends its objectives beyond the agricultural sector per se and encompasses increased production and productivity, improved food supplies and nutrition, basic services such as health and education, grass roots institutional development, and improved quality of life.

b) The Target Group Approach to Popular Involvement

Who should "participate", or rather who should be principal sectors of the implementation of this policy. The general idea of "popular participation" has an operational translation in the Bank's policy, in which the rather uncircumscribed term "popular" is specified sociologically as referring to a definite "target group". The notion of target group lies at the root of the definition of rural development as a separable and distinct component of general development strategy. Operationally, it requires that target groups be identified within certain societies or areas, for whom specific measures to raise production and income are designed, and in whose care the resulting flow of benefits -- direct or indirect -- is both

^{1/} World Bank, Rural Development, Sector Policy Paper, p. 17, February 1975.

identifiable and potentially measurable. It provides that necessary focus on groups of the rural population in terms of whose well-being policy actions and programs can be designed and evaluated.

The target group approach brings about another rather innovative specification of the concept of popular participation by introducing relatively precise measurement criteria for identifying the segment of population to whom development should be targeted and who should be attracted to a more active involvement in developmental activities. The standard criterion for identifying target groups is the income necessary to cover minimum nutritional requirements and essential non-food expenses. In addition, an income equal to or less than one-third the national average is considered an appropriate additional criterion to allow for extreme relative poverty in developing countries. Target group identified by low incomes, absolute or relative, for rural development projects include therefore smallholders, tenants and landless. Almost 750 million people in the developing world are considered to live in absolute poverty. About 150 million more, in relative poverty, i.e., above absolute poverty but below one-third per capita total personal income of the country.

Of this total, 700 million or 80% live in rural areas and their number is growing by approximately 2% a year. More specifically, target groups are best defined in the context of the individual country. Each separate group may need a special program of its own to handle the specific problems it faces.

Participation of the target group to the Bank-financed projects is conceived in the most active way in which the concept of participation can be defined. The "target group" is not a passive beneficiary of a welfare project, but the actor in a working program. The Bank believes that if the problems of food production are to be alleviated, the rural poor must be made a part of the solution. Because the problems are so complex, complex solutions, cutting across sectoral lines, must be devised to help the rural poor contribute more fully to an increase in output. Rural Development properly conceived and carried out, need not conflict with the objectives of higher food production. Indeed, studies indicate that small farmers are often more efficient in the use of farm resources than are large farmers. And though it may take longer to increase food output on small farms than on larger units -- it is more difficult, for instance, to devise and implement development schemes involving large numbers of smallholders than those affecting only a few large-scale farmers -- the Bank has

concluded that, in the longer run, increases in food production of the magnitude required to satisfy world-wide demand can only be achieved by helping small farmers increase their productivity and output.

B. STUDIES ON RURAL DEVELOPMENT AND PARTICIPATION

While the Policy statements, mentioned in Section A. represent themselves the result of extended practical experience and in-depth research, the World Bank is conducting a large Research Program with about 105 research projects in the last 5 years.

Many of those research projects are related in one way or another to the strategies for involving the poverty groups in development activities and in equitable sharing in the benefits derived therefrom. The Bank has designed its research program in the light of four major objectives: (a) To support Bank operations, including the assessment of member countries' development progress; (b) To broaden understanding of the development process; (c) To improve the Bank's capacity to provide advice to member countries; (d) To assist in developing indigenous research capacity in member countries.

In the current research program, emphasis continues to be placed on such subjects as income distribution and employment, population, and rural and urban development with particular reference to the lower-income groups. In the past fiscal year, these subjects absorbed more than half the total expenditure of the program. Another group of projects aims to achieve a better understanding of the relationship between growth and equity. Closely related to the studies on income distribution are those on employment, and on substitution of labor for high capital investments in equipment and on using economically optimal intermediate technologies as a strategy for larger involvement of the poverty group in the development efforts.

A significant number of research projects are geared specifically to help in the improvement of the design of rural development projects. They focus particularly on the role of the small farmer and the problems

SAMPLES OF RECENT BANK/IDA RURAL DEVELOPMENT PROJECTS

India - Rajasthan Dairy Development Project, and Madhya Pradesh Dairy Development Project (IDA - \$27.7 million and \$16.4 million)

The major objective of these two projects is to increase milk production through cooperatives covering over 2 million people in selected areas of two states of India. They will provide breeding stock, an artificial insemination program, extension programs, five union cooperative dairy plants and feed mills, milk collection and chilling equipment, a regional diagnostic laboratory and a plant for production of veterinary vaccines for improving the productivity of the herd. Institutions to be created include 3,000 Dairy Cooperative Societies organized into eight Cooperative Unions. Each of the cooperative unions would have an extension training program for developing large numbers of local staff needed to implement the projects.

Increases in milk production come from both cows and buffaloes, which belong to 400,000 families. Most own less than 2 ha, or, are landless workers. Milk production will increase by 760,000 tons a year leading to a substantial improvement in nutrition. In addition to the rural families directly participating in the project, millions of children in the urban areas will benefit nutritionally from the output.

The two IDA credits will finance about 53% of the costs of the projects; the balance comes from the Government of India, the State Government of Madhya Pradesh and Rajasthan, the Agricultural Refinance Corporation of India and participating banks and farmers. Marketing and transport will generate over 10,000 full time jobs within the cooperative structure. Economic rates of return: 30%-35%.

Tanzania - Kigoma Rural Development Project (IDA-\$10 million)

The project aims at improving living conditions among extremely poor rural families in the Kigoma region of western Tanzania, including provisions for economic and social infrastructure in 135 "ujamaa" villages. Annual per capita incomes are about \$20 - among the lowest in the world, compared to rural per capita income of \$85 for Tanzania as a whole. Tanzania has centered its program of rural development around "ujamaa" village settlements, emphasizing community self-help and cooperative efforts. The project constitutes a major part of the regional administration's development program and is implemented entirely through regional entities. Within the 135 recently settled ujamaa villages, some 250,000 people will benefit from the project.

Traditionally, families in the Kigoma region work 3-4 acre holdings in relative isolation. Production is almost exclusively food crops for subsistence consumption. Under this project, yields of food crops (such as maize and beans) are expected to increase from 100% to 140% above present yields, generating substantial marketable surpluses - \$4.2 million annually at full development.

The project will be executed over a five-year period, and consists of: village infrastructure in the form of investment in water supplies; education and health facilities; tsetse fly bush clearance and feeder roads; agricultural credit to village cooperative societies for crop inputs and productive infrastructure, to the regional cooperative union and to para-statal corporations

for godowns and vehicles, and to small-scale fisheries in Lake Tanganyika; regional supporting services including an agricultural experimental and training center, aerial photography of areas to be developed, and a regional radio-telephone hook-up; and technical assistance, including preparation of 3-4 more rural development projects.

The UN Capital Development Fund is co-financing this project with a \$1.5 million participation. A major objective is to enable the ujamaa communities to develop a basis for sustainable economic self-reliance. Per capita incomes are expected to double from \$20 to \$40 at full development. Economic rate of return: 22%.

Upper Volta - Bougouriba Agricultural Development Project (IDA - \$8 million)

This project presents the first major effort to develop the natural and human resources of the Bougouriba area in southern Upper Volta. Development in this area has long been impeded by disease and malnutrition which are still seriously affecting much of the population. It concentrates on productive improvements that will immediately increase farmers' incomes and on social investments for urgently needed improvements of domestic water supply. By increasing production and incomes of 16,000 farmers, a first priority has been given to ensure adequate food supplies for their families. Living conditions of another 16,000 families would improve from water supplies and roads, providing better access to health and other social services. In total the entire population of this area of some 360,000 people will directly or indirectly benefit through project activities. Productive improvements would be achieved in small-holder agriculture through training and facilities for development and extension staff, agricultural research, and the provision of credit and veterinary services. 660 km of roads will be improved. Wells will be built or rehabilitated in 120 villages. Cash incomes of farm families will increase an average from \$260 to \$520 annually. Economic rate of return: 68%.

Mali - Integrated Rural Development Project (IDA - \$8 million)

This project aims to improve the productivity and incomes of farmers for whom groundnuts are the main cash crop. Conditions in the project area are characterized by extreme poverty, with per capita incomes of \$30 per annum. In addition, it helps apply modern techniques to the cultivation of Mali's principal cereal crops, millet and sorghum and will intensify live-stock development. Mali has been seriously affected by recent droughts which led to acute food shortages. External aid has enabled Mali to withstand the vagaries of the weather in recent years, but it is essential that the country's productive capacity be strengthened. The main objective of the project is to benefit directly about 1 million people through: providing equipment and credit to participating farmers; improving roads; expanding an ongoing functional literacy program; providing veterinary services; and improving medical facilities. Besides the IDA credit, French aid (a FAC grant) will provide \$2.5 million equivalent. Typical per capita cash incomes would increase from \$22 at present, to \$38 with manual cultivation and to \$57 with ox-powered cultivation. Economic rate of return: 90%.

Ethiopia - Agricultural Minimum Package Project (IDA - \$21 million)

Part of a program started in 1971, on basis of field testing under SIDA's CADU project, to increase the productivity and income of small farmers through the provision of modern inputs, such as extension services, fertilizers, seeds and adequate credit. To achieve this objective, the Government divided the rural areas into "minimum package areas", each of which extends 3 miles along either side of a 45-mile all-weather road. Each area contains approximately 10,000 farm families. Teams of extension workers assisted by model farmers trained in special programs, will eventually reach 65% of the farmers in each area. By 1980 about 400,000 farm families will have joined the program.

Besides providing fertilizers, seeds, extension services, and other farm inputs, the project includes the construction of roads; facilities for the extension service; market and storage centers in the rural areas; the provision of equipment, materials, and services to the Ministry of Agriculture to support execution of the program; and credit to enable market centers and cooperatives to make loans to farmers against their grain crop prior to sale. SIDA is providing \$2.2 million of associated technical assistance. In addition, consultant and technical services are included for planning new agricultural projects. A typical owner-operator cultivating one hectare of land under the project could raise his annual cash income from zero to \$40, while a 3 ha farmer could double his net income to \$140. Economic rate of return: 15%.

Mauritius - Rural Development Project (IDA - \$4 million)

This first Bank Group financing for a rural public works program is directed towards benefitting the poorest segment of Mauritius' rural population. With the creation of productive employment as an important objective, it provides temporary employment to about 7,400 previously unemployed workers and permanent employment to another 1,000 people. Direct economic benefits accrue from increased production of agricultural and forest products, and the creation of infrastructure and social amenities to 86 poor rural villages (130,000 people) representing 16% of the country's population. These villages fall in the bottom 25% of the income scale and cover about 80% of the poorest households in Mauritius.

At village level, the self-help component of the project is designed to encourage small-scale development schemes to benefit rural families directly, through fencing of fodder areas, fruit tree planting, home vegetable gardens, rabbit, poultry and duck raising. Production benefits may also derive from afforestation of 4,000 acres of scrub land planted with pine and eucalyptus and from planting of fodder to feed 3,000 additional dairy cows. Besides these productive components, the project includes: construction of light forest access and extraction roads; improvement in basic amenities for rural villages (water taps, health clinics, access and internal roads, markets and community centers); and technical services and training, especially of 3,000 young workers in semi-skilled trades. Economic rates of return: 13% for fodder planting and 8% for afforestation.

Turkey - Corum-Cankiri Rural Development Project (Bank - \$75 million)

The project covers the adjacent provinces of Corum and Cankiri, two of the least developed provinces in Central Turkey. Its major component is an intensive extension service aimed at raising farm incomes, together with the provision of water, electric supply, community facilities and other services. Farmers will receive new credit facilities through the Agriculture Bank. The project includes construction of new irrigation facilities for 12,500 ha and on-farm development for 7,500 ha; construction of 65 km of roads, rehabilitation of another 164 km, and maintenance of 904 km of new and existing village roads. About 120 villages will get new supplies of drinking water from wells and springs, and 233 settlement areas will have electricity for the first time. The project also provides for construction of village centers in 63 villages.

A wide variety of irrigated and rainfed crop production will be expanded and improved. Food crops under the project will expand from 800,000 tons to 1,500,000 tons at full development. Direct benefits for farmers will come from expansion of cropped areas, increased yields of wheat and barley, and more productive livestock. The main beneficiaries of the project will be about 79,000 farm families (about 400,000 persons) on dryland farms whose incomes are expected to be increased from an average of \$980 to \$1,670 per family. Additional employment on farms could total 2.5 million man-days per annum. Economic rate of return: 23%.

Yemen Arab Republic (YAR) - Southern Uplands Rural Development Project
(IDA - \$10 million)

The project constitutes YAR's first integrated rural development effort. It includes: credit for the application of modern agriculture inputs and on-farm investments; production and distribution of high-yielding seeds; rural works infrastructure and sanitary water supplies; and technical assistance. The project area is in two of the poorest provinces, Taiz and Ibb. It will directly benefit 21,000 farm families operating some 35,000 ha of cultivated land. The directly production-oriented components, including small irrigation systems, feeder roads and village water supply are expected to be built under labor-intensive methods. Besides construction employment, amounting to 4,800 man-years, some 9,400 man-years of additional on-farm employment would be created. Sanitary water supplies are expected to have a significant impact on the health of the whole population by reducing waterborne diseases which are endemic.

Food production at present is 50,000 tons and will increase by 100,000 tons (largely food grains, potatoes and onions) at full development. In addition, about 20,000 tons of alfalfa would be used to fatten lambs, a needed source of protein. These increases represent import savings of about \$30 million annually. The project aims at increasing directly the incomes of 21,000 farm families mostly small part-time farmers and tenants tilling less than 1 ha per family. Pre-project income of the target group is \$50 per capita as compared to \$115 for the country as a whole. Under the project, incomes are expected to double on rainfed land and to increase to as high as \$750 annually on newly irrigated land at full development. Besides IDA, the Abu Dhabi Fund for Arab Economic Development also will provide \$10 million to this program. Economic rate of return: 23%.

Mexico - Integrated Rural Development II: PIDER (Bank - \$110 million)

The project supports integrated rural development in 30 poverty stricken regions throughout the country, ranging from arid to humid tropical zones, with a total rural population of 1.5 million. Principal objectives are to raise the income and employment levels of the rural poor and to improve their quality of life, through a combination of directly productive, productive support and social infrastructure components acting together to promote balanced social and economic development. The project, to be executed over a four-year period, includes: construction of small-scale irrigation systems; 2,000 km of feeder roads; small market stores and warehouses; water supply systems for 250,000 persons; construction or renovation of 220 health posts and 70 rural health centers; and 1,150 classrooms to accommodate 60,000 students. It also includes livestock development, soil and water conservation, training of farmers, intensive technical assistance and provision of materials for self-help projects. The project is to be implemented by some 14 federal and state agencies with strong coordination mechanisms established at the federal, state and local levels under the overall supervision of a unit in the President's office.

At present, production for household subsistence accounts for 70% of farm output. Under the project, yields of major subsistence crops (maize and beans) are expected to increase by between 40% (rainfed) to 200% (irrigated), providing additional supply for on-farm household consumption and considerable marketable surplus - e.g., 110,000 tons of maize annually at full development. Beneficiaries have family incomes ranging from \$250 to \$750 placing them in the lower 50% of incomes in rural areas and in the lowest 20% of the total population. About 750,000 persons will benefit directly from the project. From an average income of \$440 per farm, the project would raise incomes over an eight-year development period to \$700 per farm on rainfed areas and to \$1,100 for families with access to new irrigation facilities. Economic rate of return: 16%.

Sudan - Southern Region Agricultural Rehabilitation Development Project
(IDA - \$10.7 million)

The project forms a major part of the Southern Sudan's agricultural rehabilitation program, which seeks to reestablish food and cash crop production, assist livestock development and reconstruct the forestry sector. During the civil disturbances in the 1960s, most organized land cultivation in the Southern Region came to a virtual halt, and many farmers left their holdings. Veterinary services to livestock owners were discontinued and serious losses to livestock increased. The project aims to provide improved seeds for farmers, expand extension services, establish a center for nutrition research, and improve livestock and animal health through a program of vaccination, marketing and research. It will also help reestablish cotton and coffee production, and form the nucleus of a small-farmer dairy industry. Further, training courses will be set up for crop production and animal health; more advanced training for local students, especially in farm management, will be provided elsewhere in Africa. IDA is cooperating closely with the aid agencies of the Federal Republic of Germany and the United Kingdom, which are providing assistance to the overall rehabilitation program - mainly in forestry, rural access roads and the animal disease control program.

Some 50,000 poor farm families will benefit from the project through increased subsistence production of food crops which will improve their standard of nutrition; another 13,000 farm families will also increase their cash crop production. About half the regional population of 3 million will benefit from livestock development. The project will increase farmers' income within a range of \$20 to \$240 annually. Economic rate of return: 18%.

Philippines - Mindoro Rural Development Project (Bank - \$25 million)

The project aims at improving living conditions among 200,000 poor rice farmers and mountain tribesmen on the island of Mindoro, where annual per capita incomes range between \$70 to \$140, compared to an average national per capita income of \$230. The Government gives high priority to developing backward areas with good agricultural potential like Mindoro to correct regional economic and social imbalances, to assist national food grain production programs and to build up government services for planning and implementing rural projects. This is the first Bank-assisted project of its type in the Philippines.

The project will remove a major obstacle to Mindoro's development by improving the island's rural transportation system. It will provide irrigation facilities and an island-wide agricultural program for improved inputs, extension and rodent control. A public health component is directed toward the control of endemic schistosomiasis. Special services will be provided to 80,000 minority tribespeople through improved medical, agricultural, legal and communication services. Under the project, rice production will increase by 65,000 tons, or enough to feed over half a million people a year. Incomes of project beneficiaries will almost double. Economic rate of return: 18%.

Indonesia - North Sumatera Smallholder Development Project (IDA - \$5 million)

The project is the first major effort by the Government to assist rubber smallholders in Indonesia, about 80% of whom have farms of 1 hectare or less - much below what is necessary to provide an adequate family income. It is designed to raise incomes of 18,000 smallholder families to about the national average over a period of nine years.

As a model for future replication elsewhere in Indonesia, the project is testing various approaches to smallholder development. About 1,000 landless laborers were allocated 3 ha each, and 3,000 smallholders with uneconomic farm sizes received additional land, in part through the subdivision of abandoned government estates. Rubber plantings and diversification into oil palm are carried out under a supervised loan program. Intercropping rubber with food crops has also been successfully introduced. Improvements in primary processing and marketing will be provided through the establishment of cooperative centers which would service 16,000 smallholders. The project also provides for improvement of the farm road network and aims to strengthen agricultural extension and farmer training programs in the project area. The project also included assistance for planning follow-up projects. Based on the experience and information gained so far from the project, which started in 1973, Government is now expanding its smallholder settlement program. Economic rate of return: 14%.

AN EXPERIMENTAL MODEL OF CAMPESINOS PARTICIPATION TO
IDENTIFYING AND PLANNING FOR RURAL DEVELOPMENT TARGETS

Previous development programs in Mexico have been biased by either authoritarian or paternalistic approaches. On very few occasions have resources been channeled to peasants enabling them to directly administer such resources. However, in most such cases the technical resources were not sufficient to support the efforts of the villagers.

The goal of this experiment is to test, under real life conditions, the operation of a model of peasant participation in two different rural communities: an Ejido and a non Ejido village, both supported by the PIDER program.

CIDER and the Institute of Engineering would cooperate in running this social experiment.

The objectives of testing a participation model are:

- (1) to accelerate community development through direct participation of peasants in:
 - (a) identification and diagnosis of their own problems;
 - (b) the selection of alternatives for investment and production;
 - (c) the programming and sequencing overtime of investment funds and of various economic and social activities;
 - (d) the adoption of community decisions and the improvement of traditional village authority and management patterns;
 - (e) the administration of budget allocations channeled directly to the Ejido and to the village;
 - (f) the recovery of productive investments according to the repayment capacity of the Ejido/community and to the currently enforced Bank criteria;
 - (g) the establishment of village control mechanisms on investment programs and of sound accountant and administration procedures;
 - (h) the evaluation of the experiment findings.

Expected Outcome. The testing of this participation model is expected to produce the following results:

- (1) To develop the self management capabilities of the members of the rural community.
- (2) To increase the income of community members and to cause a more equitable distribution of the benefits.
- (3) A more rational use of natural and capital resources and optimization of the use of community labor resources.
- (4) To identify the constraints on community participation in programming community development.
- (5) Coordination of the development of the public sector within the Ejido or the community with the full development of individual households.

Timing. The experiment will last for six months. By June, 1976 a preliminary assessment of the results would be ready. Field observation in the two experimental units will be carried on, in order to assess the trends after the end of the test as well as the long-term effects of this model.

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of channeling funds to the rural poor. Different studies touch the questions of rural savings and investment, land tenure reform, agricultural pricing and investment, and the changing structure of rural communities.

For instance, the African Rural Development Study was the result of a substantial interest by the World Bank in rural development programs which could effectively reach a large percentage of the low-income rural population. The study involves analysis of a number of multilateral, bilateral and national programs which represent considerable diversity not only in the environment in which they are situated but also in the approaches to planning and implementation.

The objectives of the analysis were to assess: (a) the extent to which the programs were beneficial to low income groups; (b) the role of national policies, institutions, manpower and technology in the accomplishments and deficiencies of the programs; (c) the effectiveness of the programs in developing indigenous manpower, institutional and economic capability.

Thirteen reports were prepared on the basis of reviews of individual projects or groups of projects. A final, comparative study entitled "Design of Rural Development: Lessons from Africa", synthesizes the findings of the project reviews and discusses their implications for future rural development programs.

Other ongoing research projects with emphasis on various aspects of popular participation are the study on "Rural Development in Northeast Brazil", involving inter alia a survey of 8000 farms; "Development Strategies for Smallholder Agriculture in Yugoslavia"; "Rural Savings and Investments"; a study on "The Analytics of Change in Rural Communities". The latter involves a series of in-depth socio-economic rural case studies on the dynamics of change induced by project intervention and the construction

of a taxonomy of rural communities to provide a better understanding of the socio-economic status of different types of communities and of their potential for various kinds of change. ^{1/}

^{1/} The results of the Bank's research work are often published as "Staff Working Papers," or journal articles and sometimes as monographs or as books. A complete list of publications is available in the "World Bank Catalogue." More detailed information on the current research program may be found in the "Abstracts of Current Studies".

C. COUNTRY PROJECTS FOR RURAL DEVELOPMENT

The development projects financed by the World Bank under the Rural Development policy are very different in technical design and institutional arrangements, but they are based on a common underlying assumption: that poor people the world over are eager to help themselves if they are given opportunities to do so.

Since the Nairobi meeting in 1973, the Bank Group has quadrupled its volume of lending for rural development. Moreover, an analysis of the FY1975 lending program shows that 80% of all beneficiaries of agricultural and rural development projects financed by the Bank and IDA were the rural poor.

Projected Bank lending for agriculture and rural development during 1975-79 is approximately US\$7 billion for projects with total costs estimated at US\$15 billion. About half would go to rural development earmarked for approximately 200 new rural development projects with the benefits concentrated in the lowest income groups. The total investment accounted for by these Bank projects would provide one-fifth of the annual investment needed to expand productivity of the rural poor by at least 5 percent per year during the five-year period FY75-79. The agricultural and rural development program of the Bank should reach a total rural population of some 100 million, 60 million of whom should be in the poverty target group. The numbers of rural poor are expected to increase by 20 million in the same period.

a. The "New Style" Rural Development Projects

Following the changes in emphasis and the focus on reduction of poverty, a new type of development project has been gradually introduced. The projects following this pattern are termed the "new style" projects and

have three main characteristics: (1) they are designed to reach large numbers of people and help them share the project generated benefits; (2) they tend to be integrated and multisectoral projects - taking a comprehensive approach to small scale agriculture and providing for a balance between various directly productive and other components - often social components as water supplies, health and education services; (3) they tend to have a sufficiently low cost per beneficiary so that they may be extended or replicated over broader areas (a brief description of some of these projects is given in Annex I to this presentation).

The implementation of these new style projects requires both a national plan or program for rural development with strong commitment at the national level and an increasing decentralization and coordination at the local level. Community involvement and development of grassroot rural institution is both an aim and a product of these projects.

The emphasis on popular participation, however, should not obscure the role of central and intermediate level institutions in planning and implementing rural development projects. The Banks experience indicates that provided a strong commitment of the central national authorities exists, the very pattern nature of rural development projects favors and encourages a substantial measure of decentralization involving the strengthening of local government and increased community participation.

In the context of various forms of increasing popular participation, decentralization has several meanings. It may mean decentralization of authority (1) to formulate projects; (2) to administer projects; (3) to allocate expenditure and (4) to raise revenue. There is increasing evidence that the advantages in planning and administering development from local

levels are particularly great where there is a complex, multisectoral mix of activities that need to be properly integrated and scheduled. At the same time, local level management provides the flexibility needed to modify programs as conditions become better understood or as circumstances change. More generally, the combination of authority, responsibility and accountability focused at the local level leads to much more active promotional efforts than otherwise. This is particularly true in the more backward and isolated regions which tend to be neglected under a highly centralized system. However, compared with the large potential for transferring decision-making authority to the lower levels of the administrative hierarchy, the actual progress toward decentralization is generally still modest.

At the present time, the proportion of expenditure on development which is allocated as a result of local decisions is fairly small - perhaps in the range of 10% to 20%. Budget authority continues to rest at the center. Funds which provincial authorities can allocate out of their own revenues for rural development are still very inadequate or insignificant.

Decision-Making and Community Involvement

The Bank's new style projects strongly encourage grassroots community participation in defining the felt needs for development, the promotion of self-help schemes and the building of local popular institutions capable to involve people in the decision-making process. Experience of various Bank projects - the PIDER Rural Development Project in Mexico, the Kigoma project in Tanzania, the Lilongwe project in Malawi and others - clearly indicates that community involvement in the selection, design, construction and implementation of rural development programs has often been the first step in the acceptance of change leading to the adoption of new techniques of production.

The manner in which early participation is to be achieved, and balanced with the need for overall guidance and control from the center, is a problem which can only be resolved within each country. There is some evidence, however, such as at Comilla in Bangladesh, that a strengthened local authority is better able to secure effective participation than are officials answerable to faraway central governments. It appears that Tanzania has gone further in its attempts to deal with these problems than most other countries. For example, preparation of regional development budgets now begins with proposals from a system. A somewhat similar system of decentralized planning and decision-making is practiced in Malaysia, and one is being developed in Indonesia. Several countries have found that rural people have perceptions of needs and possibilities which are generally different from those of "rational" officials. The "right" balance in this relationships is hard to strike.

Participation of project beneficiaries in decision-making is favored, though not often achieved, through the development of grassroots peasant institutions and organizations. Local institutions such as, for instance, farmers' associations or marketing cooperatives, informal credit groups or village irrigation committees, have obvious potential advantages for coping with administrative difficulties in reaching the rural poor. On the one side, they provide some measure of participation through the involvement of their members. On the other, they perform intermediary functions which make it possible to provide credit to larger numbers than can be done through official agencies. Group members can be held jointly responsible for repayment of credit, for acceptance of input supplies or other produce purchased from outside, and for delivery of the marketed surplus to the appropriate agencies (public or private). In some systems, cultivation is arranged on a cooperative basis, possibly with the application of more

or less uniform cultivation practices to land and crops that remain the responsibility and property of the individual cultivators. Local groups and associations reduce the need for government servants or personnel of government-supported agencies to deal with the individuals and families that comprise the target groups, simultaneously involving more directly, practically and psychologically, the beneficiaries in making decisions on the administration of the provided resources.

There are, however, numerous and important constraints on the development of such local institutions and, implicitly or openly, political obstacles to large participation in decision-making. Though almost all governments support cooperative development for the rural areas in one form or another, the Bank's experience on various agricultural projects indicates that the performance of cooperatives has been mixed. In some, the skills -- particularly entrepreneurial and trading skills -- required of the managers have been underestimated. With inefficiency and losses, the cooperative becomes a high-cost purveyor of services for its members. In some places, these difficulties have been accentuated by active and effective opposition to the cooperative from private traders, landlords and others to whom organization among low-income families is not advantageous. At times, such groups capture much of the benefit by working from within: for example, when membership of a cooperative is a condition for access to subsidized credit. But experience with cooperatives is not all bad, and such organizations provide the participation and impetus in rural development programs that is hard to secure in any other way.

Moreover, in most societies, there is a well-established informal system of mutual aid upon which to build. The work of non-governmental

agencies furnishes some of the more successful examples in fostering cooperation, usually working outside the framework of officialdom, and often in quite modest circumstances. The Bank is currently exploring ways of working more closely with non-governmental agencies, especially where they have gained useful local experience.

Popular participation in decision making is being promoted by some rural development programs as the obvious alternative to previous authoritarian or paternalistic approaches, which have ended in failure. There are, however, deeprooted cultural and institutional obstacles to overcome. A very interesting experiment is being carried out under the PIDER Rural Development project in Mexico. The essence of the PIDER program is decentralization of investments, with an attempt to increase village participation in investment programming. A scientifically controlled experiment in participation has been started. In two Mexican villages, the equivalent of US\$40,000 (roughly US\$50 per inhabitant) is being provided for investments, with no strings attached whatsoever. The goal of their experiment is to test, under real life conditions, the operation of a model of peasant participation in two different rural communities: an Ejido and a non-Ejido village, both supported by the PIDER program. Through meetings of the villagers, the village itself is to determine how the funds are to be spent. As part of the experiment, the village is to decide completely on its own, without external interference. A detailed evaluation will be made in the expectation that the lessons learned might be replicated more widely in subsequent phases of PIDER (see Annex 2).

The various aspects and issues of popular participation in rural development projects are much more numerous than a short presentation can possibly cover. The basic fact, however, is that popular participation is organically a component part of the rural development strategy, lies at its roots and is likely to be gradually expanded.

SAMPLES OF RECENT BANK/IDA RURAL DEVELOPMENT PROJECTS.

India - Rajasthan Dairy Development Project, and Madhya Pradesh Dairy Development Project (IDA - \$27.7 million and \$16.4 million)

The major objective of these two projects is to increase milk production through cooperatives covering over 2 million people in selected areas of two states of India. They will provide breeding stock, an artificial insemination program, extension programs, five union cooperative dairy plants and feed mills, milk collection and chilling equipment, a regional diagnostic laboratory and a plant for production of veterinary vaccines for improving the productivity of the herd. Institutions to be created include 3,000 Dairy Cooperative Societies organized into eight Cooperative Unions. Each of the cooperative unions would have an extension training program for developing large numbers of local staff needed to implement the projects.

Increases in milk production come from both cows and buffaloes, which belong to 400,000 families. Most own less than 2 ha, or, are landless workers. Milk production will increase by 760,000 tons a year leading to a substantial improvement in nutrition. In addition to the rural families directly participating in the project, millions of children in the urban areas will benefit nutritionally from the output.

The two IDA credits will finance about 53% of the costs of the projects; the balance comes from the Government of India, the State Government of Madhya Pradesh and Rajasthan, the Agricultural Refinance Corporation of India and participating banks and farmers. Marketing and transport will generate over 10,000 full time jobs within the cooperative structure. Economic rates of return: 30%-35%.

Tanzania - Kigoma Rural Development Project (IDA-\$10 million)

The project aims at improving living conditions among extremely poor rural families in the Kigoma region of western Tanzania, including provisions for economic and social infrastructure in 135 "ujamaa" villages. Annual per capita incomes are about \$20 - among the lowest in the world, compared to rural per capita income of \$85 for Tanzania as a whole. Tanzania has centered its program of rural development around "ujamaa" village settlements, emphasizing community self-help and cooperative efforts. The project constitutes a major part of the regional administration's development program and is implemented entirely through regional entities. Within the 135 recently settled ujamaa villages, some 250,000 people will benefit from the project.

Traditionally, families in the Kigoma region work 3-4 acre holdings in relative isolation. Production is almost exclusively food crops for subsistence consumption. Under this project, yields of food crops (such as maize and beans) are expected to increase from 100% to 140% above present yields, generating substantial marketable surpluses - \$4.2 million annually at full development.

The project will be executed over a five-year period, and consists of: village infrastructure in the form of investment in water supplies; education and health facilities; tsetse fly bush clearance and feeder roads; agricultural credit to village cooperative societies for crop inputs and productive infrastructure, to the regional cooperative union and to para-statal corporations

for godowns and vehicles, and to small-scale fisheries in Lake Tanganyika; regional supporting services including an agricultural experimental and training center, aerial photography of areas to be developed, and a regional radio-telephone hook-up; and technical assistance, including preparation of 3-4 more rural development projects.

The UN Capital Development Fund is co-financing this project with a \$1.5 million participation. A major objective is to enable the ujamaa communities to develop a basis for sustainable economic self-reliance. Per capita incomes are expected to double from \$20 to \$40 at full development. Economic rate of return: 22%.

Upper Volta - Bougouriba Agricultural Development Project (IDA - \$8 million)

This project presents the first major effort to develop the natural and human resources of the Bougouriba area in southern Upper Volta. Development in this area has long been impeded by disease and malnutrition which are still seriously affecting much of the population. It concentrates on productive improvements that will immediately increase farmers' incomes and on social investments for urgently needed improvements of domestic water supply. By increasing production and incomes of 16,000 farmers, a first priority has been given to ensure adequate food supplies for their families. Living conditions of another 16,000 families would improve from water supplies and roads, providing better access to health and other social services. In total the entire population of this area of some 360,000 people will directly or indirectly benefit through project activities. Productive improvements would be achieved in small-holder agriculture through training and facilities for development and extension staff, agricultural research, and the provision of credit and veterinary services. 660 km of roads will be improved. Wells will be built or rehabilitated in 120 villages. Cash incomes of farm families will increase an average from \$260 to \$520 annually. Economic rate of return: 68%.

Mali - Integrated Rural Development Project (IDA - \$8 million)

This project aims to improve the productivity and incomes of farmers for whom groundnuts are the main cash crop. Conditions in the project area are characterized by extreme poverty, with per capita incomes of \$30 per annum. In addition, it helps apply modern techniques to the cultivation of Mali's principal cereal crops, millet and sorghum and will intensify live-stock development. Mali has been seriously affected by recent droughts which led to acute food shortages. External aid has enabled Mali to withstand the vagaries of the weather in recent years, but it is essential that the country's productive capacity be strengthened. The main objective of the project is to benefit directly about 1 million people through: providing equipment and credit to participating farmers; improving roads; expanding an ongoing functional literacy program; providing veterinary services; and improving medical facilities. Besides the IDA credit, French aid (a FAC grant) will provide \$2.5 million equivalent. Typical per capita cash incomes would increase from \$22 at present, to \$38 with manual cultivation and to \$57 with ox-powered cultivation. Economic rate of return: 90%.

Ethiopia - Agricultural Minimum Package Project (IDA - \$21 million)

Part of a program started in 1971, on basis of field testing under SIDA's CADU project, to increase the productivity and income of small farmers through the provision of modern inputs, such as extension services, fertilizers, seeds and adequate credit. To achieve this objective, the Government divided the rural areas into "minimum package areas", each of which extends 3 miles along either side of a 45-mile all-weather road. Each area contains approximately 10,000 farm families. Teams of extension workers assisted by model farmers trained in special programs, will eventually reach 65% of the farmers in each area. By 1980 about 400,000 farm families will have joined the program.

Besides providing fertilizers, seeds, extension services, and other farm inputs, the project includes the construction of roads; facilities for the extension service; market and storage centers in the rural areas; the provision of equipment, materials, and services to the Ministry of Agriculture to support execution of the program; and credit to enable market centers and cooperatives to make loans to farmers against their grain crop prior to sale. SIDA is providing \$2.2 million of associated technical assistance. In addition, consultant and technical services are included for planning new agricultural projects. A typical owner-operator cultivating one hectare of land under the project could raise his annual cash income from zero to \$40, while a 3 ha farmer could double his net income to \$140. Economic rate of return: 15%.

Mauritius - Rural Development Project (IDA - \$4 million)

This first Bank Group financing for a rural public works program is directed towards benefitting the poorest segment of Mauritius' rural population. With the creation of productive employment as an important objective, it provides temporary employment to about 7,400 previously unemployed workers and permanent employment to another 1,000 people. Direct economic benefits accrue from increased production of agricultural and forest products, and the creation of infrastructure and social amenities to 86 poor rural villages (130,000 people) representing 16% of the country's population. These villages fall in the bottom 25% of the income scale and cover about 80% of the poorest households in Mauritius.

At village level, the self-help component of the project is designed to encourage small-scale development schemes to benefit rural families directly, through fencing of fodder areas, fruit tree planting, home vegetable gardens, rabbit, poultry and duck raising. Production benefits may also derive from afforestation of 4,000 acres of scrub land planted with pine and eucalyptus and from planting of fodder to feed 3,000 additional dairy cows. Besides these productive components, the project includes: construction of light forest access and extraction roads; improvement in basic amenities for rural villages (water taps, health clinics, access and internal roads, markets and community centers); and technical services and training, especially of 3,000 young workers in semi-skilled trades. Economic rates of return: 13% for fodder planting and 8% for afforestation.

Turkey - Corum-Cankiri Rural Development Project (Bank - \$75 million)

The project covers the adjacent provinces of Corum and Cankiri, two of the least developed provinces in Central Turkey. Its major component is an intensive extension service aimed at raising farm incomes, together with the provision of water, electric supply, community facilities and other services. Farmers will receive new credit facilities through the Agriculture Bank. The project includes construction of new irrigation facilities for 12,500 ha and on-farm development for 7,500 ha; construction of 65 km of roads, rehabilitation of another 164 km, and maintenance of 904 km of new and existing village roads. About 120 villages will get new supplies of drinking water from wells and springs, and 233 settlement areas will have electricity for the first time. The project also provides for construction of village centers in 63 villages.

A wide variety of irrigated and rainfed crop production will be expanded and improved. Food crops under the project will expand from 800,000 tons to 1,500,000 tons at full development. Direct benefits for farmers will come from expansion of cropped areas, increased yields of wheat and barley, and more productive livestock. The main beneficiaries of the project will be about 79,000 farm families (about 400,000 persons) on dryland farms whose incomes are expected to be increased from an average of \$980 to \$1,670 per family. Additional employment on farms could total 2.5 million man-days per annum. Economic rate of return: 23%.

Yemen Arab Republic (YAR) - Southern Uplands Rural Development Project
(IDA - \$10 million)

The project constitutes YAR's first integrated rural development effort. It includes: credit for the application of modern agriculture inputs and on-farm investments; production and distribution of high-yielding seeds; rural works infrastructure and sanitary water supplies; and technical assistance. The project area is in two of the poorest provinces, Taiz and Ibb. It will directly benefit 21,000 farm families operating some 35,000 ha of cultivated land. The directly production-oriented components, including small irrigation systems, feeder roads and village water supply are expected to be built under labor-intensive methods. Besides construction employment, amounting to 4,800 man-years, some 9,400 man-years of additional on-farm employment would be created. Sanitary water supplies are expected to have a significant impact on the health of the whole population by reducing waterborne diseases which are endemic.

Food production at present is 50,000 tons and will increase by 100,000 tons (largely food grains, potatoes and onions) at full development. In addition, about 20,000 tons of alfalfa would be used to fatten lambs, a needed source of protein. These increases represent import savings of about \$30 million annually. The project aims at increasing directly the incomes of 21,000 farm families mostly small part-time farmers and tenants tilling less than 1 ha per family. Pre-project income of the target group is \$50 per capita as compared to \$115 for the country as a whole. Under the project, incomes are expected to double on rainfed land and to increase to as high as \$750 annually on newly irrigated land at full development. Besides IDA, the Abu Dhabi Fund for Arab Economic Development also will provide \$10 million to this program. Economic rate of return: 23%.

Mexico - Integrated Rural Development II: PIDER (Bank - \$110 million)

The project supports integrated rural development in 30 poverty stricken regions throughout the country, ranging from arid to humid tropical zones, with a total rural population of 1.5 million. Principal objectives are to raise the income and employment levels of the rural poor and to improve their quality of life, through a combination of directly productive, productive support and social infrastructure components acting together to promote balanced social and economic development. The project, to be executed over a four-year period, includes: construction of small-scale irrigation systems; 2,000 km of feeder roads; small market stores and warehouses; water supply systems for 250,000 persons; construction or renovation of 220 health posts and 70 rural health centers; and 1,150 classrooms to accommodate 60,000 students. It also includes livestock development, soil and water conservation, training of farmers, intensive technical assistance and provision of materials for self-help projects. The project is to be implemented by some 14 federal and state agencies with strong coordination mechanisms established at the federal, state and local levels under the overall supervision of a unit in the President's office.

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The project will remove a major obstacle to Mindoro's development by improving the island's rural transportation system. It will provide irrigation facilities and an island-wide agricultural program for improved inputs, extension and rodent control. A public health component is directed toward the control of endemic schistosomiasis. Special services will be provided to 80,000 minority tribespeople through improved medical, agricultural, legal and communication services. Under the project, rice production will increase by 65,000 tons, or enough to feed over half a million people a year. Incomes of project beneficiaries will almost double. Economic rate of return: 18%.

Indonesia - North Sumatera Smallholder Development Project (IDA - \$5 million)

The project is the first major effort by the Government to assist rubber smallholders in Indonesia, about 80% of whom have farms of 1 hectare or less - much below what is necessary to provide an adequate family income. It is designed to raise incomes of 18,000 smallholder families to about the national average over a period of nine years.

As a model for future replication elsewhere in Indonesia, the project is testing various approaches to smallholder development. About 1,000 landless laborers were allocated 3 ha each, and 3,000 smallholders with uneconomic farm sizes received additional land, in part through the subdivision of abandoned government estates. Rubber plantings and diversification into oil palm are carried out under a supervised loan program. Intercropping rubber with food crops has also been successfully introduced. Improvements in primary processing and marketing will be provided through the establishment of cooperative centers which would service 16,000 smallholders. The project also provides for improvement of the farm road network and aims to strengthen agricultural extension and farmer training programs in the project area. The project also included assistance for planning follow-up projects. Based on the experience and information gained so far from the project, which started in 1973, Government is now expanding its smallholder settlement program. Economic rate of return: 14%.

AN EXPERIMENTAL MODEL OF CAMPESINOS PARTICIPATION TO
IDENTIFYING AND PLANNING FOR RURAL DEVELOPMENT TARGETS

Previous development programs in Mexico have been biased by either authoritarian or paternalistic approaches. On very few occasions have resources been channeled to peasants enabling them to directly administer such resources. However, in most such cases the technical resources were not sufficient to support the efforts of the villagers.

The goal of this experiment is to test, under real life conditions, the operation of a model of peasant participation in two different rural communities: an Ejido and a non Ejido village, both supported by the PIDER program.

CIDER and the Institute of Engineering would cooperate in running this social experiment.

The objectives of testing a participation model are:

- (1) to accelerate community development through direct participation of peasants in:
 - (a) identification and diagnosis of their own problems;
 - (b) the selection of alternatives for investment and production;
 - (c) the programming and sequencing overtime of investment funds and of various economic and social activities;
 - (d) the adoption of community decisions and the improvement of traditional village authority and management patterns;
 - (e) the administration of budget allocations channeled directly to the Ejido and to the village;
 - (f) the recovery of productive investments according to the repayment capacity of the Ejido/community and to the currently enforced Bank criteria;
 - (g) the establishment of village control mechanisms on investment programs and of sound accountant and administration procedures;
 - (h) the evaluation of the experiment findings.

Expected Outcome. The testing of this participation model is expected to produce the following results:

- (1) To develop the self management capabilities of the members of the rural community.
- (2) To increase the income of community members and to cause a more equitable distribution of the benefits.
- (3) A more rational use of natural and capital resources and optimization of the use of community labor resources.
- (4) To identify the constraints on community participation in programming community development.
- (5) Coordination of the development of the public sector within the Ejido or the community with the full development of individual households.

Timing. The experiment will last for six months. By June, 1976 a preliminary assessment of the results would be ready. Field observation in the two experimental units will be carried on, in order to assess the trends after the end of the test as well as the long-term effects of this model.

MC:jd

Mr. Montague Yudelman

May 13, 1976

Colin Bruce *CB*

Bank Policy on Farm Subsidies: An Interim Statement

As you are aware, a detailed review of policies regarding farm subsidies is underway as part of the background studies for the policy paper on Agricultural Prices and Subsidies. A definitive statement is, however, somewhat off since work has only just begun on the background studies. In the meantime, the matter of farm subsidies has arisen again as an issue in the operations of several Regions, and some confusion has been evident as to what constitutes Bank policy on subsidies at this time. This memorandum is intended to clarify our interim position, which should hold until a more complete statement is available later next year.

The general position is a very flexible one as reflected in Operational Memorandum Number 2.61 which states:

- 1 "The extent of and the need for subsidies, if any, has to be demonstrated and justified. The case for subsidization takes account of the repayment capacity of beneficiaries, external benefits accruing to interests outside of the project, and any transfer distortions within the economy due to domestic terms of trade, exchange rates, etc."

This statement offers no explicit guidelines as to what constitutes necessary and sufficient conditions for subsidies; nor does it distinguish clearly between the use of subsidies as production incentives and as a form of transfer payment to target income groups. Both arguments have been used traditionally to justify subsidies and they should therefore be considered as separate possibilities.

Incentive Subsidies. The "Agricultural Credit Sector Policy Paper" indicates that subsidies on technical inputs are acceptable where additional incentives are required to catalyze the adoption of new farm technology, especially where production risk is judged to provide a disincentive to adoption. In such circumstances, subsidy should be terminated within a definite time period, the beneficiaries being, presumably, willing to continue with the new technology once the subsidy has been withdrawn. When providing incentives to technological innovation, it is strongly preferred that the physical inputs be subsidized rather than the credit which may accompany them. Similarly, it is generally considered more appropriate to subsidize inputs rather than output prices.

The "Policy Paper on Bank Lending for Foodgrain Production" indicates that, in addition, incentive subsidies may be appropriate where free market prices do not provide adequate incentive for food production. In these circumstances, the subsidy policy should be examined in relation to levels of protection of other sectors and the degree of freedom surrounding market prices for agricultural commodities. It is expected that situations where such subsidies can be justified will be rare, save perhaps in short-run situations while other policies (such as those protecting secondary industries) are being modified. In this kind of situation, the subsidization of output prices may be more acceptable.

Transfer Subsidies. The Bank's concern with income redistribution has not yet been fully reflected in all operational policies. However, the recent CPM on "Irrigation Water Charges, Benefit Taxes and Cost Recovery Policies" suggests quite explicitly certain conditions under which it may be appropriate to subsidize irrigation through reduced cost recovery from certain target groups. Two guidelines are indicated; first, that those beneficiaries that remain below the "critical consumption level" (CCL) should not be required to pay additional taxes, and second, that those who remain above the CCL should be taxed progressively in proportion to their incremental benefits (rent). In other words, for target groups below the CCL, subsidies in the form of a once over capital grant may be considered acceptable, and for those target groups above the CCL progressive proportions of the investment costs might be subsidized. This does not include target group subsidies in the form of reduced interest rates, since, as indicated above, there are practical reasons for preferring the subsidization of physical inputs rather than interest rates (see the Agricultural Credit Sector Policy Paper).

The critical considerations associated with this type of subsidy are as follows: first, the quality of implementation, insofar as this determines whether the specified target groups do in fact receive the subsidy; second, the budgetary implications, since such subsidies can be a substantial drain on limited funds available for agricultural investment; and third, that the subsidy should be associated with technological innovation which will significantly increase the productivity of the beneficiaries, even though some may remain at little above subsistence level.

In respect of all subsidies it should be emphasized that the Bank will not lend to cover the amount of the subsidy. On the other hand, a subsidy associated with a Bank project component may be acceptable if it conforms to one or other above guidelines. In each case, however, the need for the subsidy should be demonstrated and justified.

cc: Messrs. van der Tak, Ray

GFDonaldson:mt

OFFICE MEMORANDUM

✓ ^{yellow} Agric & Rural
cc Nutrition

TO: Mr. Montague Yudelman

DATE: May 6, 1976

FROM: Leif E. Christoffersen *LC*SUBJECT: Revised Lending Program for Rural Development and NutritionA. Rural Development Division

1. The attached table shows what remains of the Rural Development Division's Lending Program for FY77-81 after the most recent revisions. As you can see, there are several cuts in it. In a large measure this stems from the fact that the Rural Development Division has a rather unique role--to handle the "new-style" innovative and experimental type of projects. Consequently, many of those projects we consider to be in our work program are considered by the Regions to be more uncertain than their more regular-type agricultural projects. Hence their reluctance to include some of our contemplated projects in the reduced Lending Program.

2. Signals have come to us from the Regions that the absence of some projects in the new Lending Program does not mean that we should curtail current or planned project identification/preparation work. On the contrary, we have been given every assurance that this work should be continued, and indeed expanded in certain cases. In view of this, I am not too concerned about the reduced Lending Program. Besides such work as quality control, Project Information Briefs, monitoring and evaluation systems, and project supervision, we have a special role to play in rural development project work--as a catalyst for project ideas for the Regions and as an "experimental laboratory" for the testing of some pioneering types of projects. I, therefore, recommend that we do not make any very strong objections at this stage to the reduced Lending Program for the Rural Development Division, unless you, or higher-level management, find reason to believe that it may in the end affect our work objectives.

Remarks on the Revised Lending Program:

Generally our own assumptions regarding follow-up projects have suffered most in the reduced Lending Program.

Latin America: Why did Paraiba RD fall out of the Brazil Program? We also had an understanding with the Region on a third RD project in NE Brazil.

East Africa: We expect follow-up projects in Tanzania. What happened to Madagascar project which the RVP and the Program Coordinator asked us to assume primary responsibility for only two months ago?

West Africa: Cameroon project will be appraised this fall and may be ready earlier. Loan amount is too small.

South Asia: More than one project likely in Pakistan, as well as in Bangladesh.

East Asia: No major problem (RVP has to rule on Indonesia project issues).

EMENA: We assume follow-up projects in Algeria.

B. Nutrition Unit

4. The revised Lending Program has no immediate impact on the existing work program for the Nutrition Unit.

Attachment

LEChristoffersen:jo'd

cc: Messrs. John King
T. Davis
D. Turnham o/r
M. Veraart/D. Bates

REVISED LENDING PROGRAM FOR
RURAL DEVELOPMENT DIVISION
(after Knapp Revision)

	<u>FY77</u>	<u>FY78</u>	<u>FY79</u>	<u>FY80</u>	<u>FY81</u>
<u>LAC</u>					
Mexico	90.0			100.0	
Brazil					
Paraiba	25.0				
<u>East Africa</u>					
Tanzania	15.0 (S)	15.0 (S)			
<u>West Africa</u>					
Cameroon					
Zapis RD		5.0*			
<u>South Asia</u>					
Pakistan RD			15.0 (R)**		
Bangladesh	30.0 (S)		30.0		
<u>East Asia</u>					
Philippines RD	15.0				
Indonesia			20.0 ?		
<u>EMENA</u>					
Algeria II		-----NONE-----			

TJDavis (5/5/76)

*We have told Mr. de la Renaudière that at least \$10 million is required.

**Not counted in lending program (reserve).

Agriculture & Rural

Leif E. Christoffersen

May 4, 1976

Claes Lindahl

Manpower Coefficients for Appraisal and Supervision
of Agriculture and Rural Development Projects

The attached table is an elaboration of P & B's calculation of manpower coefficients for supervision work and appraisal based on the time recording system. Agriculture projects have been broken down in "rural development projects" and "other agriculture projects". The manpower coefficient for appraisal has been taken from David Turnham's calculation (based on P & B data).

The supervision effort for Rural Development seems not to differ significantly for Rural Development projects compared to projects in other sectors. Rural Development projects have an estimated yearly average for FY76 of 13.1 manweeks which is within 5% of the total Bank average of 12.5 manweeks.

On the other hand, as David Turnham pointed out, Rural Development projects require substantially more input in the appraisal stage. Rural Development projects approved in FY74 and FY75 required on the average 30% more manpower than Bank projects as a whole and in fact over 40% more than projects in other sectors. It should be added that P & B's figures do not cover the pre-appraisal stage of the projects.

Somewhat surprisingly, "new style" rural development projects (multisectoral) seem not to require substantially more manpower in appraisal than other rural development projects, but almost twice as much time in supervision. However, the number of such projects are too low to draw any conclusion from this.

Attachment:

CL/cc

cc: D. Turnham
T. Davis

Mr. Warren C. Baum

April 28, 1976

Montague Yudelman

Data on Crop Yields

1. Further to your request for information on crop yield ranges, I attach several sets of figures for your consideration:

- Table 1: A table showing average yields of paddy rice, by country in Asia for 1965-1974,
- Table 2: A consolidation of these data by subregion showing increments in output, area and yield over a ten year period,
- Table 3: Some ideas on unit cost per hectare 1968-72 for irrigation for rice production,
- Table 4: Thailand data showing yield by size of farm and use of fertilizers,
- Table 5: Aggregate data on spread of new varieties of rice 1964/65 - 1968/69,
- Table 6: A table showing the variation of HYV (high yielding varieties) yields over local variety yields,
- Table 7: Detailed data on future of improved practices in one Bank project: The Chambal Ayacut Development Project in Madhya Pradesh,
- Figure 1: A graph showing the relationship between rice output and irrigation efficiency,
- Figure 2: A graph and a map showing diffusion rates of hybrid maize in Kenya.

2. High yield variability, both in space and time, is recognized as a feature of agricultural production. One of the goals of agricultural development is to control this variability - hence one reason for our interest in irrigation, better varieties, and housing livestock. It is difficult to specify a yield expectation except in a specific ecological zone with specified technology status and level of management. Even then the yield variation would often be greater than 100% of the mean. More specific yield specification could, however, be achieved by more detailed data collection during sector work, but in many less developed countries this would necessitate considerable research.

3. The rate of adoption and of realization of yield potentials is equally situation specific, being influenced by social factors such as age and health, institutional factors such as the form of tenancy, as well as economic issues such as the availability of credit, the degree of yield variability and so on. A review of our knowledge on this subject is being undertaken as part of a background study to the forthcoming "Issues Paper on Farm Technology".

Table 1: Paddy production statistics for various countries in Asia

No. Country	1965					1974				
	Paddy production*	Harvested $\frac{1}{}$ area*	Irrigated area**	Paddy yield*	Irrigation rate**	Paddy production*	Harvested $\frac{1}{}$ area*	Irrigated area**	Paddy yield*	Irrigation rate**
	(1000t)	(1000ha)	(1000ha)	(t/ha)	(%)	(1000t)	(1000ha)	(1000ha)	(t/ha)	(%)
1. Afghanistan	380	249	13	1.52	5	480	266	16	1.80	6
2. Bangladesh	15,751	9,186	460	1.72	5	17,679	9,904	495	1.78	5
3. Burma	8,055	4,750	710	1.70	15	8,582	4,974	797	1.74	16
4. Cambodia	2,500	2,290	62	1.09	3	635	555	17	1.14	3
5. India	45,983	29,300	11,700	1.57	40	60,000	37,500	16,100	1.60	43
Indonesia	13,660	7,500	2,450	1.82	33	22,732	8,537	4,950	2.66	58
7. S. Korea	4,731	1,137	910	4.16	80	6,178	1,205	1,022	5.12	85
8. Laos	740	914	22	0.81	2	905	686	69	1.32	10
9. W. Malaysia	892	339	141	2.63	42	1,813	597	287	3.04	48
10. Nepal	2,207	1,108	78	1.99	7	2,453	1,239	124	1.97	10
11. Pakistan	1,975	1,147	860	1.72	75	3,470	1,604	1,280	2.16	80
12. Philippines	4,073	3,140	938	1.30	30	5,660	3,539	1,590	1.60	45
13. Sri Lanka	756	401	236	1.89	59	1,603	680	449	2.35	66
14. Taiwan	3,076	824	573	3.73	70	3,250	1,040	896	3.20	86
15. Thailand	9,199	5,511	1,650	1.67	30	13,175	7,734	2,860	1.71	37
S. Vietnam	4,822	2,432	262	1.97	11	7,200	2,900	435	2.48	15
Subtotal	118,800	70,228	21,065	1.69	30	155,815	82,960	31,387	1.86	38
17. China (excl. Taiwan)						111,963	34,188		3.27	
18. Japan						15,618	2,724		5.73	
Asia total						293,391	123,803		2.37	
World total						321,818	136,273		2.35	

Source: *) Obtained mainly from the FAO Monthly Bulletin of Agricultural Economics and Statistics.

**) Obtained mainly from data of the ADB "Asian Agricultural Survey" and the FAO Bangkok Regional Office but partly estimated by the writers.

Note: 1/ If a paddy field with 100 ha is planted 1.5 times paddy a year, then "Harvested Area" is shown as 150 ha.

Table 2 Paddy Production Statistics ^{1/} for Sub-regions in Asia

	Sub-region	Asian total	South Asia	ASEAN	Other parts of Asia
	Country	15 countries	Afghanistan, Bangladesh India, Nepal, Pakistan, Sri Lanka	Indonesia Malaysia Philippines Thailand	Burma, Cambodia, South Korea, Laos Vietnam
1965	Paddy production (million tons)	115.7	67.0	27.8	20.8
	Harvested area (million ha)	69.4	41.4	16.4	11.5
	Irrigated area (million ha)	20.5	13.3	5.2	2.0
	Paddy yield (t/ha)	1.67	1.62	1.69	1.81
	Irrigation rate (%)	30	32	31	17
1974	Paddy production (million tons)	152.6	85.7	43.4	23.5
	Harvested area (million ha)	81.9	51.2	20.4	10.3
	Irrigated area (million ha)	30.5	18.5	9.7	2.3
	Paddy yield (t/ha)	1.86	1.67	2.12	2.27
	Irrigation rate (%)	37	36	47	23
	Population (100 million persons)	10.92	7.74	2.23	0.95
	Paddy consumption per capita (kg/capita)	139	110	195	248
1974/1965 (Annual increase)	Paddy production increment	131 (3.1%)	128 (2.8%)	156 (5.1%)	113 (1.4%)
	Area increment	118 (1.9%)	124 (2.4%)	124 (2.4%)	90 (-1.2%)
	Yield increment	110 (1.1%)	103 (0.3%)	125 (2.5%)	125 (2.5%)

Notes: ^{1/} Data are mainly from FAO, ADB, but some figures have been estimated by the writers.

Table 3: Aspects of cost data based on different Irrigation Projects in Asia (1968-1972, before the oil shock)

<u>Type</u>	<u>Country</u>	<u>Total Cost</u> (\$1,000)	<u>Unit Cost</u> (\$/ha)	<u>Conversion to 1975 Price</u> (\$/ha)	<u>Paddy yield with project (t/ha)</u>	
					<u>Wet season</u>	<u>Dry season</u>
A. Land reclamation and adequate irrigation	Sri Lanka	26,455	2,000	Average 2,165 x 1.5 = 3,000	4.2	4.2
	Laos	1,957	2,330		5.0	5.0
B. Conversion from rainfed to adequate irrigation	Indonesia	3,503	974	Average 1,030 x 1.5 = 1,500	4.0	4.0
	Philippines	4,577	616		3.5	4.0
	W.Malaysia	7,105	1,393		5.0	5.0
	Indonesia	16,400	1,110		4.0	3.2
	Nepal	6,900	1,380		4.0	4.0
	S. Vietnam	6,000	706		5.0	5.0
C. Conversion from inadequate irrigation to adequate irrigation	Indonesia	4,869	179	Average 258 x 1.5 = 400	4.0	4.0

Table 4: Rice Yield by Farm Size, Thailand, 1971-72
(kgs. per harvested hectare)

Lower Central Plain

Farm Size (Planted Area)	All Region		All Farms		Non-Fertilizer Using Farms		Fertilizer-Using Farms	
	Number of Farms (1)	Yields (2)	Number of Farms (3)	Yields (4)	Number of Farms (5)	Yields (6)	Number of Farms (7)	Yields (8)
Less than 20 rai (3.24 hectares)	37	1943.3	25	2130.4	18	2160.7	7	2053.8
20 to 40 rai (6.47 hectares)	73	1767.2	53	1872.9	27	1646.8	26	2108.2
40 to 60 rai (9.71 hectares)	52	1642.5	27	2025.4	15	1953.8	12	2115.0
60 to 80 rai (12.95 hectares)	40	1518.9	19	1501.0	15	1432.4	4	1757.4
80 to 100 rai (16.19 hectares)	14	1270.0	4	1478.8	2	1274.3	2	1682.6
Greater than 100 rai (16.19 hectares)	16	1012.4	6	1161.9	3	798.1	3	1525.7
Small Farms (less than 40 rai)	110	1826.5	78	1955.6	45	1852.5	33	2096.5
Large Farms (greater than 40 rai)	122	1476.3	56	1716.0	35	1592.4	21	1921.7

Table 5: Aggregate data on spread of new varieties of rice
1964/65 - 1968/69

<u>Crop Year</u>	<u>Acres (rounded)</u>
	<u>Rice</u> ^{1/}
1964/65	negl.
1965/66	14,000
1966/67	2,343,000
1967/68	6,762,000
1968/69	12,300,000

Note:

- 1/ Primarily International Rice Research Institute varieties (IR-8, IR-5), but also includes substantial quantity of: (1) ADT-27 and Taichung (Native) I in India; and (2) BPI-76 in Philippines. Does not include area planted to long-standing improved local varieties in Ceylon and Taiwan.

Table 6: HYV Yields in India as Multiple of Yields of Traditional Varieties

<u>Crop Year</u>	<u>Wheat</u>	<u>Rice</u>
1966/67	2.87	2.58
1967/68	3.70	2.18
1968/69	3.49	2.05
1969/70	3.68	2.26
1970/71	3.44	2.27
1971/72	2.50	2.03
1972/73	2.35	1.76
1973/74	2.59	1.71

Table 7: Detailed data on future of improved practices in one Bank project: The Chambal Ayacut Development Project in Madhya Pradesh

From a very small area under high yielding varieties two years ago, about 20% of the paddy area has been brought under high yielding varieties and instead of a single crop this area has become double-cropped.

Hundreds of crop cuttings have been carried out in areas with full improved practices, some improved practices and where improved practices have not been adopted. The yield results of some important crops are given by the way of illustration:

A. PADDY (Kg. per hectare)

1969	-	1019
1970	-	1105
1971	-	1116
1972	-	1558
1973	-	1850
1974	-	2457

B. WHEAT (Kg. per hectare)
1974-75

1.	with full improved practices	-	4365
2.	with some improved practices	-	3344
3.	without improved practices	-	2488

C. MUSTARD (Kg. per hectare)
1974-75

1.	with full improved practices	-	1800
2.	with some improved practices	-	1460
3.	without improved practices	-	1240

D. GRAM (Kg. per hectare)
1974-75

1.	with full improved practices	-	1850
2.	with some improved practices	-	1560
3.	without improved practices	-	1200

Fig. 1 Relation between paddy production stability and irrigation rate

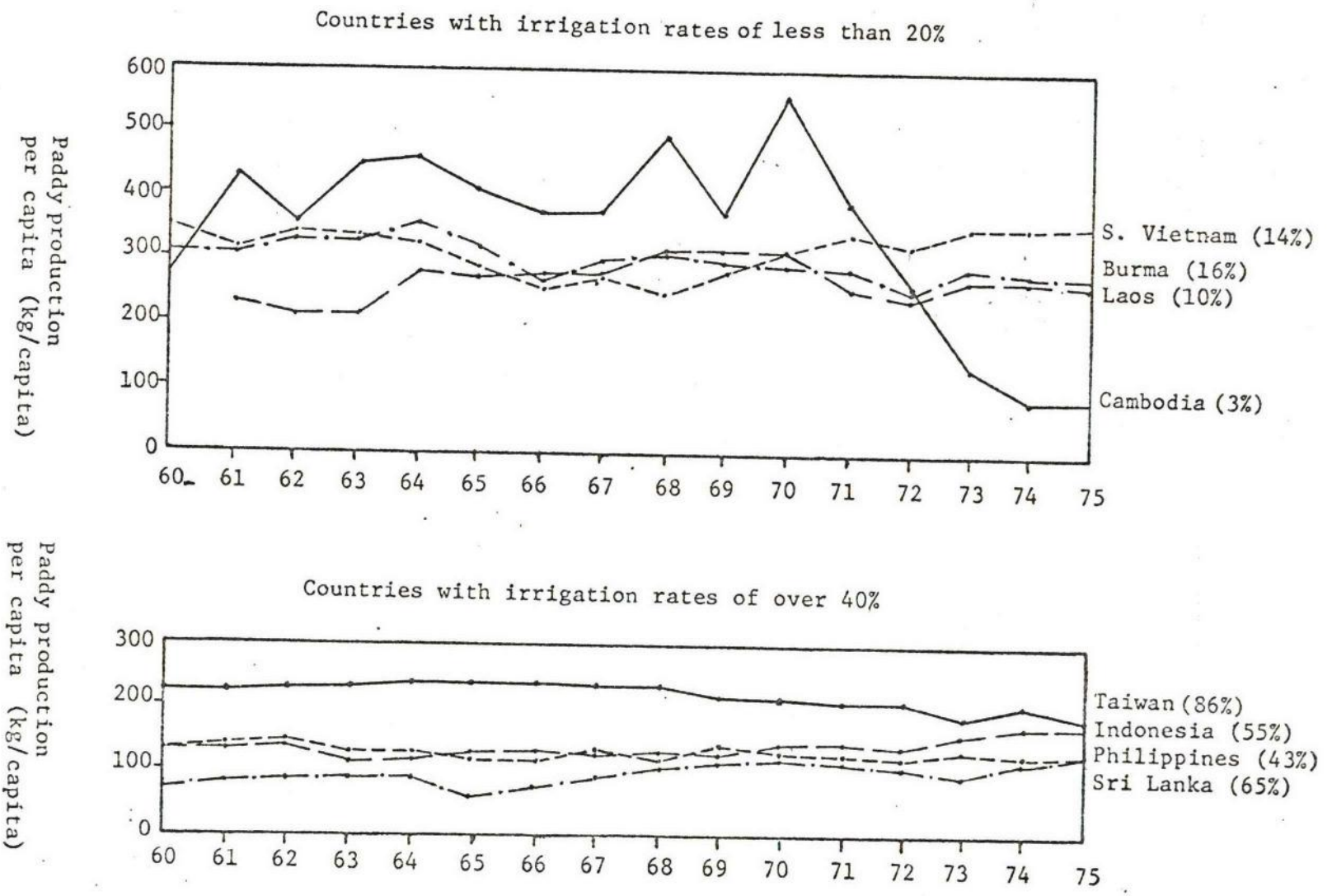


Figure 2: Percentage of farmers first planting hybrid maize by year and by zone

(Figures are cumulative and therefore may exceed the total percentage of farmers planting hybrid in a given year)

A closer look at the adoption pattern in Figure 2 shows clearly the differences in adoption rates and ceilings between zones. The former European-owned farms (Set 4) reached almost 80 percent usage within five years. Hybrid use on the smaller, but still relatively large, commercial, maize-growing farms in the neighboring areas also spread quickly but was soon matched and even slightly overtaken by the smaller subsistence farmers in the high rainfall areas of Kakamega, Kisii, and Kericho. Hybrid use in the lakeside districts of Nyanza Province was much slower to develop and may actually be falling since the percentage of farmers who reported ever planting hybrid is now considerably higher (32.9 percent) than the percent who reported planting in 1973 (15.8 percent). These data are presented visually in Map 4.

Interestingly enough, the rate of adoption in the high rainfall zones has been so steady that they hardly show the traditional S-shaped curve characteristic of most innovations (in which potential adopters at first hesitate, then adopt quickly, and finally slow down again as "conservative" late adopters lag behind). Griliches reported that the S-shaped or "normal" curve typical of hybrid adoption in the US was also found to exist for the adoption of combines, corn-pickers, and field forage harvesters, as well as new types of prescription drugs. Griliches also pointed out that the equilibrium level of adoption in all parts of the US never reached 100 percent. The western parts of Nebraska, South Dakota, and Kansas reach an equilibrium level after 30 years of 30 to 60 percent hybrid use. These are areas of highly variable rainfall where the use of hybrid was profitable only for those farmers on particularly good land or able to employ irrigation. This may eventually prove to be the case in Zone 3. Unless new varieties specially suited to that environment are developed, hybrid use may stabilize only among farmers with certain, as yet unspecified, characteristics.

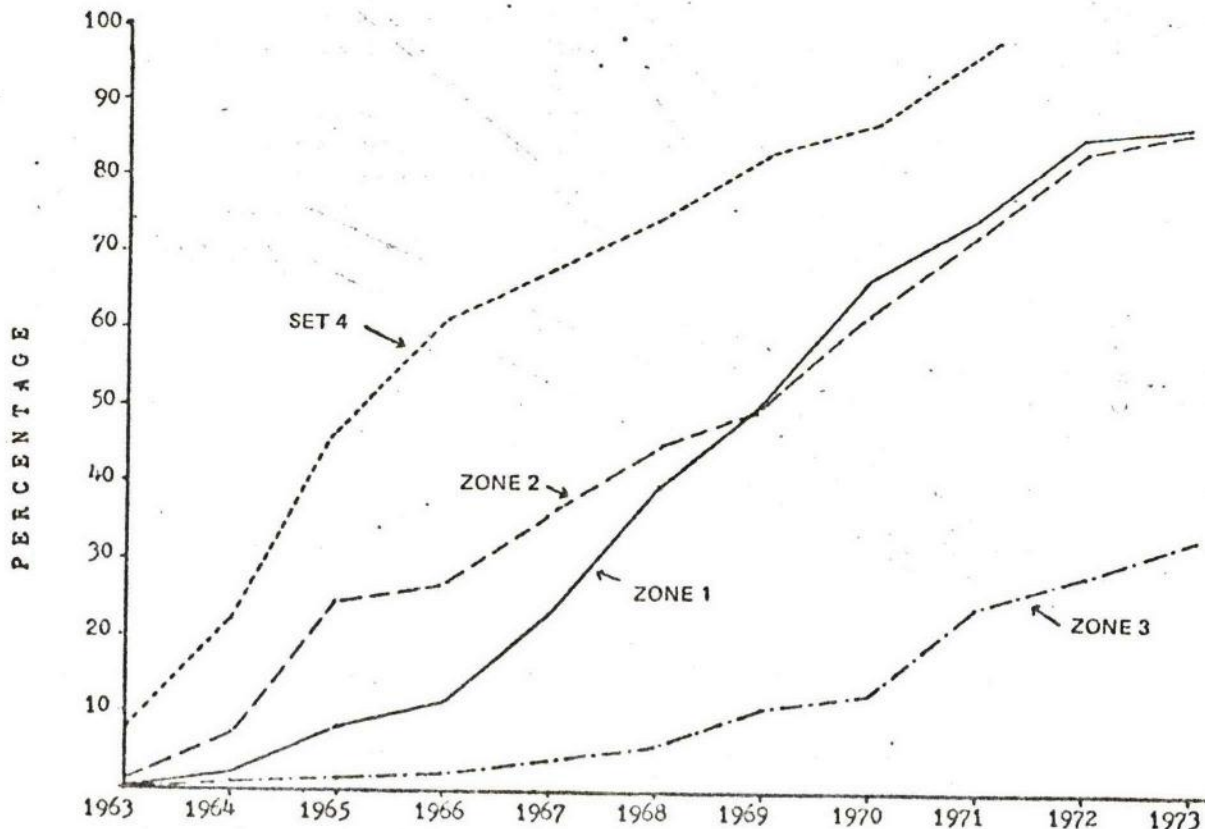
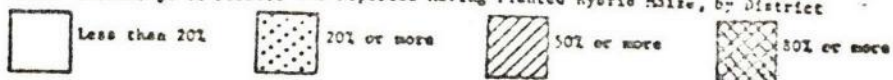


Figure 2: continued

Map 4. Diffusion of hybrid maize in Western Kenya, 1964-1973. Source: 1973 Kitale/CIMMYT hybrid maize survey.



KEY: Percentage of Farmers who Reported Having Planted Hybrid Maize, by District



Agriculture + Rural
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Mr. Curt Carnemark, Policy Implementation Adviser
(through Mr. Colin Bruce)
Graham Donaldson

April 20, 1976

Appropriate Vehicles for Small Farmers in Developing Countries

1. This proposal would take the Bank into a whole new area of activity, yet there is no discussion of the merits of its involvement here. I wonder if this is itself appropriate? While the Bank should have policy positions with regard to all aspects of development, is it sensible, or even possible, that we do everything? Are there not other institutions whose interests and expertise lies in this field? Do we have professional capability in this area? (The quality of this status report does little to build confidence in this respect).

2. The proposal is based on the premise that some new initiative is necessary in this area, but no evidence is provided to support this position. Is this activity really necessary, even in Kenya? (There is nothing to indicate this except the assertion).

3. There are many questionable statements in the report, as follows:

(i) Paragraph 1. It is asserted that the majority of the rural population continue to use "headloading or some other equally inefficient and primitive means of transporting produce and inputs". While the methods used may certainly be primitive, whether they are and by what standards they are inefficient is not indicated. Given the substantial number of variations on transportation modes around the world, there is some evidence to suggest that the existing means are economically efficient.

(ii) Paragraph 3. It is stated that "none of the small vehicles in the market fulfilled these requirements". This is an assertion based on evidence not presented here, but given the aforesaid large number of vehicles used in rural areas, the question arises as to how far the possibilities have been explored.

(iii) Paragraph 4. It is stated that "these expensive models would be hard to justify because the vehicle would be used for only a small proportion of the farmer's working time". This is a non-economic statement - using the same logic we would argue that a combine harvester would be hard to justify because it is used for less than one month of a year or, alternatively, that the World Bank should not be air-conditioned because it is used only during daylight hours for half of the year.

(iv) Paragraph 5. The Japanese tillers that abound throughout Japan, Taiwan, Korea, Malaysia, Thailand and the Philippines would seem to fit the definition of a "utility" vehicle very adequately. Similarly, the Massey-Ferguson "dual purpose vehicle" which was never marketed, would meet these requirements.

- (v) Paragraph 7. It is suggested that "their (single axle and small wheel tractors) success seemed limited to wet lands". This is not supported by the evidence. Small two-wheel tractors are widely used in market garden type operations throughout western Europe. In addition, small four-wheel tractors, such as the "Holder" in Germany and "Pasquali" in Italy, are widely used in horticultural and other types of farming as well as for local road transportation in western Europe.
- (vi) Paragraph 7. It is stated at the bottom of page 2 that "a regular tractor is an inefficient means of transport because of the obvious conflict between transport and agricultural functions". This is also a non-economic statement - since tractors are rarely used in field operations for more than a short part of a given year, the marginal cost of using them for road work or for standing operations is the appropriate test, and under these circumstances such use is generally highly efficient in economic terms.
- (vii) Paragraph 7. On page 3, it is stated that "a tractor must have heavy weight to ensure sufficient traction for land preparation", and also that "none of the existing tractor models, big or small seem to have effectively resolved this conflict". Neither of these statements is accurate in engineering terms. The "Ferguson system" developed in the late 20s and early 30s provided a mechanism whereby the downward draft of the cultivating implement was transferred to the rear wheels of the tractor. This effectively overcame the traction transfer problem in small tractors. This system is still used on small tractors manufactured by Massey-Ferguson and Ford. It is notable, however, that neither of these firms continue to make a small tractor such as the original "Ferguson" model on which the "system" was introduced.
- (viii) Paragraph 8. The IRRI utility vehicle is cited as a "successful example". The standards by which this is successful need to be defined. The Philippines built tiller competes with Japanese models successfully, largely because the Japanese models are subject to a substantial import tariff. There may, on the other hand, be other advantages in terms of their local assembly, repair and maintenance capabilities and so forth.
- (ix) Paragraph 9. I would submit that there is no such thing as a "non-powered vehicle". Pedal power is widely used in less developed countries.
- (x) Paragraph 10a. This is a nonsense statement given the wide range of vehicles that have been introduced and are widely used by small farmers in less developed countries. It is probably true that some models have been "found wanting in terms of acceptance primarily because of a lack of a proper appreciation of farmer's priorities".

However, it is also true that a number of useful designs have been discarded before being adequately tested in LDC situations, because of the inappropriate use of conventional western market evaluation tools. Though the mechanical hardware may have been appropriate, some of the software (notably market evaluation methods) have been found wanting in this case.

(xi) Paragraph 10c. The evidence based on the success of the Japanese tiller throughout Southeast Asia, and of the large four-wheel tractor in South Asia, clearly does not support the statement that "vehicle development effort must originate within the country to ensure farmer acceptance".

(xii) Paragraph 11. It is worth noting that most of Kenya is subject to a mild and temperate climate - it can hardly be described as "Tropical Africa". Further, there is no evidence in this proposal to support the statement that "transport in this country is a major bottleneck in rural development". While this may indeed be the case, there should be some evidence to support this firm assertion.

4. Judging from this status report, the proposed project is obviously in a very early stage. Perhaps there is better evidence in support of this activity. Based on this report, however, there would seem no justification for expending further resources on the exercise.

cc: Messrs. Yudelman, Darnell, Christoffersen, Turnham

GFDonaldson:mt

OFFICE MEMORANDUM

Agrioutline

TO: Mr. Warren C. Baum (through Mr. Yudelman) *WCB* - DATE: April 16, 1976FROM: Leif E. Christoffersen *LC*SUBJECT: Technical Note on the Bank's Rural Development Operations

1. This note was drafted last month on the basis of the Progress Report I submitted to you on March 1. It was not put into final during my recent home leave, due to Mr. McNamara's expression of interest, in late March, in a note on lessons learned from rural development. It has now been clarified that this latter request should be treated in a separate memorandum which will be prepared next week.
2. Summary of Lending Pattern of FY76 and FY77 Projects. Based on our recent progress reports for agricultural and rural development operations, there is a strong trend towards increasing the poverty orientation in Bank lending for agriculture and rural development. For FY76 and FY77 projects combined, 60% of total lending is directed towards rural development, about 100 projects expect to meet the rural development criteria, and nearly 8 million farm families - or at least 40 million people - are expected to benefit directly. Rural development projects are generally well distributed across the regions, with the main concentration in Africa and South Asia, where such projects account for the bulk of of all agricultural and rural development operations (see table 1).
3. An interesting change in FY76 lending for agriculture and rural development from previous years is the expected increase in number of beneficiaries without a corresponding increase in project cost. The new Project Briefs indicate that we expect 3.7 million farm families to benefit directly from FY76 projects as compared with 2.7 million in FY75. This would be a 37% increase in beneficiaries with only a 12% increase in total project cost. Thus the ratio of total cost to directly benefiting farm families would fall from about \$1,550 to \$1,300.^{1/} This trend towards increasing numbers of beneficiaries is seen both in the new style rural development projects and in agricultural projects. Thus the Bank seems well underway of fulfilling the objective of assisting 100 million people over five years lending (FY75-FY79) - as set out in Mr. McNamara's 1974 Annual Meeting Speech. However, as the experience of rural development projects in the Bank has shown, the outcome of such projects is often harder to assess than traditional agriculture projects. This calls for increased attention to implementation and evaluation of rural development projects of their actual impact on rural poverty.

^{1/} This ratio includes all costs under the projects and therefore also costs of investments and services which indirectly will benefit larger numbers of people. They also include technical assistance costs associated with experimentation at the early stages of program/project development.

4. Tables 2 and 3 give summary information on beneficiaries, employment creation, and output effects for FY76 and FY77 projects, based on lending program estimates available in February. An update of these tables will be made in June.

5. Non-Farm Rural Employment. Of some concern is the limited attention to off-farm employment in these projects, as well as the relatively small number with sizeable non-agricultural components. We are giving increasing emphasis to the non-farm rural sector both through research and in operations managed by the Rural Development Division. For the latter, we are working on the inclusion of productive non-farm components in a number of projects under preparation, both to diversify income sources and to create new opportunities for productive employment. Such components include rural industry, processing and workshop facilities, and support for small scale forestry and fish-farm programs. Many of these activities are likely to be located in small rural towns and market centers, accessible to a local rural labor force. Thus we are also, on a selective basis, exploring ways in which to broaden the mainly agricultural and village orientation of current operations to include local market centers and regional infrastructure requirements. A study is now underway by the DPS Employment and Rural Development Division on the subject of off-farm employment opportunities and non-agricultural production potentials for the rural poor. The research plan calls for a draft by October 1, 1976 with completion set for November 17, 1976. Dennis Anderson, who is supervising this research effort, will draw on the work done by the Industrial Projects Department, DFC, and the work done in our Rural Development Division. We are contributing to the study through special efforts on rural industries under project preparation work in Mexico, Indonesia, Tanzania, Mauritius, N.E. Brazil and Pakistan. One of our staff has recently completed an innovative working paper on Small Scale Industries and Rural-Urban linkages. A further input was the seminar on research in rural-urban migration held on February 5-7, 1976, sponsored by the DPS, which brought together a number of researchers with active projects relating to migration.

6. On-Farm Productivity and Agricultural Research. While off-farm activities can contribute more to increasing rural incomes and productivity, in many areas - including some of the poorest - agricultural development will continue to provide a main focal point for progress. In a great many cases with high concentrations of the rural poor, the agronomic base for supporting further on-farm productivity increase is weak. We are therefore giving increasing emphasis to support for local level adaptive research facilities, where technical advances made through the national or international research stations can be tested, adapted and demonstrated to farmers in these areas. Coupled with these facilities is an increasing emphasis for training of local level staff and farmer leaders.

7. Ongoing Evaluation of Rural Development Projects. In December we reported on the joint efforts of the DPS Employment and Rural Development Division and our Rural Development Division aimed at improved project evaluation and monitoring systems. A paper entitled, Issues in the Monitoring and Evaluation of Rural Development Projects: A Progress Report, was circulated to the Regional Assistant Projects Directors and Projects Division Chiefs on

April 16, 1976

December 22, 1975 for their review and comments. A meeting was held with Division Chiefs or their representatives on February 12, 1976. The paper has now been finalized and circulated. The paper documents a considerable increase in emphasis being given to monitoring and evaluation in project work; in the 38 rural development projects processed in FY75, 30 projects included a monitoring evaluation component, with total costs, aggregated across the projects, approaching \$20 million. The monitoring systems supported through these projects vary considerably, in part reflecting and responding to the varied needs of the particular case. However, one of the principal tasks of the Rural Operations Review and Support Unit^{1/} that we have organized in this Department will be to develop criteria and guidelines for such project components, including data collection mechanisms, manpower requirements and institutional arrangements. This Unit will also provide direct assistance to the regions in specific cases.

8. Special ACC Study on Rural Development. This study, undertaken on behalf of the ACC under Bank sponsorship by Mr. Obaidullah Khan, was reviewed by the ACC on April 8th. Prior to presentation of the report, an inter-agency Task Force met in March to consider the principal findings with chairmanship from the Bank. The report of the Task Force, which substantially endorsed the findings of the report and made a number of proposals for next steps, was also considered at the ACC meeting. Our "lead agency" role is now completed in regard to this exercise.

9. Nairobi Speech Implementation Program: Selected Countries for Intensive Effort. In our last report (December 1, 1975) we proposed that the special effort in five selected countries had achieved worthwhile results. However, we recommended that it now would be more appropriate to continue such work as a more integral part of Bank's regular project and country operational dialogue. Consequently, we now have discontinued such reporting in our Quarterly Reports.

10. FAO/IBRD Small Farm Research Project. This research project was reported on in detail in our December 1, 1975 report. Mr. Bruce of this department recently visited FAO and reported that the draft report on the overall small farm study, which was due February 15, will now be delayed to April 1976 principally because of the slowness with which country returns of the World Census of Agriculture are reaching FAO. The in-depth study for Tanzania, based on some 900 farm management sample surveys, will result in a first draft about April 30 - one month later than earlier expected.

11. Staff Manpower Requirements for New Style Projects. Many of the new style rural development and other innovative lending operations have been significantly more demanding in terms of staff time. For FY74 and FY75 projects, from P&B data, a sample of 20 new style rural development projects involved an average of 133 man-weeks per operation, compared with 74 man-weeks for agricultural projects excluding rural development projects. Similarly,

^{1/} With parallel functions to a similar unit in the Transportation and Urban Department.

11 urban projects during the same period involved an average of 127 man-weeks and 4 population projects an average of 135 man-weeks. In contrast, 27 power projects involved only 54 man-weeks per operation. There is evidence, though, that repeater or second stage projects - including rural development projects - are significantly less costly, partly because project preparation can often be undertaken using the first project as model, partly as institutions and agencies new to Bank operations are strengthened during project implementation and are subsequently better able to cope with Bank standards of appraisal. Thus, in second stage projects managed by the Rural Development Division in Mexico, Brazil and Tanzania, we anticipate significantly reduced appraisal costs than for the original projects. In a number of other cases similar savings are likely to occur, though relatively high manpower costs are likely to be recorded for further new operations and also for supervision of all projects.

12. Future Work of the Rural Development Division. In addition to the program of support work relating to maintenance and development of the management reporting system for future projects, and for work relating to monitoring and evaluation systems, the Division has also five projects under active supervision plus projects under preparation in the Philippines, Pakistan, Indonesia, Cameroon and Bangladesh, and follow-up projects soon coming in Brazil, Mexico and Tanzania. Increasingly, we propose to give major emphasis and allocate considerable time to the supervision of ongoing projects, including projects managed by the regional staff, to generate substantial feedback to management regarding progress and implementation problems. To improve our understanding of how rural development can best be promoted, and to make it effective in reaching the bulk of the world's rural poor, is a challenge which is foremost in our attention. In this work we are cooperating closely with the Employment and Rural Development Division in DPS.

13. Possible Theme for Annual Meeting Speech. The last Annual Meeting speech focused on urban poverty. It complemented the earlier emphasis on rural poverty -- in the Nairobi speech and in the Rural Development Policy Paper. The Bank's policy on urban development is therefore a logical extension of this earlier theme. Nonetheless, the 1975 speech did create uncertainty in many quarters as to the relative priorities between urban and rural development. The recent ACC study on rural development felt that the urban poverty speech gave somewhat misleading signals to policy makers in developing countries. "Governments hear what they like to hear. The new Bank focus on the urban poor provides a convenient excuse for those governments less than fully committed to the rural areas to 'come back to the cities'" (attachment A presents a fuller quotation from the ACC study).

14. Perhaps one should use the opportunity of the next Annual Meeting Speech to:

- a. reemphasize the importance of efforts to alleviate rural poverty, accounting for the bulk of the world's poor.
- b. highlight the news that our lending since Nairobi (and the five-year lending program 1973-77) indeed has achieved

impressive results in being oriented primarily towards the rural poor.

- c. bring out clearly that rural and urban development are complimentary activities and that the linkages between them are very important for the total poverty problem.
- d. focus on a careful (and understandable to the layman) explanations of why productivity criteria are so crucial in both rural and urban development.
- e. include an examination of how nutrition measures can support these rural and urban policy objectives (the Bank's first nutrition project is scheduled to go to the Board in June).
- f. conclude that the task of such a comprehensive overall poverty-oriented development strategy calls for a closer cooperation not only between the Bank and the individual governments concerned but much closer interrelationships with and coordination among development assistance agencies of all kinds. Reiterate that we all have to become "partners in progress" so that we can jointly help each other learn the lessons of rural and urban development and how poverty can most effectively be alleviated.

Attachments

LEChristoffersen/DTurnham:lcm

Table 1

MONITORING
 WORLD BANK LENDING FOR AGRICULTURE AND RURAL
 DEVELOPMENT - FY76
 (BASED ON LENDING PROGRAM OF FEBRUARY 9, 1976)

	East Africa	West Africa	EMENA	LAC	E.Asia Pacific	S.Asia	Total
<u>TOTAL AGRICULTURE AND RURAL DEVELOPMENT</u>							
No. of Projects	13	13	12	10	16	14	78
Lending (US \$ M.) ^{1/}	148.5	152.8	371.3	366.5	502.0	338.5	1879.6
Lending for Agriculture as % of total Bank Lending	26	29	25	22	34	27	27
Total Projects Cost (US \$ M.)	296.2	401.2	963.3	1114.8	1194.8	735.7	4706.0
Bank Lending as % of total Project Cost	50	38	39	33	42	46	40
<u>RURAL DEVELOPMENT PROJECTS ^{2/}</u> (as indicated in Project Briefs)							
No. of Projects	11	13	8	3	8	11	54
Rural Development Projects as % of total Agriculture Projects	85	100	67	30	50	79	69
Lending (US \$ M.)	139.7	152.8	330.3	25.0	242.0	286.5	1176.3
Rural Development Lending as % of total Agriculture Lending	94	100	89	7	48	85	63
Rural Development Total Project Cost (US \$ M.)	272.1	401.2	862.2	46.0	554.0	548.5	2684.0
Project cost for Rural Development as % of Total Agriculture	92	100	90	4	46	75	57
<u>MULTISECTORIAL PROJECTS ^{3/}</u>							
No. of Projects	3	3	1	1	4	1	13
Multisectoral projects as % of total Agriculture projects	23	23	8	10	16	7	17
Multisectoral lending (US \$ M.)	39.5	22.7	7.0	9.0	148.0	8.0	234.2
Multisectoral lending as % of total Agriculture lending	27	15	2	2	29	2	12
Multisectoral Project Cost (US \$ M.)	64.3	28.2	7.7	12.0	313.5	11.0	436.7

^{1/} Data is based on the Project Briefs. Minor differences exist between Project Briefs and Operational Lending Program due to different times of preparation.

^{2/} Rural Development Projects are defined as projects for which more than 50% of the benefits are expected to accrue to the rural population in poverty (target population as defined by country economists).

^{3/} Multisectorial projects are defined as projects with more than 25% of the investment in other sectors than agriculture.

RORSU
Feb. 28, 1976

MONITORING
WORLD BANK LENDING FOR
AGRICULTURE AND RURAL DEVELOPMENT - MONITORING FY76
(BASED ON LENDING PROGRAM FEB. 9, 1976)

Table 2

Project Impact	East Africa	West Africa	EMENA	LAC	E. Asia Pacific	S.Asia	Total
<u>Beneficiaries</u>							
Direct Benefiting Families from Projects ('000) ^{1/}	837	471	201 ^{a/}	69	1130 ^{a/}	713 ^{a/}	3421 ^{a/}
of which in Target Group ('000) ^{2/}	825	367	51 ^{a/}	18	753 ^{a/}	527 ^{a/}	2542 ^{a/}
% in Target Group ^{3/}	99	88	75	50	67	74	80
<u>Employment Creation</u> ^{4/}							
Full jobs ('000)	3	23	4	18	101	9	159
Temporary ('000 man-years)	2	1	11	8	26	121 ^{b/}	169
<u>Output</u>							
Value of total Project output (US\$ M.) ^{5/}	71	131	344	100	505	391	1542
value of Food production (US\$ M.) (incl. livestock & fishery) ^{6/}	59	64	316	86	223	276	1024
Volume of Food grains ('000 tons) ^{7/}	345	432	909	449	1894	1266	5295
<u>Social Benefits</u>							
Water supply ('000 families) ^{8/}	134	53	12	8	272	37	515
Health services ('000 families) ^{2/}	34	45	-	12	12	33	136
Education ('000 ind.) ^{9/}	-	102 ^{c/}	3	-	24	-	129

Notes: 1/ Based on 71 projects with sufficient data.

2/ Based on 65 projects with sufficient data.

3/ Calculated only for projects indicating both total number of beneficiaries as well as percentage in target group.

4/ Based on 34 projects with sufficient data.

5/ Based on 65 projects with sufficient data.

6/ Based on 62 projects with sufficient data.

7/ Based on 61 projects with sufficient data.

a/ An extraordinarily high number of "direct" beneficiaries is treated as indirect beneficiaries. The projects with such high number of "direct" beneficiaries are: Egypt, Agricultural Credit - Fruit and Vegetable (1.5 million families with 0.68 million in the Target Group); Indonesia; Agricultural Extension (7.5 million families with 6.75 million in the Target Group); Korea, Rural Infrastructure (575,000 families with 200,000 in the Target Group); India, National Seeds (6 million families with 4 million in the Target Group); Pakistan, Seeds (2.1 million families with 1.3 million in the Target Group).

b/ Including Pakistan, Seeds (20 million man-days).

8/ Based on 18 projects with sufficient reproduction.

9/ Based on 11 projects with sufficient data.

c/ Excluding Ghana, Upper Region Agricultural Development Project's 900,000 people benefiting from a radio-broadcasting program.

RORSU
Feb. 28, 1976

MONITORING
WORLD BANK LENDING FOR AGRICULTURE AND RURAL
DEVELOPMENT PROJECTS FY77
(BASED ON LENDING PROGRAM JANUARY 22, 1976)

Table 3

	East Africa	West Africa	EMENA	LAC	E.Asia Pacific	S.Asia	Total
<u>TOTAL AGRICULTURE AND RURAL DEVELOPMENT</u>							
No. of Projects	16 ^{a/}	13 ^{b/}	12 ^{c/}	16 ^{d/}	19 ^{e/}	13 ^{f/}	89
Lending (US \$ M.)	220.9	192.0	400.0	494.0	781.0	353.0	2440.9
Total Project Cost (US\$ M.)	433.0	357.0	969.6	1135.0	1269.2	597.0	4861.0
Bank Lending as % of Total Project Cost	51	54	41	43	62	51	50
<u>RURAL DEVELOPMENT PROJECTS</u> (as indicated in Project briefs)							
No. of Projects ^{2/}	9	8	3	9	9	10	48
Lending (US \$ M.)	130.9	112.0	115.0	237.6	376.0	226.0	1196.9
Total Project Cost (US \$ M.)	287.0	210.0	519.1	525.0	782.0	453.0	2776.1
<u>PROJECT IMPACT</u>							
No. of Beneficiaries ('000) ^{3/}	706	183	*	94	422	285	1690
Expected Output ^{4/} (Total Value US \$ M.)	142	145	*	23	107	69	486
Expected volume of food ^{5/} crops ('000 tons)	673	320	*	201	632	260	2068
Employment ^{6/} ('000 prime jobs)	6	11	*	5	4	*	26

^{1/} Projects in which Project Brief is missing, the project cost has been estimated as twice the Bank lending.

^{2/} Projects in which no Project Brief has been submitted have been treated as non-rural development projects.

^{3/} Based on 39 projects with sufficient information.

^{4/} Based on 22 projects with sufficient information.

^{5/} Based on 25 projects with sufficient information.

^{6/} Based on 10 projects with sufficient information.

* No data available.

a/ 14 project briefs submitted.

b/ 11 project briefs submitted.

c/ 5 project briefs submitted.

d/ 15 project briefs submitted.

e/ 17 project briefs submitted.

f/ 11 project briefs submitted.

RORSU
Feb. 28, 1976

Excerpts from "Poverty-Oriented Rural Development and the UN System - A Turning Point" by A.Z.M. Obaidullah Khan:

"Most countries, however, have acquired sensitive antennae for the trends and fads within the aid giving institutions including the Bank. They have become quite adept at separating the pronouncements from the pragmatics. Mr. McNamara's Nairobi speech, as was stated in the assumptions of this report, provided a crucial underpinning for the battle against rural poverty. His 1975 presentation to the Bank's Board of Governors, which brought the urban poor to the world's attention, has weakened this underpinning. Governments hear what they like to hear. The new Bank focus on the urban poor provides a convenient excuse for those governments less than fully committed to the rural areas to "come back to the cities."

This return to the cities is made easier by the omission of a comparison between the economics of helping the urban poor and helping the rural poor. The omission is important because, first, an attack on rural poverty should imply a productive and not a welfare program. Second, the infrastructure standards -- social, productive, and housing -- of the urban and rural areas are centuries apart. In blunt terms, politicians do not like to see slums and certainly do not want to create slums. Even minimum standard urban programs to eliminate the slum image are far costlier than rural investments. Thus in a resource-constrained situation, urban investments will tend to have less direct impact on the poverty problem. Furthermore, when one considers the percentage of foreign aid that has gone into prime cities -- 60% to 80% in many cases -- one must realize that there must have been a rationale for it. If this rationale contributed in some way, as it must have, to the ineffective development efforts of the past, then one

should be cautious about rekindling that flame. In short, target group rural development was a tender seedling which the World Bank helped to plant, and the Bank must do more than simply guard it against inadvertent damage.

The Bank presentation does assert "the operational definition for urban development is also poverty oriented along similar criteria to those used for rural development. Indeed these two operational fields are complementary to each other. This does not lower or imply that there is any shift in financial resources away from rural development to urban development."

April 13, 1976

Mr. A. van Dijk
Senior Engineer
World Bank
Resident Staff in Indonesia
P. O. Box 324 JKT
Jakarta, Indonesia

Letter No. 194

Dear Tony:

Thank you for your interesting letter on rural road and the notion of creating an Advisor with this responsibility in the Agriculture and Rural Development Department.

This is an important and complex subject, and since you have been away, there has been a considerable collaborative effort on the part of Agriculture and Transportation staff to examine it, particularly in its economic aspects. I think you are overstating the case when you say, in effect, that no one is interested in providing low cost roads for low traffic. It is being done increasingly, but when IDA funds are available for construction, there are pressures to build to higher standards in order to minimize future recurrent costs for maintenance. Undoubtedly, more could be done in developing engineering guidelines and standards for rural and feeder roads, on balance, we do not think that creating an Advisory post for this work would be the best use of the scarce resources available.

I am glad to hear that you are enjoying your tour in Indonesia.

Sincerely yours,

Warren C. Baum
Vice President
Projects Staff

JAKing/mp

Agric + Rural Dev

April 12, 1976

Mr. Dudley Madawela
Officer-in-Charge
Institutional Development and
Popular Participation Section
Social Development Division
United Nations
New York, New York 10017

Dear Mr. Madawela:

In response to your letter of March 24, I have the pleasure in sending you under separate cover a copy of, "Issues in the Monitoring and Evaluation of Rural Development Projects: A Progress Report". This report prepared by Mr. Dennis Anderson is based on a desk review of 113 rural development projects which the Bank financed from FY68 through FY75. This document is an analysis of the Bank's activity in this field -- not a resource document. Therefore we request that it not be included in your bibliography.

The Rural Operations Review and Support Unit (RORSU) is currently in the process of preparing a detailed work plan for FY77. The main functions of RORSU include, besides advisory and staff support, (i) internal monitoring of Bank projects; (ii) rural development projects quality control; and (iii) the development of project specific monitoring and evaluation systems. In regard to the latter our major activities over the remainder of FY76 and during FY77 will consist of developing case studies on monitoring and evaluation components in Bank projects and possibly non-Bank projects. These case studies will be the basis for the production of Guidelines on Monitoring and Evaluation for Rural Development Projects.

Enclosed please find a selected bibliography of recent evaluation studies.

We would be grateful to be kept informed about the development in your division of "built-in" evaluation systems for assessing the impact of development projects.

If there are any specific questions or requests you have, please do not hesitate to write or call on us. We would be most happy to discuss them with you in Washington.

Yours sincerely,

Ted J. Davis, Chief
Rural Operations Review
and Support Unit

RECORDS STATION ROUTING SLIP		DATE: <i>4. May 1977</i>
NAME		ROOM NO.
(1)	<i>Mr. D. Anderson</i>	<i>D 505</i>
(2)	<i>Non-regional Records</i>	<i>F-327</i>

In accordance with Administrative Manual Statement No. 5.01, will you please do one or more of the following, as checked:

- Initial the attached to indicate that it has been released for filing.
- Indicate the loan, credit, investment, or project to which the attached refers.
- Indicate the organization, meeting, research study (RPO No.) to which the attached refers. *P09A77 (Policy Paper Non-Labor Employment)*
- Forward the attachment referred to in the attached correspondence.
- If you wish the attached "confidential" material placed in a safe, please indicate who is authorized to see it and the date it can be declassified.

Thank you.

FROM: <i>Non-regional Recs.</i>	ROOM NO.: <i>F327</i>	EXTENSION: <i>2027</i>
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TO: MR. RAJ KRISHNA
5 MALKA GANJ
DELHI 110007

DATE: APRIL 12, 1976

ORIGINATOR'S EXT.: 5481

COUNTRY: INDIA

CLASS OF SERVICE: LT

CABLE NO. & TEXT:

RCA

RE LETTER MARCH 26 STOP APPRECIATE DIFFICULTIES IN ESTIMATING
 COEFFICIENTS AND AGREE IT MAKES SENSE TO CONCENTRATE ON MANUFACTURING
 AND SERVICE ACTIVITIES WHICH ABSORB THE GREATEST AMOUNT OF LABOR STOP
 WOULD BE INTERESTED ALSO IN CONSTRUCTION AND ONE COMMERCIAL ACTIVITY
 IF THIS IS NOT TOO DIFFICULT TO OBTAIN STOP ALSO INTERESTED IN URBAN
 RURAL CONTRAST IN AVERAGE SCALE AND IN LABOR INTENSITIES AND CAPITAL
 OUTPUT RATIOS OF LARGE AND SMALL STOP THANKS FOR YOUR POSITIVE RESPONSE
 STOP REGARDS

ANDERSON
INTBAFRAD

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WORLD BANK LTD
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(TELEGRAM/CABLE/LEX)

DATE: APRIL 12, 1976

TO: MR. RAJ KALSHRA
2 RAJENDRA GATE
DELHI 110007

ORIGINATOR TEXT: 2581

CLASS OF SERVICE: IT

INDIA

COUNTRY

CABLE NO TEXT

STOP MESSAGE
OUTPUT STATUS OF LINES AND ALL STOP MARKS FOR YOUR POSITIVE MESSAGE
MURAL CONTACT IN NUMBER 1011 AND IN LATER INSTANCES AND CAPITAL
IN THIS IS NOT TO BE DELETED BY OTHERS FROM ALSO INSTALLED IN URBAN
WOULD BE INTERESTED ALSO IN CONSTRUCTION AND THE COMMERCIAL ACTIVELY
AND SERVICE ACTIVITIES WHICH REQUIRES THE GREATEST AMOUNT OF LABOR WITH
COMPLEMENTS AND AGREE TO REMAIN UNDER TO CONTRACTS ON MANUFACTURING
IN LATTER PARTS TO FROM MANUFACTURING DIFFICULTIES IN INSTANTING

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OFFICE MEMORANDUM

TO: See Distribution Below

FROM: John Spears, ^{S.} Forestry Adviser, AGPDR

SUBJECT: Forestry Components in Agriculture and Rural Development Projects

DATE: April 12, 1976

1. Several Agricultural/Rural Development projects recently financed by the Bank have included "forestry" components. The approach in each case has been tailored to suit local circumstances. At an informal seminar on forestry projects held in CPS on 7 April, an attempt was made briefly to review past experience, identify problem areas and issues common to the various regions and to draw preliminary conclusions of relevance to future project preparation activity.
2. The attached note briefly summarizes the scope and present status of selected projects with a forestry component and identifies some of the main issues. The Bank's forestry experts will be meeting again in Room D860 on Thursday, April 15, from 3:00 - 5:00 p.m. to discuss the subject further with a view to drafting interim guidelines for future work in this field. Any regional project economists or other staff likely to be concerned with preparation of forestry components in agricultural or rural development projects in the near future who wish to contribute to the dialogue would be very welcome.
3. Discussion will be concentrated on five main issues:
 - a. Problems of securing data on levels of fuelwood consumption in rural areas and comparative calorific values and costs of alternative fuels (charcoal, kerosene, coal, animal dung, agricultural residues, oil, etc.).
 - b. Parameters for key technical inputs.
 - c. Institutional problems.
 - d. Economic methodology for project appraisal.
 - e. Current inconsistencies within the Bank in the depth of analysis being required by the various divisions as basis for project preparation and appraisal; possible scope for simplifying project preparation with greater emphasis on monitoring of project results and more effective supervision?
4. Annex II attached provides a starting point for discussion of these issues.

Distribution:

Messrs. C. Walton, R. Wadsworth, F. van Gigch, F. Crowe, A. Golan, D. Sutherland, D. Parsons, K. Pranich, C. Goffin, K. Haasjes, P. Greening, P. Kirpich, D. Turnham, M. French-Mullen.

cc: Messrs. Darnell, Pickering, Donaldson, Brouard, Keil, Wagner, Draper, Thillarajah, Gamba, Babelon, Krafft

JSpears:hrv

SELECTED AGRICULTURE OR RURAL DEVELOPMENT PROJECTS
WITH A FORESTRY COMPONENT RECENTLY FINANCED BY THE BANK
OR CURRENTLY UNDER PREPARATION

ANNEX I

Country	Project Title and Brief Description	Total Project Cost	Forestry Component Cost	Main Features of Forestry Component	Present Status	Main Issues
E. Africa Mauritius	Rural Development. Agricultural infrastructure works including 1000 acres bench terraces, afforestation, fodder planting. Provision of water supplies, health clinics, roads, market and community centers. Strengthening of institutions by provision of technical staff and consultant services for Planning Divisions of various Gov't Ministries. Training of supervisory staff and artisans in carpentry, pipelaying, masonry work, etc.	11.0	1.8	<u>Project Objective.</u> Establishment of fast growing pine plantations (1000 ac/year) and eucalyptus (400 ac/year as part of Gov't ongoing afforestation program. <u>Institutions Involved.</u> Project executed by Gov't Development Works Corporation on Gov't owned forest reserves. <u>Main Project Output & Marketing Prospects</u> Industrial sawlogs for existing sawmills and fuelwood. <u>Main Economic Benefits Predicted at Time of Appraisal.</u> Direct employment (equivalent 2000 man years) for a two-year disbursement period, permanent employment for 300 people during maintenance period and 600 people at time of harvesting. Foreign exchange savings on imported timber. Environmental benefits (improvement of amenity value of area for Port Louis residents). Economic rate of return of forestry component 8%.	Disbursement completed.	(1) Conflict with environmental (Smithsonian Institute queried impact of clearance of natural forest prior to afforestation on the Mauritius Kestrel and "Pink Pigeon" (now resolved). (2) Relative roles of DMC, versus established Gov't Forest Service. (The latter was excluded from project implementation.) (3) Land use problems (shortage of available land for forestry).
Tanzania	Tabora and Mwanza/Shinyanga Rural Development Project.	Not yet known	Not yet known.	<u>In Tabora.</u> Establishment of fuelwood plantations to meet farmers requirements for tobacco drying barns. <u>In Mwanza.</u> Reinforcement protection and management of existing forest resources. Establishment of 6000 ha of fuelwood pole plantations to meet area rural demands for these products. Expansion of an existing charcoal industry. Research trials and pilot plantations.	Under preparation.	Still under review but likely to include (1) Capability of Gov't Forest Service to implement project and need for strengthening of this institution. (2) Arrangement for adequate protection of established wood lots from goat and cattle grazing. (3) Farmer response.
Philippines	Industrial Investment and Smallholder Tree Farming Project	50.0	2.0	<u>Project Objective.</u> Establishment by 1300 smallholders (average size 10 ha) of fast growing pulpwood plantations of Albizzia Falcata (8-year rotation) to provide raw material for an established pulp and paper mill. <u>Institutions Involved.</u> DBP (Development Bank of the Philippines) which engaged a qualified forester for project implementation. This is a straight-forward credit operation DBP made loans to farmers to cover 75% of costs. Grace period is 3 years, repayment period is 15 years and rate of interest 12%. PICOP (the paper corporation) provides seedlings at cost and technical assistance to farmers.	Fully disbursed, a year ahead of schedule. Phase II is about to be prepared including 7000 farmers.	(1) Amount of land left on each smallholders for food crop production (average 2 ha out of 10 ha) and problems on ensuring sufficient food supplies for farmers participating in project. (2) Pricing of project output to ensure a fair return to smallholders (Paper Co. PICOP agreed at time of negotiation to guarantee a minimum stumpage price).
Korea	Rural Infrastructure. A multisector rural development project including minor irrigation, upland reclamation fuelwood, roads and bridges, water supply and rural electrification components.	143.0	14.0	<u>Project Objective.</u> Establishment over 2 years of 11,000 village fuelwood lots covering 127,000 ha. 50,000 ha in first year, 77,000 ha in second year. Project spread over 9 provinces and 130 counties. Average fuelwood plot size 11 ha. <u>Institutions Involved.</u> A village Forestry Association (VFA) has been formed within every village. Head of VFA organizes planting scheme for each village. Technical advice provided by Gov't Office of Forestry. Average cost per ha \$195 of which \$95 is financial costs - seedlings fertilizer supervision and \$100 value of labor. Plantations are sited on private land of low productivity. Communal labor planting. Economic benefits predicted to include provision of fuelwood for \$150,000 households. Economic rate of return of forestry component estimated at 19%. Indirect benefits water catchment area protection.	Disbursement about to commence.	Not yet under supervision but likely to include: (1) Practical organization and management problems of undertaking such a large program spread over so many areas. (2) Availability of seedlings for program. (3) Protection of scattered forest plots from grazing and fire.
Colombia	Caqueta Rural Settlement Project. Settlement of 2850 farmers in an area of tropical high forest being cleared for agriculture. Project will finance land clearing, pasture establishment credit for purchase of breeding cattle, forest erosion control, education and health program, technical assistance to farmers, strengthening of project administration.	37.0	0.7	Assistance to Gov't erosion control program by financing of 9 month study of socio-economic impact of soil conservation measures in Cordillera. Demarcation and protection of part of the forest area being cleared as a permanent 20,000 ha forest reserve to supply future settler fuelwood and timber requirements. Protection of strips of forest along river banks. Strengthening of forest service.	Operational for one year.	(1) Protection of reserved areas from grazing, fire, and cultivation likely to be main problem area.

FORESTRY COMPONENTS IN RURAL DEVELOPMENT AND
AGRICULTURE PROJECTS

Current Issues

1. Securing data on levels of fuelwood consumption

Tables 1 and 2 attached summarize comparative average calorific values and costs for various fuels. Discussion will focus on (a) main published sources of data for such analysis, (b) problems of sampling at the field level during project preparation.

2. Parameters for key technical input

A preliminary range of data for key technical inputs is given below:

Principal species suitable for fast growing fuelwood plantations.	Eucalyptus spp. Albizia falcata Leucena leucocephala Acacia spp.
Average farm family fuelwood consumption.	5 m ³ to 10 m ³ per year
Area required to meet average farm family requirements of fuelwood, etc.	0.3 to 0.8 ha. (total planted area)
Planting espacement	1.5 x 1.5 to 3 x 3 m
No. of seedlings per ha	1,300 to 5,000
Growth rates	6 m ³ /ha/yr to 30 m ³ /ha/yr
Rotation length	5 to 10 years
Yields at rotation	100 m ³ - 300 m ³ /ha
Land prep. and plantation establishment	20 to 30 manday/ha
Weeding	5 - 20 mandays/ha
Thinning requirements	Nil

This will be expanded during the discussion and debatable areas identified for further analysis.

3. Institutional aspects

Several alternative approaches to project organization and management are being tried, e.g.:

- Communal planting organized by Village Forestry Association (VFAs) e.g. Korea.
- Production and distribution of tree seedlings to farmers by Government Forest Services who provide extension advice, e.g. Kenya, Colombia.
- Production of tree seedlings and provision of extension advice by private sector companies, e.g. Philippines.

How effective have these various approaches been? Why will VFA's work in Korea, when they don't work in parts of E. Africa?

4. Economic Methodology

As a starting point for discussion, Table 3 attached sets out costs and benefits for a community Tree Block "Model" growing fuelwood buildings poles and lumber on a 24 year rotation. (For details of assumptions see earlier paper prepared by Sidney Draper "Forestry in Rural Development".)

5. Inconsistencies in project preparation

Currently there are major inconsistencies between the Bank's various Divisions in the depth of analysis being required as a basis for forestry project preparation and appraisal. Why do we need 3 missions about 200 mandays of preparation and a 3 volume preparation report for a 6,000 ha a year forestry plantation project in Malagasy, compared with 1 mission of approximately 30 mandays of project preparation and a preparation report of 50 pages for the forestry component (planting 50,000 ha a year) of a Rural Infrastructure project in Korea? This disparity seems out of proportion to the relative complexity of the two projects concerned.

Is there a case for simplification of project preparation and appraisal of the forestry component in rural development or agricultural projects with more emphasis on project monitoring and supervision? What are the risks involved in this approach?

Table 1. Approximate Calorific Value of Some
Common Fuels

<u>Fuel</u>	<u>Calorific Value</u>
Paraffin	10.4
Fuel oil	9.8
Charcoal	7.1
Coal (bituminous)	6.9
Wood, oven-dry (0% m.c.)	4.7
Dung, air-dry	4.0
Peat, air-dry	4.0
Wood, air-dry (25-30% m.c.)	3.5

Table 2. Relative Costs of Fuels and Power Compared on the Same Calorific Value basis in Five Different Areas (Fuelwood taken as unity)

Fuel	E. Africa (1970)	India (1973)	Nepal (1973)		U.K. (1973)
			Kathmandu	Terai towns	
Fuelwood	1.0	1.0	1.0	1.0	1.0
Charcoal	1.6	1.1	0.8	0.7	3.5
Coal	-	0.7	0.8	0.9	0.5
Fuel oil	2.0	-	-	-	0.7
Paraffin	4.0	1.5	1.6	1.6	0.7-1.0
Electricity	8.9	9.3	8.5 (domestic)	9.3	4.1
Butane	19.8	-	-	-	15.4

Table 3. Community Tree Block

Summary of Per Hectare Costs and Benefits (US\$/Ha) 1/

A. Costs

	<u>Details of Costs</u>	<u>Year of Cost</u>	<u>Economic Cost</u>
(a) Direct Costs	Buildings and Housing	1	14
	Nursery Construction	1	5
	Vehicles and Equipment	1	20
	Survey	1	1
	Nursery Transplants	1	40
	Land Preparation	1	20
	Fencing	1	25
	Planting	1	14
	Repairs to planting	1	2
	Weeding	1	15
		Sub total	
	Weeding	2,3,8,16	15
(b) Annual Maintenance, including fencing		2 to 24	5
(c) Indirect Costs (see Local Council Forests)		1	93
		2	10
		3	9
		4 to 24	2

B. Benefits

No.
1

(a) Yields

Coppice Rotation: 24 years, felled in years 8, 16 and 24.

Mean Annual Increment: 15 m³

Rotation Yield: 360 m³, 50% poles, 50% fuelwood.

(b) Stumpage Revenues

	<u>m³/Ha</u>		<u>Stumpage Rate US\$/m³</u>		<u>Revenue m³/Ha</u>
	<u>Poles</u>	<u>Fuelwood</u>	<u>Poles</u>	<u>Fuelwood</u>	
8 year felling	60	60	4	-	240
16 year felling	60	60	4	-	240
24 year felling	60	60	4	-	240

1/

For purposes of exposition costs and benefits are computed on a per hectare basis. In practice, planting would be carried out over a yearly program with subsequent felling taking place after maturity at the selected rotation so that a complete model would show annual streams of costs and benefits, see para 2.29, Annual Planting/Felling Plan.

Table 3 (cont'd)

(c) Indirect Benefits

<u>No.</u>	<u>Details of Benfit</u>	<u>Year of Benefit</u>	<u>Economic Value</u>
4	Reduction in erosion control costs.	1 to 24	6.0
5	Improvement in Hydrology.	1 to 24	0.3
6	Stablization of land capital.	1 to 24	1.0
8	Demonstration Effect.	1 to 24	<u>0.1</u>
	Sub total		7.4
7	Environmental improvement.	5 to 24	5.0
2	Reduction in fuelwood collection costs.	8, 16, 24	150
3	Crop increases from additional manure.	8, 16, 24	60
9	Multiplier Effect through additional skills.	8, 16, 24	<u>12</u>
	Sub total		222

Economic Rate of Return

<u>Year</u>	<u>Costs</u>				<u>Benefits</u>		
	<u>Direct</u>	<u>Maintenance</u>	<u>Indirect</u>	<u>Total</u>	<u>Direct</u>	<u>Indirect</u>	<u>Total</u>
1	156		93	249		7	7
2	15	5	10	30		7	7
3	15	5	9	29		7	7
4		5	2	7		7	7
5		5	2	7		7	7
6		5	2	7		7	7
7		5	2	7		12	12
8	15	5	2	22	240	234	474
9		5	2	7		12	12
10		5	2	7		12	12
11		5	2	7		12	12
12		5	2	7		12	12
13		5	2	7		12	12
14		5	2	7		12	12
15		5	2	7		12	12
16	15	5	2	22	240	234	474
17		5	2	7		12	12
18		5	2	7		12	12
19		5	2	7		12	12
20		5	2	7		12	12
21		5	2	7		12	12
22		5	2	7		12	12
23		5	2	7		12	12
24		5	2	7	240	234	474

Rate of Return 13%

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WBG ARCHIVES

SecM76-231

April 6, 1976

FROM: The Secretary

RURAL PUBLIC WORKS

Three copies each of the papers entitled "Issues in Bank Financing of Rural Public Works" and "Rural Public Works and the Bank: Background Analysis" have been placed in the Executive Directors' library for consultation. Copies may also be obtained upon request from the Secretary's Documents Office (extension 5001).

Distribution:

Executive Directors and Alternates
President
Senior Vice President, Operations
Executive Vice President and Vice President, IFC
President's Council
Directors and Department Heads, Bank and IFC

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Agriculture
Kerala
Gov

Ted J. Davis

April 1976

Claes Lindahl

A Monitoring System of the Progress of Implementing Agriculture
and Rural Development Projects

After the inquiry by Mr. McNamara of the progress in implementation of the Bank's rural development projects, I have given some thoughts to how RORSU could set up a system to provide such information on a regular basis. Such a system should basically provide information on two types of indicators:

- a) the progress of physical implementation, and
- b) early indications of project impact.

Information on physical progress is basically already available in supervision reports. Given a system to compile and analyze this, we could regularly monitor disbursement performance, cost overruns, delays in effectiveness and completion of loans, supervision coefficients, problem projects as well as reaching of physical targets in relation to estimates in appraisals. P & B makes analysis of some of these indicators for the "Problem Projects Reviews", which could be utilized by us.

Monitoring of the impact of the projects is more complicated. Few supervision reports contain evaluation of this and the evaluations by OED are late in the project cycle. A system to monitor the project impact could be set up by requiring annual or bi-annual "evaluation reports" in the context of supervising the projects. Such "evaluation reports" (which would be prepared by the supervision missions) could include a qualitative as well as quantitative analysis of the early impact of the project as assessed by the project management, a specific evaluation unit if established and/or by Bank staff. Such an assessment could, for example, include number of farmers involved, farmers' responses, adoption rates of the new technology, changes in yields and production, changes in farmers' income and standard of living, etc. Assessment of this kind would initially be rather impressionistic but would improve in accuracy when more projects have an inclusion of monitoring and evaluation systems. The annual or bi-annual evaluation reports could then be a part of the standard reporting requirement by the Bank in the supervision reports.

If you think a system of the kind briefly outlined above, is worth looking into, I suggest we proceed with the following:

- i) a study of the progress of implementation of agriculture and rural development projects based on the supervision reports. This would require say 2 months of work for a research assistant.
- ii) preparation of a draft for instruction for "annual or bi-annual evaluation reports" which would give an idea of what is feasible to "evaluate" in earlier stages of project implementation and to what extent the information could be meaningfully aggregated as a monitoring system.
- iii) initiate a discussion with P & B, OED and project divisions how a meaningful system should be designed.

cc: Messrs. L. Christoffersen, M. Yudelman; RORSU staff

OFFICE MEMORANDUM

*Agriculture +
Rural*

TO: Regional Assistant Project Directors and Project Division Chiefs for Agriculture and Rural Development
DATE: April 6, 1976

FROM: Ted J. Davis, Chief, Rural Operations Review and Support Unit

SUBJECT: Updating of PIBs for Agriculture and Rural Development Projects

1. The Monitoring System for Agriculture and Rural Development projects (The PIB System) requires an updating of Form 1028 as of April 1. (See memo from Mr. Baum to Regional Vice Presidents of April 30, 1975.) Would you please submit to the Rural Operations and Support Unit (RORSU) updated PIBs for the following agriculture and rural development projects under your responsibility:

- 1) all FY77 projects in the most recent Operations Lending Program;
- 2) all projects for which a timetable have been established and which are likely to be in the FY78 Operations Lending Program; and
- 3) all projects scheduled for Board approval FY76 not yet approved by the Board and in addition, FY76 projects which already have been approved by the Board, but for which no PIB was attached to the yellow cover report.

2. For those projects in which no changes have taken place since last prepared PIB, it is sufficient to prepare a list indicating this. Please submit the PIBs to Ted Davis, room no. D-842, not later than April 16.

3. There are some questions in the PIB that often create a great deal of ambiguity. They relate to the anticipated distribution of the benefits of the project to various income groups among the beneficiaries. Item 8 and Items 12A-15 on the PIB form require a knowledge not only of the initial distribution of income among the project beneficiaries, but also an analysis of what share of the anticipated project benefits will accrue to those beneficiaries below the poverty income level as defined by the country economists (see item 7 on the PIB form). It is fully appreciated that such judgments are hard to make early in the project preparation and that they in many cases cannot even be satisfactorily accomplished at appraisal stage.

4. We would, however, appreciate if you could pay particular attention in updating the PIBs on these questions. Comparisons of the PIBs and the appraisal documents often show significant inconsistencies. For projects which the PIBs define as "rural development" (Item 8) and indicate a high share of the direct beneficiaries in the target group (Item 12A), an examination of the appraisal report often reveals that obviously almost no benefits will accrue to the rural poor. These problems have been brought up by us in the review of a number of Yellow Cover reports for agriculture and rural development.

5. Another "problem" in analyzing the PIB is the treatment of the estimates of the number of anticipated direct beneficiaries in the projects (Item 12A). We would like to emphasize that only those farm families whose incomes will be increased directly and permanently as a result of some part of the project, should be counted as direct beneficiaries. (See explanatory note for Item 12.)

6. The PIBs are the basis for the quarterly progress reports to the Bank management about the anticipated impact of the Agriculture and Rural Development projects under preparation by the Bank. It is therefore of great importance that the estimates in the PIBs are as accurate as possible. In order to decrease some of the ambiguity on these matters in the future, a work group has been established in RORSU to prepare better guidelines on how to estimate the number of project beneficiaries as well as the distribution of benefits to various income groups. In the meantime, we would welcome any suggestions as to how the PIB form could be improved to better reflect the anticipated impact of the Bank's agricultural rural development projects.

cc: Messrs. W. Baum
M. Yudelman
L. Christoffersen

Agric & Rural Dev.

F244

April 6, 1976

Mr. John M. Ecklund
Chairman
Small Farmers Credit Committee
ACDI
Suite 1200
1430 K Street, N.W.
Washington, D.C. 20005

Dear Mr. Ecklund:

The report of the ACDI Small Farmer Credit Committee, which you forwarded to Mr. McNamara, has been read in the Bank with considerable interest. My colleagues agree with me that it is an interesting and useful report - and both you and Mr. Daines should be congratulated on your good work.

We support your main conclusion - that there should be more field performance data collected in order to facilitate assessment of alternative institutional approaches to small farmer credit. However, we hold that, even when this is done, it is very likely that a wide range of different kinds of institutional arrangements will be found appropriate. These will vary from one situation to another and depend substantially on the quality of management available.

We also subscribe to the position that additional monitoring and evaluation is required in projects, with specific attention given to a base study. The aim here should be first and foremost to improve project management, with other purposes being of secondary importance. The Bank now provides for monitoring and evaluation in four out of every five agricultural and rural development projects and this amounts to about 1% of project costs.

The Bank is also actively grappling with other practical issues relating to the effectiveness of agricultural credit to small farmers. This includes better definition of credit requirements in differing situations; measures to reduce the risk of financial disaster if not starvation, in times of seasonal failure; the need for consumption credit to meet crisis and adjustment period needs, as well as to facilitate extrication from the coils of more feudal money-lenders in some circumstances; the need for physical planning on a zonal basis to supplement credit programs and ensure inputs are available; and

Mr. John M. Ecklund

April 6, 1976

the need to maintain continuity of credit schemes. It is a field rich in scope for study.

If you would make available to me a further six copies of your report and bibliography, I will be pleased to bring it to the attention of the Assistant Directors for Agricultural Projects in the Bank's six regions.

Yours sincerely,

Montague Yudelman
Director
Agriculture & Rural Development Department

cc: Mr. S. Burmester

GFDonaldson:mt

Mr. Robert S. McNamara

April 5, 1976

J. Burke Knapp

Paper on Bank Financing of Rural Public Works

Please find attached a copy of the above-cited paper, on which you asked for my comments.

- 1) I think that this paper and its attachment is a very useful and stimulating piece;
- 2) I do not think it is necessary to have a meeting of the Policy Review Committee on the paper;
- 3) I think it should be widely circulated to the Bank staff;
- 4) I would suggest that the paper (but not the attachment) be circulated to the Executive Directors for information after making a few minor editorial changes (which should also be made in the paper as circulated to the Bank staff). I have indicated my proposed editorial changes on the attached copy. Most of them are quite minor and intended merely to discourage the Executive Directors from regarding this as a "Policy" paper requiring their review. In addition, I propose the deletion of paragraph 35, which only states the obvious; and
- 5) There is a statement in paragraph 18 which I very much agree with that there are serious disadvantages in trying to pay wages-in-kind in public works programs. Yet the World Food Program frequently operates on this basis, and I have several times had the occasion to argue with them about this point. I have asked Mr. Haq to give us a memorandum of comment on this subject.

Attachment.

cc: Messrs. Baum
Haq


JBK:vm

F244
Agriculture
Rural

Mr. Colin Bruce

April 1, 1976

Bill Cuddihy

Issues in the Monitoring and Evaluation of Rural Development Projects:
A Progress Report

1. This report is a comprehensive presentation of the state of the art of monitoring and evaluation in the Bank and gives a much needed summary of the latest thinking on the subject. Issues are presented clearly and the suggestions are sound.
2. To supplement the excellent work going on in this important field I would like to offer a few points for consideration. No doubt they are not new but I am still a little bothered by them and feel some more detail is required.
3. Monitoring and evaluation of the progress of a steelworks project is relatively simple. The conditions of production are known with certainty. The buyers, sellers and producers are few and easily identified. Electronic meters can be linked directly to a computer. An agricultural project or an educational project is a beast of a different nature. Put them together in a Rural Development project and the problems compound in direct proportion to the number of components and indirectly as the absolute size of each.
4. The first point to make is the distinction given between routine data collection by project management and data collection by others for specific purposes. A question here is: "Is an accurately designed survey done by strangers usually a better guide than a well-informed estimate of the project management staff who live with the project?" The replies given in a survey are generally no less subjective than management's guesses but have an appearance of objectivity because they are statistically designed. Management data is time series as well as cross sectional. Ideally it will give a long run trend line with seasonal deviations. Data collected by others will be, usually, only cross sectional at a specific point in time. The problems here are obvious. They will still have to rely on management data to know where they are in a short run cycle. Expert studies may look at (1) things already monitored by management or (2) other factors not routinely monitored. In the former case conclusions reached may conflict. Here the question is: "Is data collected over a long time period but with a low degree of accuracy any better or worse than a highly accurate series of observations over a short time period which inherently contain an error term because of short term fluctuations". In the second case no conflict can occur between management's observations and special studies but the studies will still suffer from the same problem.

continued ...

April 1, 1976

5. My conclusion here is that no matter how we look at it the burden falls squarely on project management. At the project design stage we should be quite clear about the size and detail of this burden. There are real costs and benefits. The danger is that project management will be very much aware of the cost burden and the Bank will be more aware of the benefits. Because of such vagueness as shown in 7.1 "Basic Information Requirements", management may try to collect every possible bit of data "to be on the safe side" with masses of unused and superfluous data accumulating. (reference to Indus Valley Survey and Lilongwe Project). The other response is to collect as little as possible and guess the rest regarding the whole exercise as an unfair nuisance imposed from above and with a sneaking suspicion that its prime purpose is to monitor management's performance rather than to be a tool of management to monitor project performance.

6. My suggestion here is that we look at the way scientists decide what data to collect in an experiment. An hypothesis is defined to be tested and only data relevant to that testing is collected. To collect every bit of data and see what you can do with it without any hypothesis to test is seen as banal and useless. At the design stage of projects an hypothesis should be proposed and the data needed to test it listed. For instance, for an R.D. project the hypothesis might be - "That the project does not increase the welfare of the target group". Data is collected for the "with" and "without" situation over time and space and tested to see if there is a significant difference. The crunch is how many indicators are needed, whether we need final or intermediate indicators and how often they need to be measured? A minimum burden package can be spelt out with experience over a number of projects building up rather than scaling down.

7. If intermediate indicators are to be measured their number rises as the number of components in an R.D. project increases. This is not so if a final estimator is used. As the number of components increase, their absolute size vis-à-vis single component projects decreases. Consequently, people and funds available for M & E of each component decreases. I think this is something which we have to learn to live with in multi-component R.D. projects. The appropriate place for measuring yield responses with any accuracy is in agricultural projects; similarly for other components. The quality and quantity of monitoring intermediate variables in an R.D. project must suffer when compared with a single component project. This is not the case for a few final estimators. If in an agricultural project twenty variables are measured and in a nutrition project, thirty are measured, then the correct number to aim for in a combined project is not fifty but perhaps twenty. A nutrition estimator may well be a satisfactory reflection of yield, production and consumption improvement.

8. My second point is that a hard look be taken at the balance of intensity and accuracy of the measurement of the variables. During meetings discussing M. and E. some suggestions were made about detailed

continued ...

April 1, 1976

yield sampling of crops. The design and interpretation of such measurements is well-known to be a difficult and specialized branch of biostatistics. The provision of this sort of expertise at project management level is inappropriate particularly since so many other variables in the equation are little more than guesses. The effort in reducing the overall measuring and sampling errors should be put where the marginal cost is least. For instance, in many cases, yield increases may already be shown in total market volume data. Data refinement effort at this stage may avoid the problems of sample error where the time or ability to identify and measure all the relevant details of sample site and conditions are limiting. If detailed information on agricultural yields is required for feedback to new project design rather than ongoing management, this should be spelt out in the initial statement of objectives to achieve and hypotheses to be tested. Then the specific expertise can be designed into this project. If large numbers of projects were required to take detailed yield (for instance) measurements, it is certain that the required expertise should not be available (regardless of the money set aside for M & E). Wrong data would then be recorded. It is often better to have no data at all, since it gives the appearance of objectivity, where it is totally subjective to the skill of the observer.

9. My final point is that I feel the essence of the issues distills down to being able to find a mix between subjective and objective estimates of whatever we have defined as the focus variables. Subjective estimates are in management's common sense, honesty, technical capacity and yield knowledge. Objective estimates are direct measurements. Surveying people and sampling yields are mixtures of both subjective and objective observations. We may feel management is biased and overestimates rice acreages to exaggerate the project's success. We then call in a consultant to give an objective view. He then surveys a sample of project beneficiaries who deliberately underestimates the acreages since the word went around the market that a tax estimator was in the area. We may be no better off in terms of incremental cost and benefits with respect to our objective. If in the past project management has not been able to give reliable data on important matters, an alternative to designing heavy monitoring and evaluation components may be a compromise mixture which includes improving project management and communication.

10. To bring this rambling discourse to a timely end, I wish to propose the following actions:-

- 1) Choose a group of projects for special M & E - not necessarily intensified M & E.
- 2) Spell out the final objective for each project and state the hypothesis to be tested for each.

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- 3) Consult well-experienced biometricians to help identify the absolute minimum variables to observe and the appropriate method for simple agricultural or health projects etc.
- 4) Compromise. In a multi-disciplinary meeting decide which variables override others. Consumption changes may well be a satisfactory indicator of improving nutrition given the context of R.D.
- 5) Consult project managers. Their objective set is different from ours. What input have these important people had in all our studies into M & E?
- 6) Do a cost/benefit analysis on the alternative ways of getting information with their attendant degrees of reliability.
- 7) Monitor and evaluate the progress of monitoring and evaluation.

11. In conclusion, it may be worth remembering that it is better to be roughly right than precisely wrong. As we improve our tools of M & E an apparent project response may reflect nothing more than the improvement in our ability to use these tools.

Mr. I.P.M. Cargill

March 29, 1976

Masaya Hattori

World Bank Staff Working Papers: Compensatory Financing;
Public Work Programs

You asked my comments on the above-mentioned Working Papers.
They follow:

(1) Compensatory Financing

This paper makes a quantitative analysis of the 3 types of compensatory financing, namely the IMF scheme, the Stabex (Lome treaty) scheme which two are in operation and a Geometric scheme. The analysis is conducted in a very professional way and the paper will serve as a useful textbook for a compensatory financing. It assumes as starting point that the objective of the compensatory financing should be to fully compensate for shortfall of IDA export earnings on (a) particular commodity or (b) total export earnings. This is useful as a starting point for an analysis of the schemes. However a basic question is whether such compensation is desirable and if so what level of compensation. The analysis is based upon a 10-year period and shows that in most cases the ups and downs more or less cancelled each other which suggest that compensatory financing is a self liquidating enterprise. While I have no means to judge whether the selection of the period is appropriate, I would have serious doubts that compensatory financing is of necessity a self liquidating enterprise. Therefore if such financing is to be provided it should be on the basis of grants or on the basis of lose and flexible repayment terms. More fundamentally the justification of compensatory financing must be reexamined. Initially it was conceived as a solution to the problem of declining prices for primary products produced by the LDCs. These goods were by definition being produced in quantities exceeding world demand. In these circumstances, compensatory financing was justified from the view point of an international solidarity scheme, whereby the richer countries would compensate part of the export earning losses for a certain period of time to permit the exporting countries to diversify their production so that their economies would produce less of the unwanted goods and more of the goods for which world demand was growing. This is the essence of The Posthuma proposal of the ^{early} ~~late~~ 1960s. In this scheme the amount of compensation was only a part of the earnings loss and never a full compensation since it could not risk the encouragement of goods for which the world demand was declining. Further, Professor Posthuma strongly recommended this financing to be made in the form of grants. Recently however the schemes seem to be based upon the assumption that world demand for these commodities should increase over a sufficiently long period, but the fluctuation in prices and volume from year to year during the period can be extremely wide. Therefore, financing should be given for shortfalls of export earnings to avoid a destructive effects on the national economy. This philosophy could call for full compensation of the export earnings shortfalls. As stated before, the assumption that world demand for a certain commodity is rising over a certain period of time is a precarious judgment at the best. There is a danger that such

financing could sustain production of goods for which demand is declining and to retard the necessary and desirable diversification into more economically useful lines of production. These problems are difficult ones to resolve. However it was not the intention of the working paper to discuss these fundamental issues but to assume that full compensation of export earnings shortfalls was desirable and to see how these 3 schemes would function in light of that objective.

(2) Public Work Programs

This paper is a digest of a study of 24 public work programs in 14 countries conducted by 4 consultants. It is another example of costly and limited value studies by DPS, another being the small business study (which incidentally Mr. Stern cited as an example of misuse of research funds). It adds nothing that could not have been learned by an examination of Bank financed projects at Headquarters.

The basic conclusion of the paper is that public works programs rarely fulfill the original expectations for absorbing unemployment, construction of desirable (the authors use the word "needed") physical facilities and improving the living standards of the poor. They cannot have a major impact unless they are part of a coherent development policy favoring productive employment. A better way to put it is to say that public works can be a useful element of a development project but rarely can they be effective as a public works project. The discouraging evidence does not depress the authors, for they go on to say that public works can make a significant contribution provided there is sustained political commitment and close attention to details of program design and administration. To me it seems that the authorities in most cases did not even understand the people or the area in which the public works were to be undertaken. They decided that a certain public works project had to be undertaken in a certain place because public works are "good" as such, or as an easy solution to an imagined problem. In this their attitude was very much akin to that of the DPS staff who commissioned the study, to see the potential of public works for absorbing unemployment, constructing facilities and improving living standard of the poor. DPS should have known that it is only productive employment that is relevant for the Bank, and absorbing unemployment or raising living standards are the consequences of increased productive employment.

Perhaps the study will be useful after all if it could induce DPS to concentrate on matters that are directly relevant to economic development rather than being distracted by secondary issues such as employment, income distribution, nutrition and so forth.

MHattori:ed

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OFFICE MEMORANDUM

TO: Mr. Ted Davis

DATE: March 26, 1976

FROM: Michael Cernea *Cernea*SUBJECT: DANIDA Conference on Rural Development
Back-to-Office Report

1. According to my TOR, on my way back from the Algeria Mission, I stopped in Copenhagen and attended the Conference on Rural Development organized by the Danish Agency for International Development (DANIDA). I presented the opening lecture on "The Rural Development Strategy of the World Bank".
2. Purpose of the Conference. In view of the increasing interest of Danish public opinion for the Bank's operations and for the Danish contribution to IDA (including the Fifth IDA replenishment), DANIDA organized the conference in order to provide the country's press with firsthand information on World Bank activities and on related development activities in which Danish financing is involved.
3. The DANIDA meeting had the character of both a scientific seminar and a press conference. About 30 journalists from the main Danish newspapers, periodicals, TV and Radio attended: eight lectures were presented, over three days, by foreign and Danish guests, mostly scholars. Each lecture was followed by discussion and questions from the press.
4. My lecture was constructed as a sociological presentation of the theory, strategy and practice of rural development. In addition to the basic points of the Bank's policy and the shifts in the lending program, I discussed extensively the behavioral, cultural and institutional problems and constraints with which the implementation of new-style projects is confronted at the grass-root level (an outline of my lecture is attached).
5. Evaluation. The audience, though seeming generally competent in matters of rural development, proved to have little specific information on the new policy of the Bank and on the nitty gritty of project work. They expressed high interest in the Bank's program, both during the formal question time and during the following informal evening and lunch conversations. Despite earlier expectations of criticism, given the widespread anti-Bank attitude in the Scandinavian press, questions were asked rather in a sympathetic tone. They related to the selection of project beneficiaries, interest rates, use of traditional local institutions, promotion of intermediate technology, degree of success of cooperatives, the extent of the Bank's impact, nutritional consequences of projects etc.

March 29, 1976

6. The only directly critical attitude toward the Bank was exhibited by an invited lecturer, Alpheus Magenzi, a South African political emigrant living in Sweden (representative of the African National Congress). He charged that the Bank is giving financial support for the status quo, thus inhibiting the "real development" needed for Africa. The Chile loan was not brought up during the public discussions.

7. A different, rather hostile tone, was expressed in questions and commentaries on the lecture presented by the representative of the EEC. Danish public opinion seems to be still turned largely against EEC and its programs. When introduced, the speaker was given a public warning: "You are not among friends; at least, tell us all your doubts". Unfortunately, his presentation was superficial and culturally biased. He drew strong criticism and was ironically thanked for what a journalist named "the description of the failure of EEC projects".

8. The organization of the meeting by DANIDA (in particular, Ms. A.M. Skipper) was excellent. DANIDA and myself received requests from several journalists for additional printed information on World Bank projects and activities.

9. The first published comment in the Danish press, which I have just received, gives a very favorable comment to the Bank's Rural Development policy (copy attached).

MC:jd

cc. Messrs. M. Yudelman
Leif Christoffersen
D. Turnham
John Merriam
O.M. Myhrer
Mrs. Shirley Boskey

THE RURAL DEVELOPMENT STRATEGY OF THE WORLD BANK

- Outline -

- A. Introduction: The Purpose of the Presentation
- Rural development: from under-estimation to escalating interest - Nairobi 1973.
 - A sociological prospective on rural development:
 - (a) Who are the actors of rural development?
 - (b) The socio-cultural feasibility of rural development and the inter-relationship of economic, social and technical factors.
 - (c) Institutional and behavioral requisites of rural development.
 - The crux of the matter: to make the rural poor more productive.
- B. Poverty in the Traditional Rural Society.
- (1) The socio-economic parameters of rural poverty:
 - (a) The system which perpetuates poverty.
 - (b) Skewed distribution of income earning assets.
 - (c) Lack of non-agricultural sources of income.
 - (d) Urban extraction of rural "surplus".
 - (e) The culture of poverty: illiteracy, malnutrition, disease, low life expectancy.
 - (2) The social stratification of the rural poor :
(the small farmers, tenants, nomads and landless)
 - (3) The culture of poverty as an anti-culture of productivity; poverty - an obstacle to growth.
- C. Rural Development - alternative to poverty and starvation.
- (1) Critical review of several theoretical (sociological and economic) definitions of the concept of rural development.
 - (2) The Bank's analysis of rural development as a product of the Bank's operations and experience in the developing countries.

C. Rural Development- alternative to poverty and starvation (Cont'd)

- (3) The basic elements of the Bank's philosophy of Rural Development.
 - (a) alleviation of poverty by developing the productive capabilities of the rural poor;
 - (b) increasing the incomes and diversification of employment in rural areas;
 - (c) focusing on a specified "target group";
 - (d) integration of directly productive components with social-cultural components;
 - (e) institution building goals in the development process;
 - (f) increasing food production;
 - (g) creating the prerequisites of self-sustaining growth.

D. The Strategy: the Bank's Lending Program for Agriculture and Rural Development.

- The major changes in the agricultural lending program:
 - the period 1948 - 1963
 - the period 1963 - 1968
 - the period 1968 - 1973
 - the Nairobi statement; FY 1974 and 1975.

E. The Poetry and the Prose of Rural Development: The Projects.

- (1) Typology of New Style Projects.
- (2) Developing village management capabilities: the Kigoma and Education V Projects in Tanzania.
- (3) The Foodgrain program in Eastern India.
- (4) Institutional decentralization and the PIDER approach in Mexico.
- (5) Technical Assistance for Rural Development projects - the Algerian case.
- (6) Resettlement of the landless: The Jengka Triangle scheme.

F. Some sociological problems of project design and implementation.

- (1) The non-homogenous rural population and the identification of target groups.
- (2) Social conflicts and vested interests affected by project implementation.
- (3) Human motivation and incentive systems: eliciting self-help - the life or death test for rural development.
- (4) A sociological challenge: developing the social-absorption capability of the farmers' community (physical infrastructure versus social structures).
- (5) Cultural constraints and behavioral obstacles to project work in traditional areas.

G. Current trends in the Bank's rural development projects.

- (1) Prospects of Rural Development in FY 1976 - 1980.
- (2) Increasing effectiveness: monitoring and evaluation of project impacts.

List of Participants.

Deltagerliste til kursus om Rural Development,
Kobæk Strand, 15.-17. marts 1976

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Jesper Søe, Ritzaus Bureau
Anne Mette Skipper, Danida
Wilh. Ulrichsen, Danida
Birgitte Westh, Politikens lokalaviser

Chefsociolog i Verdensbanken:

U-landsudvikling skabes ikke blot med kunstgødning

– Internationale hjælpeorganisationer oplever i alt for mange tilfælde at hjælpeprogrammer ikke får den tilsigtede virkning, siger professor Michael Cernea

– Verdensbanken har indledt en ny politik, der går ud på at knytte sociologer til sine u-landsprojekter. Baggrunden er, at internationale hjælpeorganisationer i alt for mange tilfælde oplever, at hjælpeprogrammer ikke får den tilsigtede virkning, fordi de har ramt på tværs af lokale sædvaner og traditioner, siger en af de ledende sociologer i Verdensbanken professor Michael Cernea fra Rumænien i går på et kursus for journalister holdt af udenrigsministeriets u-landsafdeling DANI-DA.

Mangedoblet indsats

Verdensbanken har besluttet at drage den sociologiske ekspertise ind i et u-landsarbejde, samtidig med at banken har mangedoblet sin indsats for de fattigste i ulandenes landbrugsområder. Banken er i dag den enkeltorganisation, der yder mest på dette felt. Formålet med at knytte sociologer til projekterne er ikke mindst at sikre, at projekterne virkelig kommer til at gavne de fattigste i områderne.

– Vi oplever gang på gang at de rigere bønder modvirker projekter, der ikke kommer dem til gode. Derfor vil de fleste projekter føre til sociale konflikter, med mindre man tager hensyn til de lokale forhold på dette område. I mange tilfælde er det nødvendigt at give projekterne en struktur, så de også gavner de mere velhavende, selv om det ikke er det egentlige sigte, siger professor Cernea.

– Det vigtigste, vi har lært, er imidlertid, at det er naivt at tro, at man kan øge indtægt og produktion for de laveste grupper i ulandenes landbefolkning blot ved at tilføre kapital og kunstgødning, der må samtidig gennemføres sociale forandringer, og her er den sociologiske ekspertise uundværlig, siger han.

42 milliarder

Verdensbankens indsats for de fattigste i ulandenes landdistrikter ventes at blive på 42 milliarder kroner i femårsperioden 1975-79. Den ydes i form af kreditter og projektbistand. I sidste femårsperiode

var denne bistand på tyve milliarder kroner.

Banken sigter mod at landbrugsproduktionen i de grupper, man vil hjælpe, vil vokse med fem procent på årsbasis.

– Hvis det lykkes, betyder det en fordobling af produktionen i 1985 i forhold til den nuværende, siger Michael Cernea.

Gruppen man ønsker at hjælpe, omfatter den tredjedel af ulandenes befolkning, der konstant er ramt af underernæring, og som stort set ingen gavn har fået af de hidtidige programmer.

har

*Agriculture & Rural
Dev.*

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RURAL PUBLIC WORKS AND THE BANK: BACKGROUND ANALYSIS

Development Economics Department
March 24, 1976

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RURAL PUBLIC WORKS AND THE BANK: BACKGROUND ANALYSIS

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Table 1. Selected Projects with Significant
Public Works Activities FY 1975

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RURAL PUBLIC WORKS AND THE BANK: BACKGROUND ANALYSIS

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I. INTRODUCTION

1.1 In recent years the Bank has placed increasing emphasis on low income groups and their greater participation in the benefits of economic development. This requires explicit attention to employment opportunities for the poor whose economic welfare depends primarily upon remunerative work. Moreover, the underutilization of human resources in developing countries not only represents a waste which can be ill afforded but is likely to involve vicious circles of poverty, malnutrition and poor health, and low productivity. Public works efforts are among the more obvious instruments for creating jobs and incomes for some of the poorest workers while also building productive assets which in turn enhance future employment opportunities.

1.2 In 1972, Mr. McNamara said that the Bank would assist in financing such projects.^{1/} The Bank has since participated in a public works program in Mauritius and increasingly has supported public works activities within rural development projects, especially in India and Mexico. In the Bank's Sector Policy Paper on Rural Development, public works projects were identified as potentially useful means to meet special needs in rural development programs such as employing the landless.^{2/} However, the multiple objectives and the organizational and administrative complexities of public works programs combine to pose difficult issues of design and implementation. In the light of certain salient weaknesses which have impeded special public works programs from realizing their full potential, the Policy Paper concluded that public works programs have to be part of a larger employment and development strategy and that the Bank would emphasize within the lending program, projects which incorporate rural works in an integrated rural development effort.^{3/}

^{1/} Robert S. McNamara, Address to the Board of Governors, Washington, D. C.: IBRD, September 25, 1972, p. 16.

^{2/} IBRD, Rural Development: Sector Policy Paper, Washington, D. C., February, 1975.

^{3/} The list of weaknesses in past programs in the Policy Paper, p. 51, borrowed from an extensive review and analysis of experience throughout the developing world with so-called public works programs. The study was sponsored by the Bank (Research Project No. 670-75) and carried out by the Harvard Institute for International Development. A digest of the final report of this study has been issued as Bank Staff Working Paper No. 224 "Public Works Programs in Developing Countries: A Comparative Analysis," February, 1976. For brevity, this paper will be cited hereafter as Digest.

1.3 The purpose of this paper is to provide a concise analysis of the main policy and operational issues involved in the selection, design, appraisal, and evaluation of rural public works activities for Bank financing. The basic question addressed is how rural public works activities can be most effectively incorporated into rural development and into Bank lending. A particular issue is whether the Bank should develop a separate portfolio of loans supporting special programs for rural public works. It is taken for granted that a variety of local rural works activities will receive increasing Bank support within regular irrigation, transportation, and other agricultural and rural infra-structure projects, or as specific components of integrated rural development projects in particular areas. However, the desirable and feasible scale for Bank participation is not self-evident.

A. Definition and Classification

1.4 Any definition of "public works" must be partly arbitrary because of the great diversity of activities to which the term has been applied. For an operational definition it is proposed that "public works" be restricted to activities under governmental or communal auspices with the joint objectives of the creation or maintenance of physical infrastructure and the alleviation of poverty through remunerative employment. The assets created in public works activities may be grouped in three categories: directly productive, economic infrastructure, and social infrastructure. In the rural setting, directly productive assets are mainly associated with land thereby increasing its productivity: examples are canals, terraces, and tanks - the physical structures for irrigation, drainage, soil and water conservation, etc. Economic infrastructure represents assets which are not direct inputs into production but whose supporting services increase the economic productivity of the community. Examples include roads and marketing and storage facilities. Social infrastructure includes safe water supplies, waste disposal facilities, and the structures necessary for providing social services such as schools, health clinics, and administrative offices.

1.5 For examining the opportunities and problems for Bank financing of public works, the kind of assets created is a less useful basis for classification than is the organizational context in which the activities are undertaken. Public works in the above defined sense, have been identified frequently with special national or regional programs. Particularly for Bank operational purposes, a broader definition is desirable that includes public works activities or components within infrastructure and rural development projects. The objectives within the latter contexts

are the same as within a special program, as are the substantive issues. Even among the obviously different organizational settings, there are common administrative and managerial problems. As will be elaborated subsequently, the difficulties in implementing a special public works program, and in integrating it into the broader development effort, suggest an emphasis on public works components within infrastructure and rural development projects.

1.6 Also, emergency or crisis work relief programs must be distinguished operationally from situations which permit longer range planning and a greater emphasis on creating productive assets. Accordingly, the following four-way classification will be followed throughout this paper.

- (1) Emergency employment and work relief programs.
- (2) Small scale, labor intensive infrastructure components of large, centralized sectoral investment projects.
- (3) Local infrastructure components of rural or integrated area development projects.
- (4) Special national or regional programs for local decentralized public works.^{1/}

B. Scope of Paper

1.7 The present paper is limited to a discussion of rural public works and does not investigate equally important and often analogous issues within primarily urban public works activities. In the larger urban centers, the physical and economic environment and the structure and operation of labor markets require public works efforts substantially different in design from those in rural areas. Seasonal changes in the agricultural demand for labor are of central importance in rural but not in urban areas. Many of the urban unemployed are not members of the poorest families and are not interested in unskilled manual jobs. Opportunities for public works employment in cities might stimulate increased rural-urban migration of unskilled workers, possibly in excess of the jobs created. Policies on urban public

^{1/} A number of other distinctions and classification are possible such as the one used in the Digest which emphasizes the relative weights attached to income distribution on the one hand and creation of productive assets on the other. In this paper, the weighting problem is discussed in Chapter IV; Issues in Design and Implementation.

works must be evolved therefore in the context of an appropriate urban development strategy--a task outside the scope of the present paper.^{1/} However, the demarcation between rural and urban cannot be drawn precisely and independently of the circumstances. In particular, some rural public works activities may be physically located in rural towns. The crucial consideration is the extent of integration of such activities into the rural economy.^{2/}

1.8 The economic context assumed in the following discussion is the kind of mixed economy prevailing in most Bank member countries. In particular, it is assumed that individuals or families control land and claim its residual income whether legal ownership is recognized or not, and that the range of cooperative institutions stops short of the commune after the Chinese model.^{3/}

1.9 The paper seeks first to establish the developmental perspective in which rural public works should be planned and evaluated. As unrealistic expectations have often been held regarding the potential contribution of public works, the limits inherent in the instrument are reviewed. In this perspective the Bank approach to rural public works is examined. Various organizational problems are perhaps the most intractable obstacles for effective implementation of public works; these are addressed in Chapter III. Particular issues in design and implementation are taken up in Chapter IV, and the following chapter is devoted to Bank project policies and procedures. The concluding chapter considers the prospects of Bank support for rural public works.

1.10 This paper does not review past experience with special public works programs. The interested reader will wish to delve into the Digest which analyzes 24 programs in 14 countries and which accompanies this Issues Paper. In particular, attention is drawn to the Digest discussion of organizational and administrative issues. The present paper examines the implications of past experience for development strategy and for Bank operations.

^{1/} Compare the current work within the Urban Poverty Task Group.

^{2/} It is of course possible or even likely that a national public works program may involve both rural and urban components. Unlike the practice to date, a public works approach evolved in the rural context should not be extended uncritically to urban areas. The urban component should be designed explicitly for the urban environment.

^{3/} While there are similarities in the opportunities for rural works and in the low opportunity cost of labor, most of the Chinese experience in implementation is not directly transferable to market economies. Certain technical matters of works design and work-site organization may be immediately relevant, but key problem areas such as the decision-making process, the financing of the wage fund, and the distributive impact, are radically different.

II. A PERSPECTIVE

2.1 Rural public works programs as generally conceived encompass a wide range of activities with a correspondingly diverse set of objectives. The ostensible purposes for which such programs are undertaken usually involve a complex mixture of economic, social, and political ends which all too frequently are not clearly stated and may not be fully consistent. Each of the 24 programs surveyed in the Digest was initiated in a context of substantial unemployment and/or politically unacceptable low incomes for some groups of the population. There was considerable variation in program emphasis and design. Program objectives gave various weights to employment and income for target groups and to the creation of useful economic assets. Program objectives reflected physical and economic circumstances, but some programs continued after the precipitating crisis had passed while others were substantively modified despite an essentially unchanged external situation. All of this diversity suggests a certain ad hoc approach to public works; very little critical attention has been directed to their precise role within the total development effort.

A. Public Works as an Instrument for Development

1. The basic rationale

2.2 The obvious rationale for public works is very attractive; unemployed workers in need of increased incomes can be put to work building productive physical assets. The argument is persuasive and generates considerable enthusiasm for public works efforts despite the generally disappointing experience to date. This experience does not disprove the basic justification for public works; it rather illustrates the unrealistic expectations which have been held by some and the general under-estimation of the difficulties in implementation.

2. The development context

2.3 The rationale for using public works in developing countries to raise incomes through the employment of underutilized labor resources may appear analogous to the use of a public works program to alleviate cyclical unemployment in developed countries. However, it is important and instructive to emphasize the basic differences. In the latter context, there are high supply elasticities for goods and services to meet the increased consumption demands of the newly employed workers. The resulting chains of increasing incomes and expenditures produce an aggregate growth in employment and income greater than those represented by

the works program itself. In sharp contrast, the poverty and low utilization of labor in the rural areas of developing countries is not due to a general deficiency in aggregate demand but arises from real constraints on the level of productivity and output. Most of the wage income arising from public works will be spent on consumption items, especially basic food stuffs. If there is no provision for an increase in total-wage goods, the distributional effect will depend on which groups suffer reductions in consumption levels in order to meet the additional demand from workers on public works projects. Whether these effects are favorable in an overall sense will depend, therefore, on such factors as the structure of taxation and the relative vulnerability of different groups to increases in the prices of wage goods. There is a clear presumption that general increases in the prices of foods will reduce the real incomes of the poorer groups disproportionately. If an increase in wage goods involves a diversion of resources, domestic or foreign, from other investment activities, the distributional and employment benefits of employment generating works programs have to be weighed against the adverse effects on development objectives and the possible loss of employment opportunities in other areas due to lower investment levels. Hence, there is limited validity in expressing the fundamental goal of increased incomes for the poor in terms of a simple, separable employment objective. The employment problems of developing countries are closely bound to the whole complex of constraints on incomes and productivity. Employment-creating works programs in developing countries as instruments for poverty alleviation must be designed and evaluated with careful attention to the longer-run patterns of development and the overall economic policy context.

3. Emergency relief

2.4 Emphasis on the long-run structural character of employment problems in developing countries does not preclude employment-generating works programs to assist in relieving the distress caused by acute emergencies, such as droughts or floods. Under such circumstances, the alleviation of distress is a problem of transferring resources to sustain minimal consumption levels among the affected groups. Providing employment through public works schemes in these short-run circumstances is one means of administering this redistribution; judgments regarding the effectiveness of such public works may have relatively little to do with their actual output; they will depend on the extent to which using wage employment as a channel for the transfer of consumer goods minimizes administrative or political problems of selection of recipients, possibilities for corruption, compared with alternative transfer mechanism.

4. Activities within production-oriented projects

2.5 At the other extreme from relief or redistributive objectives is the concern for production behind certain large infrastructure programs and projects which do or could include substantial labor-intensive components. Frequently, there are small-scale and spatially dispersed activities within irrigation works, flood control structures, rural road networks, etc., which are adaptable to labor-intensive methods and are located in rural areas with underutilized labor resources. In this context questions arise regarding the appropriate scope for labor-intensive activities which can be determined by applying formal techniques of project analysis. Shadow wage rates and shadow prices guide the choice of techniques to be employed. The benefits of increased employment generation are properly subsumed in the estimation of the net benefit streams resulting from the project. Weighting benefits according to the income status of the recipient groups gives explicit consideration to the distribution of both direct and indirect benefits.^{1/} It is important to accommodate within project analysis the fact that direct generation of unskilled jobs may be only one of the various distributive consequences of a project. For example, employment gains in using labor intensive techniques would not off-set the negative distributional effects of building an irrigation system to serve large mechanized farms. Conversely, a project judged worthwhile when its overall production and distributive effects are evaluated with appropriate shadow prices and income weighting should not be constrained to use inefficient (at shadow prices) employment generating techniques.

5. A distinctive policy initiative

2.6 The definition of "public works" used in this paper includes an explicit poverty alleviating objective. This objective cannot be achieved simply by applying improved techniques of project analysis. The latter is a critically important tool for selecting among those alternatives to which it is applied. The crucial task is to expand the range of alternatives by searching out opportunities for labor-intensive construction and by creating the organizational and administrative capacity for implementation. This requires an explicit policy initiative.

^{1/} See Bank Staff Working Paper No. 194, "The Economic Analysis of Projects," February 1975.

2.7 The various public works efforts in developing countries represent just such a new policy direction. In focusing on an employment objective, public works constitute a distinct instrument for development. There is a risk that immediate employment creation may be accorded too high a status and that this may undermine the longer-run objective of expanding the number of remunerative jobs. This risk will be minimized by a realistic view of the instrumental role of public works activities and by a continuing concentration on their coordination and integration within the overall development effort.

B. Environments for Rural Public Works

2.8 Obvious requirements for a rural public works effort--unemployed or underemployed workers who are willing to do heavy construction labor and opportunities for productive physical investments which are amenable to labor-intensive techniques--are not met in all poverty-stricken areas of the world. Seasonal underemployment of small farmers and landless workers is pervasive, but does not always coincide with the season in which construction can be efficiently undertaken. For example, in South Asia in the pre-monsoon season, underemployment and the construction period coincide, but workers underemployed due to monsoon flooding in some areas cannot be effectively employed in earthworks. Further, the necessary institutional capacity for implementation may be lacking in some situations of great need and opportunity.

2.9 The rural environments in different regions of the world suggest substantially different emphases within rural works efforts. For example, in South Asia, the general population pressure on the land base implies a priority on land-augmenting assets such as irrigation and water control works. The administrative capacity and prior experience with rural works would facilitate special programs of public works. In contrast, the inexperience with rural works and limited institutional capacity in the East African countries suggest initial undertakings in the contexts of rural development projects and of one-sector investments such as rural roads. Within West Africa, the institutional setting is not encouraging for special programs of rural public works, and none has been attempted to date. However, more narrowly focused efforts on physical structures of high priority are attractive.

C. Realism in Expectations

2.10 The scale of public works activities has been and probably will continue to be small relative to the employment problems of poor rural workers in developing countries. Only in two of the special programs reported in the Digest, Mauritius and Tunisia, has the direct employment

generation substantially exceeded one per cent of the labor force. (In comparison, estimates of the full-time equivalent of underemployment and unemployment typically fall in the range of 20 to 40 per cent.) At a fraction of one per cent of GDP most of the past programs appear small; they look much larger relative to the government budget and especially to the development component of that budget. For assessing a maximum physical potential for public works activities, the scale of special programs plus components of sectoral projects may be related to gross investment in the economy. If gross investment were 20 per cent of GDP, and in turn 10 per cent of the gross investment consisted of public works activities in the sense used in this paper, the implied 2 per cent share of public works in GDP might employ at most about 8 per cent of the labor force. However, administrative and fiscal capacity would permit only a fraction of this scale in most countries, at least over any extended period of time.

2.11 The poverty alleviating role of public works should not be exaggerated. Among the poorest are those households with no person physically capable of performing heavy work. Other households are poor despite earnings per worker comparable to what could be obtained in public works employment because of the high ratio of dependents to workers. Including the labor component of locally produced materials, the fraction of program expenditures accruing as wages to unskilled workers rarely exceeds two-thirds, so long as there is a serious concern for creating productive assets. After discounting the wage payments to reflect actual real income gains, the transfer of real resources to poor groups may approximate one-half of total program expenditures, at best. For some classes of construction, e.g., buildings for schools or health clinics, the ratio may be much less due to higher outlays for materials and skilled labor.

D. Employment and Incomes from Created Assets

2.12 Public works efforts to date have largely neglected the employment potential in the operation and use of the finished structure. In most contexts the potential employment and income effects of the completed assets will exceed those of the construction phase. For example, with land-augmenting works such as irrigation, continuing employment for one worker in cultivation may be created with three or four man-years of construction labor. Economic infrastructure projects such as roads indirectly create new job opportunities but the long-term employment effect is more difficult to measure and probably smaller than that of land-augmenting projects. For social infrastructure facilities the main continuing employment demand is

for trained persons such as teachers and paramedical personnel. However, these permanent benefits will not follow automatically; without the requisite inputs and complementary policies they may be small or non-existent. For infrastructure projects such as access roads, the expected benefits will come only with parallel developments larger in scope and more difficult to achieve than the initial public works. Even maintenance of completed works which usually requires substantial amounts of unskilled labor has not been consistently accomplished in the past.

E. Distributional Conflicts

2.13 In addition to the continuing employment consequences, economically productive projects increase the future availabilities of consumption goods, especially food from land-augmenting assets. Both these effects serve the income distributional objective of public works. However, under certain institutional arrangements, particularly those affecting tenure and ownership, there are strong tendencies in the opposite direction. In a land-scarce region, precisely where employment and production increases are most needed, the major share of the permanent benefits will be distributed about unequally as is land ownership. An illustrative case for Bangladesh suggests that the income from an additional crop-acre would be divided between land-owners and laborers in the ratio of five to one. Further, the labor share will depend on the character and magnitude of the induced labor demand. Certain patterns of technical change associated with the increased land productivity, e.g., labor-saving mechanization, could minimize the employment effects.

2.14 Combining the construction and operating phases of directly productive projects, time discounted benefits to landowners have been calculated to be three or more times those of laborers. Unless land ownership is fairly egalitarian, a public works project may worsen the long-term relative income distribution while yielding absolute income gains for some of the poor. While specific measures can influence the over-all distributional impact, political and institutional constraints may be so severe in some circumstances that public works become unattractive on distributional grounds. In particular, if poor laborers receive very low or no wages on projects which enhance the returns to large land-holders, there is income redistribution from the poor to the rich.

2.15 The physical environment may impose severe distributional problems. Frequently, the poorest regions are those which have limited agricultural potential even with major investments; arid land with no water resources for irrigation is the most pervasive example. On grounds of the immediate employment and income needs, such regions would have a high priority for public works activities. However, given the physical resources, there would be very limited permanent creation of jobs and income, and public works efforts in such an environment could sacrifice productive investments

elsewhere without solving the local long-run employment and income problem. Measures assisting migration to locales with more development potential would be preferable; these might include public works in the new location. In less extreme cases, e.g., some of the extensive semi-arid or drought-prone regions, a fairly equal distribution of the modest productive potential might suggest a public works effort.

2.16 Distributive problems and conflicts such as these are not unique to rural public works undertakings; many other projects present similarly difficult choices and trade-offs. However, the view is common that public works uniformly tilt the income distribution towards the poor. In fact, this is not always true during the construction phase, and has less frequently been the case during the operational phase; detailed attention is necessary to reinforce the positive effects and to restrain the negative.

F. A Suggested Bank Approach

2.17 Rural public works does not constitute a sector of economic activity or social services; rather it is an approach or means for undertaking activities within several sectors. Hence, it is expected that any Bank support for public works would be managed within existing sectoral responsibilities. The question then arises whether explicit efforts are needed to increase Bank support for public works activities beyond what would result from existing lending criteria, or from criteria perhaps modified to incorporate explicitly and systematically distributional considerations into project appraisals. An affirmative answer is suggested both by the review above of the rationale for a distinctive public works instrument and by existing Bank policy in support of rural development. In particular, current Bank policy recognizes that a deliberate poverty-oriented strategy requires rural development projects that aim specifically at low-income groups. In meeting some of the income needs of those largely or wholly dependent on wage income, public works activities constitute a complement to the current efforts to increase the agricultural productivity of small farmers. A Bank approach can be addressed more specifically in terms of the four-way classification presented earlier.

1. Emergency employment and work relief programs

2.18 Emergency employment and work relief programs as vehicles for redistribution must certainly be recognized by the Bank as both desirable and important in particular circumstances. However, the de-emphasis of long-term development in the design and implementation of such schemes is likely to make them unsuitable for Bank project lending. Bank financial support to reduce the adverse effects of natural disasters or rapid changes in economic structure is more effectively managed in the form of area

reconstruction or program lending rather than direct support of employment schemes and work relief programs.^{1/} A partial exception would arise in a country in which relief for frequently recurring crises such as droughts or floods could be effectively integrated with a seasonal public works effort. Such a combined program should be viewed in terms of design and appraisal criteria as primarily a seasonal program with a strong emphasis on productivity but extendable when needed for relief.

2. Components within large sectoral projects

2.19 Labor intensive activities are being undertaken within some large sectoral projects, notably in irrigation. The prospects are promising for increasing support for such components, especially in road construction and in earthworks generally. The demarcation between "public works" and civil construction generally may be somewhat blurred in this area; the operational criterion for the distinction is explicit attention to increasing employment and incomes of the rural poor.

3. Infrastructure components of rural development projects

2.20 Within various integrated rural and area development projects, infrastructure components are being undertaken as public works activities. Again, there is scope for increasing Bank support for such activities. Integrated rural development projects are particularly attractive vehicles for the coordination of rural public works and complementary inputs and activities.

4. Special national or regional programs

2.21 This fourth category, special programs for rural public works, makes heroic demands on the administrative capacity of member countries and challenges Bank policy and procedures. However, an affirmative posture is justified; criteria of project performance similar to those applied to the more complex rural development projects are appropriate. The difficult issues which the Bank faces in developing public works projects of this sort must be recognized; the issues are closely connected with certain of the programs' distinguishing characteristics.

^{1/} Such a policy position would not exclude the possibility of direct assistance components in Bank financed projects where deleterious indirect impacts on specific low income groups can be identified. An example might be an expansion of large scale textile manufacturing or a modernization of the fishing industry which wipes out the economic base of rural weaving or local fishing activities. But such components should be designed as adjustment assistance including elements of retraining, relocation, etc., and not simply as employment relief.

2.22 No matter how well-founded the presumption that substantial opportunities exist in rural areas where small-scale public works activities can yield simultaneously production and poverty-alleviating benefits, the central problem is the means by which a large number of specific opportunities can be identified and efficiently implemented. For rural works programs to serve as a mechanism for mobilizing local capacities to identify and carry out a wide range of geographically dispersed, small-scale activities, an administrative structure with a substantial degree of local autonomy and decentralization is required. Since, in the nature of the case, it will not be possible to specify and control in fine detail the content of individual project activities, Bank project design and appraisal must center on the institutional context and the administrative and financial procedures for carrying out the program. By and large these must be expected to involve separate organizational and financing arrangements which cut across the functional responsibilities of central government ministries and are linked to the support of local government and rural development institutions.

2.23 From this point of view, the potential role of rural works programs is in some ways analogous to other intermediary development institutions designed to channel resources to a large number of decentralized decision makers such as Development Finance Corporations, agricultural credit agencies, or institutions providing finance and technical assistance to small enterprises. However, the analogy cannot be pushed too far since the differences are as significant as any similarities. In particular, the public or communal character of rural infrastructure activities implies no simple counterpart to the profitability criteria which can be applied in dealing with individual farmers or business enterprises. Moreover, the redistributive objectives of rural works programs may mean that financing will take the form of grants out of general government revenues rather than loans to local public institutions. For these and other reasons, consideration of Bank financing for rural works programs cannot avoid complex issues of the operational criteria to be applied in program design, appraisal, and evaluation.

III. ORGANIZATIONAL ASPECTS

3.1 Difficulties in organizing public works are the most intractable of the obstacles between promise and fulfillment. There are no easy recipes in this field; technical issues of administration and finance are mixed up with political considerations. It is seldom possible to arrive at useful generalizations. While most issues must be resolved pragmatically in the context of specific countries and individual programs, this chapter suggests how the Bank should approach these questions. There will be situations in which the Bank will wish to support special programs of public works, which raise the most difficult organizational problems. Where these programs are ruled out, the introduction of public work components in infrastructure and rural development projects can be considered. There will be other cases in which the Bank will find it appropriate to finance both special programs and public work components.

3.2 Within an infrastructure project--e.g., rural access roads--a fairly narrow range of physical activities are clearly specified and the existing or newly created public agency in charge has a well-defined responsibility. Similarly, a rural development project is restricted in geographical area and the task of linking public works with agriculture or other components is internal to the project. In contrast, special national or regional public works programs have none of these simplifying features; they are multi-sectoral in nature, their activities are widely dispersed and responsibility for their design and execution is spread among several layers of government machinery. Organizational problems are not lacking in the context of public work components but the existence of semi-autonomous authorities separate from the regular machinery of government make it possible to deal with these problems somewhat more easily, or at least that is the premise which underlies the Bank's project approach. Of course, there are some Bank projects (e.g., Pider in Mexico) which are so large and diverse that they share in great measure the difficulties characteristic of special public work programs. In the long-run, project authorities have to be absorbed within the regular government apparatus and at that time all the organizational issues discussed in this chapter are likely to arise. However, the project technique buys time and allows the member government and the Bank to tackle these issues piecemeal.

A. Political considerations^{1/}

3.3 Public works have political dimensions beyond those they share with investments in power plants, highways, agricultural credit, etc. Diverse political and economic interests are directly involved in public works decisions at all levels so that it is more difficult to separate the technical and objective considerations from political influences. Autonomous agencies, designed to minimize political influences in some Bank projects, are rarely feasible for executing public works.

^{1/} Chapter VI of the Digest discusses the "political economy of public works."

3.4 The political motivations for public works may range across the spectrum from an unambiguous commitment to improve permanently the lot of the poorer groups in the population to a desire for simple palliatives. Typically, various influential groups inside and outside the government have different intents regarding public works. The resulting ambiguity in objectives and compromises in decision-making may be expected to produce some inconsistency between objectives and means. Shifts over time in the relative influence wielded by groups may lead to marked changes in programs during implementation.

3.5 There are two broad classes of potential political conflict. First, public works may be seen by elite groups as a direct political instrument for enlisting and solidifying the support of lower income populations. Rival elite groups, whose political power is threatened, may oppose public works even at the expense of their near-term economic interests. Second, the distribution of economic benefits from public works is inextricably linked with political influences. Benefits from completed structures will go primarily to those owning fixed assets, notably land. Especially if holdings are highly skewed, land owners are likely to exert substantial political influence at the local level and possibly at higher levels. Evidence from past works programs confirms the expectation that influential land owners will seek the location and types of rural works which will enhance the productivity and profit of their own holdings. Narrowly based economic and political interests operating at the local level may reduce the attractiveness of local autonomy in project selection and design.

3.6 Bank support of rural works activities will require an assessment of national and local political factors and whether the existing institutional and fiscal mechanisms, or those to be developed, are sufficiently robust to achieve fundamental developmental and equitable objectives despite the inevitable pressures of parochial political interests. It is impossible to prescribe any general system of analytic techniques and criteria by which such assessments can be made. This fact alone should be recognized as a probable constraint on the extent of the Bank's support for rural works. The political uncertainties surrounding rural works programs may require that the Bank eschew direct involvement in certain circumstances wherein, aside from these uncertainties, the productive and distributive contributions appear to be substantial. In some countries, political considerations may suggest a confinement of public works to geographic areas of lesser political and economic inequality, at least initially. In circumstances in which political realities preclude a special program for rural works, it may be possible to include public works components within more narrowly defined and managed projects.

B. Administration

3.7 A core problem in rural public works has been administration; administrative capacity, together with the intertwined political factors, have largely determined the actual performance of public works programs.

3.8 The centralization-decentralization issue is only in part one of balance between local autonomy and more centralized administrative control; more importantly, it is a matter of creating a structure and instituting controls and procedures which preserve the advantages of each while minimizing the disadvantages. Effective local participation in decision-making has the following advantages: motivation of people; detailed knowledge of local conditions and ability to accommodate them; local coordination of related activities; and strengthening of local institutions. In these areas central administration is relatively ineffective. However, there are other areas in which decentralized management is weak, e.g.: higher level coordination; technical design of specific projects; measures for avoiding corruption; and measures for avoiding dominance by local political elites. Where the local political structure or inadequate institutional capacity precludes decentralized decision-making, explicit administration from above is preferable to nominal decentralization and divided responsibilities. Where decentralization is feasible, care should be taken that central control and supervision not dominate the planning and execution process.

3.9 Since the productive potential of rural works cannot be achieved without complementary inputs and programs, coordination is a key dimension of public works management and has been too much neglected in past programs. Obviously, the means for coordination are dependent on the extent of decentralization, and the desirable degree and style of decentralization, depends inter alia on the required coordination. But at the minimum, there needs to be planning and administrative procedures whereby new rural works are made reasonably consistent with existing and planned physical infrastructure. Development of local roads needs to take into account plans for major networks while small scale irrigation works have to be consistent with large scale plans affecting water availabilities and drainage systems.

3.10 Regarding agencies to execute public works, past experience is not conclusive. The use of small contractors appears to have been successful in Indonesia but unsatisfactory in the former East Pakistan. Reliance on contractors would not be wise if few are experienced with labor intensive techniques. Force account on the part of government bodies has been the most frequent means of execution. Implementation through local government is especially attractive where local participation in decision-making is possible and where local fees and taxes permit cost recovery. In some cases local cooperatives have undertaken the work; they are attractive for very small works at the village level or below. However, efficient implementation through cooperatives would require substantial organizational and technical inputs and might not be feasible except in regions with a very strong cooperative movement or in the context of intensive rural development programs.

C. Budgetary Allocations and Local Resource Mobilization

3.11 Without criteria for budget allocations and controls over expenditures, the search of elite groups for political or pecuniary advantage will result in large leakage of benefits and a gradual demoralization and disintegration of the entire public works program. However, in view of the extremely limited administrative and technical capacity available, these procedures will have to be simple and objective even if they imply that the resulting resource allocation will not be fully rational.

3.12 There are two related sets of issues: those bearing on the regional allocation of funds and those associated with the selection of specific projects. Funds for public works are commonly disbursed among political subdivisions on a per capita basis, occasionally with some weighting reflecting income levels or need. Excepting emergency situations in which crudely defined absolute needs are used in the allocation, income weighting is politically difficult to establish and administer. Another criterion is cost-sharing in which the higher unit matches, according to pre-set proportions and up to an established ceiling, the funds mobilized for public works at a lower level. This can have a salutary effect on local resource mobilization through specific charges and taxes tied to benefits received. In practice, levies intended to cover recurring costs are likely to be accepted while the attempt to recover initial investment costs will encounter resistance.

3.13 Key dimensions in selection of specific projects are the criteria by which, and the administrative level at which, decisions are made. Typically, formal techniques of economic or social performance are not applied in public works programs and it will seldom be possible to introduce these techniques at the lowest level of government in the near future. However, there exists considerable scope for the utilization of proxy measures and rough rules of thumb based on local engineering practice, e.g., cost per mile of defined category of rural road. These can go a long way in avoiding wasteful expenditures. In view of the high priority attached to local participation and long-term institution-building, local bodies should be given as much autonomy in the allocation of funds to specific projects as they can responsibly exercise. Realistic minimum performance standards for individual projects should be clearly established and monitored by a higher level review on an ex-post basis. Any reduction in allocational efficiency from that theoretically possible by the application of formal project selection methods to a larger number of projects at a higher level of government should be accepted in exchange for the advantages implicit in decentralized decision-making.

D. Institution-building

3.14 In the rural areas of many developing countries, local government representatives are seen as mainly occupied in tax collection and in maintaining law and order. The common hierarchical style of government does not encourage local initiative and participation. In such a context, the starting of public works can be an affirmative government action. However, it must be emphasized that while public works can reinforce and make concrete a strong government commitment to the development of viable local institutions they cannot obtain this commitment. A lack of this commitment will make it necessary for the Bank to avoid supporting special public works programs and concentrate instead on public works components within infrastructure and rural development projects.

3.15 Where it is decided to go ahead with special public works programs, the Bank will require particularly careful assessments of existing and potential administrative capabilities based on a deep analysis of the governmental structure, the division of functional responsibilities, the extent and character of local participation, and the adequacy of staffing in numbers and quality. Such appraisals should not be carried out in a static context, however; hardly any developing country can be expected to have in being the organizational structure and staff necessary to embark on smoothly functioning and effective rural programs of any significant size. The emphasis should rather be an evidence of realistic and sustained efforts to develop local administrative units and local institutions. Initially, organizational and staffing weakness may be acceptable, but continuation of support should depend on demonstrated progress toward greater administrative effectiveness and capacity. Institution building is not an easy task and it will be idle to expect rapid progress in this sphere. Nevertheless, it is possible to make a start and provided there exists genuine commitment on the part of government, a process of structural change can be sustained.

IV. DESIGN AND IMPLEMENTATION

4.1 How can the scope of public works be expanded and these activities redesigned to serve productivity and equity objectives better than in the past? The role of three instruments--(i) redesigning projects in efficient labor-intensive ways, (ii) changing the mix of directly productive, economic infrastructure and social infrastructure projects and (iii) wages policy--for such a reorientation is discussed. The relative importance of these instruments will vary; the sequence of the following discussion should not be taken to imply that expanding the scope for labor-intensive construction will have a larger quantitative impact than changing the project-mix. The chapter ends by emphasizing the need for building monitoring and evaluation components in public work schemes.

A. Scope for Labor-Intensive Design

4.2 Rural works activities are generally small-scale and geographically dispersed due both to the kind of construction and to the labor supply situation. Assuming that workers travel on foot daily from their homes to the project site (real costs increase substantially if temporary living quarters must be provided), labor can be drawn from an area within five kilometers of each site. In turn, the size of the work force that can be assembled at the site will depend on the density of settlement and the fraction of the labor force available for public works employment.^{1/} Further, there may be technical difficulties and costs associated with interruption of the construction during the peak agricultural season; alternatively, retaining the labor force through the peak agricultural season involves unacceptably high opportunity costs. Hence, rural public works are typically small enough to be completed in one off-peak working period, or they may be undertaken in separate stages. In concept, small-scale components of large-scale sectoral projects are attractive for rural public works. For example, in an irrigation project, heavy equipment may be appropriate for large works such as dams and main canals while the widely dispersed distribution canals and field leveling could be accomplished efficiently with labor-intensive techniques.

4.3 The latitude for increasing labor content will vary with the type of project. Earthmoving operations as in road construction or digging irrigation canals permit a wide range of substitution between labor and equipment, in contrast with building construction. Evidence is accumulating for the economic efficiency, at realistic shadow rural wages, of fairly labor-intensive intermediate technologies. For example, wheelbarrows are more efficient economically in moving materials short to moderate distances than either headbaskets or motorized equipment. For longer distances animal-drawn carts are likely to carry

^{1/} In India, migratory labor, often coming from large distances is employed on large-scale labor-intensive works in rural areas.

earth more cheaply than motor trucks or scrapers.^{1/} The indirect employment effects of intermediate technology are also favorable; simple tools and light equipment are well adapted for local manufacture using labor-intensive methods. In countries or regions where the appropriate technology is not yet established, a public works effort should provide for the testing of promising alternatives, the supply of appropriate tools and equipment, and extension services to ensure the efficient use of the introduced techniques.^{2/}

4.4 In some cases the technical design of the structure can be adjusted to facilitate efficient labor-intensive practices. For example, in constructing roads or conservation terraces on steep slopes, the use of stone retaining walls to support the sides of cuts and fills--a labor-intensive operation--can reduce the volume of earthmoving required. For lightly travelled rural roads, standards for alignment and surfacing usual for equipment-intensive techniques may not be appropriate. It may be desirable to design structures with shorter lives and increased maintenance requirements, relative to standard engineering practice. There is no justification for conventional rules of thumb which imply a fixed ratio between original investment costs and recurring maintenance outlays. The appropriate ratio varies, depending on shadow prices of labor and capital. Also, some projects may lend themselves to progressive upgrading or reconstruction; for example, an access road might be initially constructed to minimal standards but widened and improved over several years.

4.5 Many past programs have barred the use of funds for reconstruction or deferred maintenance projects. In fact, such schemes can be extremely attractive both because of the high share of wages in total cost and because of very high rates of return that are possible. The Bank should not discriminate against such schemes and should encourage governments to apply the same standards to them as they do to new construction. In undertaking maintenance under the rubric of public works, care should be taken to avoid undermining the role of permanent agencies responsible for this function.

4.6 These illustrations suggest that there is considerable room for designing projects in ways which are labor-intensive as well as economically efficient. However, LDC government agencies and foreign experts have a marked reluctance for departing from conventional, capital-intensive solutions prevalent in North America and Western Europe. The full exploitation of opportunities for using unskilled labor efficiently, requires a new policy initiative, new attitudes on the part of engineers and administrators and a sustained search for appropriate project design.

^{1/} IBRD, Study of the Substitution of Labor and Equipment in Civil Construction: various interim technical memoranda appearing in Phase III of that Study: Deepak Lal, Men or Machines: A Philippine Case Study of Labor-Capital Substitution in Road Construction, ILO, Technology and Employment Project, forthcoming.

^{2/} In a proposed Bank rural access roads project in Kenya, it may be possible to manufacture tools and light equipment in local small establishments.

B. Choice Among Types of Projects

4.7 Past public works programs have been tilted heavily in favor of economic and social infrastructure compared to directly-productive projects.^{1/} In some areas a good case can be made for this project-mix but more frequently, and particularly in land-scarce regions, this choice is not easily justified. The importance of creating productive assets through public works cannot be stressed too strongly. They generate a significant continuing demand for labor beyond the construction phase and they can yield handsome returns in terms of increased output of food or materials.

4.8 Directly productive projects can be extremely attractive in relation to the growth objective but they do pose a major problem from the standpoint of equity. Benefits of these schemes can be easily traced to individuals, their magnitude can be measured easily and it is obvious that their distribution depends primarily on the pattern of land-ownership. This could be another reason why past programs have neglected directly productive projects and focused instead on infrastructure schemes whose distributive impact is not easy to assess.

4.9 In designing new public works it will be essential to deal explicitly with the distributional consequences of directly productive projects. To some extent these depend on macro or sectoral policies outside the control of those responsible for public works--e.g., agricultural price policies leading to changed cropping patterns or distorted factor prices stimulating mechanization. However, planners and managers of directly productive schemes can improve their distribution impact in three ways:

- (1) Avoid public works projects in situations with a highly skewed land distribution. A region in which a thoroughgoing land reform has just been completed will be particularly attractive for starting a program of public works. While perhaps feasible in some circumstances, it is technically and politically difficult to build public works which will benefit only small farmers and not large ones within an area.
- (2) Distribute among the workers the land which they have improved.^{2/} This is easier if the land is publicly held or has negligible value prior to improvement. Possibly, parts of large private holdings can be acquired before improvement or ceilings can be imposed on holdings of improved land.
- (3) Recapture a part of the benefits to landholders via taxes or specific charges. Such action is generally attractive on developmental and distributional grounds, even if land holdings are fairly equal; it is almost imperative if landownership is highly skewed.

1/ Digest paragraphs 3.19, 3.20 and Table III.5

2/ This was undertaken in the Republic of Korea; see Digest, paragraph 5.27.

4.10 These actions relating to directly productive projects are bound to encounter political opposition and their success will depend on the government's commitment to the underlying objectives of public works.

4.11 Although economic and social infrastructure projects may appear to be egalitarian to program administrators and the local population, in fact this may not be the case. Much depends on their design, i.e., location, quality of service and the nature of the delivery system. For example, benefits of roads and marketing facilities will accrue mainly to those who produce enough to sell and in rough proportion to their marketable surplus. Nevertheless, the siting of access roads and market-places as well as standards, regulations and fees which govern access to these facilities will have a significant bearing on benefits accruing to those at the low-end of the income pyramid. Similarly, water works, sewage disposal, health centers and schools can be designed to cater to different socio-economic groups, as spelled out in a number of recent Bank Policy Papers.

4.12 A key constraint in making all these changes in public work programs may be the numbers and quality of skilled personnel available at the local level. Directly productive projects may need more engineering expertise for design and supervision than infrastructure projects--e.g., the gradient of an irrigation canal is critical while that of an access road is not. This might be one reason why directly productive projects were under-represented in the past. The availability of required technical skills at the local level must be increased through training schemes and other measures. In many countries undertaking public works, there are substantial numbers of unemployed engineering economics and accounting graduates, and it is attractive in principle to assign them to public works. However, their background is usually very unsatisfactory for this assignment: it is more theoretical than practical, it is biased in favor of "modern"--i.e., capital-intensive--techniques, and it is urban rather than rural in orientation. Intensive courses could reorient these graduates and upgrade their technical skills. A course emphasizing practical work-site experience and technical and economic analysis of labor-intensive or appropriate technology could increase sharply the effectiveness of engineering graduates. External support for training may be one of the most effective means to improve the performance of public works activities.

C. Wages Policy

4.13 Public works are, by definition, labor-intensive. It is not surprising, therefore, that the level, structure and the form as well as timing of wage payments have a great deal of influence in determining the efficiency and distributive impact of these programs.

1. The Wage Level

4.14 The public works wage rate for unskilled workers should be set modestly above the off-peak agricultural wage rate. There are disadvantages in fixing wages either markedly below or sharply above this level. Except in calamity situations, not much labor will be offered at the prevailing rural off-peak market wage. Workers experience real costs in taking on public works jobs. The incremental

energy requirements for heavy manual labor, on the order of 1000 kilo calories per man-day, represent a significant private (and social) cost. Some workers will have to forego modest alternative earnings in accepting public works jobs. Further, there is private disutility associated with the work. In a survey in Bihar, 53 percent of village laborers were reported as "not prepared to do earth-work even under extreme need."^{1/} Together, these elements represent the worker's "reserve wage," that wage at which he is indifferent as to whether he takes the public works job or not. Only if wages are above this level does the worker secure any real income gains. Another argument against low wages concerns incentive and productivity. At low wages, the worker may not have sufficient nourishment for fully productive work. Further, if he feels that he is being paid an exploitative wage, he may not work hard and efficiently.

4.15 Setting wages much above the off-peak agricultural level leads to two problems. First, it will reduce the number of jobs created as well as the quantity of assets, assuming fixed financial resources. Second, labor will be drawn from productive agricultural employment and this will tend to fuel political opposition to public works. During the peak demand season for agricultural labor, the usual sharply higher wage rates reflect high opportunity costs for labor. Typically, the social productivity of labor in public works is substantially below that of peak farm work and it would be unwise to meet the peak demand wage rates.

4.16 In a number of so-called "self-help" programs workers have received very low or no wages at all. In some countries there are traditional communal efforts to build and maintain local infrastructure such as roads and irrigation or flood control works. The concept is attractive as a means for mobilizing local non-monetized resources, and sometimes there may be a strong political motivation for popular participation. Any judgment whether a "self-help" arrangement is desirable hinges on (i) the distribution of the benefits flowing from the completed works and (ii) on whether the existing income and assets of workers permits them to contribute labor without undue hardships. If permanent benefits accrue in rough proportion to the contributed labor and no serious interim income reductions are involved, "self-help" is a useful means for carrying out public works.^{2/} It is especially attractive for providing local public amenities or collective consumption items which are valued by local people but have low priority from a development viewpoint. However, the Bank should not support a "self-help" project in which the benefits of poor peoples' contributed labor are concentrated among well-to-do landowners or one in which "self-help" contributions are simply a euphemism for coercion.

2. Structure, form and timing of wage payments

4.17 Incentive wage payments systems consistently result in much higher

^{1/} Digest, para. 2.9.

^{2/} Communal construction of public works, as in The Peoples' Republic of China, should not be confused with "self-help" in the above sense, i.e., in the sense in which it has been employed in mixed economies. The Chinese example illustrates self-help at the commune level, but individual workers receive work credits for their labor and all commune members share in the benefits of the completed works.

labor productivity than do time-based wages.^{1/} Piece rates and similar output-linked wages permit workers' setting their own pace and adjusting to their income-leisure preference. Depending on the organization of work on the site, output monitoring and payment can be based on individuals, teams of a few people, or small work gangs. The piece rate or daily norm must be reasonable and must be understood and accepted by workers. There should be latitude for adjustments according to actual site conditions; e.g., the difficulty in digging soil varies substantially by type of soil and degree of dryness.^{2/}

4.18 Paying wages-in-kind has such serious disadvantages that the practice is not advisable save in very special circumstances. The storage and transport of foodstuffs to a number of remote locations is a formidable logistic task, costly and requiring scarce administrative resources. Frequently, a part of goods obtained as wages are resold at a discount because the quantities or the quality do not match the family's eating habits, or simply because of the problems in carrying bulky commodities to the home. Especially if unfamiliar goods from a foreign food aid program are provided, the real value to the worker may be much lower than the nominal value. Hence, if foreign assistance in the form of food is available, it will normally be more efficient to sell the food in the port cities and to use the counterpart funds thereby generated to pay cash wages.

4.19 However, an adequate local supply of wage goods must be assured. The possibility exists for a local bidding up of food prices due to the demand induced by wages paid in a public works program. Not only would this erode the real wage of those employed, it would affect more seriously those poor households unable to participate in the program. Measures improving transport and storage may be necessary to strengthen existing distribution channels. In some cases, supplemental distribution facilities paralleling the existing markets may be advisable. These kinds of intervention would also serve broader local development objectives, whereas payments-in-kind do not.

4.20 Public works wages must be paid promptly and at frequent intervals, not longer than weekly. This point should hardly need emphasis and yet there are reports of delayed payments in many programs, particularly those paying wages in kind.

D. Monitoring and Evaluation

4.21 All projects require a system of monitoring and evaluation but the need is specially great for public works which are complex and for which past

1/ Theoretically, it is possible to raise labor productivity by providing on-site-training for unskilled workers. However, past rural public works efforts have not provided such training and probably for good reason. Given the seasonal character of public works, their small size and geographical dispersal, such training is not likely to be cost-effective.

2/ An ingenious incentive scheme is reported to have dramatically increased labor turn-out and reduced absenteeism in one small non-governmental project in Bihar; workers received one paid holiday each week providing they had worked six consecutive days in the week. Economic and Political Weekly, May 15, 1971, pp. 998-999.

experience is limited. Emphasis should be placed initially on monitoring the progress of the scheme so that project managers can have continuous feedback and can modify their objectives and instruments as necessary. Are the works being built as planned? Are the poorer groups security employment and incomes during the construction phase as scheduled? To some extent, monitoring and evaluation is a substitute for advance planning.

4.22 Monitoring and evaluation can also contribute to improving the design of successor projects and in the review of general policies through field experimentation. However, this is a difficult undertaking and one which should be emphasized after public works managers have acquired the necessary skills and gained some confidence.

V. BANK PROJECT PROCEDURES

5.1 The effective use of public works for poverty alleviation requires management skills of a high order in member countries as well as in the Bank. Formal Bank project policies and procedures are not likely to be an impediment; these can be adapted to meet the special needs of public works operations. What is required is a sustained policy emphasis in Bank sectoral and project work on seeking out the opportunities and exploring the alternatives.

5.2 A unit specialized in rural public works is not necessary and would not be consistent with the basic thesis that public works is a means appropriate for a number of sectors and is not a subsector in itself.

A. Preparation

5.3 Opportunities for using efficiently substantial numbers of unemployed and underemployed workers to build productive assets must be deliberately sought very early in the project cycle. The requirement that public works efforts must be tailored carefully to the physical, economic, social, political, and institutional environment implies a more complex and time-consuming preparation phase than for the average Bank project. Also, a fairly high attrition of projects during the preparation and pre-appraisal stages is probable. Realistic staff resources, large relative to the mean for all Bank projects, are needed for the preparation phase. A staff capacity to assess organizational issues is necessary. In view of the expected project complexity, continuity in staff assignments is also important.

5.4 Public works activities are subject to an unusually high degree of risk and uncertainty, owing to the importance of institutional and political factors. These elements emphasize the need for introducing flexibility in project design. For example, a project can be designed for achieving an acceptable but limited performance with some degree of confidence but with the flexibility for modification in a more ambitious direction should more favorable circumstances evolve.

B. Project Appraisal

1. Analytic concepts

5.5 No major analytic innovation is required in the appraisal of public works projects or components of projects, nor are there intrinsic methodological grounds for differential analytic treatment of public works. However, the importance of income distribution effects in all Bank projects is increased in public works by the employment-income objective and the large fraction of project costs represented by wage payments to unskilled workers. The general appraisal methodology evolving within the Bank incorporates these distributional effects adequately. Public works projects should be subject to criteria of acceptable economic rates of return consistent with those applied to other Bank projects. Whether an explicit social rate of return should also be estimated for public works depends on Bank practice in other project areas. Such calculations are of limited value in evaluating one type of project unless they are available for all or a large proportion of projects under consideration for financing.

5.6 Contrary to popular impressions, public works activities may show lower social rates of return than economic. This may be the case in those low income, labor surplus countries where rural public works appear to be attractive instruments for rural development. The main effect of applying distributional weights to rural works projects in such circumstances may be a discounting of the portion of project gains that accrue to the higher income groups. Such an outcome reflects the fact that public works wage income will leave recipients at about the "critical consumption level"--defined as the level at which the government is indifferent between increments in its own income (or investment) and in increases in private consumption. This underscores the importance of using social rate of return estimates for comparisons of alternatives and not simply as a means of introducing upward adjustments in rates of return to take account of ostensibly "favorable" distributional effects.

5.7 The calculation of rates of return--economic or social--is useful but the main benefit of the method is that it focuses on an examination of alternatives starting with sectoral analysis and continuing on through the preparation and the appraisal stages. Whether rates of return are calculated or not, basic information on costs, assets created, employment generated during the construction phase as well as later and distribution of these benefits by income-class should be collected and reported in the course of comparing alternatives.

2. Appraisal in practice

5.8 There is always a gap between theory and practice of project appraisal but in the case of public works this gap will be larger, particularly in the context of special national or regional programs. Given the variety of potential specific uses of project funds and the decentralization decision-making inherent in such a program, there will be considerable uncertainty as to the eventual composition of activities. The magnitude and distribution of program benefits can be based only on inevitably rough expectations of results from activities whose precise character, location, etc., is determined during the course of implementation. Further, the effectiveness of coordination and management will influence enormously the performance of the program. Such circumstances may rule out the feasibility of a meaningful ex-ante quantitative estimate of the economic or social rate of return. In this case, Bank appraisal must focus on the criteria, organization, and procedures which will produce local projects, and must judge whether in fact these will yield high performance projects, in relation to both productive and distributive objectives, within the country's economic, political, and social environment.

5.9 However, an attempt should be made to develop quantitative information on costs and benefits based on the past results of a pilot phase or a sample of works created during an earlier phase of the program. Care must be exercised in extrapolating the results of past efforts which may be unrepresentative of the new program. If the analysis of past programs suggest the need to concentrate on a particular category of project (e.g., directly productive), it will be desirable to agree with the borrower that a large part of future funds--not only the Bank loan but all funds available to the program--will be used for such projects.

5.10 If the operation involves extending a line of credit to the borrower rather than supporting a well-defined investment, it may be desirable to introduce into the loan agreement reporting requirements which inform the Bank about the specific uses of funds (the Bank loan as well as domestic monies), as decisions are made by local or other authorities in member countries. The Bank has required such reports in DFC as well as other on-lending operations. They have proved useful in assuring the Bank that criteria for sub-project appraisal agreed during negotiation are being applied in practice. They also furnish valuable materials which can be digested before undertaking field supervision missions. These reporting requirements should be integrated with the monitoring and evaluation arrangements established by project authorities.

C. Supervision

5.11 It has been suggested that foreign assistance to past public works programs has biased the programs towards an undue centralization via the stipulated project administration and control.^{1/} This possibility can be avoided by adapting Bank control and disbursement procedures explicitly to decentralized administration. For example, performance audit (actual works completion) as well as the usual financial data is essential in any decentralized project. Bank supervision can utilize these audits with additional field verification by Bank project supervisors. Project supervision cannot focus exclusively on progress toward meeting established physical targets; it must also include the progress toward more broadly defined production, distribution, and institution building objectives. To the extent public work schemes have internal monitoring and evaluation components, the task of Bank staff will be greatly facilitated.

5.12 It should be recognized that in case Bank supervision reveals serious deficiencies there may be no effective remedy short of project curtailment or temporary suspension of loan disbursement.

D. Procurement and Local Cost Financing

5.13 The small scale, dispersion, and large numbers of temporary workers in rural public works would pose formidable management problems for large contractors operating internationally. Hence, international competitive bidding is not an appropriate means of procurement for on-site construction. Often much or all of the materials will be produced locally; again, international competitive bidding is not appropriate for the products of small scale labor-intensive workshops--e.g., clay bricks or tile. Manufactured items such as reinforcing steel or cement can be procured via international competitive bidding with domestic suppliers receiving the standard Bank preference. No innovations in Bank procedures for local procurement are necessary; many other projects have some local procurement, competitive or negotiated as appropriate, and public works differ only in the share of local purchasing. Sound purchasing, control, and audit procedures by the internal management are required. The Bank's interests can be protected with the usual

^{1/} Digest, para. 7.9

safeguards and with normal audit and supervision. Bank project staff should take care that unnecessarily complex and time-consuming procedures do not inhibit effective decentralization of management and decision-making.

5.14 Similarly, there is ample precedent for the generally high shares of local currency financing which are required in public works. Significant support of employment generating public works necessarily implies relatively high local cost financing because of the high fraction of total costs represented by wages. For example, if unskilled wages amount to 50 percent of project costs, skilled wages plus administration to 25, and materials to the remaining 25, Bank support of half of total costs would imply about 50 percent local currency financing even if all of the materials were purchased abroad. Consistent with this expectation, Bank projects supporting public works activities have shown higher than average local currency financing. The project in support of Mauritius' public works program had 20 percent, and the projects with public works components listed in Table 1, page 30a have a high average (39 percent is the weighted mean) with considerable variation. Table 1 also shows a tendency for higher local currency financing to be associated with larger fractions of public works components and of unskilled wage shares. The two projects in Table 1 with no local currency financing illustrate the fact that project boundaries can be drawn to combine public works activities with other activities that have high foreign exchange requirements. A normal Bank participation in total project costs could then be devoted mainly or wholly to foreign costs. Depending on assumptions regarding the fungibility of the country's own resources, the argument could be made that in such a case the Bank would be furnishing support, in fact, to few if any public works activities.

5.15 Substantial local cost financing in projects including public works activities is entirely consistent with current Bank policy.^{1/} The wage-good requirement for public works indirectly increases the foreign exchange needs of the country. That is, these indirect foreign exchange requirements derive automatically from the poverty alleviation accomplished in the project. The total local cost financing implied in the foreseeable scale of public works lending is small relative to the aggregate for the Bank Group.^{2/} Should exercise of the present policy of "using local cost financing flexibly and pragmatically in appropriate cases" lead in the future to excessively high levels in the total Bank portfolio, the overall lending program would be the appropriate frame of reference for any possible adjustments or reallocations and not just public works.

^{1/} See Policy Review Committee, Bank Policy on the Financing of Local Costs, April 9, 1975; especially "Sector and Project Considerations," pp. 15-16.

^{2/} Illustratively, if lending in support of all public works activities reached 5 percent of total Bank lending (Cf. paras. 6.4, 6.12 ff.), and if the average percentage of local cost financing were 40, the implied percentage of total Bank lending would be 2. Compare a recent average of about 11 percent of total loan amounts devoted to the financing of local costs. (Op. cit. p. 2 and Table 3, p. 10.)

VI. PROSPECTS FOR BANK LENDING

A. Current Bank Activity

6.1 The bulk of Bank/IDA support to date for public works has been in the context of infrastructure and rural development projects. Only one project in support of a special public works program was undertaken; one was terminated in the appraisal stage; and one was recently approved.

1. Components of infrastructure and rural development projects

6.2 Seventy Bank agricultural and rural development projects, approved in FY 1975, were reviewed to assess potential public works activities within these projects. Highway projects within the transportation sector were also sampled.^{1/} Summary data for those projects showing significant public works components are presented in Table 1. The percentages for potential public works and for unskilled wages were only approximate estimates as inferences and judgments had to be made from data and descriptions which were less than fully adequate for these purposes.^{2/}

6.3 The criterion for a "significant" public works component in this exercise was an unskilled wage portion of 10 percent or more of project costs. If projects exploited efficient opportunities for labor-intensive construction, the unskilled wage share could vary from 80 percent in some rural roads to 25 percent in a village water supply system. Hence, there is no constant ratio between the percentages for public works and for unskilled wages.^{3/}

6.4 Among highway projects, including several for rural secondary or access roads, no significant public works components were found. Several of these projects made provision for investigating the feasibility of labor-intensive construction or maintenance. However, in each of these cases equipment intensive techniques were expected to be used. Within the area development sub-sector, 9 of 21 projects representing 67 percent of the sub-sectoral lending showed significant public works components (the weighted mean unskilled wage share within these 9 projects was 21 percent).^{4/} Taking 50 percent as a representative share of unskilled wages within the total costs of strictly public works activities, the corresponding public works fraction of these

^{1/} Most of the projects whose general descriptions suggested significant public works components were reviewed, plus a sample of all other projects.

^{2/} Despite discussion of an employment objective in the reports, only two presented the percentage of project costs represented by unskilled wages. Numbers of workers to be employed were given somewhat more frequently.

^{3/} In several projects it appears that the potential for public works is not fully developed in the project design. See below, paragraph 6.11.

^{4/} The sub-sectoral classification of the projects is that reported by the Programming and Budgeting Department. For a number of complex projects, classification between these two sub-sectors is arbitrary.

projects would be 42 percent.^{1/} Similarly, 4 of 15 irrigation projects comprising 26 percent of lending for this sub-sector included significant public works activities; in these projects a weighted average share of 18 percent for unskilled wages suggests an effective public works share of 36 percent. Within forestry, all projects were estimated to contain public works activities with percentages of 26 and 52 respectively for unskilled wages and public works activities.

6.5 These shares represent about US\$253 million distributed as follows: area development, \$174; irrigation, \$49; and forestry, \$30.^{2/} Taking into account the other projects not showing significant public works activities, the implied public works shares are 28 percent in area development, 10 percent in irrigation, and 52 percent in forestry. In the aggregate these estimates suggest a public works component of slightly less than 14 percent of the total agriculture and rural development lending, or somewhat over 4 percent of total Bank/IDA lending in FY 75.

6.6 Allowing for a substantial margin of error built into these estimates, it seems that the public works components in infrastructure and rural development projects dwarf Bank support for special public works programs.

2. Assistance for special public works programs

6.7 The Bank's only project to date in support of a country's special public works program is in Mauritius.^{3/} The original project design included basic infrastructure (roads, village centers, markets, water supply and health services) for 86 poor villages; bench terraces, fodder planting, and afforestation; and supporting technical and training services. Since project approval, high world prices for sugar and a consequent construction boom in Mauritius have increased sharply the price of land for project works and have created an excess demand for skilled construction workers. Consequently, the project has been modified to increase the labor training components and to reduce the land improvement.

6.8 Mauritius is quite atypical of the countries in which most of the Bank's financing for rural development takes place. The country's very small size minimizes the organizational problems of a public works program. There is practically no subsistence or smallholder agriculture in Mauritius; estate cultivation, chiefly sugar, dominates the agricultural sector. Hence, the Mauritius project is not a general prototype for a rural public works program. The experience gained in this project is perhaps more relevant to the design of urban rather than rural public works.

6.9 A project supporting Indonesia's major public works program was terminated during appraisal at the Government's request. The project would

^{1/} This is consistent with the estimated fraction in the Mauritius project, and with that of the public works programs reviewed in the Digest.

^{2/} These estimates assume that Bank funds are distributed among project activities in proportion to their share in total project cost.

^{3/} IDA Credit of US\$ 4.0 million, approved July 1973.

have provided major foreign inputs including expatriate advisors and consultants for training of local and provincial government officers and for program evaluation.^{1/} Without doubt, there is a potentially high payoff for improving the quality of administration of the large Indonesian program. However, this attempted project illustrates key issues of general relevance for Bank support of technical assistance for public works. In order to accelerate a training program, is it justifiable to rely heavily on expatriate advisors? Relative to bilateral donors and other multilateral agencies such as the UNDP and the ILO, does the Bank have a comparative advantage in supporting technical assistance efforts?

6.10 A recently approved project would assist the Saemaeul Undong (New Community Movement) in the Republic of Korea. The Saemaeul Movement is notable for the extent of local participation in decision-making and by contribution of cash and labor. However, the program does not focus on the implications for income distribution. A substantial portion of labor is unpaid and only a fraction of the investment in land augmenting works is recovered.

B. Prospects

1. Future support for special public works programs

6.11 For the foreseeable future, Bank lending for public works programs will probably be constrained by the number of countries which are able to mount effective programs. More than two or three projects per year seems unlikely; the number may well be still fewer. The potential size of a Bank project is more problematic. Bank assistance to a large program might focus on administration and training which represent a small but critical fraction of the total program requirements. Major assistance for the wage good requirements of a program suggests commodity assistance which has been chiefly bilateral in the past. Also, a well-designed rural works program should progressively meet its own resource requirements, both fiscally and in food output.

6.12 In quantitative terms, a plausible order of magnitude is one percent or less of total Bank lending for support of special public works programs. This is not suggested as a target or ceiling; it reflects a realistic assessment of the difficulties which member countries face in mounting such programs.

2. Scope for expansion within infrastructure and rural development projects

6.13 Simply applying the previously estimated percentages of public work components within agriculture and rural development projects in FY 75 to

^{1/} Of the US\$6.5 million, 61 percent represented foreign exchange costs; of this the major share was for financing expatriate advisors and consultants.

currently programmed lending for FY. 76-80 suggests about 4 percent of total Bank lending for public works components over the period.^{1/}

6.14 A dramatic increase in Bank financing of public works activities is implausible as long as the sectoral distribution of lending and general project design remain unchanged. Of the projects reviewed, several appear to have neglected the potential for undertaking rural roads or minor irrigation works as public works activities. While it is impossible to judge from the appraisal report whether such would have been in fact technically and economically feasible, there is no evidence that the possibility was seriously investigated despite serious seasonal unemployment and construction categories which generally are amenable to labor-intensive means. However, increased emphasis on labor-intensive techniques in the appraisal stage is not likely by itself to yield a substantial increase in public works activities. The latter would require explicit attention to employment considerations much earlier in the project cycle.

6.15 Possible sources of increase over and above the extrapolated share of 4% may be distinguished. Within the transportation sector, maintenance inevitably increases as the stock of highway grows, and maintenance is more labor-intensive typically than new construction. The construction of rural feeder roads has been relatively neglected within the transportation sector; these roads are popular candidates for public works. From the preparatory work now underway, a significant fraction of highway lending in the future may go for public works activities in constructing rural roads. There is no experience on which to hazard a projection, but a near-term change of more than one percentage point increase in the public works fraction of total Bank lending appears improbable.^{2/}

6.16 Several examples suggest additional opportunities for increased public works components within Bank agricultural projects; some are being exploited already in the several Command-Area-Development projects. Within irrigation, most of the best opportunities for large scale works for surface irrigation have been developed already. In the future, alternatives to large scale works will be more attractive than in the past. (1) Improved efficiency in water use via canal lining and land leveling and bunding can increase sharply the yield from existing water resources. (2) Minor irrigation

^{1/} The calculated share is slightly below the estimate for FY 75 given above due to slight relative declines in the most recent program in the share going to agriculture and rural development, and within the latter small reductions in the fractions represented by area development and forestry. However, the implied change is not significant relative to the approximations inherent in estimating public works components.

^{2/} Following the previously sketched procedure for aggregating public works activities, and with the present FY 76-80 program shares for transportation and highways, a shift of 10 percent of highway lending to rural roads constructed as public works would increase the percentage in total Bank lending devoted to public works activities by slightly less than one.

works promise good returns in many areas.^{1/} (3) Watershed protection (e.g., afforestation and small-scale erosion control works) could reduce silting and increase the useful life of many existing reservoirs. All of these furnish excellent opportunities for increased use of unskilled rural labor, and some are particularly associated with impoverished areas.

6.17 Afforestation is well suited as a public works activity, but it has typically shown a low rate of economic return. However, various changes now underway combine to increase the rate of return. (1) Watershed protection and erosion control have already been noted. (2) In most countries the forest inventory is declining steadily implying higher future relative values. This is reinforced by population increases with consequent growing demands for fuel and building materials, and by rising industrial uses. (3) Sustained high prices for fossil fuels are probable. (4) Finally, yields are increasing due to the introduction of exotic species and to improved varieties of indigenous species.

6.18 These discernible changes in the relative attractiveness of rural investment opportunities suggest that an increasing share of public works activities can be developed within Bank projects; the aggregate cannot be quantified now. Further increases in the public works share of Bank lending would require reallocation of lending among sectors and sub-sectors. Beyond the employment and income concern embodied in public works efforts, there are many other considerations in the sectoral allocation of Bank lending, and the latter topic is far beyond the scope of this paper.

6.19 As emphasized earlier, Bank projects should not be prepared with employment as an end in itself. They should be integrated into the broader development strategy of individual member countries. It is impossible to predict and undesirable to set a target for Bank support for public works. A stress on seeking new project opportunities while eschewing quantitative targets is also consistent with the earlier recommendation that rural public works should be a distinct area of policy emphasis but should not be viewed as a separable sub-sector of Bank activity.

^{1/} Tubewells, usually classed with minor irrigation, are not good candidates for public works.

Table 1. SELECTED PROJECTS WITH SIGNIFICANT PUBLIC WORKS ACTIVITIES FY 1975

	Total Project Costs (US\$ m.) (1)	IBRD/IDA Credit (US\$ m.) (2)	Loan as % of Col.1 (3)	Local Currency Financing as % of Col.2 (4)	Potential Public Works Component as % of Col.1 (5)	Unskilled Wage Share as % of Col. 1 (6)
A. Area Development ^{1/}						
1. India, Rajasthan CAD	174.0	83.0	48	43	76	35
2. Mexico, Papaloapan Basin	138.5	50.0	36	55	75	22
3. Malaysia, Keratong Land Settlement	98.7	36.0	36	26	43	20
4. Mexico PIDER	295.0	110.0	37	57	41	17
5. Turkey, Agriculture, Rural Development	161.6	75.0	46	28	48	14
6. Philippines, Mindoro	50.0	25.0	50	14	49	13
7. Tanzania, Kigoma	13.3	10.0	75	20	51	12
B. Irrigation						
1. India, Drought-Prone Areas	102.7	35.0	34	86	40	20
2. Indonesia, VI Irrigation	165.0	65.0	39	0	56	18
3. Bangladesh Barisal Irrigation	46.0	27.0	59	24	41	18
4. Jordan N.E. Ghor	17.4	7.5	43	0	58	12
C. Forestry						
1. Madagascar Forestry I	17.2	13.5	78	67	63	26

^{1/} Not listed were area development projects in Colombia (Land Colonization II) and Ethiopia (Lower Adiabo Development Project) and forestry projects in Burma and Kenya which were also considered to have significant public works components.

Source: Project Appraisal Reports, with estimations as described in the text.



Agriculture + Rural Dev.

March 22, 1976

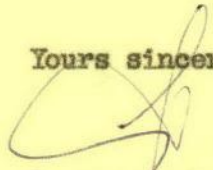
Mr. R. Jacobsen
Postbox 59
DK-4000 Roskilde
Denmark

Dear Mr. Jacobsen:

Thank you for your letter of March 16 with the attached correspondence regarding Seed Industry Development Centers. I fully support the principles of such initiatives, and others which seek to promote the production of improved seeds in developing countries.

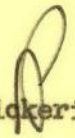
As you may be aware, the World Bank Group is actively engaged in financing the production of improved seeds through specific seeds investments projects and through seed production components of broad based agricultural and rural development projects. The attached paper gives some indication of our involvement. It is our policy to emphasize the importance of seed industry development to the governments of our member countries and to assist them as necessary in the preparation of proposals with a view to investment by the World Bank Group. You will appreciate that loans and credits are made to the governments of member countries, and at their request. Thus, while it may well be possible that the Seed Industry Development Center principle could be applied to a national, or more localized, seeds investment, our financial involvement would, of necessity, be via a loan or a credit to the government of the country concerned.

Yours sincerely,



George F. Darnell
Assistant Director

Agriculture and Rural Development Department



DCPickering:hrv

cc: Mr. J. Coulter

Attachment

Mr. Gilbert Brown

March 22, 1976

Graham F. Donaldson

Foodgrain Policy Paper - Draft Chapter

1. The current outline covers the subject in a thorough and orderly way. The judgement of readers in this Division is, however, that it is too long. Though the actual length doesn't worry me (if you can get away with it), I think that it is too discursive and needs some further structuring. At present you have a journalistic blend of precept and practice whereas Bank readership requires a separation of the two (the real world is a special case which obscures the model!).
2. Accordingly, the chapter should begin with a statement of how price policy can be used to augment technology and resource expansion and the investment that underlies them. The present outline does not reflect the overall subject of the paper i.e., investment for foodgrain output. There should also be some discussion of the scope for using price policy - including purpose, potential and limitations. There is at present no sense of the very real limitations on the effective use of price policy in a l.d.c. context anywhere in your draft. The general body of your chapter could then follow - but should be more concise in that you need not "explain as you go". It might be further structured into main sections - e.g., Production Incentives, Distributional Effects, Country Economic Implications, keeping existing captions as subsidiary headings.
3. Some other points are as follows:
 - para. 5, p.6: Subsidies offset risk, through lower input cost to the farmer - also the most significant kind of risk and very large for predominantly subsistence farmers.
 - para. 8, p.7: Stabilization issues are somewhat different, but may also involve considerable incentive effect - or removal of disincentive; this is a wholly legitimate issue and not one that should be included for the sake of completeness (which is the impression one gets). Perhaps reference Reutlinger et al on stock size holding costs.

Since the need to hold stocks at least in some years, is a likely concomitant of incentive pricing, it is one of the constraints that should be indicated.

 - para. 11, p.9: The first sentence does not make sense.
 - para. 12, p.10: This assumes that prices reach the small farmer - if there are long lines between central and local markets this might not be so. This is another limitation of the effectiveness of price incentives.

There is no mention here of the extent of resource transfer that can exist in l.d.c. agriculture. Very few farmers are exclusively farmers. Hence substantial transfers, especially of labor but also of capital and management resources, are possible - farmer-laborers become proportionally more full-time farmers; farmer-merchants give more capital, time and attention to their farm operations. This phenomenon has very important implications for supply elasticity - it perhaps underlies the "greenish revolution" more significantly than any other factor.

para. 18a, p.14: The point about small farmers and landless benefitting should be qualified. Even if price adjustments are reflected at the local level, the income "benefits" of laborers and subsistence farmers are not necessarily a positive change in real incomes, especially for laborers paid in kind or share-tenants. The direct effect is probably more neutral than positive, while the relative effects (given larger farmers benefit) are assuredly negative.

Can we adequately discuss income effects of price policies without some reference to taxation and fiscal policies?

cc: Colin Bruce
Marto Ballesteros
Jim Goering
Gordon Temple

GFDonaldson:mt

OFFICE MEMORANDUM

yellow
Agric + Rural
Dev.

TO: Mr. John Kalbermatten
(through L.E. Christoffersen)
DATE: March 17, 1976

FROM: Claes Lindahl *[Signature]*

SUBJECT: Your Inquiry to Mr. Christoffersen about Water Supply Components in Bank Projects

A quick answer to your question is:

In FY75 the Bank financed village water supply components in agriculture and rural development projects, totalling about US\$55 million in project cost. For FY76 the Bank would finance such components totalling about US\$28 million in project cost. An estimate for Bank lending for such components for calendar year 1975 would be about US\$18 million. Such components account for a very small share of the total project cost -- in total less than 1% of the aggregated cost.

If you require more detailed information we will be glad to provide you with a list of agriculture and rural development projects which have a provision for village water supply.

CL/cc

cc: Ted J. Davis

See Distribution List Below

March 15, 1976

Colin Bruce *cb*

Agricultural Prices and Subsidies Policy Paper - Outline of Case Studies of Farmers' Incentives

1. I attach for your consideration and comment, by close of business on March 24, an outline of the nine case studies we are proposing for the following countries:

LAC

- Argentine
- Colombia

West Africa

- Senegal
- Ivory Coast

EMENA

- Turkey
- Yugoslavia

East Asia

- Thailand

East Africa

- Kenya

South Asia

- Pakistan

2. The policy paper will also draw upon studies in other countries which we know about such as Korea, Malaysia, Zambia, Tanzania, Egypt and Peru, as well as upon information contained in agriculture and rural development sector reports of various kinds.

3. We are conscious that we have set ourselves an ambitious target, but part of the purpose of this exercise, which we regard as a long-term one, is to see how far we can go and what additional research is required. Thus, the outline should not be interpreted as meaning that every part of the outline will be covered necessarily in all nine case studies: the nature of the data base, and the support we get from the Regions amongst other things, will determine the extent and depth of the coverage.

4. Our experience with drafting of policy and issues papers is that the final outlines of the papers bear little resemblance to the initial outlines. We regard outlines, therefore, as very flexible, working pointers which will be modified and changed as work proceeds, and we hope that you also will review the attached draft in this light.

5. After receiving and taking account of your comments, we propose to submit a proposal to the Research Committee.

Dist: Regional Chief Economists

R. Hablutzel
L. de Agcarate
P. Hasan
W.M. Gilmartin
V. Dubey
B.A. de Vries

Regional Asst. Directors of Agriculture

J.B. Hendry
R.E. Rowe
H. Vergin
R. Picciotto
D.W.M. Haynes
P.C. Goffin

Messrs. Belassa, Duloy, Little, Leiserson, Ray

cc: Messrs. Yudelman, van der Tak, Mahbub ul Haq, Burki

CBruce:mt

AGRICULTURAL PRICES AND SUBSIDIES:
OUTLINE OF COUNTRY CASE STUDIES

A. Scope and Objectives

1. A first objective of these studies is to assess the adequacy of economic incentives in relation to the country's economic comparative advantage. To this effect, the studies will: (a) derive indicators of the combined effect of pricing, subsidy, and taxation measures on the overall agricultural sector, on individual agricultural products, and on different production techniques: and (b) estimate the economic costs of production of individual products under different techniques. The indicators derived in (a) above will measure the incentive (or disincentive) effect of government economic policies on agricultural activities, while the estimates derived in (b) will provide an indication of the country's relative advantage in different agricultural enterprises. It should then be possible to derive conclusions regarding the economic rationality of the incentive system, and to point out where policy changes appear indicated.

2. A second objective is to assess the impact of the incentive system on (a) the distribution of income in agriculture; and (b) the adoption of technological change. To this effect, the studies will seek to organize all available information, and to supplement it where possible through field work, on the structure of the agricultural sector according to the farm class approach as described in the "Guideline for Agricultural Work by Economic and Sector Missions" statement of 22 March 1974.

3. The third objective of the studies would be to assess the impact of consumer subsidies and prices on rural/urban and, particularly, non-rural

income distribution, and hence on the demand for agricultural products, but it is recognized the data base may limit the extent to which this objective can be met.

B. Methodology

Incentive Indicators

4. The derivation of incentive indicators will involve the calculation of nominal and effective protection coefficients (NPC, EPC) and of the effective subsidy coefficients (ESC). The underlying concepts are fairly familiar, and they are ably explained and illustrated in Bela Balassa's recent paper on "Methodology of the Western Africa Study".

Comparative Advantage

5. We shall use either the net present value (NPV) measured in economic (efficiency) accounting prices or the coefficient of Domestic Resource Cost (DRC) to measure the country's comparative advantage in different products and alternative production techniques. The former alternative is that given in Economic Analysis of Projects, by Lyn Squire and Herman G. van der Tak. DRC's meaning and derivation are also explained in Balassa's paper. Both methods require estimation of the accounting prices of each primary factor of production, i.e., capital, land, and labor and various conversion factors. For some countries this data is already available; where it is not the assistance of the country economists will be sought.

C. Outline

I. Background

- A. Agriculture in the Economy
- B. Institutions (Illustrative)
 1. Central Government Administration
 2. Regional or Provincial Agencies

3. Supporting Services

Research

Extension

Cooperative Development

Credit Agencies

Marketing - public sector

- private sector

II. Structure of the Agricultural Sector

A. A Broad Perspective:

Principal cash and food crops

The State Sector

The Private Sector

Commercial

Subsistence

B. Farm Class Analysis:

Types and Sizes of Farms

Product characterization

Technological characterization

C. Special Issues:

i.e. Land Tenure

Expatriate Ownership

Other.

III. The Incentive System and Comparative Advantage

A. The Instruments

1. Producer Prices
2. Input Prices
3. Import Duties and Quotas
4. Export Duties and Quotas
5. Differential exchange rates
6. Credit rationing and interest rates
7. Wage controls
8. Rent controls
9. Charges and Benefit Taxes
10. Land and similar taxes

B. Measurement of Incentive Coefficients

1. An aggregate overview
2. Detailed analysts for major products under alternative production techniques,
 - (a) The NPC and EPC
 - (b) The ESC
3. Relative EPCs in agriculture and non-agriculture.

C. Measuring Comparative Advantage

1. Estimation of Relevant Shadow Prices
 - (a) Capital
 - (b) Land
 - (c) Labor
2. Estimation of NPVs or DRCs for major products (as at B.2)

D. Incentives and Comparative Advantage

1. Regarding individual products
2. Regarding different techniques
3. Conclusions and Recommendations.

IV. The Incentive System and the
Distribution of Income

A. An Overall View

1. Differential "taxation" of agriculture
2. Contribution of (1) to development of other sectors
3. Assessment and Recommendations

B. The Incentive System and the Distribution of Income in the
Agricultural Sector

1. Differential incentives on products and techniques
2. The evidence from the farm class study on farmers benefiting
most from (1)
3. Conclusions and Recommendations.

C. Consumer Subsidies and Demand Effects

1. A brief descriptive account
2. Evidence on family budget studies
3. Effect on Demand
4. Effect on Government Budget
5. Conclusions and Recommendations.

V. Special Topics

A. Topics in Producer Prices

1. Countrywide Uniformity of Prices
2. Seasonal Price Variation

3. Timing of Price Announcements
 4. Alternative Approaches to Regional Price Differentiation
 5. Conclusions and Recommendations.
- B. Topics in Input Prices
1. Selective subsidization
 2. Local production of inputs
 3. Conclusions and Recommendations
- C. Supply Response to Relative Prices
1. Aggregate agricultural production
 2. Response of particular products
 - (a) Production response
 - (b) Marketed production response
 3. Relative prices and technological progress
 - (a) Review of the evidence
 - (b) Relative effectiveness of measures affecting product vs. input prices
 4. Conclusions.

VI. Conclusions and Recommendations

- A. Summary of main findings
- B. Assessment of their "country-specificity"
- C. Summary of recommendations
- D. Proposals for further study.

...

✓ Agriculture & Natural Resources
Environment

Mr. Raymond D.H. Rowe, AGPRD

March 12, 1976

Dr. J.A. Lee, VPSEH *JAL*

Bank Policy on Forestry Draft

1. I have received the first draft of the subject policy paper, and I was pleased to see it reflect considerable consideration for forestry related environmental and ecological matters.
2. Mr. Overby of my staff has informed you that we have plans to formulate Guidelines for Tropical Forest Ecosystem Development, and I believe this should be noted in your paper with a view to the future incorporation as a separate annex, or otherwise, as thought appropriate then. These guidelines are tentatively scheduled for completion in July, 1977, and will be more detailed than required of a policy paper; they will provide expanded and additional rationale for, inter alia, major policy recommendations you have already made.
3. In light of the above, I have included only a few relevant considerations below, some of which it seems could justifiably be reflected and emphasized now. No effort has been made to elaborate on either point since we could get together later as you may see fit.
4. In general, planting schemes of any kind are environmentally desirable and to be encouraged in preference to the harvesting of natural forests. (No other remarks are made below regarding creation and/or re-creation of forests.)
5. With regard to what proportion of natural to developed land will give optimum balance in terms of "total value" to man; to comment now would be premature. Land use performance models that attempt to integrate the values of nature's work with that of man's (bionomics) are virtually non-existent, and the whole question of the extent to which new land may responsibly be opened up needs, at this stage, be left unanswered. I can, in general terms, recommend caution, retention of future options through minimization of irreversible impacts, and to seek long-term stability through diversity. Water resources management considerations are also recommended as integral parts of forest development studies and planning efforts (see also para. 11).
6. I would like to encourage the Bank to promote engagement of all relevant assessment expertise when involved in forest sector and/or project planning. Indigenous cultures are often affected and to that extent relevant expertise needs to be actively involved at all stages (sociocultural, health, etc.). Ecological and wildlife management expertise should always be engaged for integral participation. Possibly, the most powerful opportunities of ensuring comprehensiveness is offered by the terms of references employed. Whenever possible, they should reflect the Bank's environmental, health and sociocultural policies.

7. The Bank should constantly seek to incorporate advancements made by science toward improved understanding of tropical forest ecosystems for purposes of better management, take account of national and international sentiments and agreements on natural systems preservation, and never hesitate to address and assess the several, often non-quantifiable and apparently non-project related, environmental impacts.

8. You may wish to include our experience with Finland in your paper for the purpose of illustrating the need for assessment of the industrial pollution potential.

9. You have listed environmental protection among constraints that currently inhibit development of the forest sector. Although this is understandable, it may not be entirely desirable. To emphasize environmental protection has been the exception rather than the rule in the past and far from constraining further developments it is hoped that integration of the environmental dimension will improve both individual projects and planning in general, when viewed over time and in a larger perspective. I take it, however, that you actually view shortcomings and/or absence of environmental protection efforts as a constraint to the formulation of sounder projects.

10. I believe we have sufficient experience to single out "the habitat compensation" issue as being of particular importance to us and in need of special attention. As you are well aware, this issue, in addition to its ecological content, represents also the one with the highest potential for criticism of the Bank for neglect of wildlife and/or endangered species of both flora and fauna. What to do? I cannot here even begin to describe the numerous arguments in favor of conservation and preservation, nor can I go into the importance of the kind of preventative planning that would prohibit such problems ever from arising. (Land capability classifications, amplified and diversified by "desirability", and guided by the light of an environmental policy under which comprehensive management of natural resources are formulated for later reflection in individual projects.) For project operational purposes in countries where adequate conservation programs, associated legislation and institutions are absent, I suggest you contemplate inclusion of the following recommendations:

- a) The Bank should not support disintegration of a tropical habitat sample that is not represented and under adequate protection elsewhere in the country (as national parks, nature reserves, wildlife refuges, sanctuaries, etc.). This is a project related compensatory recommendation measure that will force involvement of related expertise and represent the only practical "solution" to the much discussed problem of incompatibility.
- b) In the project area directly impacted upon, the wildlife should be managed for investment protection and other beneficial purposes rather than left to self-adjustment.
- c) The minimum habitat required by large herbivores and other space demanding creatures cannot be fixed without

considerable research in any given case, but in general the Bank may be guided by considering 200 - 300 square miles as representative, and "the larger the better" as desirable, for long-term ecological stability and enhanced buffer capacity against future encroachment. Whenever possible, such habitats should serve multipurpose objectives for the same reason.

- d) When it is a lake (or river) with its biota that requires preservation and protection, this can only be accomplished through watershed protection and prudent land use.

11. The inclusion of (research) components as you have outlined them is highly appropriate and to the point. I can but emphasize the value of forest surveys extended beyond elements of commercial interests (indigenous population, wildlife and flora, nature monuments, rivers, groundwater, flooding, wetland and estuary protection, etc.), and research that will aid in arresting environmental deterioration and bring future practices closer to the exceptionally sound environmental goal of sustained yield at lowest level of fossil fuel input.

12. Throughout your paper, I find considerations of great environmental importance, including the proposed priorities which are environmentally sound in the same sequence as listed. This was most encouraging, and since the tenor of my own remarks are much like those already provided in the paper, I believe you can incorporate them, as appropriate, without difficulty.

RO:fb



Record Removal Notice

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Correspondents / Participants Illicitly Grown Drugs and World Bank Agricultural Projects				
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Additional Comments Declassification review of this record may be initiated upon request.		<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 Kim Brenner-Delp</td><td>Date December 08, 2022</td></tr></table>	Withdrawn by Kim Brenner-Delp	Date December 08, 2022
Withdrawn by Kim Brenner-Delp	Date December 08, 2022			

OFFICE MEMORANDUM

yellow
Agric + Rural

TO: Mr. Ted J. Davis

DATE: March 12, 1976

FROM: Claes Lindahl *Claes Lindahl*SUBJECT: Preliminary Analysis of Bank Lending for Agriculture and Rural Development and the Rural Population in LDCs

Attached are two tables: Table 1 is an updating of the rural population in LDCs and the size of the poverty income group based on the country economists' estimates. Table 2 indicates the Bank's lending for agriculture and rural development for FY75 and FY76 in relation to the rural population in LDCs. The conclusions that can be drawn from these tables are:

- a) The estimates of the rural population in poverty, show a total for LDCs of about 700 million, or 52% of the total rural LDC population. This compares with the 1969 estimates of 530 million and 43% in the Rural Development Policy Paper, Annex 3, pg. 80;
- b) These estimates indicate that as much as 78% of the rural population in East Africa would belong to the target group; 65% in LAC but only 46% in South Asia. (Compare estimates in Rural Development Policy Paper);
- c) The Bank's lending for agriculture and rural development in relation to the size of the rural population is biased in favor of EMENA and LAC. EMENA and LAC together account for less than 20% of the rural poor in LDCs but Bank's agriculture lending for these regions is over 40% of the total agriculture lending. South Asia has over 40% of the rural poor but less than 20% of Bank's lending for agriculture and rural development.
- d) Despite concentration of agricultural lending to EMENA and LAC, the number of anticipated direct beneficiaries of the projects in these two regions is only 10% of the beneficiaries in all agriculture projects.
- e) The number of anticipated beneficiaries in Bank projects is about 1.2% of the total rural population, i.e. clearly less than the annual growth of the rural population.

Attachment:

CLindahl/cc

cc: Messrs: Christoffersen
Turnham
Ahmad
Cernea

RURAL POPULATION IN
DEVELOPING COUNTRIES (BANK MEMBERS)
1975 ^{a/}

	<u>Total</u> <u>Population</u> (mill.)	<u>Rural</u> <u>Population</u> (mill.)	<u>Rural pop. as</u> <u>% of Total</u>	<u>Rural</u> <u>Poor</u> ^{2/} (mill.)	<u>Rural poor as</u> <u>% Total Rural Pop.</u>
<u>AFRICA</u>					
East Africa ^{1/}	152.4	130.3	85.5	101.3	77.7
West Africa	129.8	105.1	81.0	63.0	60.0
North Africa (EMENA)	80.7	44.3	54.9	15.9	35.0
Sub-Total	<u>362.9</u>	<u>279.7</u>	<u>77.1</u>	<u>180.2</u>	<u>64.4</u>
<u>ASIA/PAC</u>					
East Asia/Pac ^{2/}	285.7	210.9	73.8	101.6	48.2
South Asia	829.9	663.5	79.9	306.2	46.1
West Asia(EMENA)	138.4	85.6	61.9	36.6	42.8
Sub-Total	<u>1254.0</u>	<u>960.0</u>	<u>76.6</u>	<u>444.4</u>	<u>46.3</u>
<u>LATIN AMERICA</u> ^{4/}	<u>312.6</u>	<u>124.9</u>	<u>40.0</u>	<u>81.1</u>	<u>64.9</u>
<u>TOTAL</u>	<u>1,929.5</u>	<u>1,364.6</u>	<u>70.7</u>	<u>705.8</u>	<u>51.7</u>

^{1/} Excl. Rhodesia, South Africa, Angola and Zambia

^{2/} Excl. People's Rep. of China, North Korea, Vietnam, Khmer Rep. Mongolia
Australia, New Zealand and Japan

^{3/} Excl. Israel

^{4/} Excl. Cuba, Martinique Guadelope and Puerto Rico

^{5/} Based on relative population in poverty as defined by the Bank's
country economists (1975) When no country-specific information is given, the average
percentage for the region is used.

a) based on UN-population projections, Oct. 1974 (medium term, medium variant)

BANK LENDING FOR AGRICULTURE AND RURAL DEVELOPMENT AND THE

RURAL POPULATION IN DEVELOPING COUNTRIES

Region	Total Rural Population 1975 1/ (million) (%)	"Rural Poor" (million) (%) 2/	Average Annual Bank Lending for Agriculture and Rural Devt. FY76/77 (US\$ million) 3/	Bank Lending per rural inhabitant (US\$)	Average Direct Beneficiaries of Bank Projects-FY75/76 (million) 4/	Direct Beneficiaries of total rural population %
East Africa	130.3 (9.5)	101.3 (14.4)	136.2 (7.3)	1.05	2.86 (17.0)	2.2
West Africa	105.1 (7.7)	63.0 (8.9)	236.6 (12.7)	2.25	2.59 (15.4)	2.5
EMENA	129.9 (9.5) a/	52.5 (7.4) a/	382.5 (20.5)	2.94	1.21 (7.2)	.9
LAC	124.9 (9.2)	81.1 (11.5)	394.3 (21.1)	3.16	.61 (3.6)	.5
East Asia/Pacific	210.9 (15.5)	101.6 (14.4)	347.5 (18.6)	1.65	2.04 (12.2)	1.0
South Asia	663.5 (48.6)	306.2 (43.4)	369.3 (19.8)	.56	5.12 (30.5)	.8
TOTAL	1364.6 (100)	705.8 (100)	1866.4 (100)	1.37	16.78 (100)	1.2

a) Excluding Europe

1/ Based on UN-population projection for developing countries (1974) only Bank member countries.

2/ Based on Bank's country economists calculations.

3/ Based on expected Bank lending FY76 (as of February 1976).

4/ Based on projects indicating number of beneficiaries and an average family size of 5.5 persons.

Agric + Rural

Mr. Ted Davis

March 9, 1976

Claes Lindahl

Rural Development Projects Scheduled for FY77

Attached is a list of projects intended by the regions to be Rural Development Projects (more than 50% of the benefits accruing to the rural population in poverty) and scheduled for Board presentation in FY77. The list, which is based on Project Briefs submitted to the RORSU, give some basic data of the projects. The purpose of the list is to identify projects the Division may be involved in quality control of, in early stages of preparation.

Projects of particular interest are those marked as integrated rural development (multi-sectoral, column 10) and those with high number of anticipated beneficiaries or low project cost per beneficiary (column 7 and 9). The list is tentative as not all projects in the Lending Program have a Project Brief and the project content may change during appraisal stage. A number of projects are also questionable as to whether they will fit the definition of a rural development project or not.

Attachment:

CL/cc

cc: Messrs. L. Christoffersen
D. Turnham
M. Ahmed
M. Cernea
P. Rhoe

OFFICE MEMORANDUM

493-07 *Public Works*
6-1-5 *file*

TO: Mr. Shahid Javed Burki

FROM: *RH*
Ralph Hofmeister

SUBJECT: Issues in Bank Financing of Rural Public Works

DATE: March 9, 1976

1. As you requested, the following summarizes difficulties I see in the revisions by Mr. Gulhati of the Public Works Issues Paper. By way of background, after Mr. Gulhati indicated on February 24 his dissatisfaction with the final draft that had been prepared by Mr. Leiserson and myself, Mr. Gulhati and I discussed at length the whole of the paper. We reviewed his proposed modifications of the Leiserson/Hofmeister (LH) draft, my revisions to accommodate his views, and his alternative drafts. In revisions throughout the paper and in extensive rewriting of some sections, I believe that my latest draft of Chapters III-IV accommodates Mr. Gulhati's views as far as is consistent with maintaining the integrity of the paper which was reviewed at the Staff Level two months ago. Mr. Gulhati has prepared alternative drafts of Chapters III-VI and of the Summary and Conclusions.
2. In the main text, much of the language and most of the main policy conclusions remain. However, there are significant changes in presentations and positions which are noted below.
3. In the Summary and Conclusions, the changes are much more drastic. Following the advice at the Staff Level Review, the LH Summary attempted to present an abbreviated but self-contained argument. The Gulhati draft is about one-third the length and my overall impression is that it combines empty generalizations and cryptic extracts which are difficult to follow out of their original context. For example: para. 2 - "Unlike developed countries where cyclical unemployment is caused by insufficient aggregate demand, the problem in low-income countries is much more intractable." 3 - "There are no easy recipes." 4 - "However, the full exploitation of these opportunities requires a new policy initiative and new attitudes on the part of engineers and administrators." 7 - "Program managers need arrangements for monitoring and evaluation so that there is continuous feedback making possible a revision of objectives and instruments as necessary." The language in 8, "was earmarked" is misleading.
4. Notably, Mr. Gulhati's draft summary does not mention a definition of public works, despite the absence of a widely accepted meaning of the term. Nor is there any clear development of a distinguishable public works component within certain infrastructure and rural development projects. This is an innovation of the paper and it cannot be assumed that the reader has had any prior exposure to the concept.
5. It is difficult to judge whether Mr. Gulhati's draft summary is substantively consistent with the main text; it is simply too difficult to ascertain what are the substantive positions of the summary. For example, para. 10: "In principle, the Bank should be prepared to support public work (sic) components in infrastructure and rural development projects as

well as special regional or national programs. However, in practice...."
13. "This approach implies that while no quantitative target should be set for Bank support of public works, every effort should be made to seek out viable opportunities for such operations."

6. Turning to the main text, throughout Chapter III, the perspective on public works components within infrastructure and rural development projects versus special programs is substantially different from LH. Mr. Gulhati's draft emphasizes the simplifications of the component route and seems to suggest that this can resolve difficult organizational problems; LH notes the simplifications and suggests that components may be feasible where programs are not, but stresses that many basic issues persist and the apparent simplifications are easily exaggerated. For example, compare the opening paragraphs, his 3.1-3.2 and the original 3.1-3.3 Also, his first sentence of 3.16 and the first two sentences of the old 3.20.

7. There are difficulties in Mr. Gulhati's treatment of criteria for selecting specific works projects. In discussion he first suggested that no quantitative performance criteria were possible or desirable. His revision is ambivalent: cf. 3.13 with the old 3.15; the last sentence of 3.14 with the last sentence of the old 3.17; and the fifth sentence of 5.7 with the old 5.10. Also, the sixth sentence of his 5.7 suggests that Bank appraisal need only part of the time "focus on the criteria, organization and procedures which will produce local projects," whereas the LH position is that an emphasis on organization and procedures will always be necessary. What "criteria" would be applied?

8. The omission of the previous emphasis on alternatives (old 5.6-5.7) within project appraisal reflects a quite different perspective from that of the original authors. This omission and the above noted ambiguities suggest to me a lesser concern for the substance, as distinct from the formal procedures, of appraisal and project selection and design. This different view is illustrated also by the omission of the old 5.9.

9. In 4.1, Mr. Gulhati's version singles out factor-proportions, mix of type of project, and wage policy as issues central for improving the performance of public works. Here, in the subsequent organization of the chapter, and in the abbreviated language, maintenance issues are de-emphasized and the original stress on specific means to minimize adverse distributive effects is much less evident. Cf. the new 4.1 with the old 4.2; last three sentences of 4.4 and all of 4.5 with the old 4.13-4.15 and heading "Maintenance"; 4.10-4.12 with the old 4.6-4.8 and heading. Also, I think the revised order, placing "Choice among Types of Projects" after the factor-proportions discussion is less effective than the original.

10. Also in Chapter IV, the old section on "Training", 4.24-4.27 with its clear distinction between two types of training which have been undertaken, and with very different recommendations regarding the two, disappears; part of the language survives as part of the new 4.8 but in the context of "Choice among Types of Projects."

11. In para. 5.8 (last sentence) and 5.9 (whole paragraph) language which has not appeared in any prior draft has been inserted regarding earmarking of funds and special reporting requirements. Either these statements are innocuous (i.e., project managers should be intelligent) or, taken literally, they are inconsistent with the whole approach of local participation and decision-making and with specific language surviving in 5.10 (second sentence) and in 5.12 (last sentence).

12. There are fewer detailed problems in Mr. Gulhati's draft of Ch.VI. However, the first sentence of 6.2 is not factually accurate, and is not consistent with the cited footnote. The major difference here is the total deletion of the original section, "Research."

13. There are instances in which I disagree strongly with the specific language used:

- 3.12 - last sentence
- 3.13 - second sentence
- 4.21 - last sentence
- 5.8 - last sentence
- 5.9 - all.

14. In various instances the substitute language is not internally consistent, or is not consistent with other language retained from the prior draft:

- a) 3.2, fourth sentence, and 3.3, last sentence.
- b) 3.13, second sentence, and 3.14, last sentence.
- c) 5.8, last sentence, and 5.9 compared with 5.10, second sentence, and 5.12, last sentence.

Agriculture

Mr. Artaza, Information & Public Affairs

March 5, 1976

Peter Pollak, EPD/CE *PP*

Questions and Answers on Palm Oil

Attached is a brief note (still a draft) on some of the key questions (plus answers) on palm oil for your Dirty-Questions-Book.

cc: Messrs. Takeuchi
Tims/Holsen

PPollak:ke

PP

*Agie + Rural
Dev.*

Those Listed Below

March 3, 1976

Ted Davis, Chief - Rural Operations Review
and Support Unit (RORSU)

Progress Report on Monitoring Agriculture and
Rural Development Projects FY 76 and FY 77

1. Attached is the quarterly report analyzing the Agriculture and Rural Development Projects pipeline for FY 76 and FY 77.
2. This report is based on the Project Information Briefs (PIBs) which are now submitted regularly after each pre-appraisal and appraisal mission. This quarter we did not request an overall review and updating of PIBs. We will, however, request a review of all PIBs by the regional Agriculture and Rural Development Division Chiefs for the next quarter. As you may recall we envisage that the monitoring system's semi-annual reviews will be held in April and October of each year.
3. We do appreciate how much the PIB has now become an integral part of reporting on projects in the pipeline and most of the staff are now aware of the need to attach an updated PIB to their reports upon return from pre-appraisal and appraisal missions.

TJDavis:vmg

Attachment:

cc: Messrs. Baum/Yudelman/van der Tak/Israel/Darnell/
Christoffersen/Turnham/Veraart
Regional Projects Directors
Regional Asst. Projects Directors Agric. & Rural Dev.
Regional Projects Division Chiefs for Agric. & Rural Dev.
Department Directors CPS
Senior Economists
Messrs. Blaxall
Leiserson
A. Stone
Creyke, RMEA
Geli, RMWA
van der Heijden, Bangkok
Baneth, Jakarta
Kraske, New Delhi
Huyser, FAO/IBRD CP

Mr. Kenji Takeuchi

March 3, 1976

P. Pollak

Congressional Hearing on Palm Oil

1. I received a call from the US Executive Director's Office requesting a listing of palm oil projects financed by the Bank, size of loans and projected output. I was told that this information would be needed for a Congressional hearing on March 18, 1976.

2. The attached table shows, in essence, what the US Executive Director's Office wants. When I compiled this table, I found that not all project reports give precise output projections for palm oil and palm kernel oil. Most of the figures for 1985 and 1990 are therefore based on a yield pattern I have decided on. Thus, I did not think it wise to pass this table on to them.

Attachment

PPollak:dbd

PPV

Table : BANK LENDING FOR OILPALM PROJECTS

Project/Country	Total Project Cost (Mill. of US \$)	Loan	Area Planted (1,000 Ha.)	Production (1,000 Mt)								
				Palm Oil				Palm Kernel Oil				
				1975	1980	1985	1990	1975	1980	1985	1990	
<u>Malaysia</u>												
First Jenyka	20.0	9.5	11.1	40.0	56.0	53.0	47.0	5.1	6.1	5.6	5.1	
Second Jengka	20.0	8.6	6.7	6.5	32.0	30.0	27.0	0.9	3.7	3.5	3.2	
Third Jenyka	23.9	11.9	8.6		45.0	50.0	47.5		4.0	4.7	4.4	
Keratomy		36.0	22.3			100.3	90.0			9.3	7.9	
<u>Indonesia</u>												
First North Sumatra	24.0	12.7	13.7	18.4	68.5	64.7	58.1	3.6	8.3	7.8	7.0	
Second North Sumatra	20.5	13.2	8.0	9.5	39.8	39.6	35.5	1.1	4.6	4.4	3.9	
<u>Papua New Guinea</u>												
New Britain First Stage	3.3	1.5	1.9	5.7	8.4	7.9	7.1	0.5	0.7	0.6	0.6	
New Britain Second Stage	3.9	2.2	3.1	0.7	12.6	14.1	13.4	0.2	1.0	1.0	0.9	
<u>Cameroon</u>												
West	10.9	9.0	7.9	7.4	20.7	22.0	20.8	1.0	2.9	3.2	3.1	
East	14.1	7.9	9.0	5.0	22.0	24.0	21.6	0.6	2.5	5.7	5.1	
<u>Dahomey</u>												
Hinui	8.2	4.2	6.0	4.3	10.1	9.5	8.6	0.7	1.1	1.1	1.0	
<u>Ivory Coast</u>												
First Project	24.0	14.1	16.0	23.2	39.0	36.9	33.1	2.7	4.4	4.1	3.7	
Second Project		7.0	4.5		7.9	9.9	9.4		0.9	1.1	1.0	
Third Project			10.5		18.3	30.2	27.3		1.9	2.9	2.6	
Coconut and Oil Palm		17.1	16.0	26.0	39.0	36.9	33.1	3.1	4.4	4.2	3.7	
<u>Sierra Leone</u>												
Oil Palm Project	3.1	2.4	0.9	2.1	4.3	4.1	3.6	0.4	0.4	0.4	0.4	
<u>Ghana</u>												
Oil Palm Project		13.6	5.3		0.3	10.8	13.8			1.1	1.3	
<u>Nigeria</u>												
Western State		17.0	10.0		0.6	17.9	25.3			2.1	2.7	
East-Central State		19.0	16.0		0.8	23.3	35.2			2.8	3.7	
Mid-Western State		29.5	16.0		0.8	24.0	38.2			2.9	4.1	
<u>TOTAL</u>		<u>236.4</u>	<u>193.5</u>		<u>148.8</u>	<u>426.1</u>	<u>609.1</u>	<u>595.6</u>	<u>19.9</u>	<u>23.8</u>	<u>68.5</u>	<u>65.4</u>

Aggie + Rinal DW

Messrs. Christoffersen, Berg, Turnham, Davis

March 2, 1976

Colin Bruce *CB*

"Improving the Definition and Measurement of Poverty Levels", the
Concept of the "Critical Consumption" and Cost-Benefit Analysis

In the Economic Analysis of Projects by Lyn Squire and Herman van der Tak (S-T), the concept of the Critical Consumption Level (CCL) is introduced. The CCL is "the level of consumption at which the government is indifferent as between an increase in its own income (measured in foreign exchange) and the same quantity of foreign exchange assigned to private consumption".^{1/} The CCL is the same concept as the "Base Level of Consumption" used in the new Little-Mirrlees book ^{2/} (L-M). In L-M the distribution weights are derived on the basis of the CCL. In T-S the distribution weights are derived using per capita consumption as the numeraire, and the CCL is used to cross-check the value of "v", which is the social value of public income relative to private sector consumption at the average level of consumption. Either way, it is important to try and obtain an objective value of the CCL. Both L-M and T-S suggest reference to such things as the level of income (consumption) at which income tax begins to be paid or below which subsidies are payable. Unfortunately, the empirical evidence, at least in the countries for which I have derived national parameters--the Philippines, Malaysia and Thailand--does not support these suggestions. So I am looking around for another objective measurement, and it seems to me that some such concept as the "absolute poverty level" (APL), based in part on acceptable minimum nutritional standards, contained in the PIB system for agriculture and rural development projects may be what we are looking for. It is true that if we use the APL in some form we would not necessarily be taking account of the different objective functions of different governments, and we would in effect be assuming that governments are rational and would, if they could verbalize it, place values on the CCL equal to or near the APL. But it seems to me that for project analysis it is more important to have an objectively determined CCL, and one which is regularly quantified as part of the Bank's continuing work on developing projects. In short, I like the idea of a tie-in between the PIB system and the CCL for project appraisal. The question then arises whether the nutrition experts can agree on standard levels of nutrients in recommended dietary allowances and what should be included in the non-food component of the APL. In his memorandum dated February 24, Alan Berg suggests that we ask WHO to provide specific nutrient level standards. Are we going to follow this up? I would appreciate being kept informed.

cc: Messrs. Yudelman/Darnell
van der Tak
Ray
Squire

CBruce:ssp

^{1/} p. 107.

^{2/} Project Appraisal and Planning for Developing Countries, Heinemann, 1974,
p. 238.

Agriculture & Rural Dev.

Mr. Raymond Rowe, Agriculture & Rural Development

March 2, 1976

Gerhard Thieme and Kenji Takeuchi *KPT/CE*

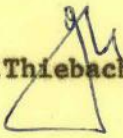
Comments on Draft Forestry Policy Paper *agrie*

1. Following our meeting on February 25 this note summarizes our major suggestions and comments on your paper. You will find minor comments on the copies of your paper which are attached to this note.
2. As became evident during our discussion, we have two problems with your statement of priorities for Bank operations in the forestry sector. First, we are not sure whether a general statement of priorities should be made without differentiation between countries with respect to stages of economic development and endowment of forest resources. Second, if such determination is possible, a stronger justification should be given in the paper in support of the proposed ranking of priorities.
3. We also think that economic justification of proposed forestry policies needs to be strengthened. For example, economic impact of proposed measures should be presented in more detail, advantages to be gained by LDCs from tariff reductions for processed wood could perhaps be illustrated; and an indication could be given of the costs of improvements in the forestry sector which remove some of the constraints mentioned in Chapter 3. Perhaps, it might be useful to give the rough order of magnitudes for the gains for LDCs that could result from relocation of processing capacities from developed to developing countries.
4. We are impressed by your new emphasis on the fuelwood. However, we feel it should be put in the context of energy supply in LDCs. Therefore, we suggest that the draft be reviewed by the Bank's Energy Adviser on this point.
5. A careful review is required of the terms and definitions used in the paper keeping in mind that the audience will not consist of foresters only. For example, in some instances it is not clear what is included under "forest products". Does this term refer to processed forest products excluding logs? In the present draft the term sometimes refers to processed wood only and sometimes it includes logs. The term "terms of trade in forest products" needs to be replaced by "balance of trade in forest products". The paper gives the impression as if trade balances by product groups, e.g. forestry products, should ideally show neither surpluses nor deficits. But nothing is wrong with a trade deficit in forestry products as long as it reflects correctly comparative advantages of countries involved. Whether or not this is the case for some LDCs should be discussed. In general, the geography of timber production and the geography of trade in forest products should be described more clearly including a definition of the terms used in this connection, for example "coniferous supplies", "softwood" and "hardwood". It should give a clear idea about production, processing, consumption and trade. Discussion of the present situation and the outlook for the future should be separated. Some explanation of reasons which led to the present structure of world production, trade, etc. would be useful.

6. In Tables 4 (page 8) and 5 (page 9) we suggest changes as given in one of the attached copies, while inclusion of a Table instead of four paragraphs on Bank lending for forestry by region and type of project (page 37) may be more effective. In various parts of the paper there are enumerations of countries. Their order of presentation is not easily understandable. Also it is not clear if those enumerations are meant to be exhaustive. Listing of individual countries may not be necessary in all cases.

7. As for Chapter 4 "The Bank's Role", we suggest (i) eliminating the last four headings (pages 40 and 41) which should become subheadings under "Future Orientation of Bank Forestry Activity"; (ii) covering the other problem areas mentioned in Chapter 3 under additional subheadings; and (iii) outlining a work program with reference to, for example, the recent hiring of a forest specialist for the IAC region and giving some ideas about organization of our work on forestry.

8. We would like to congratulate you on the heroic attempt in this effort. We believe that the importance of project work in forestry and forest industries can never be overemphasized at this time in the Bank.


G. Thiebach/K. Takeuchi:cjl