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July 15, 1980

For further correspondence, please see

Vol III

RECORDS MANAGEMENT SECTION

OFFICE MEMORANDUM

yellow

TO: Helen Hughes, Director, EPDDR *HH*

DATE: July 30, 1980

FROM: Peter Pollak, EPDCE

DPA-WDR

SUBJECT: Peru's Ratio of Petroleum Exports to Total Exports

1. In the latest WDR IV meeting (July 24) you had asked for Peru's ratio of petroleum exports to total exports in 1978. The following table shows this ratio.

PERU: RATIO OF PETROLEUM EXPORTS TO TOTAL EXPORTS IN 1978

Volume of petroleum exports, crude petroleum and petroleum products (millions of barrels)	13.2
Value of petroleum exports (million US\$) . . . . .	.172.0
Total exports (million US\$)	1,941.0
Ratio of petroleum exports to total exports (%)	8.9

2. The definitions of petroleum exports etc. is consistent with those in the earlier table prepared by Mr. Lambertini.

cc: Messrs. Lambertini, Choe, Energy Files 1

PP:bt

DPA - WDR

Mrs. Helen Hughes, Director, EPDDR

July 28, 1980

R. C. Duncan, Acting Division Chief, EPDCE

Mr. El Naggar's Memo of July 22, 1980

1. We regret that our July 15 memo did not clarify the issue of oil imports. There is no arithmetic error as presumed in Mr. El Naggar's memo. The form of presentation was chosen to show how the 2.5 million b/d of oil imports shown by OECD and OPEC is consistent with WDR. Tables 1 and 2 below, which show how the table in the July 15 memo was derived, should make the position clearer.

Table 1: NET OIL IMPORTS OF THE NON-OPEC DEVELOPING COUNTRIES
(million b/d)

Net oil imports of the <u>oil importing</u> developing countries (excluding "Southern Europe")	3.9
Net oil imports of the non-OPEC <u>oil exporting</u> developing countries	-1.4
Net oil imports of the non-OPEC developing countries (net balance of the oil importing countries plus net balance of the oil exporting countries).	<u>2.5</u>

Table 2: NET OIL IMPORTS OF THE OIL-IMPORTING, DEVELOPING COUNTRIES

(million b/d)

Net oil imports of the oil importing, developing countries (excluding "Southern Europe").	3.9
Net oil imports of the "Southern European" countries	1.9
TOTAL	<u>5.8</u>

Note in respect of Table 1 above, that the net oil exports of the oil exporters (1.4 million b/d) have to be added to the 2.5 million b/d figure to recover a figure for the net oil imports of the oil importers (3.9 million b/d).

ALambertini/RDuncan:jmca

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DPA World Dev. Rep.

Mrs. Helen Hughes, Director, EPDDR

July 15, 1980

R.C. Duncan, Acting Chief, EPDCE

World Development Report 1980

1. With reference to point 1 of Mr. El-Naggar's memo of July 14, please note: WDR includes a number of countries 1/ in the oil importing group which were not included in the World Bank document R78-262. The relationship between the WDR estimates and "A Program to Accelerate Petroleum Production in Developing Countries" is shown below:

NET OIL IMPORTS, 1975
(Million b/d)

Oil importing developing countries (excluding "Southern Europe")	3.12
Southern Europe	<u>1.74</u>
All oil importing developing countries (WDR classification)	4.86

2. The quote from the OECD's "Economic Outlook" is somewhat puzzling. The larger countries mentioned in footnote 1/ below are treated by OECD staff as OECD countries, and thus excluded from the "non-OPEC developing countries" group. This would explain most of the differences between the Bank and OECD numbers. In fact, our estimate of the net oil imports of the "non-OPEC developing countries" in 1978 is 2.5 million b/d, close to the 2.48 million b/d estimated by OECD. It also coincides with the 2.5 million b/d estimated by the OPEC Secretariat (OPEC Review, Vol. III, No.3. Autumn 1979).

The relationship to the WDR data are shown below:

NET OIL IMPORTS, 1978
(Million b/d)

Non-OPEC developing countries (excluding "Southern Europe")	2.5
Southern Europe	1.9
Net oil exports of the non-OPEC oil- exporting developing countries	<u>1.4</u>
All oil importing developing countries	5.8

1/ Cyprus, Gibraltar, Greece, Israel, Malta, Portugal, South Africa
Spain, Yugoslavia.

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3. However, applying the definition of non-OECD net oil demand quoted by Mr. El Nagggar to the OECD estimates of OPEC consumption, net oil imports of the non-OPEC developing countries and centrally planned economies, it is not possible to arrive at the 3.8 million b/d that Mr. El Nagggar took from the OECD's document.

NON-OECD NET OIL DEMAND, 1979^{2/}

OPEC domestic consumption	2.00
Non-OPEC developing countries net oil imports	2.48
Centrally planned economies net oil imports	- <u>1.20</u>
Non OPEC net oil demand	3.28

^{2/} Estimates from the OECD/IEA Standing Group on long-term co-operation.
Document IEA/SLT(79) 69. Paris, 1st October, 1979

cc: Mr. Lambertini.

ALambertini/RDuncan:jmca

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DPA World Dev. Report

Mr. Luis de Azcarate, WANVP

June 26, 1980,

Michel Palein, Chief WA2DC

GUINEA - WDR Background Paper on Sub-Saharan Africa

Apart from certain discrepancies between data quoted for Guinea and our own statistics, I have no major questions to raise. However, it could be useful to emphasize that certain generalizations do not necessarily apply to all Sub-Saharan countries: in a number of areas such as use of foreign technical assistance (p. 6) and reorientation of rural development (p. 12), Guinea might take exception to what is presented as a general trend.

EScanteie:rkm

OFFICE MEMORANDUM

TO: Mr. Luis de Azcarate, Chief Economist, WAN

DATE: June 25, 1980

FROM: Richard Westebbe, Senior Economist, WA2DR *W**F338 Ms Noel WA Files DPA World Dev Report*SUBJECT: Comments on WDR Background Paper: Human Resource Development in Africa.

1. I am attaching copies of the paper containing written notes in the margins (see paper clips) by Divisions B and C of WA2. Mr. Palein will also be forwarding a memorandum.

2. The most serious problems in an otherwise most interesting paper concern factual errors, the imtemperate language used in several places, and the occasional lack of integration in the analysis and the conclusion of the considerable economic and sector work we have done in such countries as the Ivory Coast in the last decade. I have marked these places in red on Mr. Palein's copy. For example, on page 23 Senegal is listed as a country in which per capita incomes declined between 1960 and 1976. Mr. de Leede disagrees and notes that the later year was one of exceptionally low rural output. The Congo and other countries are cited (p. 27) as countries where Government employer of last resort policies had "disastrous" consequences on the public finances and requires "draconian" measures. Also on p. 27 the statement is made that in the Ivory Coast expatriates "still dominate or occupy a large proportion of the jobs requiring a secondary education or more". Even, if true, this should be balanced by some acknowledgment that the Government is providing secondary education on a major scale and has a policy of progressive Ivorianization. I also doubt whether the statement as such is correct. More likely the author intended to refer to the large number of advisors in key positions in the policy ministries. One finds far fewer expatriate managers in public agencies than was true a few years ago. In general, no recognition is given to the massive program of higher educational institutions set up or being planned in the Ivory Coast to create a class of technocrats capable of replacing expatriates. Until then, the country has probably wisely chosen growth over extreme africanization. (See Goreux's book on Multi-level Planning Model in the Ivory Coast, and Den Tuinders' "Challenge of Success", also "Investment Report on the Ivory Coast", May 1980).

3. On page 36 we are told that repetition and drop out rates are "phenomenally high" in the Ivory Coast, and that it requires over 10 student years to produce a graduate of a three year course. Again the extreme language detracts from the point, which we wrote about extensively in 1973-74 that the system was inefficient (see for example, UNESCO Education Report, and ICRD Special Report on Employment). However, since then there has been a marked improvement in efficiency. Ms. Noel refers me to President's Report T-16-17, Third Education Project paras. 29 to 31 for evidence of the significant rise in efficiency. On the same page the statement that some schools in Abidjan are "almost entirely devoted to repeaters in the last primary grade" is sure to be provocative and indeed does not explain that this is due to the high aspiration of parents to have their children enter secondary school where, quite naturally, there are fewer places than there are applicants graduating from primary school. In short, entrance requirements in secondary schools eliminate a number of applicants who repeat the last grade in primary in order to try again. We even found that

some private secondary schools take those who fail to enter a public secondary school, give them one or two years schooling after which they often make it in the upper grades of the public school.

4. The paper repeats the percentages of current budget devoted to education and uses different ranges of figures each time. I believe the current figure in the Ivory Coast (under 40%) is incorrect, p. 39.

cc: Messrs. Chaffey
Palein
Ms. Calvo
Ms. Noel ✓

RWestebbe:llb

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WBG ARCHIVES

For consideration on
July 8, 1980

R80-168

FROM: Vice President and Secretary

June 13, 1980

WORLD DEVELOPMENT REPORT, 1980

- ✓ See Report*
1. Attached is a copy of the President's memorandum dated June 13, 1980 accompanying a report entitled "World Development Report, 1980" (Report No. 3022).
 2. This report will be discussed at a seminar of the Executive Directors to be held on Monday, June 30, 1980 at 2:30 p.m. in the Board Room, under the chairmanship of Mr. Chenery, Vice President, Development Policy.
 3. As in previous years, final revisions will be made following the Board discussion.
 4. Questions on this document may be referred to Mr. Isenman (extension 61455).

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Mr. Paul Isenman, PPR

May 20, 1980

Richard H. Sheehan, Acting Director, EGY

Energy in WDR III

1. You requested our comments, as well as a check of the facts and figures, in the energy sections of WDR III. Bob Sadove has already spoken to Mr. Noman about our disagreements with some of the figures and we had already provided you with written comments (attached) on an earlier draft.
2. Many of the factual errors we pointed to in the previous draft remain in the present draft; while our general criticisms also still hold; the discussion is sophomoric; the "facts" are unsubstantiated; the forecasts are dubious; the scope for use of "alternative" fuels is over-dramatized; and it is not clear whether favoured policies apply to rich or poor countries, to oil-importers or oil-exporters, or to sub-groups among these categories. In all, the world's energy crisis is relegated to a minor sub-set of international trade problems; while we realize it was not the intention to devote much space to energy, we question the advisability of including such an inadequate treatment in the World Development Report.

Some Specific Criticisms and Questions

3. Chapter 2, page 10, line 4: Your working assumption of a 3 percent annual rise in real energy prices needs explaining; three percent may apply to crude oil prices, it likely to be a gross understatement for coal and gas prices.

Page 10, line 6: Even if some OIDCs rely less on oil imports by 1990 (and we question Ghana, Philippines and Chad as examples) the improvement is likely to be only temporary.

Page 10, second paragraph: Do the energy gap figures apply to oil or to energy? Is the projection of doubling production reasonable?

Page 11, paragraph 2: What is the relevance of this paragraph to energy?

Chapter 3, page 1, bottom: What are the coordinated energy policies referred to? Are they the ones described as recommendations of the Brandt Commission (bottom of page 2) or those on page 6? Why haven't the other energy-related recommendations of the Brandt report been mentioned?

Page 2, paragraph 3: Is there any evidence that the growth of the oil-importing countries is positively correlated with the predictability of oil price rises? Why will the oil exporters benefit only if slower world growth is avoided?

Table 3.1: The proportion of the OIDCs in imports of oil - 20% in 1980 and 20% in 1990 - is inconsistent with the text on page 7.

Page 3, paragraph 1: The first statement is trite; the second implies that oil exporters should neither conserve energy nor develop other energy sources.

Page 3, paragraph 2: What are the appropriate conservation policies which are well-known in the OIDs? What is non-conventional petroleum? And, yet again, please note that gas, coal, nuclear and hydro do not substitute for oil.

Page 4, paragraph 1: What are the potential alternatives to oil? Is the share of petroleum in world commercial energy supply projected or assumed to fall from 49 percent now to 38 percent in 1990? Please tell us what will replace it.

Page 4, paragraph 2: Give some notion of the impact. How much fuel could biomass alcohol reasonably replace? Geothermal is already an economic proposition. Solar-powered electricity generation (photovoltaics) is, from all experts, the bottom of every list of potentially viable energy sources.

Page 5, top: In which countries is the price responsiveness as stated? Rich or poor? OIDs or oil exporters?

Page 5, paragraph 3: For the "acute" political difficulties of passing on oil price increases to consumers, the examples of U.S. and Canada are given - countries where the increases have been nominal and consumers can afford to pay. The difficulties are much greater in the LDCs.

Page 6, paragraph 2: The environmental constraints to developing coal, etc., are much smaller than the capital constraints.

Page 7, paragraph 2: The country examples are poor; Benin, Chad, Ghana, Tanzania have either not started production or the amounts are minuscule. It is not clear from the rest of the paragraph whether the discussion is all post-1973; if so, many of the country examples are inappropriate.

Page 8, top: Discussion on pricing is naive; there are many justifiable reasons for pricing below import equivalent prices - these include social (supply to poor), political (security of supply), economic (incentive to investors or regionalization).

Page 8, paragraph 2: "Gasoline remains comparatively cheap in the Philippines": It is currently \$2.60 per gallon. What is the justification for oil importers to cut subsidies to energy consumption?

Page 8, paragraph 3: "Supply to poor" argument must be weighed against (unplanned) diversion of subsidized supplies to other uses.

Page 9, paragraph 2: Africa should be "low-income Africa", and the 65 percent is an understatement.

Page 9, paragraph 3: Deforestation doesn't turn fertile land into desert in Nepal, unless "fertile land" is defined to include forests.

Page 10, paragraph 2: New efforts at national and regional planning cannot possibly enable significant progress in energy production to be made by the mid-1980s.

Annex on Taxes and Energy: Are the recommendations only for rich countries? What is the evidence for the assertions made?

JBharier:ams.-

cc: Messrs. Rovani, o/r, EGY
Sadove, CPSVP
Fallen-Bailey, EGY
Byer, EGY
Ahmed, EGY

Mr. Yves Rovani, EGY

May 16, 1980

Robert Sadove, CPSVP

Energy Projections for WDR III

The orders of magnitude are all right in the levels of aggregation shown in the attached Table 2.4; however, we have detected a number of anomalies, as further discussed below, which make us feel uneasy.

1. Although overall average annual energy consumption growth of 4.5% in last year's WDR has been reduced to 3.7%, and this appears reasonable under present conditions, there has been no reduction in the consumption growth rates of 6.2% for developing countries.

2. Even more difficult to reconcile are the growth rates used for net imports of petroleum in OIDCs as they appear in Table 2.5. Both the absolute level and rate of growth for low income countries appear lower than the levels reported for India in the May 1, 1980 Bank economic report (2933-IN).

3. The large projected decline in the middle income countries' net petroleum imports between 1978 and 1980 (see Table 2.5) although reasonable in light of recent oil price increases, seems inconsistent with information we have on a number of these countries.

4. On the production side, while the projections of total energy supply do not appear too unreasonable on the face of it, what we do know of total petroleum production potential will imply a growth in the supply of other energy sources, particularly coal, which seems inconsistent with the background paper on coal.

Recommendation:

Clearly, we are in no position to redo all of the work that has gone into the projections but we would propose to review next week projections covering up to ten of the larger countries (India, Korea, Pakistan, etc.), in cooperation with operational and DPS staffs to gain more confidence in the figures used for the final report. As part of this exercise, we would like the authors of Table 2.4 to disaggregate petroleum and coal in their projections.

RSadove/MMitchel:ams.-

Paul Isenman, Chief, WDR Care Unit

April 22, 1980

Roger Crane, ASADB *RC*

WDR: Chapter 7 Section on South Asia

1. This chapter reads well and effectively conveys a lot of statistical information. I have two general comments: i) there is an obvious need to strike a balance between problems and progress; but in many instances, the juxtaposition between the two seemed too direct, leaving, in my view, a rather over-optimistic impression of governments moving or having moved already to meet the implementation difficulties that are well discussed in Chapter 6 and which lurk behind not very satisfactory performance (at least in most of South Asia); ii) each section presents expenditure data as a per cent of GNP. While this is useful data I think it might be presented in tabular form for each region, with text devoted to it only if there are analytical points to be made.

2. With respect specifically to the South Asia section, I have several specific comments as well as the general observation that the discussion lacks focus. The elements are there for a more direct treatment of the specific challenges to better human resource development in South Asia, namely the examples of Kerala and Sri Lanka, the existing base of skilled manpower (excepting possibly Bangladesh and Nepal), contrasted with the problems of internal inefficiency in the human resource sectors, and the special problems of accessibility for women, and other culturally and economically disadvantaged groups. Most of these points are certainly covered in the section; but I was not left with the sort of condensed, compact view of the lessons of South Asian experience. The detailed comments are as follows:

1. I would stress domestic policies above migrants' remittances and aid as the basic determinant of economic performance in the region. Of course the latter two should be stressed but relative emphasis should go on appropriate domestic policies facilitated by remittances and aid.

2. Even without the weather's help, as in the drought year of 1979, agricultural production was significantly above levels attained at the beginning of the 1970's. This is the truly exciting prospect for agricultural development in the region. The paranthetical phrase on page 9 needlessly mitigates the progress that has been made.

/2...

1] Of course the shortcomings of my own background work bear the ultimate responsibility so I comment as a participant, not an outsider.

- made*
3. There is no connection ^{made} between the characteristics of the poor and their human resource status. This would require only a few sentences and would tighten the presentation considerably (cf. pp41 ~~f.f.~~ of the background paper).
 4. The phrase on page 10, "world's worst urban poverty" is not particularly felicitous. I would have thought one could emphasize the magnitude of urban poverty in South Asia (numbers of poor, income levels, paucity of services) even though in intra-regional terms the proportions are relatively low.
 5. Two references, which are made to Sri Lanka's experience (pages 11 and 14) with general subsidies, need to be developed more fully so that the reader is aware of the potential problems of untargetted subsidies eating up resources for productive investment. The reader cannot be assumed to be aware that this was at least part of the cause of Sri Lanka's relative stagnation during the early and mid-1970's, nor that the reversal of these policies accounts for the recent improvement in performance.
 6. The paragraph on the status of women (pp11 - 12) really touches on only a part of the problem, and gives a misleading impression of improvement. The primary enrollment ratio for girls in Bangladesh (60%) is much higher than the rate cited in Table 6 of the background paper, and no mention is made of the large differential in dropout rates. This is symptomatic of the general neglect of internal efficiency and quality problems.
 7. The parenthetical phrase on graduate unemployment in India on page 13 doesn't seem to fit very well in the structure of the argument there. It is also not necessarily true in Bangladesh where there are shortages of skilled manpower. Of course the case for relative emphasis on primary education should remain.
 8. I would suggest a change in wording for the sentence concerning coercion on India's family planning program (page 14), as follows: "India's program suffered a setback because of a backlash to the coercive methods that had been used for a short period in some states. The program has recently recovered through such greater integration with maternal and child health services and renewed emphasis on non-terminal contraceptive methods." I realize this adds a sentence but feel the complexity of the episode and renewed political sensitivity to it justify a slightly longer treatment.
 9. Finally, I am not aware of the correction to the so-called research bias toward the more expensive grains of wheat and rice. Nor is this bias necessarily a bad thing. There is no reason to

/3...

believes that the poor would not benefit considerably from continued improvements, particularly in rice for which HYV strains have not been so widely adapted. The declining real price of the "expensive" feedgrains, wheat and rice, made possible by this research "bias" is also an effective way of improving the consumption basket of the poor with "preferred" items. I don't think the report should leave the impression that production breakthroughs are being sought or are imminent in coarse grains. There will always be a bias against cheaper food items in the growth of agricultural production if that production is to reflect changes in demand patterns that also occur with growth. Research by ICRISAT indicates that the shifts in areas from coarse grains and pulses to wheat and rice has actually improved the availability of both calories and protein. The only research bias that might be mentioned is that against rainfed versus irrigated land, but the cropwise implications of that bias are not clearcut. The real problem, as rightly stressed at the end of the paragraph, is raising incomes of the poor.

10. Finally, the network of ration shops that exists in rural areas is rudimentary indeed, in many cases being on paper only or being associated with a defunct co-operative. The administrative costs of setting up a massive food distribution system would be quite staggering and could easily detract from the very production programs that would make such distribution increasingly less needed. Particularly with respect to distribution of coarse grains, traditional markets have been found to operate efficiently.

c.c.: John Holcen
Ann Hamilton
Cornelius Janson

RGrawe:ll

Mr. Paul Isenman, WDR

April 14, 1980

Shankar Acharya, VPD

WDR '80 - Part II

1. As you will have undoubtedly been showered by bouquets and brickbats from sundry commentators, I shall desist from adding to the supply of either. And knowing, by experience, how precious your time is now, I limit myself to a couple of concerns.

2. My principal concern is that the present draft has a tendency to oversell the benefits of human resource development on the basis of evidence that is, at least, open to debate. The most pronounced example of this is in Chapter 4, pp 14-19 which explicitly attributes causation, and to specified degrees, to the observed statistical association between growth and human resource variables. I am not familiar with "recent application of advanced statistical analysis to the body of data on which World Development Indicators are based" (p.14), but I would, as a general comment, counsel some moderation in propagating the results of multivariate analysis in a "global" document such as this. In the same vein, the language used to extol the links between literacy on the one hand and the growth of labor productivity, manufacturing and manufactured exports, on the other, seems unduly strong. By the way, if nutrition and health "causes" a tenth of the variation in growth rates between developing countries (p.14), and variations in literacy account for a sixth (p.16), why do variations in all three account for only a fifth of the differences in growth rates (p.19)? These numbers run counter to the Report's theme of the whole (of human resource elements) being more powerful than the sum of the parts.

3. My second concern is that present wording of Chapters 4 and 5 make the path of "poverty alleviation - through - primary education" sound deceptively easy. I do not doubt the conclusions of studies conducted in the 1960's and 70's pointing to productivity/returns enhancing results of primary education. But I do wonder if those returns are not an overly optimistic guide for the future, when the ratio of workers with primary education to other complementary factors (land, capital etc.) can be expected to increase swiftly over time. Put another way, rapid education of the burgeoning expansion in labor supply may not be as effective in alleviating poverty as measures to enhance labor demand.

cc: Mr. Waide

Mr. Paul Isemman, PPR

April 7, 1980

Yves Rovani, EGY

WDR3: Chapter 3, Draft

1. We have now reviewed this chapter carefully. I realize, of course, that it is still an early rough draft, and therefore will in any event be substantially revised and edited. I also appreciate that the main thrust of WDR3 is rather different to its predecessors, with a focus on basic needs, and that it will be difficult to link subjects such as energy policy to the general theme.

2. I attach some specific comments on the chapter and would also like to make some general points.

3. I am concerned that energy is treated only as a sub-division of international trade. With the paragraphs dealing with energy sandwiched between sections on balance of trade deficits, export promotion, etc., the informed reader, particularly in the developing countries, may wonder whether the Bank is aware that the energy issue is of the greatest concern to LDC governments.

4. The general level of sophistication of the sections on energy is low and the paper contains many unquantified and generalized statements regarding complex energy issues. In many parts it is not clear whether the chapter is referring to policies in the developing or the advanced countries. For example, statements about people conserving energy by lowering the level of home heating have little relevance to LDC conditions.

5. A number of dubious forecasts about energy production and consumption in LDCs are given, including one to the effect that oil production in non-OPEC LDCs will double in the next decade.

6. Finally, the treatment of the traditional fuel sector and associated ecological and social issues is over-dramatized, apart from the fact that some of the statements made could reasonably be viewed with a good deal of scepticism by anyone with firsthand experience of the problem.

JCB

DGFallen-BaileyJBharier:rhc/pa.

Attachment.

APPENDIX - ANNOTATED COMMENTS

- Page 2 - Bottom - No mention of restrictions on oil production to reduce balance of payments surplus, i.e., Kuwait, Libya.
- No mention of uncertain political/oil supply situation, only price - this distorts the picture.
- Page 7 - 2nd para. - Does it mean "revaluation" or "devaluation" -- this recommendation seems to contradict the earlier statement on top of Page 4.
- Page 10 - 1st para. - Are these vague recommendations of any real value or relevance?
- Page 12 - Energy Policy - This is a completely erroneous concept. Oil exporting and/or producing countries need an energy policy as well as oil importers, and it should cover a much wider field than mere payment for oil imports.
- Page 12 - "The Role of OPEC" - The first para. implies that developing countries are likely to use less energy per unit of GDP than in the past. This is unlikely given their stage of development unless all ideas of industrialization are abandoned (see Page 22, line 1 for an apparent contradiction).
- Page 15 - Second para. falls into the common error of supposing that coal, etc. substitutes directly for petroleum - it substitutes for only one refined product, i.e., residual fuel oil. You cannot put "coal, nuclear and solar power" in the fuel tank of a vehicle and expect it to run.
- Page 16 - 2nd para. - Space heating is not a significant consuming sector in developing countries as a whole - which group of countries is this report supposed to be addressing? Most of this paper seems to refer to US conditions.
- Page 16 - Tar sands, etc. - this ignores the reality of what is actually happening, i.e., taxes, interest rates, etc.
- Page 18 - These woolly and unquantified generalizations (i.e., tar sands, biomass, etc.) are typical of what is currently popular, but serve only to mislead. What quantities of biomass energy or solar power are likely to be available to substitute for petroleum by 1985?
- Page 18 - 3rd para. - Most developing countries do not have the administrative apparatus to set up and operate a rationing system such as seems to be implied here.
- Page 19 - 2nd para. - This again seems to be more appropriate to the US than anywhere else.

Page 19 - Last para. - The quotation of these statistics without qualification, as usual, ignores the space heating requirement in northern countries (about 25% of total in US) as compared to most developing countries, quite apart from industrial use.

Figures quoted for OECD and US reductions in energy use/GDP seem high and should be checked.

Page 22 - "It is estimated that ..., etc." Who estimated this figure of 50% higher oil imports in 1990, and how? If LDCs are going into debt on oil account now, how can this figure be substantiated?

Page 22 - 2nd para. - The lack of any quantities makes this para. meaningless. Guatemala produces 2000 b/d, Benin is not yet producing, nor is Chad, nor Tanzania. Exploration is not "increasingly intensive". It is static or declining in most cases in LDCs. Who is projecting oil production in non-OPEC LDCs to double in the next decade? This appears to be a hang-over from 1979 WDR.

Page 22 - Last para. - Mexico and Ecuador are better examples of low petroleum product prices. Bangladesh is a particularly poor example since it is arguable that gas should be priced low to encourage market build-up.

Page 23 - If Turkey is to be castigated for low energy prices after 1973, it is only fair to mention recent steps to rectify the situation.

Page 23 - Last para. - It is precisely the policy advocated in this para. which has given rise to severe imbalance in petroleum product consumption patterns and large imports of kerosene at a time when there is an impending world shortage of middle distillates. This is precisely the sort of mistaken folklore type of advice we should not be giving to developing countries. There is in fact a good case for subsidizing electricity to the poor because there would be little chance of the rich taking advantage of it. They (the rich) do not generally live in slum districts!

Page 24 - 2nd para. - This is another piece of folklore. The urban poor depend almost as much on traditional fuels as the rural poor in LDCs - more folklore - the tropical forests are "melting away" because of indiscriminate lumbering, industrial fuel use, and land clearance, not to provide fuel for the poor. The fuelwood crisis is most acute in semi-arid countries. How much fertile land is being turned to desert in Nepal?

Page 24 - Last para. - This emotional and over-dramatized presentation is quite out of place. I suspect that availability of modern drugs

has more effect on child mortality than the lack of fuel. Children in developing countries are more susceptible to infected food and water, than not having warm water to wash in.

Page 25 - 1st para. - "small fields for domestic use" gives a totally false impression after reading the previous paragraphs. The uninformed will imagine that the Bank is providing personal oil and gas fields for the use of LDC poor. Maybe the author thinks so!

Mr. Donald Strombom, Asst. Dir., URB
THROUGH: Friedrich Kahnert, Chief, URBOR
Michael Bauer

March 3, 1980

WDR III - Meeting to Discuss WDR III Background paper entitled
"Human Resource Development and Economic Growth in LDCs"

1. Mr. Chenery chaired a meeting on March 3 at 11:00 in Conference Room I-8-218 to discuss the above paper which was prepared by Prof. David Wheelles of Boston University.

2. The paper attempts to respecify macro-economic growth models in ways which allow for the inclusion of basic literacy, health and nutrition in consistent, believable and measurable ways.

3. Prof. Wheelles introduced his paper, mentioning that up till now only cross-section studies exist on the inter-correlation among measures of economic performance, public policy decisions and basic social indicators. However they are static exercises.

4. Wheelles's paper attempts to draw together the insights of conventional growth theory and recent work on the role of human resource improvements in LDC's in a formally specified model of the development process. Secondly it casts this model into stochastic form and fits its parameters to the available data using economic and social data for 88 poor countries collected by the World Bank. Econometric estimates have been obtained for a multi-equation dynamic model which incorporates numerous interactions between human resource development and the conventional "sources of growth".

5. Finally the model proves that variables like nutrition, health and education etc. have an impact on growth, but it depends very much on the circumstances of the specific country.

6. Wheelle's paper was extremely difficult to read. Even the econometricians of WDR III admitted that they had difficulties reading and comprehending it. This is probably why at the beginning of the meeting Wheelles distributed a summary report of his paper.

7. There was consensus, that the preliminary findings don't allow any policy conclusions yet. Further it was criticized that some of the econometric models have been rushed and need further work. However the attempt of Prof. Wheelles was regarded as a very useful enterprise expanding traditional growth theory.

66: Messrs. Churchill, Dunkerley, D. Jones, Cook (URB); Scott (LCPUR)

MBauer:cc

Mr. Adrian Wood, WDR Core Team

February 27, 1980

Masood Ahmed, EGY

WDR-1980 - Energy Sector Information Update

1. I would be grateful if you would make the following amendments to Table 2 attached to the short note on the Bank's involvement in the energy sector, which I sent you on February 11:

- (i) The loan amount for the proposed Peru Oil Rehabilitation project should read \$32.5 million rather than \$34.0 million.
- (ii) The two projects proposed for Bangladesh and India are now expected to go to the Board during this calendar year.

2. The second of these changes implies that we now expect 24 projects, including 10 development projects, to go to the Board during this calendar year, instead of the 22 and 8 petroleum sector projects referred to in paragraphs 4 and 7 of that note.

cc: Messrs. Rovani, Friedmann, Sheehan, Bharier, Bourcier, Elejalde, McCarthy (EGY)

MAhmed:tw

February 27, 1980

THROUGH: Mr. J. Hendry, Asst. Director, EAPDR
J. L. Searce, Acting Chief, EAPED
Nat Colletta, EAPED

World Development Report (WDR III) - 1980

Attached are copies of the background paper entitled Social and Cultural Influences on Poverty-Oriented Human Resource Development Policies and Programs, and a supplementary select and annotated Bibliography on the same topic. I prepared these documents for the WDR III while on partial secondment from the Region.

I would like to express my thanks for the opportunity to participate in this stimulating, and I hope useful, activity.

Please feel free to share these documents with my colleagues in the Region.

Attachment:

cc: Mr. Paul Isenman, WDR III
Mr. Peter Knight
NC:aa

Yellow

F 338

OFFICE MEMORANDUM *DPA - World Dev. Report*

TO: Mr. R.J. Cheetham, EPD

FROM: Johan de ~~Leede~~, WA2

SUBJECT: SENEGAL - World Development Report

DATE: February 26, 1980

1. On the request of Mr. Mathieu, I summarize in this memo my oral comments on the figures of Senegal.
2. We have small differences in the historical figures. Our figures are based on the IMF presentation with some modifications according to DPS instructions. Apparently for your presentation, you use the crude IMF figures, however, this still does not explain all differences.
3. Your estimations of the current year differ widely from the figures on which we agreed with the Monetary Fund and Government. The most glaring example is your GNP growth for 1980 which you estimate at 6.6 percent positive whereas the Bank, Fund and Government expect a decrease of about 5.7 percent. All your current account expectations are much more optimistic than ours. We wish you were right.
4. On the medium term (1985) differences are smaller, but your figures are obtained by an inexplicable fall in the growth rate of groundnut exports.
5. I cannot escape the impression that this type of divergences between the economists in two different sections of the Bank will damage the image of our work. Since we have processed all our figures on computer according to the standards of DPS (in fact DPS does the job), we wonder whether it would not be possible to use this work as a starting point, so that we can discuss the assumptions with which you do not agree.
6. We enclose a set of CPP type tables with our latest forecast which we are glad to discuss with you. We object to the publication of your figures since they will confuse the policy discussions on Senegal.

cc: Messrs. de Azcarate
Westebbe
Payson
Palein
Mathieu

JdeLeede:rkm

Mr. Russell Cheetham

January 27, 1978

Jean-Paul Dailly and Dave Moses

Exploring Photocomposition Capabilities

1. As part of our effort in exploring attractive ways for producing the statistical annex of the World Development Report, we have discussed with a vendor the use of photocomposition. We met with staff of American Management Systems, Inc., and Computerized Publications, Inc. We described to them the proposed approach for publishing the statistical annex.
2. After listening to our description, they described their capabilities as follows:
 - They claim to have a generalized system capability that could handle any file in any format and produce photocomposition copies;
 - The way they operate is:
 - a) We would provide them with the technical specifications of our file;
 - b) They would meet with us and extract information on the publishing specifications such as table format, type size, type style, etc.
 - As to the overall timing for standard photocomposition jobs, they claim to be able to produce finished camera copies in 21 days after receipt of our tape file and specifications;
 - Their software enables them to process the file so as to obtain the final report directly, i.e., they can retrieve data to be printed on a selective basis from our file, computing derived data aggregations and creating the final copy of the annex.
3. The elements of cost are as follows:
 - a) The programming time, based on the number of days to develop software to process and convert our file into their format. Their daily rate is \$400.00. Program development cost is a one-time cost as long as the annex remains the same for subsequent publications with different data; therefore, programming costs can be amortized in that way.
 - b) The volume of data to be processed;

c) The extent of photocomposition based on the type size, font, and the print density of data. This is reflected in a price per page.

4. The firm can also produce photocomposed copy from manuscripts provided to them - which may be an advantage in the case of the annex.

5. CAD is presently looking at systems which can integrate the report preparation phase to the data base itself. Among other systems components, they are exploring the feasibility of systematically using photocomposition capabilities to produce more attractive copies of Bank's publications.

6. We believe that the development of standard report formats with a photocomposition capability would reduce the need to develop sophisticated reporting programs to meet diverse needs - while generating an attractive presentation. In terms of EPD systems development, this would mean that a part of the efforts normally devoted to output procedures could be shifted to input and storage procedures so to improve the quality of our data banks.

7. As to the annex, following Mr. Chander's suggestion we have contacted Mr. Merrim and we will be following up with Mr. Dinesh Bahl of the Information and Public Affairs Department. We understand that they are working on preparing the final format for the WDR, including format, graphics, color presentation, etc.


cc: Mrs. Hughes
Mr. Muller
Mr. West
Mr. Barger
Mr. Aggarwal

JPDaily:ss

OFFICE MEMORANDUM

TO: Mr. Akbar Noman

DATE: January 24, 1980

FROM: Nicolas A. Lethbridge, URBOR SUBJECT: WDR - Note on Urban Projects

Attached is an expanded draft of the note, which incorporates many of your and others' comments. It is not yet a final or satisfactory statement - it is still very weak in terms of providing specific examples. I shall be away until the end of February, but if it transpires you would like specific examples in support of any of the points made, and they are not already provided, Callisto Madavo has said he would be happy to help provide you with them and if necessary draft an additional paragraph or two to describe them.

cc: Messrs. Isenman (PPR); Churchill, Strombom, Dunkerley, Cook, Madavo, Kahnert, Shalizi, Temple, Patel, Cohen, Ford (URB)

NALethbridge:bb

NOTE FOR WDR

Targeting and Urban Projects

The Bank has been involved in promoting and supporting urbanization projects for almost 10 years. The first loan, a sites and service scheme in Dakar, Senegal was appraised in 1972. Since then the scope, nature and complexity of our projects have changed considerably and our approach has remained pragmatic, flexible and to some extent experimental. It is difficult, therefore, to define precisely what an urbanization project is; it has come to be a variety of things and in most cases tries to satisfy multiple goals. The term covers sites and services, slum upgrading, comprehensive city development investment programs and invariably now includes components in various sectors: housing, sanitation, water supply, education, health nutrition and employment generation.^{1/} In general, projects can be characterized as ones in which land is urbanized or developed^{2/} primarily for the benefit of lower income groups and therefore include both the physical product and a particular view of the process involved. The appropriate coverage of the package of physical facilities and institutional organization provided will, of course, vary from place to place. While these projects defy a common physical or institutional description they all share one fundamental objective: to demonstrate technically sound, affordable, and culturally acceptable ways to enhance the capacity of urban areas to service and absorb productively the inevitable and rapid increase in urban populations.

Annual rates of urban population growth are typically almost twice the rate of overall population growth in most developing countries. Of this increment the poor are the major element, failing often to find adequate employment or access to services in cities into which they migrate or are born. Currently about a third of the urban population are poor^{3/}

^{1/} Urban projects also include other components such as urban transport and solid waste management. These are not highlighted in this note because they deal more with aspects of overall city efficiency rather than impact directly on the urban poor target groups. As such they are less affected by the project design methods which are the main focus of the note.

^{2/} Involving the provision of mixed infrastructure on specific parcels of land.

^{3/} According to IBRD definitions of poverty.

(about 280 m) and it has been estimated that by 2000 as many as half of a total urban population of 1.2 billion, could be so described unless specific programs are launched to better absorb the poor into urban areas.^{1/}

Conventional urban investment, management and financing techniques have obviously failed to absorb this growth or to provide for the demand for shelter, basic needs or sufficiently productive jobs to permit such services to be purchased or financed. Since additional resources for rapid urban development, even if justified, cannot easily be diverted from other sectors of the economy, new and lower-cost techniques must be found to cope with such rapid and impoverished urban growth and the resources to carry them out must be generated out of urban and in most cases local surplus.

Urbanization projects are an attempt to begin to develop some of these techniques. The principal differences between the approach taken in an urban project and in projects in other sectors involved with urbanization, such as transport, water supply or sanitation infrastructure projects (and in human resources development projects in education and training, health nutrition and population) lies in the population and area specific focus to an urbanization project compared to the more usual single system or single sectoral focus of the others.

The focus on target groups and target areas arose for a number of reasons and has a number of implications about the projects themselves and about the whole question of human resource development and basic needs. The purpose of this note is to briefly review and examine these. As experience and confidence have developed with these projects and their scope and ambitions widened so additional questions have arisen. Some of these are also discussed (Section VII).

II. Urbanization is a process and not a product (or a defined output). Faced with generalized failure of existing institutions, and investment planning and urban management procedures to cope with current rates of urbanization, the Bank early on decided to adopt a project-specific and

^{1/} See "Task Ahead", Shelter Basic Needs Paper, Johannes Linn's paper: "Policies for Equitable and Efficient Growth ..."

poverty-oriented approach to launch its lending for urbanization. The reasoning was that, even without generalized sectoral theories or priorities, these projects would begin to satisfy obvious needs (which would have to be addressed under any theory) of low-income populations with integrated packages of inputs applied on a localized or target group basis. Existing political and institutional realities would probably not have allowed sector or system wide response to urbanization even if generalized responses could have been formulated or financed.

Concentrating on discrete projects and discrete locations and households has led to the individual target group design methods adopted and to the criteria of affordability and replicability which have characterized project design, its justification, and implementation. Fundamental to an urban project is the belief that without radical changes in overall policies of urban management, finance and administration, the public sector would be unable to support programs to integrate the poor within the urban economy and to service their basic needs on the required scale. These projects represent a conscious decision to distinguish between a general urban development system approach on one hand and specific, initially localized, urban poverty programs on the other. Each specific project should therefore be self-financing, and apart from such customary costs, as main roads, which the public sector can bear, costs must be recovered from direct beneficiaries.

As a result of this insulation from general urban systems or models, projects have invariably started from ground surveys of household income, demand and behavior patterns in particular neighborhoods. Thus households and neighborhoods have been both the focus of analysis and the point of impact: an emphasis which has determined project scope, the component mix, and institutional design. As a result these projects do not provide for disaggregated or specific sectoral needs and inputs but are intended to respond to the integrated and comprehensive requirements of area-specific development and of household demand for increased urban services and income generating opportunities. Urbanization projects then, as they have evolved, do not embody a particular investment paradigm or mix but rather a design approach, which if followed on a large enough scale

would fulfill their primary goal mentioned earlier. They are thus a demonstration of a method of urban development planning and management rather than a model of appropriate urban design. 1/

The identification of the target group itself has been pragmatic, determined by conditions found through surveys rather than by a predetermined class such as the smallholder in rural development projects. Although project neighborhoods are pre-selected to include concentrations of poor urban households, the actual mix of beneficiaries will vary depending on what is found on the ground and direct beneficiaries will often be from a range of the income distribution. This does not mean that project areas are chosen at random, quite the reverse. In fact, a geographic and household focus is a particularly easy way of identifying the poor (possible often from simple inspection) and more importantly provides a direct and tangible vehicle through which to deliver identifiable benefits to them; particularly in an environment where management and institutional capacity to deliver sector specific poverty programs are weak. The fact that urban areas are seldom homogeneous with respect to income groups does not undermine the general proposition but makes the poverty bias of these projects easier both politically and financially. Once the area is identified and a household survey made, project components, standards, design and financing are then linked directly to the revealed characteristics (income, household composition, service availability, etc.) of this target population.

With no predetermined notions about standards, a strict discipline is imposed on project designers. The resulting investment is scaled directly to what local people can afford and are willing to pay. In some cases, this has implied no more than bare minimum water provision and the registration of plots for families 2/. Cost recovery is important

1/ It is implicit that these projects might lead to a model of appropriate overall urban design and management strategy. Whether they do or not depends, amongst other things, on the validity or feasibility of an atomistic approach, when multiplied, as the basis.

2/ E.g., Tanzania National Urbanization Project.

to ensure that additional resource burdens are not placed on the public sector and that standards are held down to the affordable levels. Otherwise the very poor would go unserved and be without shelter or adequate public health. 1/

A corollary of this design approach is that projects also seek to emphasize progressive further development through asset creation and income generation. Frequently the project will not enable any general standards of services, such as those of WHO for water consumption or perhaps national standards for living space, to be met. Without questioning such standards as long-term goals, the underlying premise of urban projects is that communities can only approach them through progressive development and upgrading and that the project is a first step in a long process of consolidation, maintenance and income growth. This emphasis on asset creation both applies to physical assets and explains the inclusion of investments in human resource development and an emphasis on community development and participation. Indeed the underlying overall strategy of these projects could properly be described as attempts towards household and community resource development programs.

As far as physical asset creation is concerned, the projects seek to improve the long-term economic well-being of households through a combination of urban land reform, infrastructure provision, and house construction and improvement. Through the provision of long-term credit, 2/ households gain access to and ownership of these assets, thereby finding opportunities to invest and so to increase savings and long-term income. The importance of land in this process cannot be overemphasized. Land reform is no less important in urban development than in rural development programs, and an important parallel exists in the goal to create more smallholders in both urban and rural development projects. In both slum

1/ Of course public subsidized programs can and do reach the poor but usually cannot be made replicable on a sufficient scale to ensure all the poor can be reached within a reasonable time--if ever.

2/ Usually to finance both land improvement through infrastructure provision and for house construction.

upgrading and sites and services projects, security of tenure is a major incentive for households to upgrade and expand dwellings and to invest in income earning activity such as subletting rooms, or starting a household-based small business. 1/ Often, simply the provision of infrastructure to an "illegally settled" urban area will itself engender considerable and spontaneous investment and improvement as poor households perceive a diminished risk of eviction. With land, families can also gain access to credit, usually arranged through the project, and to formalized lending institutions to finance capital accumulation.

No less important are the implicit human resource development and human capital accumulation objectives embodied in most projects at both the community and household level. Although there is evidence that the extent of the self-help (narrowly defined) in house building, etc., is less than was initially expected, the self-reliant, community-based implementation process achieves considerable consciousness raising amongst target groups about their ability to gain access to and exploit the urban economic system from within their own means. Indeed the success of these projects will depend crucially on the degree of community participation achieved--important anyway to achieve cost recovery--but more so perhaps as a demonstration that low-income communities can be brought within the urban economic system, generate savings and through their own effort increase income, gain access to services and accumulate human and real resources.

The inclusion of clean water distribution and sanitation and waste disposal systems also finds a major justification in terms of health

1/ Recent urban projects invariably contain an "employment component", usually infrastructure, credit and some technical assistance for very small scale industry. In only one case so far has monitoring of this component yielded hard results, as in El Salvador, where both considerable demand and productive uses for this credit have been demonstrated by very small borrowers. See Case Study: The Small Business Component in El Salvador (Urban Projects Department).

improvement and therefore human resource development rather than simply as a consumption service. But improved water supply, usually through the provision of standpipes or distribution systems that reach areas of poor population, is also, along with land, a very powerful part of these projects. In almost all cases, project preparation household surveys indicate that cheap, reliable and convenient water supply is the urban service most frequently in highest demand. Furthermore, demand is seldom a constraint (unlike, say, sanitation and waste disposal) since costs and charges and for public water supply provided through public standpipes, at affordable densities, are invariably cheaper (and cleaner) than the private water carrier services which are replaced. The provision of water, through improved or extended distribution, is clearly a most effective way to bring both consumption and human resource (improved health) development benefits to the urban poor by both increasing its availability and reducing its costs. Research in Cartagena and Karachi, 1/ has also shown water availability to be highly significant in explaining variations in housing quality and value in low-income areas and in leading towards spontaneous investment in housing and environmental improvement. This may be partly on account of the perceived confidence in security of tenure which the provision of water apparently provides low-income households. From a resource transfer point of view as well, provision of water appears a particularly strong vehicle allowing cross-subsidy without undue distortion. Demand for water from house connections and among middle- and upper-income consumers is relatively inelastic, allowing prices to rise to cover costs of standpipes, and distribution to poorer urban households.

III. A recurrent theme of urban projects is that being integrated and multi-sectoral there are synergies to be exploited by focussing on area development 2/ which separate sectoral interventions would miss, even if each were designed to the same standards and on same principles as those just described. The land reform measures which accompany these

1/ Strassmann, Cartagena study; Van der Linden, Karachi Study (URBOR).

2/ Which can then be repeated area by area.

projects are a good example since they would probably not come about unless a number of investments are made and measures taken simultaneously on a particular land parcel. Interdependence is less well proven with respect to the mix of components in particular projects and we are yet a long way from having developed a theory, or having gained much empirical understanding of the relative contribution of individual components involved and some of the components of typical urbanization projects remain less well founded in either theory or practice. 1/ This is particularly true of components in the traditional human resource sectors: education, health and nutrition. Although almost all projects contain components in these areas, the basis for their inclusion and for determining standards and scope is less well developed and the results are not necessarily superior or different to those generated by investment as part of an individual sector policy 2/. Therefore it is doubtful that our experience in these sectors yields much direct or additional insight.

Rather, the lessons to be drawn come from the effects on human resource development of comprehensiveness or packaging itself. These are difficult to describe and even more so to quantify, but some qualitative statements are perhaps useful. Two broad areas of effect can be mentioned. First comprehensiveness, and a specific household group or area focus allows the incorporation of elements in various sectors and ensures that they be more difficult or take longer if they were to be carried out as part separate sector programs. Thus a considerable advantage of this type of project is that many independent capital investments can be costed and recovered as a package, financed through long-term mortgages or loan repayments from the direct beneficiaries. In a typical project,

1/ For example, the economic justification for these projects has never yet included an analysis of how the overall rate of return would vary if components were omitted, added or changed in relative size to one another.

2/ In many cases these components are not necessarily included as part of the overall framework, but rather simply as a matter of exploiting the opportunity and convenience an urban project provides to reach the target group in these sectors. Thus it is a matter of administrative independence or synergism rather than anything theoretical.

costs of subdivision, capital costs for water supply (standpipes or house connections), for sanitation and waste removal, local streets, sometimes some community facilities, as well as individual plot development costs are all consolidated into the individual beneficiaries' loans. Without such a procedure, particularly for items without demonstrated and revealed demand, such as sanitation or nutrition, these investments might not be made, be considerably deferred, or not reach target groups most in need. Furthermore, the fact that the targetting approach adopted usually results in a range of beneficiaries in terms of income group, besides allowing scope for some cross-subsidization, allows some leakage towards higher-income groups and often makes many of these components politically easier to implement.

Another, again qualitative, but no less real benefit which targetting and mixed investment bring, is community development. This again is a symbiotic matter: community development is vital to the success of the project--particularly to ensure cost recovery--while the comprehensive nature of the project and its emphasis on self-reliance, mutual help and self-finance tends itself to build communities. By making apparent some obvious externalities associated with cooperative and comprehensive development, awareness is developed in these communities that they can be absorbed within the formalized urban sector. Examples of this induced community development can be found in mutual help programs in El Salvador, in projects where community facilities are built or developed (sometimes independently of the project itself) and in programs for the maintenance of communal assets, as in Lusaka. In terms of human resource development, this community development is a most striking feature of urbanization projects and another most important benefit. Nevertheless, it is extremely hard to quantify and our monitoring of it and research about it are only just beginning. 1/

1/ In one of our projects, a sociologist has been recruited to live on a project as a project beneficiary to monitor more closely some of these aspects.

A possible additional benefit of having various but integrated components based on local surveys and affordability analysis is that both local perceptions about priorities between various needs are revealed and the project designer is forced to assess priorities and allocate resource between sectors or components. For example, the relative importance of land reform, water and sanitation, public health and community development 1/ to any strategy of poverty relief or human resource development was not as clearly perceived when these projects were first implemented. As they have evolved, there has been a noticeable trend towards concentrating on these elements (in which anyway the public sector has prima facie a comparative advantage) and away from an earlier emphasis on shelter or superstructures and materials loans per se. This would probably not have happened had projects been specifically concerned with shelter and devised shelter-specific delivery systems.

VI. None of the urbanization projects so far undertaken with Bank assistance has yet been completed. 2/ Therefore, no conclusive evidence is available on such long-term objectives as stimulating progressive development and improvement or maintenance of assets, the improved health, productivity or income effects arising from an improved environment. 3/ Nevertheless, it has now been demonstrated that it is possible to design and produce very low-cost urban and shelter environments which reach, are demanded by and are affordable to the very poor, and that provides them improved circumstances and living conditions. These projects have also

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- 1/ Implied high shadow prices for these items with regard to certain human resource development and poverty programs.
- 2/ For detailed descriptions of projects and a review of our supervision experience see (a) "Project Implementation and Supervision," Projects Advisory Staff, (b) "Urban Projects in Eastern Africa, The Experience and the Future", Tager and Patel, December 20, 1979.
- 3/ It should be stressed that almost all projects contain funds for monitoring, but most are still too young to have allowed concrete results to be discerned. Detailed evaluations are being carried out for projects in El Salvador, Zambia, Senegal and Philippines. Some interim results are available from DED.

demonstrated that with adequate incentives, especially security of tenure and access to services and perhaps credit, low-income communities can and do invest considerable resources in urban improvement and human resource development and can be integrated to the urban economy. In all projects, with possibly one exception 1/, demand for land and minimum services from the target group has far exceeded supply. The evidence suggests that these projects do provide a way to redirect urban investment patterns in a manner conducive to absorbing large increases in urban populations, especially the poor; and experience confirms that shelter projects can be designed which result in acceptable dwellings, utilities, and other services at overall costs representing a fraction of conventional low-cost housing programs.

Furthermore, this search for low-cost solutions has proven acceptable to and is now often welcomed by the countries concerned. In the early 1970s only a few countries were willing to explore these new approaches, but today the demand for Bank assistance far outstrips our available resources or our capacity to process projects. More significant, perhaps, is the growth of institutions, both local and international agencies, which are mandated to promote these types of projects.

Of course, many questions remain: how far down the income scale can realistic benefits be brought using this type of income-affordability determined standards? Or how far down do these projects actually reach, especially in the poorest countries; and do these benefits remain with the target group or filter up over time? It is possible to be reasonably confident on both these issues. For one thing, in the low-income countries, both costs and acceptable standards are also lower. In a recent project in Tanzania for example, upgrading costs of around \$50 per capita have been realized and are well within the means of the lowest income groups on a long-term basis. Although the standards are very low, comprising primarily

1/ A project in Dakar, Senegal.

water distribution and plot delineation and regulation, the project clearly improves the welfare and asset base of the very poor. In other cases, most notably in sites and service projects, the fact that families can build and then sublet a room on a plot, often before the family itself moves onto the plot, is a source of income which allows benefits to flow to the very poor as plot holders and also as tenants in very low rent accommodation. 1/

In upgrading projects the very poor gain access in a number of ways. Most obvious is the fact that where a generalized area is being improved, all income groups will benefit. In some more recent upgrading projects, the direct link between direct beneficiaries and cost recovery has become more tenuous, so costs can be spread across more income groups and recovered through generalized local taxes such as increases in property tax. This obviously permits benefits to reach lower down the income scale. In the Kampong Improvement Project, for example, in Indonesia, a generalized and phased area-by-area approach towards upgrading indirectly financed through local taxes is now well advanced and has covered over two million people and benefits reached all income groups of the city. Even if rising land values tend over time to push the poorest out to more peripheral or lower-standard environments, they will still have benefitted by a one-time transfer. We have yet very little data, on the extent to which this actually happens and what happens to the household thereafter.

In fact, many projects are now being promoted as programs (as in Indonesia, or other examples in Nigeria, Philippines, Colombia, Brazil, etc.) and important issues about the future development of these and similar types of target group specific programs are therefore now emerging. In many ways this is a result of the success and robustness of the type of project. There is no doubt that the underlying importance of the target-area or target-household approach is instrumental in forcing the necessary coordination between various infrastructure and institutional components to urban development but its effect has not always been exactly as expected and a strict implementation of affordability project design

1/ Nevertheless it must be true that a cost recovery from direct beneficiaries criteria in a sites and services project is bound to preclude some of the poorest. Thus some households will be excluded because they cannot afford to make the project affordable.

criteria not always possible. For example, the emphasis on exploiting individual self-help and generating savings has changed towards one of self-managed construction and community-based self-help and development. Similarly, the desire to provide shelter as an integrated package has led to a greater than expected emphasis on coordination of infrastructure distributor systems and capital budgeting at a municipal level rather than self-help itself. Projects are adjusting from individual shelter projects towards programs of area-by-area (and in some cases city-by-city 1/) development of low-income urban land. It may well be that some of the characteristics of the original projects and the design approach they embody are not entirely appropriate to expanded city-or system-wide investment programs which are bound to confront sectoral policy and generalized urban development issues such as urban finance and resource allocation between sectors. In particular, the question of what precisely is meant by replicability, and what the constraints on it are, assumes greater and greater weight as attempts are made to generalize and expand the approach. Yet, these are some of the very questions which the target group design approach has helped to isolate these projects from.

VII. . . Our experience does not lend unchallenged support to the view that costs are actually recoverable from direct beneficiaries, at least not without some overall political and policy changes. It is still too early to draw any firm conclusions, since many projects are only now reaching the stage where collections are made or new charges levied, but the indications are that repayments cannot be automatically assumed. Since all projects are explicitly designed to ensure that costs are well within the means of the direct beneficiaries, affordability does not seem to be the constraint. Rather, poor collections can be primarily traced to the lack of a tradition to pay for most government-provided services, the lack of legal mechanisms and an institutional capacity to collect often very small payments, and the absence of the political will to initiate payments or enforce sanctions (evictions) for nonpayment. But, the poor collections may also point to some of the shortcomings inherent in the targeting approach which has been adopted. Indeed until collections

1/ E.g., Colombia, Brazil, Kenya, Indonesia, Nigeria, Philippines and others.

can be relied upon for project financing, the claim that it is possible to design and implement these programs on the scale necessary without public subsidy remains in doubt, and the question whether one can reach the very poor in an effective way without subsidy even more so.

The range of issues which are raised by the question of subsidies and financing urbanization projects and by their institutional and administrative aspects are large and mainly beyond the scope of this note to analyze or discuss in detail. However, the ground up and targetted design process, which has been described, powerfully influences the financial and institutional mechanisms which are used. One of the implications of area- and household-specific project design and the affordability criterion has been that the financing plan must also be endogenous to the project, and therefore localized. Although transfer payments can be exploited by differential pricing for direct beneficiaries within the target group or area they have generally been ruled out from outside it ^{1/}. Furthermore, targetting of benefits to specific and poor households has also led to pricing policies which recovers cost rather than maximizes return. In the case of sites and services this means non-price-allocation procedures are required and both in sites and services and upgrading and means windfall gains are inferred for direct beneficiaries. While projects are sporadic and have demonstration as a major goal, these effects are probably justified and so long as the targeting works, the windfall gains can be justified as a means of asset creation or transfer to the poor. But the very exploitation of internal project cross-subsidies, now commonplace in almost any urban project, both challenges the affordability criterion, questions replicability and reexposes these projects to many systems-wide urban development issues and sectoral planning methods. For example, it allows again the conundrum of how to determine appropriate, affordable standards or the replicable mix of beneficiaries in isolation of an overall system analysis or policy.

^{1/} As previous examples show there are notable exceptions to this rule, e.g., Indonesia.

Some obvious questions will have to be faced. Are the implicit windfall gains an efficient way to transfer income over time, and so they remain with the target group over time? 1/ Even at the project level the question of whether to maximize internal surplus and then, through cross-subsidy, provide higher standards on average or to concentrate on delivering minimum services to a greater number has not been systematically resolved: for by concentrating on a specific set of households, the question can be avoided, but at the generalized level of providing services to the whole population level it cannot be. At the more general level, the distinction between internal cross-subsidies and generalized subsidies largely disappears. For example, it is by no means obvious that urban services and shelter benefits provided by these projects should not be sold at market prices (in many projects estimated at twice or more than twice actual costs) and the surplus reinvested or transferred in other ways, or reinvested in an accelerated program of low-cost urbanization. Indeed it is not yet proven that a program of target group specific investments will lead over time to increased production of urbanized land suitable for and accessible to the poor.

Additional complications about finance, subsidy and replicability and raised by the allocation of costs in a particular project between direct beneficiaries and public funds. Typically capital costs for such services as are normally provided through general revenues or user charges or both are not recovered from the direct beneficiaries of an urban project. In some cases the matter is clear cut, such as much off-site infrastructure like water supply head works or main transmission lines, but in other cases the distinction is more murky. Examples include--and practice varies widely between projects and between countries and cities--cost recovery on roads, sanitation infrastructure, land and community facilities. Once again, as and when the approach is adopted on a systematic basis, very careful and longer-run system or city-wide analysis will be required.

1/ For example, it can be hypothesized that these gains return to higher income landlords as plots are sold by original beneficiaries and rents rise.

There are also areas where experience is indicating that early projects made insufficient cost allowances--and this too challenges long run affordability and replicability. Maintenance costs (both public and private) are a good example, as are the costs of progressive improvement. Given the very low standards provided in these projects, maintenance spending and management is bound to take on increased importance and imply long run costs. Recently much more attention is paid to this question, but it remains a puzzle. Allowing for future maintenance burdens and at the same time constraining standards to currently affordable levels implies lower starting costs (unless increased income more than offsets maintenance costs). But lower standards imply higher maintenance. A robust method for analyzing the design implications of this trade-off has not yet emerged. In any event it would have to reach beyond the confines of the target group, target area and specific project.

Similar system or macro questions are provoked by rapid inflation in the short run and by the planned incremental improvement strategy which is the long-run foundation of this approach towards development. In the short run, equity demands that households of similar income should at least realize similar real benefits, but the two-to four-year implementation period of a project can jeopardize this if building costs are rising faster than poor households' incomes, as will normally be the case. To counteract one could include premia on the payments for early beneficiaries and apply these to subsidize late beneficiaries, equalizing the windfall gain among project beneficiaries. Such an approach would be impossible, if not unthinkable, on a long-run programmatic rather than short-run project basis. The question with respect to long-run progressive development is perhaps more serious. A beneficiary in a typical urban project assumes a long life debt, often up to 25 to 30 years. The asset's economic life is determined by his current repayment capacity and as a result may need considerable

maintenance to ensure a value at least equal to the principal outstanding on the loan.^{1/} Thus even to maintain the low standards supplied in the initial project, rising real incomes must be implicitly assumed. The fact that many projects explicitly count on progressive improvement and continued development underlines the fundamental requirement that these projects do also lead to increased savings, asset creation and incomes, and so reinforces need to monitor carefully the extent to which they do so.

The comprehensive nature, and the area of target specific definition of project components has led often to complicated management and financing plans requiring specialized project coordination, management and financing plans. So far project management has generally been the weakest link in project implementation and underlies the delays in implementation schedules and the problems experienced in the operations and maintenance of projects, including collections. The institutional concerns of our future projects are much wider than the functioning of the principal implementing units. Not only are many other agencies involved but new procedures have to be conceived and established. The new procedures required in providing titles in upgrading areas, for example, involves liaison with many local and national agencies, detailed new regulations and often new laws, and new staff for issue and recording and for compliance control. We are only now learning how such institutional arrangements can best be planned in advance and timed in practice.

The concern that comprehensive investments of this sort may have to be tempered by weak management capacity and that comprehensiveness itself has costs, opens up the entire question of both the mix or proportion of various components and their phasing. When confined to a specific

^{1/} It should be stressed that this problem applies primarily to superstructures and particularly in very poor countries where short life materials (such as stabilized mud) are all that are affordable. Partly as a result of these considerations it is also worth noting that the trend towards upgrading and basic site preparation in our projects away from an emphasis on superstructures towards an emphasis on improving the general availability of building credit to poor urban households, is at the same time, itself a trend towards providing only long-life but affordable infrastructure.

target group, this mix is largely determined by survey findings of demand or need and by affordability criteria. However, difficulties with implementation and the financing implications of a systematic program will force greater attention to be paid to priorities and to determining the marginal contribution of each input towards the observed results.

VIII. The upshot from urban project experience with poverty relief, targetted interventions and human resource development cannot therefore be easily discerned or succinctly put. Many issues remain to be resolved, but there are undoubtedly some conclusions which are important and worth restating in summary.

The major result is the demonstration that it is possible to design, finance and implement very low cost urban and shelter environments and that they can be delivered to, are demanded by and improve the economic and material circumstances of the very poor.

Targetting, particularly the concentration on specific areas and households, rather than extending individual sectoral systems, is instrumental in achieving this, by assisting in identifying component choice, forcing a concentration on providing affordable, internally determined standards of service rather than attempting to spread a given standard and by placing an obvious emphasis on designing institutions which actually deliver specific and identifiable benefits to a specific area of land and set of households.

The target group should normally be widely defined, both to allow some benefit to richer or middle income families to gain political support and also to exploit scope for cross-subsidization, particularly where demand for services among the rich and middle incomes is relatively inelastic as appears to be true for water.

By increasing opportunities for the poor and their access to urban markets for both services, jobs and credit, it is already clear these projects do bring forth a savings response (both through direct labor

input and from income) which via asset accumulation and direct income gains does help the urban poor to break out of a low consumption poverty trap.

The importance of urban land reform and land management for achieving these objectives is fundamental. Water supply distribution and sanitation seem especially important as catalysts for spontaneous investment in urban areas besides their obvious role in terms of public health. Equally important is community development and the role that self-help, targetting and specific institutional design is to fostering it. In the area of human resource development, in terms of improved education, training, nutrition and family planning for example, the manner in which these projects do provide a vehicle for engendering community awareness and development is perhaps more important and significant than the direct effects of the specific components.

For urban poverty programs or human resource development, an area focus appears to be effective as a means of both identifying and, more importantly, determining institutional design and delivery strategies which can be relied upon to channel benefits directly to target households. It also provides a methodology to determine appropriate standards and forces careful attention be paid to intersectoral priorities and resource allocation within an integrated, albeit local, development strategy.

I. Hinkle
Sarshun (wife)
Dale
Boone

OFFICE MEMORANDUM

TO: Distribution

DATE: January 10, 1980

FROM: Paul ^{PI}Isenman, WDR

SUBJECT: World Development Report: Draft Paper on International Migration

See Report

Attached please find a preliminary draft of a background paper by Ricardo Moran on international migration. A meeting to discuss this will be held next Thursday, January 17, at 2:30 pm in Room I-8.218. You are cordially invited to attend. Written comments would also be much appreciated. Please send them to Ricardo, with a copy to me.

Distribution

Messrs. Burki, Bussink, Chander, Cheetham, Chenery, Chernick, Colaco, Colletta, Davies, deAzcarate, deLeede, Dubey, Duloy, Ecevit, Edelman, Grawe, Gulhati, Hasan, Hawkins, Haq, Hinkle, Holsen, Hume, Humphreys, Kavalsky, B. King, Lethem, Meo, O'Brien, Pennisi, Pfeffermann, Sciolli, Selowsky, Serageldin, Stocknat Streeten, Thalwitz, van der Mel, Waide, Zachariah,

Mrs. Hughes
WDR Core Group

1/11/80

Mr. Roger Grawe, ASADB

January 9, 1980

Gilbert T. Brown, ASNVP

South Asia Human Development Background Paper

Background

I would like to amplify my suggestion that your paper for WDR III on Human Resources Development should focus more on the strategy to achieve such development. There is a danger that unless questions of alternative strategies are addressed, WDR III may merely become another of the documents extolling the virtues of health and education and creating more pressure on governments to merely increase education and health expenditure because this is "good" or "productive", without adequate consideration as to how to most efficiently or realistically achieve human development goals in a continuing development strategy.

I am a strong believer in human resource development both as an investment concept and as a consumption or development goal. Unless we think through the consequences of alternative strategies to achieve human development (or better nutrition, health and education), however, we may make very costly frontal attacks on the problem that will be too inefficient to be successful within the available resource constraints.

As we have already discussed, the paper needs to focus more on the relationship of poverty and nutrition to human resources development. Paragraph 23 identifies malnutrition as the "most widespread and severe health problem in South Asia." Virtually nothing is said, however, about how to deal with the nutrition problem or its linkages to health, education and productivity. Any attempt to do so would lead into the role of the private sector and increasing crop yields per acre and per unit of labor.

You have also identified a close association between poverty and human development (para. 35). Again this raises fundamental questions about how to raise the productivity and real incomes of the poor, and therefore overall development and distribution strategies.

Suggestions for Paper

At this point, it may not be feasible to add too much on strategy to your paper. At a minimum, however, I would suggest several paragraphs dealing with: (i) the development strategy issues to be considered in alleviating poverty and improving nutrition, health and education levels of the poor; and (ii) the linkages between poverty, nutrition, productivity and human resource development. Key development strategy issues in South Asia would appear to be: (i) increased per labor and land unit productivity of agriculture; (ii) measures to increase employment and productivity of the poor (e.g. increasing irrigation and other agricultural-rural infrastructure, and measures to encourage full employment of labor, including agricultural mechanization and rural non-farm employment policies and programs, and avoidance of subsidies to capital); (iii) overcoming the types of sectoral inefficiencies and inequities which are well presented in your paper. Linkage questions would

Mr. Roger Grawe

- 2 -

January 9, 1980

include highlighting certain things mentioned but not developed in your paper, including trade-offs between investment in production of food and infrastructure versus human resource investment, the role of the private sector (especially in food production), the importance of policies versus expenditure programs, and the extent to which education or social change can substitute for physical investment expenditures in meeting nutrition and health goals. Not all of these questions can be answered in this paper, but they should be identified so that readers do not misunderstand our view of appropriate development strategies for South Asia.

cc: Messrs. Hopper, Wiehen, Picciotto, Isenman, Holsen,
Jansen, Pilvin

GTBrown:kr

OFFICE MEMORANDUM

Energy file

DATE: December 14, 1979

DPA WDR

TO: Distribution
 FROM: ^{PJ} Paul Iesenman
 SUBJECT: Energy Issues in World Development Report, 1980

1. I would be most grateful if you could spare the time to attend a meeting (at 11:00 a.m. on Friday, December 21 in Conference Room A-520) to discuss the treatment of energy issues in the next World Development Report. The attached note is intended to provide a starting point for the discussion.

2. Although less space will be devoted to energy than in last year's WDR, the importance and conspicuousness of the subject are such that it is essential to provide a sound and up-to-date analysis, especially in view of the decision to adopt a less optimistic assumption than in last year's WDR about the future course of energy prices. I would welcome your views as to the approach we should take. (Needless to say, written comments would be much appreciated, especially from those of you who are unable to attend the meeting.)

3. Given the large amount of background work on energy undertaken for the last WDR, no new major background papers have been commissioned. But two substantial seminars on global energy issues and prospects were held in October, on the basis of which EPD have revised their energy price, consumption and production projections in 1990. Further work is also under way on financial counterpart flows and recycling problems. In addition, I would appreciate your advice on whether (and at what stage) we should commission short updating notes on such subjects as:

- (a) Bank energy policy and projects;
- (b) energy-related developments in particular LDCs (e.g., significant oil discoveries);
- (c) recent quantitative work on the price elasticity of energy demand (and supply); and
- (d) non-commercial and non-conventional energy sources.

4. In reading the attached note, it may be helpful to you to know that Part I of this year's WDR covers global prospects and international economic issues, while Part II deals with poverty and human resources.

Distribution

Mr. Goodman (VPO)
 Messrs. Friedmann, Dosik, Fallen-Bailey, Rughart, Bharier (EGY)
 Mrs. Hughes; Messrs. Cheetham, Colaco, Singh, Gupta, Lambertini, Pollak (EPD)
 WDR Core Team

Mr. Waide (for information)

ENERGY ISSUES IN WDR 3

Introduction

1. Last year's WDR attempted a comprehensive treatment of energy issues. Several excellent background papers were prepared -- on global supply and demand in the 1980s; on the situation in three particular LDCs; on energy options and policy issues in developing countries; and on non-commercial and non-conventional energy sources. On the basis of this and other research, WDR 2 devoted 17 pages (double-spaced typescript) to a systematic and thorough discussion of energy issues in developed countries, OPEC producers, and (especially) developing countries.
2. This year, energy is to receive less emphasis; we have tentatively budgeted 8 pages in Part I for it. What should we say in those pages? What should we say about energy in other parts of WDR 3?
3. I have suggested elsewhere that energy should be treated primarily as one of a number of international trade issues. This would make sense from three viewpoints. First, internationally traded energy constitutes a large fraction of both total commercial energy use (about 25%) and total international trade (about 20%). Second, this approach would provide focus and structure, and would steer us away from the temptation of trying to cover the whole energy field in one very short section. Third, the possibility of substituting trade in energy-intensive manufactures (e.g., petrochemicals) for trade in primary energy is part of the more general issue of the location of primary product processing.
4. But wherever we fit it in, I imagine that we will be expected to devote much of the energy section to echoing last year's main recommendations, especially:

- (a) In developed countries, continued effort to exploit alternative energy sources, plus more conservation, plus more use of the price mechanism, particularly in the US. (Question: are we pushing the price mechanism merely as the most efficient way of implementing politically determined production and consumption targets? Or are we also advocating that production and consumption rates be freely determined by market forces? Does our enthusiasm for alternative energy sources go so far as to endorse subsidies? Does our enthusiasm for conservation go so far as to endorse special taxes on energy use? Or do we stop at measures, such as information dissemination, designed to make the energy market work better? Last year's WDR was a bit ambiguous on some of these points.)
- (b) Some of the same messages (and the same questions) apply to developing countries. Develop "commercial" energy sources (with external assistance where necessary).
Conserve energy. In planning, keep energy costs in mind.
Use the price mechanism.
- (c) There are also some special messages for developing countries, especially poor ones, concerning "non-commercial" energy.
Beware of deforestation, desertification, and the inefficient use of things like dung. Promote measures and devices to increase the output, and make more efficient use, of non-commercial sources -- with outside help where appropriate.

5. In putting across these important messages, it will be desirable, though difficult, to avoid the appearance of simply repeating what was said last year. Treating energy under the heading of trade would help in this regard. So would some fresh examples, culled from the press, from the relevant parts of the Bank, and from untapped parts of last year's background papers (secondary recovery). Any other suggestions?

Other Energy Issues Relevant to Part I

6. Apart from these policy messages, there are several energy-related issues which will have to be considered in Part I. Some of them might be (at least partly) discussed in the special section on energy; others will be covered elsewhere -- e.g., in the discussion of global prospects. Most of them are quite closely connected with the price of oil.

7. One, of course, is the prediction of the future oil price. This has been pretty well worked over, for example in the October 17 seminar.

8. Another important issue which we already have in hand concerns counterpart financial flows through private intermediaries, especially in relation to the "adjustment problem".

Direct Effects of Oil Price Increases on LDCs

9. Yet another issue concerns the direct impact of oil price increases on developing countries. On this, let me say that I think WDR 2 gave a somewhat misleading impression, which perhaps we ought to redress. In particular, one might not gather from reading the text of WDR 2 that the direct effect of higher oil prices on developing countries in aggregate (excluding capital-surplus OPEC) is favourable. Each \$5 per barrel increase results in a resource transfer from developed to developing countries of about \$20 billion -- roughly equivalent to

a doubling of total net ODA (but with no strings attached). More generally, since fossil fuel consumption rises much more than proportionately with income both between and within countries, oil price increases are in effect a form of progressive international taxation.

10. The problem, of course, is that the revenues from this "tax" are very unequally distributed. Each \$5 per barrel increase in the oil price channels about \$30 billion to the (non-capital-surplus) oil exporting LDCs, but syphons about \$10 billion from the oil-importing LDCs, some of which are very poor. Within oil-producing LDCs, moreover, the benefits of higher energy prices accrue mainly to the rich. And simple incidence analysis may seriously understate the adverse effect of higher energy prices on poor people in particular countries.

11. These inequities, however, should not blind us to the substantial favourable impact of oil price rises on certain aspects of the global distribution of income. Nor should they necessarily lead us to the conclusion (which of course is music to the ears of developed countries) that the price of oil should be held down in order to alleviate the plight of poor oil consumers. Instead, they should perhaps direct our attention to methods by which the oil-importing LDCs (and poor people within particular countries) might be helped without taking away the gains of LDCs as a group.

12. One such method might be a special levy on OPEC oil exports (e.g., 10 percent added to the price paid by the purchasers) paid into a special fund for distribution to oil-importing LDCs. The burden of this transfer would fall partly on OPEC producers and partly on oil consumers in industrialised countries (the division being determined both by the price elasticities of oil supply and demand, and by the degree to which compensating cuts were made in other forms of ODA).

13. A special low OPEC price for oil-importing LDCs, coupled with a special high OPEC price for developed countries, would be a (much) clumsier method of achieving essentially the same objective.

14. So would an Iraqi proposal currently being studied by OPEC whereby OPEC would compensate LDCs for rises in the price of imported oil, on condition that developed countries compensated LDCs for rises in the prices of imported manufactures. (The attitude of developed countries to this and similar proposals tells one something about their motives. We might also reiterate, perhaps a little more explicitly than last year, that OPEC countries give much more aid, relative to GNP, than OECD countries.)

Indirect Effects of Oil Price Increases on LDCs

15. Another argument for oil price restraint arises from the indirect damage that oil price increases inflict on LDCs through their effects on the economies of developed countries. The damage consists of (a) slower growth of demand for LDC exports, due to both slower production growth in developed countries and increased protectionism, and (b) greater meanness in the matter of ODA, due to slower real income growth in developed countries.

16. The analysis of these indirect effects is not always clear, and could perhaps be improved in this year's WDR. For example, it is commonly stated that an \$x rise in the oil price causes a y percentage point reduction in OECD growth. But one should be careful to distinguish between growth of (a) gross production (including intermediates), (b) real value added (net of intermediates), (c) real income (adjusted for factor income from abroad and changes in the terms of trade), and (d) consumption (real income minus investment). To see that the differences may be important, suppose that LDCs export industrial insulating materials. Increased industrial insulation due to higher energy prices will lower the OECD growth rate of value added; but it

will not necessarily lower the growth of gross production; and it would increase LDC exports. Similarly, a cut in OECD real income or consumption without a cut in production might be bad for aid but would probably not be bad for trade.

17. It is also worth asking how much of the supposed effect of higher oil prices on production is due to a change in the growth rate of productive potential, and how much to greater underutilisation of capacity. And of course it is important to be clear about the mechanism involved, which could be physical shortages of oil, deliberate demand restraint engendered by aggravated inflation or balance of payments problems, costs of adjustment to unanticipated or irregular relative price changes, deficient world effective demand caused by larger OPEC surpluses, or a decline in total factor productivity. For without a clear statement of causation, it is not possible to say what part of the current economic woes of developed countries is due to high oil prices, or indeed what remedies would be appropriate.* (Many of these comments, incidentally, apply also to the analysis of the direct effects of higher oil prices on growth in oil-importing LDCs, which seems to me to be another area in which there might be scope for progress in this year's WDR.)

18. Of course, even if the current economic woes of the developed world were held to be entirely due to higher oil prices, it would not follow that they are the sole cause of either protectionism or meanness over ODA. Other factors (unionisation, politics) have also played a role.

* For example, it would be technically possible for developed countries to "smooth" irregular oil price increases through variation of taxes and/or budget deficits. The fact that this is not politically acceptable suggests that the roots of stagflation lie elsewhere.

19. The indirect adverse effects of oil price increases probably fall mainly on middle-income LDCs, both because they are more dependent on trade than low-income LDCs, and because increased meanness regarding aid tends to be associated with increased concentration of aid on low-income countries. (The same is presumably true of the direct adverse effects, since middle-income countries are more heavily dependent on oil.)

Energy Issues Relevant to Part II

20. Energy is not exclusively a Part I subject, but crops up at several points in relation to poverty and human resources. I am not, of course, proposing a special section on energy in Part II, but simply that we should display an awareness of some of the issues involved.

21. Poor people in rural areas spend a lot of time gathering fuel -- indeed, an increasing amount of time as deforestation occurs. This not only cuts into their real incomes (in the broadest sense); it also gives them an incentive to have more children, and to keep the children out of school.

22. Poor people in urban areas, however, are presumably more dependent on fuels such as kerosene, and are thus more directly adversely affected by oil price increases.

23. More basic education is presumably good for energy conservation. Perhaps more importantly, if you teach a poor man to follow the instructions for building an improved stove, you have undoubtedly increased his real income.

25. Energy and nutrition are entangled in several respects.

- (a) Food production is heavily dependent on energy -- mainly solar, but increasingly fossil, both through mechanisation and through the use of artificial fertiliser and plant protection chemicals (both of which, incidentally, are essential ingredients of the Green Revolution).

- (b) The direct adverse effect of higher energy prices on food prices will be aggravated to the extent that agricultural land is turned over to the production of gasahol and other fossil fuel substitutes.
- (c) A high proportion of total energy use in poor developing countries is for cooking food. Could or should one promote the consumption of food that requires less cooking? Would it be less nutritious or safe or digestible? Is there scope for teaching people how to cook more efficiently?
- (d) The intake of food permits the expenditure of human energy. (It is interesting, though, how tiny human energy output is in relation to other forms of energy output -- I estimate it, on a calorie input basis, at 0.06% of total world commercial energy production.)

26. The price of energy presumably affects the demand for labour, skilled and unskilled, and thus should have a bearing both on poverty in general and on poverty and human resource development in particular. But very little seems to be known about the elasticities of substitution (or complementarity) between non-human energy, physical capital, unskilled labour, and skilled labour, whether in agriculture, industry, transportation or other services. It would be nice to think that higher energy prices, by raising the demand for unskilled labour-power to dig, pull, push, sweep, lift, carry, and pedal things, would make the poor better off; and that this could be reinforced by making the poor healthier and better nourished, and thus able to deliver more labour-power per man (and probably also more effective energy output per unit of food consumed). But this outcome is not inevitable. The existence of two

other factors of production -- skilled labour and physical capital -- could in principle cause higher energy prices to reduce the demand for unskilled labour. Apart from anything else, even unskilled labour is not merely a source of energy, but also a device (a machine, if you will) for applying energy in particular ways. Thus although human energy as such might become more valuable, the "human machine" (whether or not improved by education and training) might become less valuable relative to non-human machines, and thus the return to labour as a whole might decline. (These not very coherent observations may serve to emphasise how little we have thought about the nature of labour as a factor of production and hence about some of the fundamental aspects of investment in human resources.)

27 Finally, it may be that the price of energy has implications for choices between alternative systems for delivering human-resource-related services -- whether one should move facilities or people, how much one should rely on distance teaching, etc.

OFFICE MEMORANDUM

SA
LL
14

TO: Ms. Althea Hill, DEDPH

DATE: November 21, 1979

DPA World Dev. Report -

FROM: Timothy King, Chief, DEDPH

Noted

SUBJECT: Terms-of-Reference, Visit to Monrovia, Liberia
and London, 24th November - 8th December, 1979Africa ECA general
CC NRIC

1. You will go to Monrovia, Liberia on the 24th November to attend the UNECA Expert Group Meeting on Fertility and Mortality levels, Patterns and Trends in Africa and Their Policy Implications, to be held from November 26th to December 1st, 1979, as the World Bank representative.
2. After leaving Monrovia on December 1st you will visit London for the week 2nd - 8th December to collect data on mortality trends for your work in WDR 3. This will include discussions with Tim Dyson of the London School of Hygiene and Tropical Medicine on the choice of the best possible time series of mortality estimates for India, drawing on his recent work as a member of the NAS panel responsible for mortality and fertility estimates for India; and with Allan Hill and Professor William Brass, both also of the LSHTM on the availability and quality of data for the Middle East and Burma respectively. You will also search for and collect early census and survey data from the Commonwealth Institute Library.
3. While in London you will also have an informal meeting with John Hobcraft, who is due to take up the position of Assistant Director of Comparative Analysis at the WFS at the beginning of January. You will discuss his plans and ideas about the types of analysis to be carried out in the future, and how these would fit in with the kind of projects the Division might later be interested in undertaking.
4. On your return you will prepare a brief back-to-office report.

AHill:cslc

cc: B. King, DED
S. Boskey, IRD
✓ A. Clift, WAI

November 1, 1979

Mr. Federico Mayor
Deputy Director-General
United Nations Educational,
Scientific and Cultural
Organization
7, Place de Fontenoy
75700 Paris, France

Dear Mr. Mayor,

I am pleased to learn from your letter of October 19, 1979 that UNESCO is willing to aid in the preparation of the next World Development Report. Since I am now the Director of EMENA Country Programs Department, I am transmitting your letter to Mr. Bevan Waide who will be responsible for the preparation of the 1980 Report, so that he can inform you how the Bank intends to proceed and what the outline of the Report is. I am sure that UNESCO can make a valuable substantive contribution, particularly on questions of human resource development.

With kind regards,

Yours sincerely,
A. KARAOSMANOGLU

Attila Karaosmanoglu
Director, Country Programs Department I
Europe, Middle East and North Africa Region

cc: [Mr. Bevan Waide] VPD

LSchaeffer:sap

Mr! Choeng Chung

October 23, 1979

Helen Bothwell

COMMODITY EXPORT DATA FOR WDR III

1. I spoke with Antoine Schwartz who confirmed that 1977 is the base year export value weight that we are to input into the EPD Information System along with the export volumes for years 1977-80, 1985 and 1990.
2. He mentioned also that it would be useful to have both quantity and value export data for the years 1975 and 1976 by WDR Regions. These data, however, can be provided at a later time.

cc: Messrs Schwartz, Yang.

JB
HBothwell:ji

OFFICE MEMORANDUM

TO: Mr. Hollis B. Chenery

DATE: October 30, 1979

FROM: Helen Hughes, Director, EPD

SUBJECT: MEETING ON LONG-TERM PROSPECTS FOR ENERGY

1. To test our assumptions for WDR III about the long-term outlook for energy, we invited representatives from international organizations, research institutes and major oil companies to a roundtable discussion on October 17, 1979. The participants were selected on the basis of their technical expertise, and they were asked to give us their personal views. A list of participants is attached.
2. The discussions touched on all important energy issues. The main conclusion was that petroleum prices would continue to rise in real terms. The participants argued that economic factors as well as political forces in oil exporting countries will lead to a rise in petroleum prices to a level that will stimulate the production of substitute fuels in sufficient quantities. Most participants estimated that this would require a doubling of current energy prices in real terms during the next two decades. Our own analysis has led us to the conclusion that OPEC petroleum prices might reach US\$25 in 1980, and from then on climb to US\$45 by the year 2000, (in terms of 1980 constant dollars).
3. The views of the participants differed widely on the likely path of the projected price increases. They pointed out that while a gradual increase of some 3% per annum would be in the long-run interest of both consumers and producers, OPEC seems to lack the power to control prices in a tight market situation. It is therefore not unlikely that petroleum prices will continue to behave as they have during the past five years, with sharp price increases being followed by a slow erosion of real prices.
4. A summary of the discussions is attached.

Attachments

cc: Messrs. Waide, Wright (VPD); Richardson (EMNVP); Stern, Goodman (VPO); Karaosmanoglu (EML); Fuchs, Cash (IPD); Weigel (CDD); van der Tak (PAS); Rovani, Friedmann (EGY); Gabriel, Baneth, Applegarth, Ikram (PAB)

DPS Directors
Chief Economists
EPD Front Office and Division Chiefs

PPollak/HHughes:db

ENERGY IN TRANSITION: ISSUES AND PROSPECTS
FROM AN INTERNATIONAL PERSPECTIVE
SUMMARY OF THE DISCUSSIONS HELD ON

OCTOBER 17, 1979

1. We invited representatives from international organizations, research institutes and major oil companies to a roundtable discussion on the long-term outlook for energy to test our hypotheses about energy issues for WDR III. The focus of the discussion was on the likely future level of energy prices, and on the economic as well as political forces that underly the determination of these prices. The participants were selected for their technical expertise and were asked to give their personal views.

The Outlook for Energy Prices

2. The participants agreed that petroleum prices will continue to rise in real terms. Since petroleum prices are the leading element in energy prices, the discussion on the future of energy prices centered on issues related to the pricing of petroleum. The discussions left no doubt that economic as well as domestic political factors in oil-exporting countries are likely to continue to exert an upward pressure on petroleum prices until they reach a level at which substitute fuels become available in sufficient quantities. Most participants estimated that this would entail a doubling of current energy prices in real terms during the next two decades. However, estimates of average prices for 1980 ranged from \$20 to \$30. This would mean a price of \$40 to \$60 in 2000 (in 1980 prices).

3. While all participants agreed that petroleum prices would double in real terms, they differed in their views on how this price increase would come about. The introduction of multi-tier pricing was taken by some participants as an indication that OPEC no longer effectively administers petroleum prices. Suppliers with strongly conservationist attitudes would be able to dictate the level of petroleum prices as long as supplies remain tight. Spot prices would be enhanced as indicators of market forces, although it was not expected that the share of the spot market would expand significantly. There is no doubt that consuming countries would prefer a gradual increase in petroleum prices to the violent price fluctuations in the past. However, OPEC countries seem to be unable to control prices in times of a tight market situation. Most participants expected therefore a continuation of the past pattern of petroleum prices in which sharp price increases were followed by a gradual erosion of prices in real terms.

4. Relatively rapid increases in energy prices in the near future would be difficult for consuming countries to absorb, and would exacerbate global inflation problems, with a high probability of OECD policies that would lead to recession. OPEC prices would not necessarily fall because of the growing conservationist attitudes, particularly in the Middle East. High prices would bring alternative energy supplies on stream relatively quickly, and might erode petroleum rents through competition toward the end of the century. A more moderate rise in prices would be easier for consumers to absorb, but it might have the effect of delaying alternative supplies. In high growth periods, or periods of political instability, the market would then be likely to be characterized by sharp upward price swings.

Tightening Petroleum Supplies

5. Tightening supplies dominate the short-term outlook for petroleum prices. Most OPEC as well as non-OPEC petroleum exporting countries now produce at or near their peak capacity from existing developed fields, and many of these countries would face problems if they wanted to increase production further. OPEC reached its peak production in 1977 with an output of 33 million barrels per day (b/d). Its current production of 32 million b/d reflects increases in production of several OPEC countries to compensate for the decline in Iran's output. All participants agreed that it would be unrealistic to expect a further increase in petroleum production from OPEC countries.

6. The most important reasons for OPEC's reluctance to increase production is the growing scarcity of low-cost petroleum resources. While most petroleum producing countries have raised their production in recent years, they have not been investing adequately in exploration for new reserves and in improved recovery. Many countries now pump twice as many barrels as they add to their reserves through exploration or improved recovery techniques.

7. Decisions about recovery and exploration are largely political. The US currently produces 10 million b/d from reserves that total 30 billion barrels. Saudi Arabia produces the same amount of petroleum from reserves that are four times as large. It was generally agreed that the use of more efficient recovery techniques by the major current producers would significantly add to reserves. This, in turn, would support higher production levels. This would be by far the quickest and cheapest way of increasing supplies, but it is not politically viable. The Middle East accounts now for only one percent of all exploration efforts, principally because the countries concerned are highly conservationist in attitude. Large oil companies have shifted the bulk

of their exploration efforts to non-OPEC oil producing countries, which have smaller oil fields. Such fields require considerable capital investment, but they are not likely to provide a substantial contribution to total petroleum resources. Equivalent exploration efforts in OPEC countries would probably lead to the discovery of significantly larger reserves, but in the present reserve conservation atmosphere in these countries, this approach is unrealistic.

8. The political pressure within OPEC to conserve petroleum resources and to lower production has not only become stronger in recent years, but is still increasing. OPEC countries regard their petroleum resources as their "national capital" which has to be used for the development of their economies. With worldwide inflation eroding their investments abroad, they cannot be expected to change their attitude. While Saudi Arabia has increased its production to offset part of the decline in Iranian exports, it cannot be expected to continue to act as a producer of last resort. OPEC countries are thus likely to adjust the expansion of their petroleum output to their investment needs. They argue that it may take several generations until they reach the current living standards of industrialized countries, so that future generations may still have to rely on petroleum resources to finance them. The OPEC countries, through conservation policies are now attempting to strike a balance between current and future capital needs for economic development. Hence, a higher rate of economic development could lead to a higher rate of petroleum production. At present, however, there is no domestic political constituency for higher levels of oil production in OPEC capital surplus countries.

Reducing Energy Demand

9. The tight market situation can be eased either by an increase in supplies or a reduction in demand. It was generally agreed that improving the efficiency with which energy is used holds the key to a reduction of energy demand. Together with labor and capital, energy is an input into almost all goods and services. As with all inputs, the amounts used depend on technical factors, and on the relative prices of inputs. Increasing energy costs have resulted in its more efficient use. Studies by the International Energy Agency have shown a steady decline in the use of energy per unit of (GNP) output. However, improvements of energy efficiency requires substantial investments. To achieve a higher degree of energy efficiency, existing capital goods or some of their components have to be replaced. The slower the rate of growth of industrialized countries the longer will the adjustment process be.

10. The two principals means through which improvements in energy efficiency are achieved are the pricing mechanism, and government regulation. Demand studies by the International Energy Agency show that consumers do reduce their energy consumption as prices increase, and that such reductions become more pronounced over time. Time lags in consumers' response result from the long economic life of many capital goods. The gains from using more energy-efficient capital have to be weighed against investments costs in new equipment on the one hand, and the higher energy costs associated with the continued use of less energy-efficient capital on the other. While the pricing mechanism has on the whole been applied in Europe, this is not the case in North America. It was thus very important to maintain the momentum of the deregulation efforts.

11. Most participants believed that government regulations are less effective in reducing energy consumption than prices because of the difficulty of influencing the decisions of millions of individuals effectively by regulation. However, there are areas in which government regulations seem to work well. The US automobile industry was an example. While the number of cars is projected to increase from 110 units to 140 million by the year 2000, their total energy consumption is expected to decline by 30 percent from its present level.

Rents

12. OPEC countries are aware that the consumers in many petroleum importing countries pay prices considerably above world market levels. In addition to the usual marketing and processing costs, these prices frequently include substantial taxes. The willingness of consumers to pay a price for petroleum products that is far above the world market price is taken as proof of the existence of 'rents' that are now appropriated by the governments of consuming countries. The erosion of petroleum prices between 1974 and 1978 in part reflected a gradual shift of rents back from the producers to the consuming countries. OPEC has every intention to maintain the pressure towards a larger sharing of rents. The discussion left no doubt that OPEC countries would strongly resist any further efforts by governments of consuming countries to increase their share of the petroleum resource rents by raising the sales prices of petroleum products through taxes.

Alternative Energy Sources

13. There was general agreement that petroleum prices will be determined in the long-term by the production costs of the principal alternative sources, that is coal, nuclear energy and fuels from the so-called "competitive fringe" which include petroleum extracted from tar sands and shale.

14. The highest current production costs for petroleum within OPEC are only US\$2.00, but marginal long term cost is considerably higher even in these countries. The production costs of petroleum from the non-OPEC smaller fields and off-shore locations are substantially higher again. The marginal costs of petroleum production will thus eventually reach the costs of alternative fuels, but this is expected to take about 20-25 years.

15. Natural gas will play an increasingly important role in the energy supply-demand balance during the next two decades. Europe will rely more on energy from natural gas. At present, a substantial portion of natural gas is still wasted. Increasing energy prices will provide the incentive to harness the currently wasted natural gas supplies, and it is possible that the Middle East will join Norway and the USSR as a supplier of natural gas to Europe. The construction of a pipeline from the Middle East to Europe is currently being discussed.

16. Nuclear energy accounts for 2-3% of world energy supplies. There is no evidence that it is environmentally more polluting than other fuels, such as coal. The share of nuclear energy is projected to grow to 30 percent by the year 2020 by the Conservation Commission of the World Energy Conference. This would be equivalent to total current energy production. However, nuclear energy will replace only a small portion of the energy supplied by petroleum. While the capacity of the nuclear industry has been increasing at a rate of about 20 percent a year in the 1970s, orders for

new plants have fallen off sharply except in France and the USSR. It is important to note that the drop in the demand for nuclear power plants is partly due to a 50 percent downward revision of the demand projections for electricity in OECD countries as a result of low growth and conservation. There could be a sharp upward trend in the demand for nuclear energy as existing excess electricity capacities are taken up. Provided this only takes three to five years, the impetus in the nuclear plant supply industries will not be lost. New developments, such as fast breeders will not contribute to nuclear energy supplies before the year 2000, but their development is necessary to sustain the continued growth of the nuclear energy industry in the long term.

17. Several participants emphasized the political and environmental obstacles faced by both the nuclear and the coal industries. The large coal reserves in the US, in particular, are an asset that no other major industrial country possesses, but a major political effort would be required to make these resources available.

18. The technology for energy supplies from the competitive fringe exists and their production costs are coming into the range of current petroleum prices. For example, the production costs of a barrel of oil from Canada's tar sands is currently about US\$30. As costs are likely to fall once the technology is established, a move toward the doubling of petroleum prices (in real terms) would provide sufficient incentive to bring large-scale production on stream. Equipment and man-power requirements of synthetic fuels are to a large extent interchangeable with those of the nuclear industry, and some participants estimated that up to 5 million b/d of synthetic fuel could be produced by the end of the century.

ENERGY DISCUSSIONS

October 17, 1979

List of Participants

Chairman, I. Frank, Johns Hopkins University

Outside Participants

F. Al-Chalabi	OPEC, Vienna
N. Collyns	Scallop Corporation (Shell Group), New York
J.S. Foster	Montreal Engineering Company, Toronto
J. Hanson	Exxon Corporation, New York
L. Hoffmann	Regensburg University, Germany F.R.
J.W. Hopkins	International Energy Agency, Paris
J.R. Kiely	Bechtel Corporation, San Francisco
H. Landsberg	Resources for the Future, Washington, D.C.
J. O'Leary	Resources for the Future, Washington, D.C.

Development Policy Staff

B. Waide
H. Hughes
S. Singh
F. Colaco
A. Lambertini
P. Pollak

Other Bank Staff

R. Goodman
E. Friedmann
P. Isenman
N. Hope

International Monetary Fund

S. von Post
H. Mehran

OFFICE MEMORANDUM

AK
LS

TO: Distribution

DATE: November 16, 1979

FROM: Paul Iseman ^{PJ}SUBJECT: World Development Report 1980: Seminar to Review Background Paper

1. Attached is a copy of a draft background paper by Basil Kavalsky on Poverty and Human Resource Development in the Middle East and North Africa. We would much appreciate your help in reviewing and revising it. ^{Doc.}
2. A seminar, chaired by Bevan Waide, will be held on Tuesday, December 11 at 10:00 in room A-630. You are cordially invited to attend. Written comments would also be greatly appreciated. Please send copies to both Mr. Kavalsky and myself.

Distribution

VPD: Messrs. Chenery, Waide

EMENA: Messrs. Dubey, J. Stewart, Hume, Kavalsky, Maiss, Merat, Zaman
(For information) Messrs. Benjenk, Bart, Karaosmanoglu, Knox

OTHER REGIONS: Messrs. Pfeffermann (LAC), Bussink (AEA), D. Davies (WAP) Grawe (ASA), Lim (AEA)

DPS: Messrs. Burki, Selowsky, Bhalla, Dervis, Jamison, Meerman
WDR Core Team



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The Deputy Director-General

reference: DDG/7.7/127

19 October 1979

Dear Mr. Karaosmanoglu,

I recall with pleasure the interesting conversation which we had when you came to see me in connection with the second World Development Report, earlier this year, shortly before its publication.

On that occasion, you talked about the plans for the World Development Report 1980 which you said would focus on questions of human resources development. You mentioned that the Bank would welcome a participation of Unesco in the preparation of this Report.

I would like to confirm that we are prepared to make a contribution and I am now writing to suggest that representatives of the Bank and the Unesco Secretariat meet soon to discuss details. Unesco is, of course, quite prepared to join forces as far as the preparation of the statistical material is concerned. But I am sure that our contribution could be of a more substantive kind. It is this latter aspect in particular to which the Director-General attaches great importance. In order for us to determine the exact nature and the extent of such a contribution, it would help to know how the Bank intends to proceed with the preparation of the Report and what the outline of the Report is.

I am looking forward to hearing from you soon.

With kind regards,

Yours sincerely,



Federico Mayor

Mr. Attila Karaosmanoglu
Director,
Development Policy
Development Policy Staff
The World Bank
1818H Street N.W.
Washington, D.C. 20433
U.S.A.

Mr. John E. Merriam, Director, IPA

October 9, 1979

Shankar Acharya, Research Adviser, VPD

Visit to Delhi regarding WDR'79

1. My principal "press activity" in Delhi was a 10-minute talk I gave on All India Radio's "Spotlight" program on Monday, September 24, immediately following the 9 p.m. national news. A copy of the transcript is attached. The announcer introduced me as "principal author of the World Bank's recently published World Development Report, 1979. Purely on a head-counting basis, I suspect the program reached more millions than any other single press item on WDR (Mr. Sankaran may have figures on the normal audience for the 9 p.m. national news).

2. In addition, I attended a lunch organized by Mr. Yenal for selected journalists, academics and officials, and participated in a 2-hour, informal question-and-answer session on the WDR at a meeting of the Forum of Financial Editors at the Press Club in Delhi. The discussion was lively and well-attended - all the major papers and news services were represented by the 15 or so people present. I also had a few one-on-one informal discussions with academics at the Delhi School of Economics and a couple of Economic Advisors in the Government and Planning Commission.

3. On the basis of these contacts, I would hazard that:

- (i) the WDR is pretty well established as a major annual document dealing with global development issues. It seems to command wider recognition and acceptance among journalists and officialdom than among academics, though this may simply reflect the bias in my contacts on this brief visit;
- (ii) the audience is overwhelmingly favorable both to the idea of the exercise as well as the content of the first two Reports (here again my impression may simply reflect the bias in my contacts; for instance I did not meet anyone from the reputedly more radical faculty of the Jawaharlal Nehru University, who might be expected to be critical).

4. I was obliged to cancel my visit to Bombay owing to the massive fire at Santa Cruz International Airport.

Attachment

Mr. Merriam

- 2 -

October 9, 1979

cc with attachment: Messrs. E. Stern
H. Chenery
W. Clark
B. Waide/P. Isenman
A. Morris/S. Bankaran
C. Koch-Weser
Ms. A. Hamilton

OFFICIAL FILE COPY

Challenges Facing Developing Countries in the 1980s and Beyond

When it comes to economic concerns and policies, most people are quite understandably, preoccupied with the year to year (or perhaps even day to day) changes in the economic circumstances of their country and the implications for their own personal lives. However, poised as we are on the eve of a new decade, it may be an opportune moment to ask: what are the principal challenges facing the developing countries of the world in the 1980s and beyond? And what are the sorts of long-term policy priorities which should be concerning the governments of these countries?

Before attempting to outline a response to these sorts of questions it is necessary to emphasize the tremendous diversity among developing countries with respect to income levels, size, population density and natural resources. For example, a very rough and crude distinction could be drawn between the Low Income countries (to be found principally in sub-saharan Africa and the Indian sub-continent) and the Middle Income developing nations, such as Brazil, Malaysia, Mexico and Turkey, where average income per head may be 6 to 8 times as high as that in India.

Despite their underlying diversity, developing countries share many common long-term development concerns and problems. For simplicity, we might distinguish three major sets of challenges facing developing nations in the 1980s and beyond:

- First, there is the employment challenge. Though the rate of growth of world population is believed to have peaked in the early 1970s, the consequences of rapid

growth in the past will be felt for many years in the future. Between 1975 and the year 2000 the labor-force in developing countries is expected to increase by some 550 million people -- over twice the increment of the previous quarter of a century. In view of the already high levels of unemployment and underemployment, the future task of expanding productive employment and income opportunities can hardly be over-dramatized.

- Second, there is the urbanization challenge. The cities and towns in developing countries are growing at unprecedented rates. In the final quarter of this century, natural population growth and migration is expected to swell the urban population of these countries by nearly one billion people. Whereas, in 1950, only one city in the developing world had more than 5 million inhabitants, by the year 2,000 there may be 40 such cities; at least 15 will exceed 10 million in size, including Calcutta, Bombay, Delhi and Madras.
- The third set of challenges stem from uncertainties in the international environment. In recent years the growth of world output and trade has slowed, energy prices have increased dramatically, and foreign aid from the rich industrialized countries, as a proportion of their national output, has declined.

What can be done to cope with these awesome challenges?

Domestic Policies

First, let us take employment. In the poorer developing countries, like India, where more than 70 percent of the labor-force is directly dependent on agriculture, the key to more rapid employment expansion and swifter alleviation of poverty lies with improving performance in the rural economy. Often this may require difficult reforms of investment, trade and pricing policies which presently discriminate against agriculture. Within the agricultural sector there is need to sustain and expand diverse programs of support (such as credit, irrigation, feeder roads and extension services) for small farmers. This is necessary both for reasons of equity as well as in recognition of the fact that smallholders frequently use land and labor more productively than large landholders. Nor does support for agriculture imply neglect of industry. The dichotomy between agricultural and industrial development is often overdone. In fact, rapid and broadly based expansion in rural incomes generates the purchasing power necessary for successful industrialization. This is particularly true of large countries, like India, whose industries must rely primarily on buoyant domestic markets. However, even for large developing nations, there is continuing need to expand exports, less for their direct contribution to creating employment, and more for their role in earning the foreign exchange necessary for rapid growth in national output and employment.

To help with the long-term solution to the employment problem, there is urgent need for stronger policies for population planning, so that the growth of the work force, two decades hence, is more manageable.

Turning now to urbanization--. More rapid rural development and slower rates of natural population growth could moderate the explosive rate of urban expansion. Governments may also undertake efforts at greater decentralization -- by encouraging the development of medium-sized towns and cities, and thus reducing the rate of expansion of the largest metropolises. However, despite such measures, every indication points to continued rapid growth of cities and towns. The central task facing national and urban planners is to ensure that this growth is as efficient and equitable as possible. This calls for fresh approaches to urban policy. At present, urban policies frequently include bulldozing slums, banning street vendors and cycle-taxis from public places, and building high-cost public housing, subways and highways, all of which primarily serve the interests of a wealthy minority. Instead, urban investment and regulation policies could give priority to the expansion of bus fleets and routes, encourage bicycles and cycle rickshaws, emphasize provision of low-cost water, sanitation, roads and other services to poor neighbourhoods, and undertake projects for slum-upgrading, where the energies of the slum-dwellers can be harnessed for improving their settlements.

International Policies:

The progress that developing countries can make in expanding employment and reducing poverty will depend, in part, on the international climate for trade, capital flows and energy development. The impressive advances made by many developing countries in the twenty-five years after the Second World War were greatly assisted by an unprecedented expansion

in world output, and trade. The slowdown in the world economic expansion in the 1970s is cause for grave concern for developing countries, especially to the extent this slowdown has catalysed the rise in trade barriers in industrialized countries, and has weakened their commitment to giving foreign aid. It is imperative that the recent strengthening of protectionist tendencies in the rich, industrialized countries be reversed. The relaxation of trade barriers against exports from developing countries will not only help accelerate their growth and employment generation; it is also in the long-term interest of industrialized nations, which stand to gain from cheap imports and the rapid expansion of developing country markets for their exports. After all, in 1976, developing countries purchased nearly 30 percent of all the merchandise exports from industrialized nations.

Global trading arrangements will also benefit from a strengthening of the international structure of finance and debt. This would be greatly aided by the expansion of longer-term and more stable capital flows from industrialized to developing countries. Foreign aid from developed country governments is particularly important for the poorer developing nations, which have very limited access to the fast growing international markets for private capital.

The prospects for economic growth also depend on more orderly developments in the international market for energy. The next two decades are a critical transitional period during which the world has to adjust to increasing use of higher-cost substitutes for petroleum. To the extent this adjustment requires increases in international oil prices, it would

be better to have gradual and predictable changes rather than sharp and unforeseen increases which hurt the growth of world trade and production. Even orderly increases in oil prices are going to impose severe hardships on oil-importing developing countries, especially the poorer ones, whose balance of payments are already weakened by past oil price increases and protectionism in industrialized nations. Clearly, developing countries must make every effort to increase their own supplies of energy. In addition to developing petroleum, coal and nuclear power, developing countries should also pay special attention to more efficient use of wood-fuel, animal and crop residues, which are estimated to account for half the energy currently produced in oil-importing, developing nations. In many developing countries, massive afforestation programs are urgently needed to cope with the demands for woodfuel and halt the spread of deforestation and soil erosion.

These are some of the challenges facing developing countries in the 1980s and beyond. There are no easy solutions to some of these formidable problems. But allowing our day to day concerns to get in the way of thinking constructively about these long-term issues will not make the tasks any easier.

Mr. V. Soulatha, EPDES

October 5, 1979

Michael Payson, Sr. Economist, WA2DR

GABON - World Tables II

1. You have sent us computer printouts dated 9/18/79 intended to be used for the preparation of the forthcoming second edition of the World Table. These data do not seem to reflect the findings of recent Bank and IMF missions.

2. I attach for your information a copy of the last Gabon Economic Memorandum (June '79) and the statistical annex of the IMF report (May '78). We draw your attention in particular to pp. 2 and 15 of the Economic Memorandum ~~to GDP/GNP~~ and Annex I concerning population as well as the IMF report for balance of payments and other economic/financial data. Pending the findings of the forthcoming IBRD/IMF missions to Gabon scheduled to take place in November 1979 we suggest revising the work sheets accordingly for the time being.

RClaeser/MPayson:bp

OFFICE MEMORANDUM

TO: Files

DATE: October 4, 1979

FROM: Akbar Noman *for Akbar Noman*

SUBJECT: Trade, Adjustment and Wolf

1. I had a telephone conversation on October 3 with Martin Wolf to discuss what he was doing and might do which would be of use for WDR III.

2. Martin is almost certainly going to be with EPD for the next year. His principal preoccupation until the end of January would be a paper he is doing jointly with Don Keesing on adjustment issues in the area of textiles which is much the most important sector from the developing countries' perspective. The study is also very timely since the multilateral fibres agreement is due for renegotiation soon. After that Martin expects to update, revise and extend his WDR II paper on adjustment issues which he intends to complete by end February. He not only expressed willingness to advise and discuss but was also kind enough to offer serious consideration to a possible two to three week diversion from his planned work to accommodate WDR III by either rescheduling his work program to give priority to matters of more immediate relevance to us or to work on related matter which would not be dealt with otherwise. I suggest we get back to him soon if possible by the second or third week of October to take up the offer and discuss what is to be done.

3. During the course of the conversation I also discovered that a research project on the political economy of protectionism under the aegis of EPD was fairly far advanced with some preliminary results available already and a lot more to come between now and January. Baldwin is one of the authors of the study.

4. I was also pleased to find that Martin shares my view that it is in the realm of the macroeconomic rather than of the microeconomic that the most important issues lie. However, as important issues are wont to be, it is a controversial and sensitive matter.

cc: Core group

ANoman:bd

OFFICE MEMORANDUM

Nigeria L 929

cc Nigeria L 814

cc Nigeria ED(4)

TO: Mr. D. G. Davies, Economist; Ms. S. Lockwood,
Economist; and Mr. J. C. Laederach, Architect (WAPED)

FROM: A. P. Cole, Chief, WAPED *AL*

DATE: October 3, 1979

~~CENTRIC~~

SUBJECT: NIGERIA - Supervision Mission: Second and Third Education
Projects (814-UNI and 929-UNI)
Review of Project Preparation: Proposed Fourth
Education Project

DPA - World devel rpt

WORLD DEVELOPMENT REPORT
Terms of Reference

1. You will proceed to Lagos, Nigeria on or about October 11, 1979 for about two weeks to review progress in the implementation of the second and third education projects and the arrangements which have been made to complete the preparation of the proposed fourth education project.

2. Second Education Project. The mission should review:

- (a) the financial provisions made by the states for the project for this fiscal year;
- (b) the progress made by states for the procurement of furniture and equipment;
- (c) the Project Office's performance of tasks formerly performed by the consultants;

In addition, the mission should advise the Project Office on the work required of them in preparing their own completion report.

3. Third Education Project. The mission should:

- (a) discuss with the Government their plans for retendering terminated contracts for school extensions;
- (b) review arrangements for site supervision;
- (c) review new accounting practices in the Project Office;
- (d) discuss with officials in the ministries of Education and Finance questions which they may have on the amended Loan and Project Agreements which have been approved by the Board. Ms. Margaret Hagen, Loan Officer, may participate in these discussions.

4. Proposed Fourth Education Project. Mr. Davies and Ms. Lockwood will review the status of project preparation and discuss with the Government the work which must be completed for the project to be appraised no later than January 1980. They will also discuss with the Government the priorities of the components in the proposed project with a view to making a substantive reduction in the project's size and its total cost. Ms. Lockwood will give particular attention to components of the project concerned with special education and the National Teacher's Institute.

5. World Development Report. Mr. Davies will travel to Nigeria by way of London and Geneva. In London, he will meet with the Director of the Institute of Development Studies of the University of Sussex to discuss issues in human resource development in Africa south of the Sahara and to make arrangements for a seminar to be held at Sussex. In Geneva, he will visit the International Labor Office to discuss current poverty and employment research in Africa and to gather data for the World Development Report. He will coordinate his visit to Geneva with Mr. Paul Isenman (WDR) who will be visiting the ILO concurrently.

6. Mr. Davies will lead the mission to Nigeria and will be responsible for producing a back-to-office report on the results of that mission. He will produce a second back-to-office report for the WDR summarizing current research and the availability of data on poverty in Africa south of the Sahara. Mr. Laederach will write supervision reports for the second and third education projects. Ms. Lockwood will complete the working papers on the special education and National Teachers' Institute components of the project.

Cleared with and cc: Messrs. Isenman
Laederach
Ms. Lockwood
Mr. Earwaker
Ms. Hagen

cc: Messrs. Thalwitz WAPDR
Bouhaouala WAPDR
King WAPDR
Alisbah WAlDR
Reitter (3) WAlDA
Guetta WAFWA
Fennell/Ingram WAFNG
Rajagopalan (2) VPSVP
Aklilu EDC
Awynyo LEG
Wiratunga CTRDD

W. Africa Info. Center

DGDavies:gm

Mr. Rainer Steckhan, Director, Eurooffice

October 1, 1979

Mr. Vittorio Masoni, IRD

Press Lunches and WDR II presentation in Geneva, Milano and Roma
(Sept. 13 - 21, 1979)

1. This is the back-to-office report on the mission undertaken on EUR's behalf to present the 1979 Annual Report and WDR II in Geneva, Milano and Roma. Reports on other matters dealt with during the mission (Dr. Peccei's proposal, revamping the Italian mailing list, and the organization of a press seminar for WDR II) have been filed separately. The revised and streamlined country papers and the translations provided by EUR proved exceedingly useful throughout the mission. The organization of the mission's program was impeccable

The overall impression from this brief mission is that (a) the Bank position as a leader in its field is beyond question; (b) The Third World is not on top of the national agenda either in Romance Switzerland or in Italy. Nevertheless, public opinion and politicians in both countries take interest in development problems when these are presented in appropriate, country-specific ways; (c) external assistance is increasingly regarded as a way to promote the donor's national interests rather than as an element of a more equitable World wealth distribution. In other words, people seemed to ask: "We concede the Bank's work is useful, but how is the Third World development relevant to us and why more development aid?"

If this interpretation is correct, an important part of the future work in both countries should consist in stressing DC-LDC interdependence and therefore in continuing to push WDR. WDR has now become a household item in the policy-making and intelligentsia circles. In addition to the intrinsic merit of its economic analysis and strategic thinking, WDR addresses the deep-felt need of unity in this pluralistic and disperse world; the Report provides precisely the right type of comprehensive, systematic and non-partisan frame of reference for the many and disparate socio-economic elements of national and international life.

2. Geneva. The element of the Annual Report that attracted most attention at the Geneva Press Lunch (attendance list attached) was the Bank energy program. Some time was spent in going over the relevant section of the Report, a section that journalists found particularly well written and suitable for use in their articles, both current and future. As the IMF Report had just been published, many questions dealt with Fund-related topics: (a) what about the substitution account, and does the Bank have any comment on how it may affect the LDCs? In replying I mentioned the Bank's work on currency pooling and, while refraining from comment on the substitution account, I said that strengthening the international monetary system should be to the

Mr. Rainer Steckhan, Director, Eupoffice

October 2, 1979

Mr. Vittorio Masoni, IRD

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advantage of the LDCs as well; (b) is the Fund often at odds with the Bank as to country performance requirements? Mr. Burney and I explained how the Bretton Woods institutions work together and at parallel purposes so that occasional disagreements stem essentially from differences in judgement inherent to our kind of work; (c) how do exchange fluctuations - particularly the increase in the dollar value of hard currencies - affect the exports of a country like Switzerland? While the ensuing discussion of advantages and disadvantages ended rather inconclusively we were able to point out that Swiss industry appeared to have remained quite competitive as to the value of contracts won by the Swiss on Bank/IDA projects.

The guests gave us a mixed picture of the country's mood about development aid. However, the consensus was that a referendum on aid now would give the same results as the first one. The aid cause had no major spokesman in Switzerland and the Swiss people felt aid was not properly used in the LDCs. It was said that the Bank had enemies on the political left, as hard-nosed banker, and IDA had enemies on the right as a give-away program; presenting the Bank/IDA case together would - in the opinions expressed around the table - polarize the two oppositions and make them into a majority. Yet, against this somber backdrop, some light did shine. Thoughtful Swiss opinion is said to feel the burden of the traditional insularity of this land-locked country. The Swiss Government is determined to try once again to have the confederation join the IMF and the Bank, assuming the related funding responsibilities on a permanent basis. The consensus for joining among the Swiss Press was said to be overwhelming.

3. After the meeting I was interviewed by the Radio of Suisse Romande. The structure of the exchange was as follows: (a) Q. Any comment on the IMF report? A. Nothing as far as monetary matters are concerned but we note with appreciation the IMF statement on the need for greater amounts of concessional aid; (b) Q. What about the oil crisis and the LDCs? A. The LDCs do have to pay a heavy bill and the Bank is helping with new energy exploration and development program (detail and figures from the Annual Report).

4. The World Development Report II was presented personally to the Director of the Institute of Studies for Economic Development, Prof. Prisework, to the Secretary-General of the International Council of Voluntary Associations, Mr. Kozlowsky, and to the Interparliamentary

Mr. Rainer Steckhan, Director, Eurooffice

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Union (office of Dr. Terenzio, as the Secretary-General was at the Interparliamentary Congress in Caracas, Venezuela).

5. Milano. The Press lunch was particularly lively and amiable (attendance list attached) and the discussion ranged on a variety of issues. As last year, the group's interests were more political than technical. The Bank was given high marks for its work both at the project and at the country level. We are considered the authority on LDC problems, at least as seen by the Western mind. What was questioned was the degree of political freedom the Bank enjoys in lending to hot countries like Viet-Nam and Chile and, more importantly, in pursuing policies that truly weaken LDC's structural dependence on the industrialized countries. These are very important issues indeed, but a brief meeting cannot hope - as I pointed out - even to begin to address problems that have so far eluded UNCTAD or the North-South dialogue. I readily accepted the point that the Bank is part of an international cooperative effort financed essentially by industrialized countries and moved to the discussion of concrete results of Bank projects, particularly in the social sector and in the areas that matter most to an energy-hungry, export country like Italy.

Specific points of interest were (a) urban and rural development, with discussion of ways to coordinate multilateral, bilateral and private aid; (b) Bank assistance for oil exploration; (c) currency pooling, and investment of the Bank liquid assets; (d) various questions were asked about Mr. McNamara's speech in Belgrade and IMF matters including the appointment of Mr. Lamberto Dini - Italy's ED ~~AT~~ The IMF - as General Director of Banca d'Italia, to be ratified in Rome next day.

6. WDR II was presented to three noted economists and university professors: Mauri and Bagiotti of Milano's State University (respectively also Director of Finafrica and editor of the excellent Rivista di Scienze Economiche e Commerciali), and Biscottini of the Sacro Cuore University. They all expressed great appreciation for the Report and will use it in their teaching and writing activities.

Some requests for Bank documentation were noted on the attendance list for the Eurooffice to consider.

7. Rome. The meeting in Rome started with questions about hunger in the Third World since that subject had just been debated at the House of Representatives on request of Rep. Marco Pannella, President of the Radical Party and enfant terrible of Station politics. Thus much of the discussion revolved around the Bank role in agricultural development, cooperation with FAO, the calculation of costs and benefits in integrated rural projects and monitoring and ex-post project evaluation .

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But, here again, the group (attendance list attached) would pick up essentially political issues. Three of them stood out: (a) is the ~~contribution~~ sufficient contribution to the resource transfer toward the LDCs? Does the OPEC invest their money equitably among LDCs? I answered these questions by referring to the important work done by DAC on the subject; (b) if development aid is to the advantage of the donor country, why isn't the Eastern Bloc joining in? As a private response, I surmised that the Eastern Bloc doesn't have capital surplus to export, and perhaps feels it can influence economic decisions in some LDCs to its own advantage with means other than ODA; (c) is People's Republic of China likely to join the Bank? I gave the standard answer that China is already a member of the Bank and that it is for the Bank members to decide which government represents China. Furthermore, the People's Republic may or may not like to assume all the obligations tied to the membership especially if the availability of IDA in large amounts is not assured.

8. WDR II was presented to the directors of two research and public affairs institutes, Istituto Affari Internazionali and Istituto Per L'America Latina e il Medio Oriente, to senior staff of Banca d'Italia, of Confindustria and of SACE (exporter credits' insurance) as well as to Minister Giuseppe Preti (also president of Pio Manzù Center) and to Aurelio Peccei who asked for an additional copy of the Report for Mr. Jermen Gvishiani of USSR.

cc: Mrs. Boskey
Messrs. Merriam, Chatenay, Cherniavsky

Vm:sp

List of participants in meetings and/or interviews

GENEVA

Press lunch.

Philippe Zutter
Rédacteur, Agence Economique et Financière - Genève

André Naef
Rédacteur de Politique Étrangère
Tribune de Genève, and 24 Heures

Silvie Cohen
Radio Suisse Romande
Lausanne

Joseph Zitoun
Rédacteur Economique - La Suisse - Genève

Serge Smirnoff
Agence Télégraphique Suisse - Genève

Gérald Grégoire
UNIC - Director - Genève

Mahmud Burney
World Bank - U.N. Representative - Genève

WDR II

Prof. Roy Preisewerk, Directeur Institut Universitaire d'Etudes
du Développement.

Mr. Kozlowsky, Secretary-General International Council of
Voluntary Agencies, ICVA

Mr. Pio Terenzio (Office of the) Secretary General of Interparliamentary
Union.

MILANO

Press lunch

Ivo Singer, Avvenire, Milano

Sara Cristaldi, Mondo Economico, Milano

Teo Dalavecuras, L'Europeo, Milano

Sandro Bolognesi, Il Giornale, Milano

Gianfranco Monti, Il Resto del Carlino, and La Nazione of
Bologna and Florence respectively

Enrico Sassoon, Il Sole/24 Ore, Milano

Federico Cavallero, Il Mondo, Milano

WDR II

Tullio Bagiotti, Professor of Economics at Milan's State
University and Director of Rivista
Internazionale di Scienze Economiche e
Commerciali.

Arnaldo Mauri, Professor of International Economy at Milano
State University, Director of Finafrica (an
EDI-type Institute) and Editor of the
Magazine "Savings and Development"

Giuseppe Biscottini, Professor of International Law at the
Sacro Cuore University, Milano

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ROMA

Press lunch

Stefano Sassi, Agenzia Giornalistica Italiana
Riccardo Bodo, Agenzia Nazionale Stampa Associata, ANSA, Roma
Mario Santilli, Il Secolo d'Italia, Roma
Maurizio Carloni, La Repubblica, Roma and Milano
Giorgio Vitangeli, Il Fiorino, Roma
Eugenio Palmieri, Il Tempo, Roma (met separately)

WDR II

Prof. Giuseppe Magnifico (and Cesare Caranza, Director)
of Research, Banca d'Italia
Dr. Giuseppe Preti, Minister of Transport and President of
Pio Manzù Center, Rimini
Prof. Giovanni Calchi-Novati, Director of Istituto per
l'America Latina et il
Medio Oriente, IPALMO, Roma
Prof. Roberto Aliboni, Director Istituto Affari
Internazionali, IAI, Roma
Prof. Enzo Grilli. Director of Research Confindustria
(Federation of Italian Industries), Roma
Dott. Felice Gianoni, President of Società Assicurazione
Credit all'Esportazione, SACE, Roma;
Messrs. Giuseppe Ruffini and Marco Ragno, respectively
Director of Research and International
Relations and Senior Economist at SACE
Dr. Aurelio Peccei, President of Italconsult, and Chairman
of the Club of Rome

Asia

OFFICE MEMORANDUM

NRIC

TO: Mr. Roger Grawe, ASADB
FROM: ^{RL} Paul Isenman, Chief, WDR Unit
SUBJECT: Mission Terms of Reference - WDR Background Report
on Human Resources in South Asia

DATE: September 28, 1979

DPA - world devel rpt

In order to gather material and solicit views on the preparation of the above report you should visit India and Bangladesh for approximately two weeks beginning October 5, 1979. During that period you should contact appropriate government officials, academics, and others knowledgeable concerning human resource development in South Asia. These would include the relevant central government ministries in Delhi and perhaps at the state level in India, the Planning Commission, Delhi and Jawaharlal Nehru universities, international agencies represented in Delhi such as UNICEF, WHO, and the Ford Foundation. You may also wish to visit the Gokhale Institute in Poona if feasible. In Bangladesh your visit has been arranged through the Resident Mission and will focus on the Bangladesh Institute of Development Studies. On your return you should prepare a note outlining the contribution of your findings to your study (an outline of which is attached). This note will serve as background to a departmental meeting of economists on WDR to be held October 30 (as noted in the attached memo of John Holsen to Paul Isenman, dated September 26, 1979).

Enc.

RGrawe/bd

cc. and cleared with Mrs. Hamilton
cc. Messrs. Hopper, Wiehen, Holsen, Jansen, Pilvin, Yenai

OCT 09 1979

DRAFT
RGEANE/bd
9/11/79

Human Resource Development in South Asia.

- I. Basic Environment (regional aggregates with individual countries treated as appropriate).
 - A. Structural characteristics of population
 1. Population growth trends and the demand for services.
 2. Age distribution and current and future demands for human resource investment.
 - a. School-age population - steady or declining proportion of population.
 - b. Health status and general morbidity.
 3. Spatial distribution of population
 - a. Rural-urban distinction and existing service level differentials - extent of urban bias in South Asia and consequences.
 - b. Incidence of dispersed populations or other groups posing problems of accessibility.
 - i. Reaching tribal groups and others in remote areas
 - ii. Stratification of village society - difficulty of reaching disadvantaged groups.
 - B. Current status of human resource development
 1. Educational profile
 - a. Literacy
 - b. Enrollment ratios - i) Repeater rates and average attendance
ii) Sex differentials
 - c. Organization of services
 - i. Primary/Secondary/Graduate breakdown

- ii. Governmental administration and financing if relevant issues are posed, such as effects of decentralization in India
- 2. Health Profile
 - a. Major morbidity problems
 - b. Organization of services - introduction of village-level workers, other methods to broaden coverage.
- 3. Poverty Profile
 - a. Human resource characteristics
 - b. Interrelations with other elements in poverty cycle

C. Intra-regional variation

The case of Kerala/Sri-Lanka contrasted to sub-Himalayan belt from Pakistan across India to Bangladesh. Nepal as contrast to Sri Lanka.

II. Productivity and other Economy-Wide Issues

A. Returns to education

- 1. Review of evidence on rates of return - generalizations subject to data qualifications.
- 2. Contribution of education beyond rates of return.
 - a. Macro effects of educated population
 - i. Potential role of educated manpower in decentralized planning - raising the productivity and welfare effects of rural investment.
 - ii. Flexibility of educated manpower in adopting innovation and responding to technological change.

B. Returns to health

- 1. Effect of reductions in morbidity on productivity

C. Interaction among human resource investments

1. Education/public health/fertility nexus
2. Effect of mortality reduction on fertility
3. Effect of nutrition and health status on productivity of education investments.
 - i. Productivity of school and other forms of training extending
 - ii. Gains through/the period of returns to prior investments

D. Human Resource Development and Poverty Alleviation

1. Current status of human resource development programs intended to directly affect the poor
2. "Programmable" linkages between human resource investments and poverty alleviation.
 - a. Distributional impact of enhanced productivity
 - b. Welfare effects of more equitable distribution of "consumption" element of health/education expenditure.

III. "Internal" efficiency in human resource development

A. Macro-financing

1. Sources of funds - relative roles of centralized versus local finance
2. Role of education/health in plans or other public investment programs

B. Delivery costs or "micro-financing"

1. Unit costs and their relation to extended coverage
2. Alternative delivery systems and their likely impact on costs in a realistic context.

C. Output quality and "X" inefficiency

1. Low attainments of school children (evidence from India on basis of international comparisons)
2. Organizational and management issues

IV. Policy Implications

- A. Qualitative assessment of role that human resources development can play in South Asia
- B. Suggested investment strategies
 - 1. Relative allocations within sectors
 - 2. Priorities in future planning - relation to larger development strategy.
- C. Assessment of policy options - can relatively larger allocations to human resource development through public investment be justified in the context of severe budgetary constraint.

Mr. Stokes M. Tolbert, Director IDFD

September 26, 1979

Keith Marsden, Operations Adviser, IDFD

World Development Report Poverty Projections

1. Following my memorandum of 17 August on the World Development Report for 1979, both Mr. Chenery and Mr. Acharya have referred me to Staff Working Paper No. 309 which apparently provides the basis for most of the poverty projections given in WDR II. I have studied this paper in some detail and am impressed by its thoroughness, objectivity and methodological ingenuity. I particularly like the use of ICP data which allow more meaningful inter-country comparisons of GNP. The income of the 46th percentile in India in 1975 makes a somewhat arbitrary but nicely rounded absolute poverty line. If one accepts the data and assumptions, the findings seem incontrovertible.

2. However, I have done a little work in this field (inter alia, as a member of the editorial group which prepared the ILO report on basic needs for the World Employment Conference) and am aware that one can have serious reservations about the reliability of some of the data and the validity or generality of the assumptions made.

3. First, Jain's income distribution data show wide variations between countries and also within countries from one source to another. Considering the difficulties in obtaining accurate and comparable accounts of the various types of household income, and the socio-economic factors that may distort the responses to household surveys, no one can be certain that the revealed variations reflect real differences or statistical errors. The smaller the observation unit, the greater the risk of error. This applies especially to the poorest decile whose members are often illiterate, keep no records of their transactions, do not receive a regular wage which can be counter-checked and whose non-cash income tends to assume greater relative importance but which is more difficult to evaluate or control than monetary earnings.

4. Second, Jain's data include several sources for some countries and it is not clear what criteria have been used for the selection in WP 309. In nearly all cases, the source chosen shows distributions by households or income recipients, with no adjustments for variations in household size. As the poverty line is expressed in per capita income, it would be preferable to use per capita income distributions wherever possible. In the majority of countries where this choice is available, the share of the bottom quintile is raised significantly when individuals are ranked by per capita household income. For example, in Bangladesh the share jumps from 7.9% to 13.4% if the per capita (POP) rather than per household (HH) ranking is used. For Pakistan, the increase is from 8.2% to 12.9% (in 1968/69) and for India, from 6.7% to 7.5%.

5. Third, the evidence for the Kuznet's effect seems to be based entirely on cross-country studies. The trend data given in Table 4 of WP 309 do not support this assumption. In the majority (8 out of 12) of the countries covered, the share of the bottom 60% either remained constant or rose over the period covered. In all these cases, the per capita incomes of the countries were within the range (up to \$1660 ICP) which, according to the cross-country data, represents a phase of increasing income inequality. These trend data show at least that the Kuznet's effect is not an "iron law" and can be modified or neutralized by appropriate policies.

6. Fourth, the assumption of a growth/equity trade-off rests on the belief that the saving propensity of the top decile must be higher than that of the rest of the population. This belief has been used to justify development strategies which concentrate on large scale, capital intensive activities. This theory has been around long enough for experience to have shown that it is by no means infallible. The saving/surplus generating capacity of the elite and of large-scale enterprises has often proved to be disappointing. There is also evidence that the saving propensities of small-scale producers can be high in certain circumstances. Strategies which encourage a greater role for small firms and small farms can be both efficient and more equitable (through the employment multiplier). The performances of Korea and Taiwan support this contention, although clearly other factors played a part.

7. Fifth, the poverty estimates which emerge from the scenarios are influenced considerably by the wide variations in individual country growth projections given in Table A2 of WP 309. These are taken from macromodels for individual countries and are said to embody the World Bank's judgement as to the "potential performance" of a country under average conditions. Projecting future trends over a 25 year period is not a very exact science and can be influenced by a large number of variables. The outlook can change quickly. Is it still the Bank's judgement that the growth potential of Nigeria and Indonesia (with their oil) is below that of Kenya and Tanzania? The projected growth rate for the Ivory Coast for 1975-80 (1.1%) is well below what has actually been achieved. Many analysts would cite Ghana and Burma as countries which have failed to live up to the potential offered by their natural and human resource endowments because of misconceived policies. Should the Bank, which is in the business of providing policy advice on a large scale, assume that a country's prospects are rigidly constrained by past mistakes?

8. None of these points disproves the findings of WP 309. But I would suggest that for the purpose of the WDR, which has a normative function and can have considerable political impact, it would be desirable to consider other scenarios which make a more positive, less fatalistic, assessment of future prospects.

9. One of these scenarios could include the following elements:

(i) estimates of the GNP per capita for the base year, adjusted to purchasing power parity;

(ii) an explicit poverty line, also adjusted;

(iii) estimates of the GNP shares of the lowest quintile to represent the most vulnerable poverty group;

(iv) estimates of the GNP per capita of the bottom quintile;

(v) an assumption of constant GNP shares for each quintile and therefore no growth/equity trade-off;

(vi) application of projected average growth rates for groups of countries to individual country base year data to indicate the range of growth opportunities open to them;

(vii) estimates of the per capita GNP reached by the year 2000 and the extent of the shortfall, if any, below the poverty line.

10. As a trial run, I have combined some of the WP 309, WDR II and Jain data in the table below.

Projected Changes in GNP Per Capita, 1975 - 2000

<u>Country and Group</u>	<u>Adjusted GNP Per Capita in 1975 (\$ICP)</u>	<u>Share of Poorest Quintile in GNP (%)</u>	<u>Adjusted GNP Per Capita of Poorest Quintile in 1975 (\$ICP)</u>	<u>Projected GNP Per Capita Growth Rate: High Scenario (%)</u>	<u>Adjusted GNP Per Capita in Year 2000 (\$ICP)</u>	<u>Adjusted GNP Per Capita of poorest Quintile in Year 2000 (\$ICP)</u>	<u>Extent of Shortfall/ Surplus Compared with Poverty Line (\$ICP)</u>
<u>Low Income Countries</u>							
<u>Africa:</u>							
Kenya	413	3.9	80	1.9	661	128	-72
Senegal	550	3.2	88	1.9	880	141	-59
<u>Asia:</u>							
Bangladesh	200	7.9	79	3.8	508	201	+1
Indonesia	280	6.8	95	3.8	711	241	+41
Pakistan	299	6.4	96	3.8	759	244	+44
India	300	6.7	100	3.8	762	254	+54
Sri Lanka	471	7.3	172	3.8	1,196	437	+237
<u>Middle Income Countries</u>							
<u>East Asia and Pacific:</u>							
Philippines	469	3.9	91	7.1	2,603	505	+305
Thailand	584	5.7	166	7.1	3,241	921	+721
Korea	797	7.2	287	7.1	4,423	1,593	+1,393
Taiwan	1,075	8.8	473	7.1	5,966	2,625	+2,425
Malaysia	1,006	3.8	191	7.1	5,583	1,060	+860
<u>Latin America and the Caribbean:</u>							
Chile	798	4.8	191	3.9	2,075	496	+296
Columbia	851	3.5	149	3.9	2,212	387	+187
Brazil	1,128	3.0	169	3.9	2,933	440	+240
Peru	1,136	1.8	102	3.9	2,954	266	+66
Mexico	1,429	4.2	300	3.9	3,715	780	+580
Argentina	2,094	5.1	534	3.9	5,444	1,388	+1,188
Venezuela	2,286	2.7	308	3.9	5,944	802	+602
<u>Middle East and N. Africa:</u>							
Egypt	561	4.6	129	3.6	1,358	312	+112
Tunisia	992	4.2	208	3.6	2,400	504	+304
<u>Sub-Saharan Africa:</u>							
Ivory Coast	695	3.9	135	2.2	1,195	232	+32
Zambia	798	5.4	215	2.2	1,372	370	+170
<u>Southern Europe:</u>							
Turkey	914	2.9	132	5.2	3,245	470	+270
Yugoslavia	1,701	6.6	561	5.2	6,038	1,993	+1,793

11. Several conclusions can be drawn from this table. If the projected growth rates, which are based upon reasonably optimistic assumptions about rates of investment and access to world markets for the countries concerned, were maintained until the end of the century, the global poverty situation would be transformed. In 1975, severe poverty afflicted 17 of 25 countries for which available income distribution data allowed direct estimates to be made. In seven of these countries, the average income of the poorest 20% fell as much as 50% or more below the poverty line of \$200 ICP.

12. By the year 2000, absolute poverty should be eliminated in all the middle income countries of Latin America, East Asia, the Middle East and North Africa and Southern Europe. Pockets might persist if income distribution within the poorest quintile was allowed to remain or become particularly kinked. But the relative numbers affected should be so small that their needs could be easily met by income transfers from the more affluent members of their families and/or government welfare programs. In Peru, for example, if only 0.5% of the incomes of the richest 20% (who receive 74% of the total income) were transferred to the bottom 10%, this would add \$110 ICP dollars to ^{each of} their incomes. This should be more than enough to fill any likely short-fall.

13. In the densely populated, low-income countries of Asia, represented in the table by Bangladesh, India, Pakistan and Indonesia, the outlook is also encouraging. In all four countries, which account for some 60% of the estimated number of persons living in poverty throughout the world in 1975, the average income of the poorest 20% would top the poverty line, although just barely in the Bangladesh case. In all these countries the distribution of income is relatively equal and may be more so than the sources used in the table indicate ^{1/}. This implies that within the bottom 20% the income level of significant groups of people would normally not fall substantially below the average for the quintile as a whole. At least the magnitude of the poverty problem would have reached manageable proportions. It could be eliminated either by special income supplementary programs or by small improvements in one or more of the critical variables. In Bangladesh, for example, an 0.5% drop in the rate of population increase among the poor combined with an 0.5% increase in the economic growth rate (coming from improved export performance and greater incentives to save and invest for small-scale producers) would raise the average income of the poor to 27% above the poverty line, a reasonable margin of security.

^{1/} The income distribution data are taken from household income surveys and no adjustments have been made for household size. When these adjustments are made, the share of the bottom 20% increases to 13.4% in Bangladesh, 11.9% in Pakistan and 7.5% in India.

14. This would leave the low income countries of sub-saharan Africa still apparently falling substantially short of the target. However, the reliability of the income distribution statistics for these countries is more uncertain than usual because of the difficulty in measuring the incomes of scattered subsistence farmers and the wide differences in price levels between rural and urban communities. If the share of the bottom 20% was taken to be the same as in the Asian low income countries, their average incomes would rise above the poverty line by the year 2000, even with the very low rates of GNP growth projected. But clearly the poor cannot depend on this assumption. What these low-income countries of Africa need above all is an enhanced rate of economic growth. This ought to be feasible if the international community were to focus a greater part of their efforts on this residual poverty area which contains only 156 million people i.e. 7% of the total population in the third world.

15. A shift in concessionary aid from the countries which have gone well beyond the poverty threshold, combined with special trade preferences, ought to lift the per capita growth rate to somewhere near the level projected for low-income Asia (3.3%). The performance of countries like the Ivory Coast, which has achieved a real GNP growth rate in excess of 7% per annum over the past 20 years, also illustrates the scope for improved performance for countries with limited natural resources if the right policy mix is found.

16. To sum up this broad review of the evidence on the poverty situation, it would seem that the goal suggested by Mr. McNamara in 1976, that of meeting the basic human needs of the absolute poor by the end of the century, is indeed feasible if the modest but realistic standard of absolute poverty adopted in WP 309 were to be accepted as a common target.

17. It will not be reached spontaneously in all countries. Policies to safeguard or improve the income shares of the poor would be needed, including access to productive resources and markets. Reasonably high but not spectacular rates of growth would be required in some cases and here the policies of developed countries in ensuring adequate trade and aid flows, would be critical. Clearly a maintenance of the status quo or a simple projection of recent trends would not be sufficient. But the magnitude of the changes required fall well within the range of possibility. They are certainly a far cry from the massive redistribution of assets and incomes and very high growth rates which earlier calculations (in the ILO and elsewhere) suggested were indispensable to achieve basic needs satisfaction in the same time period.

18. Apart from the doubtful statistical basis of these earlier calculations, the policy conclusions drawn from them were so extreme that the effect has been to discredit the basic needs concept in the eyes of many people, particularly within the developing countries. It would be a pity if the same fate befell the idea of establishing a common objective goal for the elimination of absolute poverty.

19. Some sort of "global compact" remains an attractive and perhaps necessary idea in a world in which countries and groups are resorting to confrontation rather than cooperation to deal with their problems. The Bank will only strengthen these confrontationist tendencies if it now concludes that the reasonable target it put forward only three years ago is beyond the reach of many countries and hundreds of millions of people through feasible and mutually beneficial forms of cooperation. The recent non-aligned conference and actions taken by the U.S. Congress in the aid field are ominous reflections of this change in mood. If the collective will is weakened further, the poverty projections of WDR II risk becoming self-fulfilling prophecies.

cc: Messrs. H. Chenery, M. Carter, S. Acharya

KM/ttl

PUB - World Poverty

DIR - World Dev. Rep

FE JK

OFFICE MEMORANDUM

TO: Messrs. T. Davis, AGROR and F. Kahnert, URB

DATE: September 18, 1979

FROM: Sang I. Lee, ^{Hee} Chief, Economic and Social Data Division, EPD

SUBJECT: Absolute/Relative Poverty Data - Your Memo of September 10, 1979

1. We note from your memorandum of September 10, 1979 that the CPS has decided to discontinue collecting poverty estimates from country economists.

2. We are rather bothered by this turn of events. I do recall that during the meeting with Mr. Cheetham, Mr. Davis asked whether EPD would be able to assume responsibility for collecting these data. At that time, Mr. Cheetham indicated that our staffing situation was such that the Department could not take over the work, and that if the CPS wanted to pursue the matter further, a memorandum containing your proposals should be sent to the DPS management. As far as I know, no such memo was received.

3. I hardly need to point out that when revisions to the Social Indicator Data Sheets were being discussed in 1977, it was the CPS which asked that the poverty numbers be included and which also agreed to be responsible for providing EPD with these data. To discontinue the preparation of this material now is, to say the least, rather unfortunate.

Cleared with and cc: Mr. R. Cheetham

cc: Mrs. Hughes
Messrs. Jaycox, Yudelman, Van der Tak, Dunkerley, Churchill,
Christoffersen, Pickering, Donaldson, Chander, Kundu,
Hee, Isenman

MHee/SELee:pvt

Mr. John D. Merriam, Director, I&PA
(through Mr. Peter Chatenay, Acting Director, IRD)
Vittorio Masoni, IRD

September 12, 1979

WDR II Seminar in Italy

As per your request, following are my comments on how a seminar could be organized in Italy to present WDR II to the Press and to other suitable information channels. Please forgive me if this note is not as polished as it may have been: for the sake of speed, I laid down only the bare essentials. But, if anything further is needed, please do ask me.

WDR II would indeed provide excellent material for a presentation of development issues in Italy. However, since WDR II has already been reviewed by the Italian Press when first issued in August, a straightforward press seminar may be less attractive than a broader meeting of publicists, academics and political intelligentsia, in addition of course to journalists. A possibility would be a two-day meeting of 25-30 people at Istituto Affari Internazionali (IAI) in Rome. IAI is a well known research and public affairs institute. It was assisted at its inception many years ago by the Ford Foundation and has acquired status through the years by virtue of leadership, blue-ribbon membership and active relations with similar organizations abroad. IAI publishes a foreign policy magazine in both Italian and English and has an on-going program of round tables and seminars. IAI would be equipped to publish the proceedings of the Bank seminar and distribute them through their magazine's mailing list.

The format of the Seminar would be about the same as at Rambouillet and in London. The Bank could be represented by Rainer Steckhan together with one or two senior Italian-speaking staff members. IAI's Director would act as moderator. As to the audience, invitations should be extended to the opinion makers that are IAI's habitués and to dailies and weeklies from Milano, Rome and other cities, as well as a sprinkling of government think-tankers. Perhaps Dr. Rota may care to join the Seminar. The best time would be from mid-December to mid-January when Parliament is in recess and political news less abundant. A working lunch or dinner could be offered; this expenses could be included in a flat sum to IAI to cover all Seminar's costs.

A Seminar along these lines could be set up at Societa Internazionale per le Organizzazioni Internazionali, SIOI, Rome. On the whole, SIOI, has about the same facilities as IAI, except that they do not publish a magazine. SIOI has a less independent status as it is identified with the government since their main activity consists in training young diplomats on contract from the Foreign Affairs Ministry.

/2...

Mr. John D. Merriam

- 2 -

Similar organizations could be found in Milano (ISPI, Vittorio Bottego Group, Finafrica) or in an in-between place like Bologna, (Mulino, Faculties of Economics and Political Sciences, John Hopkins University), but to set up a meeting in (a) Milano may be awkward from a public relations point of view and (b) Bologna would require some extra organizational work and may discourage some out-of-town participants from either Milano or Roma.

2. In conclusion, both IAI and SIOI offer ready-to-go seminar packages of good quality. In my view, the best overall choice would be IAI. As you may know, a Bank Division Chief, Giuseppe Pennisi, is on sabbatical in Bologna. He is a former journalist and knows both IAI and SIOI and I believe, he would be willing to participate as a panelist in the Seminar at either place.

For the purpose of negotiating the arrangements, contacts should be made with: Prof. Roberto Aliboni, Director, IAI, Viale Mazzini 11, Roma; or Dott. Giovanni Casadio, Director, SIOI, Piazza Venezia 2, Roma. Mme. Ponchon of Eurooffice would be able to handle this well.

VMasoni:az

cc: Mr. Rainer Steckhan

OFFICE MEMORANDUM

PUR - Urban Poverty

We
Alonso etc.

DATE: September 10, 1979

- DPA - World Dev. Rep

TO: Mr. Sang E. Lee, Chief Economic & Social Data
 Division / EPD

FROM: Ted J. Davis, ASOR a Director, EPD, URB

SUBJECT: Absolute and Relative Poverty Data - Your Request of September 4, 1979

We are puzzled by this request because we have discontinued our efforts to collect poverty estimates from country economists and did not expect to have a continuing role as intermediaries between the EPD and the country economists with respect to these estimates.

When the poverty levels became a regularized part of the Social Indicators Data Sheets about a year ago, we discussed with you and Mr. Cheetham the earlier poverty estimates that had been obtained from the country economists as a part of the first phases of the monitoring systems for rural and urban poverty lending. We conveyed to you our conclusion that it would be unnecessary and organizationally illogical for CPS to continue to be the channel for the country economists on poverty income levels. Hence, we now rely on the country economists' input to be provided directly to your department for updating the poverty levels estimates in the Social Indicators Data Sheets for our own monitoring system.

As to actual calculations of the poverty estimates, our two units are prepared to assist country economists at their request. We would be pleased if you could convey this to the country economists.

Cleared with and cc: Messrs. L. Christoffersen, AGR; A. Churchill, URB

cc: Messrs. H. van der Tak, PAS; Mrs. H. Hughes, EPDDR; M. Yudelman, AGR;
 E. Jaycox, URB; D. Pickering, AGR; R. Cheetham, EPD;
 R. Chander, EPD; G. Donaldson, AGR; A. Kundu, EPD; M. Hee, EPD;
 P. Isenman, WDR

TJDavis/FKahnert/cc

OFFICE MEMORANDUM

SEP 04 1979

TO: Messrs. T. Davis (AGR) and F. Kahnert (URB)

DATE: September 4, 1979

FROM: Sang E. Lee, Chief, Economic and Social Data Division, EPD

DPA - World Dev. Report

SUBJECT: WER 1980: Absolute and Relative Poverty Data

1. As you are aware, WDR 1980 is to place emphasis on the question of poverty alleviation. This memorandum is intended to take stock of the availability of poverty data so that the latest data can be made available to the WDR core team.
2. Attached please find a set of the poverty data made available to us by CPS and Regional staffs during the March-April clearance exercise for the Social Indicators Data Sheets. It is likely, since then, that newer and better estimates may have been made available to you by the Regional staff.
3. We would appreciate if your staff could update the poverty data shown in the attached table. It would also facilitate our work if your staff would provide the actual number of the urban and rural poor, both absolute and relative. I would like to express our appreciation for your continued cooperation and support.

^{att}
Attachment

Cleared with and cc: Mrs. Helen Hughes, EPDDR

cc: Messrs. Jaycox, URB
Yudelman, AGR
Cheetham/Chander, EPDDR
Kundu/Hee, EPDES
Isenman, WDR

MHee/SELee:pvt

Country by Regions	Absolute Poverty ^{/a}				Relative Poverty ^{/a}			
	Income Level (\$ per capita)		% Pop. Below Poverty Level		Income Level (\$ per capita)		% Pop. Below Poverty Level	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
<u>East Africa</u>								
1. Angola	..	..	..	..	..	..	..	..
2. Botswana	235	113	40	30	..	..	..	..
3. Burundi	213	136	45	85	..	179	..	30
4. Comoros	..	..	..	..	..	37	..	..
5. Ethiopia	115	65	60	65 ^{/b}	77	37	25 ^{/b}	..
6. Kenya	122	93	25	80	125	71	25	..
7. Lesotho	226	58	60	26	78	49	..	..
8. Madagascar	150	86	50	50	135	86	..	..
9. Malawi	81	81	25 ^{/b}	85	50	50	..	..
10. Mauritius	205	205	45 ^{/b}	45	200	200	..	43 ^{/b}
11. Mozambique	..	..	..	..	..	..	..	..
12. Rhodesia	..	..	..	..	..	..	..	..
13. Rwanda	148	85 ^{/b}	30	90 ^{/b}	..	..	..	..
14. Somalia	132	101	..	30 ^{/b}	..	43	..	..
15. Sudan	137	80 ^{/b}	..	85 ^{/b}	40	40	25 ^{/b}	..
16. Swaziland	..	..	..	..	115	100	25 ^{/b}	..
17. Tanzania	..	..	..	..	..	193	..	..
18. Uganda	117	89	25	85	97	61	..	..
19. Zaire	..	80 ^{/b}	..	80 ^{/b}	..	87	..	..
20. Zambia	213	145	25	..	76 ^{/b}	43	25 ^{/b}	..
					..	154	..	50
<u>West Africa</u>								
21. Benin	..	65 ^{/b}	..	50 ^{/b}	..	67	..	..
22. Cameroon	189	88 ^{/b}	15	40	..	..	..	..
23. Central African Empire	..	45 ^{/b}	..	..	..	..	..	..
24. Chad	61 ^{/b}	50 ^{/b}	27 ^{/b}	50 ^{/b}	..	83	..	30 ^{/b}
25. Congo, Peop. Rep.	..	..	..	..	..	43	..	..
					..	167	..	30 ^{/b}
26. Gabon	..	..	..	..	..	..	..	..
27. Gambia	..	75 ^{/b}	..	40	133 ^{/b}	67	25 ^{/b}	..
28. Ghana	265	137	..	..	152 ^{/b}	127	16 ^{/b}	25 ^{/b}
29. Guinea	..	..	..	..	52 ^{/b}	..	33 ^{/b}	..
30. Ivory Coast	217	76	..	..	387	194	25	30 ^{/b}
31. Liberia	..	75 ^{/b}	23	..	137 ^{/b}	125	23 ^{/b}	50 ^{/b}
32. Mali	98	60 ^{/b}	27 ^{/b}	48 ^{/b}	61	37	..	..
33. Mauritania	..	85 ^{/b}	..	45 ^{/b}	216 ^{/b}	90	50 ^{/b}	..
34. Niger	133	63 ^{/b}	..	35 ^{/b}	133 ^{/b}	53	35 ^{/b}	..
35. Nigeria	352	156	..	27 ^{/b}	286 ^{/b}	95	33 ^{/b}	..
36. Senegal	..	72 ^{/b}	..	..	151 ^{/b}	..	23 ^{/b}	30 ^{/b}
37. Sierra Leone	..	54 ^{/b}	..	35 ^{/b}	78 ^{/b}	67	25 ^{/b}	..
38. Togo	201	97	35 ^{/b}	..	100	100	..	40
39. Upper Volta	108 ^{/b}	53 ^{/b}	35 ^{/b}	39 ^{/b}	..	37	..	..

Country by Regions	Absolute Poverty ^{/a}				Relative Poverty ^{/a}			
	Income Level (\$ per capita)		% Pop. Below Poverty Level		Income Level (\$ per capita)		% Pop. Below Poverty Level	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
<u>Latin America & Caribbean</u>								
86. Argentina	..	..	..	..	653 ^{/b}	577	21 ^{/b}	60 ^{/b}
87. Bahamas	..	..	..	..	518	518	..	45 ^{/b}
88. Barbados	484	484	23	23	105 ^{/b}	75	20 ^{/b}	..
89. Bolivia	..	134 ^{/b}	..	85 ^{/b}	465	332	20	55
90. Brazil	..	150 ^{/b}	..	..	..	..	..	..
91. Chile	270	270	..	..	374	374	19	45
92. Colombia	267	197	34	..	214	267	..	53
93. Costa Rica	235	165	..	..	543	237	20	7
Dominican Rep.	..	239 ^{/b}	24	..	270	280	17 ^{/b}	..
Ecuador	269	183	40	65	307	77	..	56
96. El Salvador	260	185	20	33	281	110	22	..
97. Grenada	..	..	..	..	..	..	..	..
98. Guatemala	230	160	21	25	231	141	21	.. ^{/b}
99. Guyana	..	..	..	..	171	171	21	70 ^{/b}
100. Haiti	169	144	53	78	82	73	..	..
101. Honduras	240	170	14	10	235	75	..	..
102. Jamaica	501	439	..	80	585	509	38	80
103. Mexico	270	216	..	40 ^{/b}	332	332	16	..
104. Nicaragua	250	175	19	27	351	147	26	.. ^{/b}
105. Panama	335	170	21	30	424	424	17 ^{/b}	50 ^{/b}
106. Paraguay	..	..	..	..	230	230	19	65
107. Peru	235	180	49	..	293	200	50	70
108. Suriname	..	..	..	..	..	..	..	..
109. Trinidad & Tobago	468	371	..	39	869	834	55	30
110. Uruguay	..	288	..	..	425	425	30	30
111. Venezuela	..	318	..	..	2,207	940	25 ^{/b}	..

Source: CPS and Regions.

Sept. 1979
EPDES^{/a} All data refer to 1977 unless otherwise noted.^{/b} Data refer to 1975.

DPA - world devel rpt.

International Bank for Reconstruction and Development

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SecM79-653

FROM: Vice President and Secretary

September 4, 1979

WORLD DEVELOPMENT REPORT 1979

During Board discussion of the World Development Report 1979 (R79-146), several Directors mentioned that they would find a summary useful. Attached is a staff summary of the Report: it has been prepared as a guide to readers and is not intended to substitute for the full presentation of the facts and arguments in the Report itself.

Distribution:

Executive Directors and Alternates
President
Senior Vice President
President's Council
Vice Presidents, IFC
Directors and Department Heads, Bank and IFC

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WORLD DEVELOPMENT REPORT, 1979A SummaryBackground and Focus of the Study

The World Development Report, 1979 is the second in a continuing series of World Bank reports designed to address the principal issues of development policy at the national and international levels. Many of the themes in this report have evolved out of the extensive discussion of the 1978 report. That document gave particular attention to the problems and prospects of the poor countries of Asia and Sub-Saharan Africa, where the key to more rapid and equitable development lies in policies to stimulate agricultural growth and to confront rural poverty. This year's report focuses greater attention on development in the Middle Income countries, where the process of structural transformation is much farther advanced.

While the past twenty five years have seen substantial progress in the developing world, much remains to be done. Last year's report estimated that nearly 800 million people are still in absolute poverty with incomes too low to ensure adequate food or shelter, and without access to essential public services such as education or health care. Accelerated economic growth and the alleviation of absolute poverty therefore remain the central objectives of development. This report assesses the problems and prospects which arise in the pursuit of these objectives in four principal areas:

- The need to develop a more supportive international environment for trade, capital flows and energy development;
- The scope and nature of the employment challenge facing the developing countries and the programs and policies that offer the best hope of creating jobs and raising incomes;
- The importance of achieving balance and complementarity between agriculture and industry, to facilitate sustained economic growth and a wide diffusion of its benefits; and
- The unprecedented rate of urban growth in developing nations and the massive new tasks posed by this shift of population to cities and towns.

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Development Prospects

To give perspective to the analysis and policy issues and to suggest the scope of actions that may be required, the report presents projections for the growth of developing countries in the period 1975-1990. The basic set of projections anticipates a recovery of economic growth in industrialized and in developing countries during the next decade, as compared with the 1970s. Nevertheless, some 600 million people are projected to live in absolute poverty at the turn of the century.

Economic conditions and policies, however, could combine to generate alternative outcomes. Under more favorable assumptions, developing countries might experience an average annual growth in gross domestic product of 6.6% in the 1980s. If this pace of development is maintained in the 1990s, the number of people in absolute poverty in year 2000 could fall below 500 million. Indeed, if combined with radical measures to improve the distribution of income and reduce fertility in these countries, the number of people in absolute poverty might be reduced to between 300 and 350 million by the end of this century. In contrast, if restrictive international conditions and inappropriate domestic policies were to combine to depress developing country growth to under 5% a year, the number of absolute poor in the year 2000 could well be above 700 million. Although these projections are subject to a considerable margin of error, they emphasize the need to seek every possible means to ensure that the future growth of developing countries resembles or betters the outcomes projected under the favorable scenario. The international and domestic policy issues that merit attention in the pursuit of this task are discussed at length in the Report.

International Policy IssuesTrade

The progress which developing countries can make in increasing production, expanding employment, and reducing poverty will depend to a significant degree on the international climate for trade, capital flows and energy development. The impressive advances made by many of these countries in the twenty-five years after the Second World War were greatly assisted by an unprecedented expansion in world output and trade, which was in large measure the result of deliberate international efforts to reduce restrictions on international trade. The deceleration in the growth of world trade in the 1970s is thus of major concern. Efforts to contain and reverse protectionist tendencies will be greatly aided by the restoration of higher growth in the industrialized countries. In turn, the accelerated

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growth and employment generation in developing countries, that would result from expanded trading opportunities for these nations, is in the long-term interest of the industrialized countries, which stand to gain from cheap imports from developing nations and rapid expansion of these major markets for their exports. In 1976, developing countries purchased 28 percent of the total merchandise exports of industrialized countries and 31 percent of their manufactured exports. Special efforts are therefore needed in industrialized nations to curb protection and ease market access for imports from developing countries, and to assist groups adversely affected by the adjustments in the domestic economic structure resulting from international competition and imports.

On their part, developing countries need to resist the temptation to adopt inward looking trade policies in response to current difficulties in the international trading environment. Despite recent protectionist tendencies important export opportunities exist for those countries willing to risk investing resources and effort in export industries. The more advanced developing countries can strengthen the basis for more liberal global trading arrangements if they are willing progressively to surrender their present privileges and immunities from international trading rules, and if they participate more actively in future multilateral trade negotiations and agreements. Where this involves a substantial reduction in trade protection, a transition to more liberal policies may be aided by guarantees of improved market access and the provision of additional medium-term capital flows from official sources, to ease the foreseeable strains on the balance of payments.

Capital Flows and External Debt

International capital flows have eased the difficulties encountered by the developing world in adjusting to a less expansionary international environment during the 1970s. The international private capital market has been especially responsive and flexible in meeting the capital requirements of the Middle Income countries, for whom over two-thirds of the net disbursements of medium- and long-term capital come from private sources. The substantial growth in the aggregate indebtedness of developing countries after 1973 led to a heightened concern about their debt problems. In real terms, however, outstanding debt actually grew considerably more slowly in 1973-1977 than in 1969-1973 and the various indicators of indebtedness have remained acceptable. Moreover, since current account deficits of developing countries declined in 1976 and 1977, and since most of the private debt is owed by countries which have good prospects and reasonably sound economic management, the projections for the medium term do

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not point to a general debt problem for developing countries.^{1/}

Nevertheless, for some countries, liquidity crises such as were experienced in recent years in Peru, Turkey and Zaire can be expected to occur from time to time. These problems have resulted from external factors -- such as unforeseen shortfalls in export earnings or sharp increases in oil import costs -- or from domestic policy failures, or from a combination of both. They have been aggravated by the relatively short maturity structure of private commercial loans, increased requirements for foreign exchange reserves, and inadequate methods of dealing with liquidity crises. Successful efforts to increase the resources of the International Monetary Fund, the World Bank and other international institutions will strengthen the financial system by improving the stability and overall maturity structure of lending. Nonetheless, there remains considerable scope for fresh initiatives to expand the flow of official medium-term capital to developing countries, especially to assist these nations in adjusting to international economic shocks and also to support the implementation of trade policy reforms in these countries. Furthermore, improvements are necessary in international procedures to deal with liquidity problems, when they arise.

Official development assistance must play an important role in any strategy for improvements in capital flows to the developing countries. Low Income countries, in particular, depend heavily on concessional capital for their development efforts. Net disbursements of official development assistance from members of the Development Assistance Committee of OECD, however, are estimated to have amounted to only 0.32% of donors' GNP in 1978, far short of a target of 0.7% endorsed by the United Nations General Assembly in 1970. Relatively small percentage increases in real ODA flows could have a substantial impact in reducing absolute poverty in the world.

Energy

Although the developing nations as a whole account for a relatively small share of the world's commercial energy production and consumption, their development prospects are affected directly by increased energy prices and supply uncertainties, and indirectly by the repercussions of disruptions in energy markets on growth in the industrialized world. As recent events have shown, the balance in world demand and supply of energy hinges on what happens in a few key oil exporting countries. Short-run supply bottlenecks and

^{1/} The sharp increases in petroleum prices in mid-1979 and their repercussions can, however, be expected to strain the financial position of some oil importing developing nations seriously.

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temporary increases in the real price of oil can be precipitated by events in a single country. However, if prolonged production setbacks in key countries can be avoided, if strong conservation measures are pursued in principal consuming nations, and if sustained efforts are made to find and develop new energy resources, the global demand for energy could be met during the next decade without large and sustained increases in the real price of internationally traded energy.

Viewed in a longer perspective, the next two decades may be seen as a critical transitional period during which the world has to adjust to higher energy prices and increasing use of more costly energy substitutes for oil. While different groups of countries face different sets of transitional problems, all share a strong mutual interest in assuring a smooth transition to a world of higher-priced, non-oil based energy. The industrialized countries confront issues of demand conservation, safety of nuclear power, pricing of domestic energy supplies and development of synthetic fuels. The principal concerns of the major oil exporting nations include the determination of how rapidly to exploit their non-renewable resource, and the articulation of a long-term development strategy that will ease the transition to a post-oil future. For other developing countries, the main priorities are the exploration and development of domestic commercial energy potential, more efficient use of non-commercial and non-conventional energy sources, and the need to adjust to higher energy prices. If the maintenance of equilibrium in the global energy market requires real price increases over the next two decades, it would be advantageous for all to have gradual and predictable oil price increases rather than sharp unforeseen changes. This would facilitate investment planning in alternative energy sources and permit phased adjustments in oil importing countries; in the weaker and worst affected of the non-oil developing countries such adjustments would require increased balance of payments support. The oil exporting nations stand to gain from the orderly evolution of world output, trade and capital flows that is more likely to be associated with a smooth transition.

Poor countries face major challenges in developing their very substantial unexploited commercial energy resources. Most of these countries need to increase investment in the energy sector and to augment their technical, planning and management systems in this area. International support with finance and technical expertise, such as the recent World Bank initiative to support oil exploration and production, can greatly aid this effort. Developing nations also need to direct greater attention to their use of non-commercial energy sources. About half of the energy needs of oil importing

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developing countries is met from traditional fuels, such as firewood, charcoal, animal and crop residues. In many parts of the world, where unchecked reliance on such sources has led to grave ecological problems of deforestation and desertification, there is an urgent need for well designed afforestation programs. At the same time, development and dissemination of improved cooking stoves, biogas plants and charcoal kilns could greatly improve the efficiency of energy use from traditional sources.

Domestic Policy Issues

Employment

International initiatives must go hand in hand with prudent domestic economic management in the developing nations, if the growth of these countries is to be accelerated and the plight of the absolute poor is to be bettered. One of the principal challenges of development policy is to create enough productive jobs for a labor force that is expanding at unprecedented rates. Though population growth is believed to have peaked in the early 1970s, the earlier growth will add more than half a billion people to the labor force in developing countries between 1975 and the year 2000. Given the already high levels of underemployment and absolute poverty, the scale and urgency of the task of expanding productive employment and income opportunities cannot be overemphasized.

The large number of people remaining in low productivity jobs, especially in agriculture, has raised increasing doubts about the adequacy of the industrialization process as a source of remunerative employment opportunities. However, a comparison with the historical experience of the non-industrialized countries reveals that the slow sectoral transformation of the labor force in the developing countries results not from an unusually slow expansion of industrial employment, but from unusually fast growth of the labor force. High rates of unemployment are also endemic, particularly among first-time entrants into the urban labor market. Unlike the underemployed or working poor, however, the unemployed are not necessarily among the poorest income groups, because only those with access to unearned income are able to finance a period of unemployment while they search for a satisfactory job.

Promoting agricultural growth and encouraging the efficient use of rural labor are the most important means of employment creation in Low Income countries, since agriculture remains the single most important source of employment and provides a large market for industrial output. Particular attention should focus on support for the small farm sector

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which has shown remarkable capacity in various countries to provide employment opportunities for rural labor. Land redistribution and the widespread distribution of credit and extension services constitute an important part of an employment-generating agricultural strategy.

An appropriate industrial policy is especially important for ensuring adequate employment growth in the Middle Income nations. Despite their obvious abundance of labor many developing countries have followed an industrialization strategy that economizes on labor rather than on capital -- either directly through public sector projects or indirectly by artificially lowering the price of capital to modern and large-scale private industry. A reversal of these biases in public investment and incentive patterns should contribute to increased labor absorption by industry, particularly when combined with foreign trade policies designed to foster the growth of labor-intensive export industries. Measures geared to place small-scale enterprises on an equal footing with large firms in terms of access to credit, technical assistance and marketing support can also contribute to this goal.

In the short and medium term the principal means to contend with the increasing numbers of new labor force entrants thus lie in the choice of appropriate policies for agricultural and industrial development. Policies to improve the operation of labor markets and to increase labor force skill acquisition are also important. For the longer run, however, population programs are urgently required to reduce future labor force expansion. Declining fertility rates have been associated with increased urbanization, improved education and extensive participation of women in the labor force, but active efforts to promote population planning programs can also contribute to reductions in fertility.

Industrialization

A key ingredient in the structural transformation of development and growth is the process of industrialization, since the industrial sector generally permits higher productivity and more rapid output growth than does agriculture. In Middle Income countries high rates of industrial growth have sustained overall income growth and have raised the share of industry from 32% of gross domestic product in 1960 to 37% in 1976. In Low Income countries industrial output has grown more slowly. This differing experience reflects in part the difficulty of fostering a stable and consistent framework to support industrialization without discouraging the development of the most important sector of the economy, agriculture.

Increases in agricultural productivity and incomes are

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important on their own account, but also because they generate domestic demand for industrial products, and provide much of the foreign exchange and fiscal resources needed to support industrialization. For the very same reasons agriculture retains considerable importance even in Middle Income countries. Given the importance of the mutually beneficial links between agricultural and industrial development, successful industrialization in developing countries has usually been supported by sustained and broad-based agricultural growth.

Many policies, especially the provision and pricing of industrial infrastructure, trade policies, industrial licensing schemes and price controls, influence the pace and pattern of industrial growth. Flexible planning procedures can offer cost-saving opportunities by coordinating the many interdependent facets of industrialization and by securing efficient timing, scale, location and phasing of investments, particularly in the semi-industrialized developing countries. Public intervention in training indigenous entrepreneurs and technicians, in building up financial markets and providing direct assistance through major publicly supported development banks can assist in removing bottlenecks that often have impeded industrial growth in developing countries.

In many of the Middle Income countries, as well as in a few Low Income countries with large and sophisticated industrial sectors, the further growth and deepening of the industrial structure calls for increased attention to acquiring, learning and adopting new industrial technologies; to establishing new institutions, such as export credit agencies, while making existing ones, including public enterprises, more responsive to cost and market pressures; and to mastering the design, production and marketing of new manufactured exports.

Urbanization

In the wake of rapid overall population growth and industrialization, the urban populations in developing countries are growing at explosive rates. Between 1950 and 1975, urban communities in developing countries had to absorb about 400 million additional inhabitants. In the subsequent twenty-five years the increment is likely to be close to one billion people. The number of very large cities is also rapidly increasing: by the year 2000 some 40 cities in developing countries are expected to have over 5 million inhabitants, and about 18 are expected to hold more than 10 million. This pace of urban growth is posing unprecedented challenges for national and municipal policy makers.

To some extent the rate and pattern of urbanization can be moderated by reducing natural population growth and accelerating agricultural development. And in many developing countries, the elimination of large-city biases in government policies with respect to public investment, foreign trade incentives, and transport and energy pricing could induce a more balanced pattern of urban growth. This could further be aided by positive encouragement of the growth of medium-sized cities.

Despite these policy measures, the cities in developing countries will continue to grow, since modern industrial and service activities benefit from economies of agglomeration; to the extent that industrialization is a necessary adjunct of economic development, the impetus for urban growth is inexorable. The central task facing national and urban planners is therefore to devise and implement policies to encourage the efficient and equitable growth of cities. Instead of bulldozing slums, banning street vendors and traditional modes of public transport from public places, and building high-cost public housing, subways and limited-access highways, all of which primarily serve the interests of wealthier residents, urban investment and regulation policies should be designed to assist the expansion of those forms of transportation, housing, sanitation and other services which meet the needs of the majority of the urban population, including the poor, at low cost.

Where past urban transport investments have served mainly to increase the road capacity for the growing swarms of private automobiles, the priorities need to be shifted in favor of expanding bus fleets and routes, making traditional forms of transport -- including bicycles and walking -- easier, and constructing low-cost access routes for buses and service vehicles in poor neighborhoods. Better roads for these areas often confer far-reaching benefits to residents, since the provision and maintenance of other urban services, such as water, electricity, sewerage, waste collection, police and fire protection, frequently depend on road accessibility.

Housing is of special concern in urban areas, since rapid population growth puts great stress on the existing stock of shelter and service infrastructure, and frequently results in deteriorating health and environmental conditions. The past response to urban housing needs has too often been limited to the construction of a few costly public housing schemes. A more appropriate public policy would focus on eliminating impediments to private initiative and providing those elements of housing supply -- sites, low-cost water, sanitation and other services, security of tenure and construction loans -- which the private sector is least able to supply. Recent sites and service

schemes and slum upgrading programs have shown that even poor beneficiaries are willing to pay the cost of improved housing, as long as these costs are in line with the beneficiaries' ability to pay and project design pays heed to their preferences. Shifts in favor of low-cost, replicable delivery systems may also be necessary if education and health services are to serve effectively the majority of urban dwellers.

Almost universally, fresh initiatives are required to improve the institutional framework of urban public management and administration. The responsibilities of urban authorities need to be delineated more clearly; effective coordination among them must be improved in the execution of their many interrelated tasks; planning and technical capacities must be upgraded; and improved coordination with national authorities for finance, planning and other relevant functions must be sought. The scope and dimension of the growing tasks of urban management require commensurate policy attention from the highest decision making bodies in developing countries.

Country Development Experience and Issues

A review of development experience and issues has to come to terms with the wide diversity among developing nations. World Development Report, 1979 therefore considers the major international and domestic policy issues as they apply to three distinct groups of countries, most of which are Middle Income. While the countries within these groups are far from uniform in their development patterns and problems, a number of broad generalizations can usefully be made for each of the groups.

The first group comprises the semi-industrialized nations, including for example Brazil, the Republic of Korea, Spain and Turkey. These countries are characterized by relatively high shares of manufacturing in production and exports, and are generally among the wealthier Middle Income countries. Many of them have achieved impressive rates of economic growth and structural transformation. A supportive approach to increases in agricultural productivity and growth, and a readiness to replace inward-looking import-substitution policies at an early stage by trade policies favoring the growth of exports in general, and of manufactured exports in particular, have been the hallmark of successful development in the East Asian semi-industrialized countries. A similar set of policies appears to offer the greatest hope for successful development among the remaining semi-industrialized countries, even in the face of slowdowns in the expansion of world demand for manufactured exports. A gradual shift to more skill- and technology-intensive lines of production, supported by appropriate trade and incentive policies, as well as marketing and training schemes, should permit many of these countries to enjoy continued rapid economic growth. This will also assist

the semi-industrialized countries to continue their relatively successful record of providing productive employment to their labor forces and to reduce the incidence of absolute poverty. Further substantial gains in the alleviation of poverty are possible in many of these countries by emphasizing increases in agricultural productivity, by reducing the rates of population increase through active family planning programs, and by making greater efforts to meet the basic needs of all their citizens in the areas of education, health, and nutrition. The last task, in particular, is within reach of many of these countries, given their relatively high levels of per capita income and their advanced institutional capacities.

The second group of countries are the mineral economies, in which the mining sector looms large in production and trade. While the growth performance of mineral economies was in general slightly better than that of all Middle Income countries combined, oil exporting countries mainly accounted for this favorable growth, as a result of unprecedented increases in oil prices and exports. Non-fuel mineral countries in contrast fared considerably worse than did the average Middle Income country, reflecting largely the cyclical price and demand conditions for non-fuel minerals. Despite these differences, mineral economies have the common trait of possessing a resource which is readily converted into foreign exchange earnings and domestic tax revenues. This has in turn permitted these countries to enjoy much higher average incomes than would have been the case in the absence of the mineral resources.

Nevertheless, mineral economies also face some special challenges and problems of economic management. These nations generally experience considerable difficulties in finding productive employment for their rapidly growing unskilled labor force, while they incur drastic shortages of indigenous technical and managerial manpower. They are confronted by the central issues of how to appropriate the wealth of physical resources for their countries, and how to convert it into a sectorally diversified capital stock and a high quality labor force, so as to permit the maintenance of a highly productive and developed economy after the mineral wealth has been exhausted. The frequent neglect of the non-mineral sectors in the past has generally weakened the basis for such a transition. For large mineral producing nations with relatively low mineral wealth per capita, such as Indonesia, Nigeria and Zaire, agriculture remains the key source of income and employment and accordingly must be given high priority in infrastructure investment, extension, research and credit. In contrast, countries with small populations and large mineral wealth, such as Kuwait, Libya, and Saudi Arabia, have the most promising long-term prospects for a strategy of resource-based, capital-intensive industrialization built around

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the domestic processing of minerals and related industries.

The third group of countries comprises predominantly agricultural nations. These fall into two broad categories: those countries which have chosen to adopt an export orientation based on deepening and broadening their specialization in agriculture, such as Ivory Coast and Malaysia, and those countries which have tended to neglect their existing agricultural assets in favor of industrial import substitution and diversification of their economic base, such as Burma, Ghana and Sri Lanka. The former group not only experienced more rapid agricultural development, but was also able to embark on successful industrialization efforts, by exploiting the opportunities afforded by buoyant domestic markets, plentiful primary export earnings, and linkages between primary products and the domestic processing sector. This group of countries has now reached the stage where it can begin to shift into more demanding, skill- and technology-intensive areas of production, while continuing to improve the earnings opportunities for the rural population. The latter group of countries, in contrast, needs to eliminate many of the biases against agriculture in resource flows and incentives. In some countries agrarian reform and accelerated efforts to assist rural smallholders may be useful. In all of them the task of development would certainly be eased by more active population policies which hold out hope for reducing fertility, population growth and labor force expansion.

Conclusion

World Development Report, 1979 highlights the crucial role of development strategies and policies, especially as they apply to employment creation, industrialization and urbanization. It also shows that for these policies to yield their full potential, a supportive international environment for trade and capital flows and a prudent international approach to energy development are essential. Further deterioration in the international framework for trade and capital flows would damage both industrialized and developing countries, and make more intractable the daunting tasks the latter face of expanding employment and alleviating poverty.

World Bank, August 1979

The World Bank / 1818 H Street, N.W., Washington, D.C. 20433, U.S.A. • Telephone: (202) 477-1234 • Cables: INTBAFRAD

August 28, 1979

Mr. Oktay Yenel
Principal Economist
World Bank Resident Mission
P.O. Box 416
New Delhi
India

My dear Oktay,

This is the promised follow up of my telex to you last week regarding what you aptly describe as my "commercial" for the World Development Report -- isn't the commercial the light relief in the regular TV program, when one has a chance to fix oneself a drink (soft, of course!) or a sandwich? I have consulted with our Information and Public Affairs Department and their suggestions are as follows.

Our IPA people feel that it would be useful to separate the encounter with "mass-media" journalists from the one with academics, officials and more "high-brow journalists" (e.g. Seminar?). For the former they suggest a low-key lunch, aimed more to acknowledge the coverage they have already given to the WDR in their various organs and to cultivate contacts for future WDRs than to launch a fresh discussion. The people they suggest inviting are:

- Shri S. Sethuraman - Chief News Editor, PTI
- Shri G.G. Mirchandani - General Manager, UNI
- Shri Tiwari - Director, News Services, All India Radio
- Shri N.S. Jagannathan - Asst. Editor, Statesman
- Shri Swaminathan Aiyer - Times of India
- Shri Balraj Mehta - Indian Express
- Shri Dipta Sen - Hindustan Times
- Shri Jay Dubashi - India Today

All of the above news organs have had WDR sent to them. Two other points relating to the "mass" circulation media:

- (i) Shri Sethuraman (above) is apparently also Vice President of the Forum of Financial Writers, and may want to organize a small discussion with members of that forum, who represent the regional language papers;

Mr. Oktay Yenel

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August 28, 1979

- (ii) Mr. Sankaran (IPA) is writing to Shri Tiwari (All India Radio) in case they are interested in doing a short interview.

With respect to the other group (academics, officials, "high-brow journalists"), I am entirely in your hands. An informal discussion chaired by you would seem to be the best thing. I whole-heartedly endorse your recommendation that it should be low-key. Indeed, you may want to predicate the event on the degree of interest your sense.

These must be exciting, if not uplifting, times to be in Delhi. I look forward to being there, even for a few days, and seeing old friends such as yourself. Please let me know if there is anything I can bring from here for you or Aysel.

Warm regards,



Shankar Acharya
Research Advisor
Development Policy Staff

cc: Messrs: Merriam/Morris/Sankaran
Ms : Hamilton/Choksi

Sacharya:ye

OFFICE MEMORANDUM

TO: Distribution *S*
FROM: Shankar Acharya, Research Adviser, VPD
SUBJECT: Dissemination of Background Research
for the World Development Report

DATE: August 22, 1979

Much of the background work done for WDR'78 and '79 is now available in the form of regular Bank Staff Working Papers. Many staff members have indicated that it would be useful to have a consolidated list of these WDR papers. The attached list is being circulated in response to this suggestion. You may wish to circulate it to your staff.

Distribution: Regional Directors
CPS Directors
DPS Directors
Director, P&B
IFC Directors
Chief Economists

cc for information: Messrs. E. Stern
W. Baum
H. Chenery
W. Clark
M. Qureshi

List of Bank Staff Working Papers (WP)
for WDR'78 and '79

<u>Author</u>	<u>Title</u>	<u>WP#</u>
Acharya, S. and Johnston B.,	Two Studies of Development in Sub-Saharan Africa	300
Ahluwalia, M., Carter, N. and Chenery, H.,	Growth and Poverty in Developing Countries	309
Balassa, B.,	The Changing International Division of Labor in Manufactured Goods	329
Bergsman, J.,	Growth and Equity in Semi-industrialized Countries	351*
Billerbeck, K., and Yasugi, Y.,	Private Direct Foreign Investment in Developing Countries	348
Byer, T., and Fallen-Bailey, D.,	Energy Options and Policy Issues in Developing Countries	350*
Cheetham, R., Gupta, S., and Schwartz, A.,	The Global Framework	355*
Chenery, H., and Keesing, D.,	The Changing Composition of Developing Country Exports	314
Choksi, A.,	State Intervention in the Industrialization of Developing Countries: Selected Issues	341
Cuca, R.,	Family Planning Programs: An Evaluation of Experience	345
Datta Mitra, J.,	The Capital Goods Sector in LDCs: A Case for State Intervention?	343*
Frank, I.,	The Graduation Issue in Trade Policy Toward LDCs	334
Hughart, D.,	Prospects for Traditional and Non-conventional Energy Sources in Developing Countries	346*

* Indicates forthcoming

<u>Author</u>	<u>Title</u>	<u>WP#</u>
Katz, J.,	Capital Flows and Developing Country Debt	352*
Keesing, D.B.,	World Trade and Output of Manufactures: Structural Trends and Developing Countries' Exports	316
Keesing, D.B.,	Trade Policy for Developing Countries	353*
Linn, J.,	Policies for Efficient and Equitable Growth of Cities in Developing Countries	342
Nankani, G.,	Development Problems of Mineral Exporting Countries	354*
Renaud, B.,	National Urbanization Policies in Developing Countries	347
Selowsky, M.,	Balancing Trickle Down and Basic Needs Strategies	335
Singh, I.J.,	Small Farmers and the Landless in South Asia	320
Squire, L.,	Labor Force, Employment and Labor Markets in the Course of Economic Development	336
Stewart, F.,	International Technology Transfer: Issues and Policy Options	344
Wolf, M.,	Adjustment Policies and Problems in Developing Countries.	349*

* Indicates forthcoming

Mr. Stokes M. Tolbert, Director, IDFD

August 17, 1979

Keith Marsden, Operations Adviser, IDFD

World Development Report, 1979

1. I have been reading the World Development Report for 1979 with a great deal of interest. It has a lot of valuable data, ideas and policy conclusions which should be reflected in the forthcoming Industrial Sector Policy Paper.

2. There is just one conclusion I would like to query. This is the pessimistic projection of the numbers living in absolute poverty by the end of the century. Even in the most optimistic scenario, Table 18 estimates that 470 million will remain under the poverty-line.

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3. Surprisingly for a report which is otherwise very well documented, no information is given on how absolute poverty is defined or how the numbers affected were estimated. In my recent ILR article, I used previously published Bank estimates and showed that the goal suggested by Mr. McNamara in his Address to the Governors in Manila, 1976 (meeting the basic human needs of the absolute poor by the end of the century) was indeed "both fundamental and feasible", as Mr. McNamara reiterated in his Address of 1977. Is the pessimism of the WDR report in this respect justified?

4. In trying to answer that question, I have applied Bank data on income distribution and poverty levels to the GDP and growth rate projections given in Table 17 of the WDR. My steps were as follows. Mr. McNamara's 1976 Address set the absolute poverty line in the poorest countries at \$100 in 1975 dollars. WDR, Table 24 shows that the poorest 20% of households in the two Asian countries represented in this group had about 7% of total income. The average per capita GDP in the Asian low income countries was \$148 in 1975 (WDR Table 17). Thus assuming constant household size, the per capita income of the poorest 20% would have been around \$52. Table 17 projects GDP per capita to grow at 3.8% per annum in the Asian low income countries in the High Scenario. Thus, if there is no improvement in income distribution, the poorest 20% would experience a growth of incomes to \$132 (i.e. \$32 above the absolute poverty line) over the period 1975-2000.

5. As the income distribution curve is rather flat for the lowest three or four deciles, it may be estimated that the incomes of the poorest household in Asian were unlikely to be below \$40 (life could not be sustained for any length of time at the calory intake level such an income would imply). An income growth of 3.8% per annum would bring the poorest to \$102 over a 25 year period. Thus on these assumptions, the goal of eliminating poverty in low-income Asia (which accounts for the bulk of World poverty) could indeed be attained by the end of the century.

6. The poverty problems of the Africa and the middle-income countries should prove to be even less intractable if the international community were to agree on the "global compact" called for by Mr. McNamara in 1976. If anything, I believe the calculations above exaggerate the difficulty. Data on the distribution of household incomes tend to deflate the apparent share of the lowest income groups below their real levels for several reasons, including:

(a) low income households tend to be predominantly rural; the purchasing power of their money incomes is substantially higher than that of urban households because the price of foodstuffs which constitute upwards of 70% of their expenditures includes very low or zero transport costs and distribution margins; the same kind of adjustments to purchasing power parity which the ICP Project has found to be necessary when making international comparisons of GDP are also necessary before a realistic comparison between household incomes can be made;

(b) the value of products and services produced by low-income households for their own consumption tends to be omitted or under-valued in household income and expenditure surveys;

(c) income transfers in money or in kind received by low-income households from better-off members of their extended families tend also to be under-recorded;

(d) ILO household survey data show that in many countries the households included in the bottom two deciles of income distributions tend to have fewer members than the average (the old and the retired feature prominently in these groups);

7. These facts and interpretations are open to debate. I wonder if they might be examined in future policy reports of this kind. I get the impression that the Bank's prognosis of the World's capacity to deal with the poverty problem has become gloomier not because new facts have emerged (although admittedly the socio-economic climate has deteriorated since 1976) but because the Bank's fund raising strategy has changed. Is there a risk that this could be counter-productive? By exaggerating the magnitude of the poverty problem, might the Bank (a) weaken the donor's resolve to contribute to its solution if so little progress seems to be possible or (b) encourage donor's to put strings on their aid which would be politically unacceptable to the recipients or (c) provoke more desperate measures by the LDCs (under the label of collective self-reliance) which could prove to be self-defeating?

cc: Messrs. J. Chanmugam, F. Moore, IDFD

KM/ttl

Helen Hughes, Director, EPD

August 17, 1979

Kathleen de Tullio, EPDCE

NOTES ON TRIAL RUN OF GATT TRADE DATA TAPE FOR WDR II REGION 12: SOUTHERN
EUROPE

1. Attached are the results of the first run of the GATT trade data system. The data show Region 12: Southern Europe exports to the world for 1963 and 1970 through 1977. The output is by individual country, although the results attached are on an aggregate basis only for the six sectors used in WDR II. The new classification system is used which allows us to divide commodities into primary, processed and manufactures.

2. The attachments include:

(i) Detailed breakdown, with commodity descriptions, for the six sectors.

- . Commodities covered traditionally for CPP are shown separately.
- . New commodities are added.

(ii) Summary tables for total exports and for each of the six sectors.

- . WDR II comparative figures for 1975 are shown.
- . Growth rates in current and real terms are given.
- . Commodity coverage, based on values -- not weighted -- for traditional CPP coverage and new coverage are shown.

3. The structure of exports in terms of the new classification is:
(in percent)

Sector	Primary		Processed Primary		Manufactures	
	1970	1977	1970	1977	1970	1977
1. Food & Beverages	143	47	49	46	8	7
2. Non Food Agriculture	66	53	35	47	0	0
3. Fuels	9	2	8	1	83	97
4. Metals & Minerals	20	15	48	38	32	46
5. Machinery & Transport	-	-	-	-	100	100
6. Other Manufactures	-	-	-	-	100	100
TOTAL	22	16	25	19	53	66

4. The sector numbers differ from WDR II due to:
1. Food & Beverages - SITC 08 Animal feed and SITC 12 Tobacco are moved to Non-food.
 2. Non-Food Agriculture - Animal feed, tobacco, and SITC 94 ~~live~~ animals (200) increase this value.
 3. Fuels - o.k.
 4. Metals & Minerals - SITC 66 Nonmetallic, mineral manufactures, which includes diamonds, and SITC 67 Iron and Steel. are added.
 5. Machinery & Transport - o.k.
 6. Other Manufactures - Less Iron and Steel.

Attachments

KDTullio:dbf

cc: BGrdjic
R.Dacumos
K. Lawren

Mrs. Helen Hughes, ^{Director} EPD

August 13, 1979

B.J. Choe, EPD/CE

ENERGY INTENSITY: US VERSUS WESTERN EUROPE

1. As you requested, I looked into the apparent inconsistency between the statement on page 37 of WDR II ("...the US consumes about 25% more energy per unit of GDP than Western Europe...") and the World Development Indicator Table 7.

2. The 25% figure obviously has been calculated from the Appendix tables of Annex 1 of the WDR II background paper. In those tables GDP was shown in terms of constant 1970 US dollars. However, Table 7 of the WDR II obviously expressed GDP in terms of constant 1976 (?) dollars, presumably using the average 1975-77 exchange rates. Therefore, the difference between the two energy intensity estimates appears to be due to exchange rate changes (depreciation of the dollar).

3. Of course, a proper thing to do in such a case is to correct GDP estimates for purchasing power differences. This was not done in either case.

cc: Mr. Acharya

BJChoe:dbr

OFFICE MEMORANDUM

TO: Mr. Paul Isenman, PPR

FROM: Friedrich Kahnert, Chief, URBOR

SUBJECT: World Development Report III - Outline and Related Notes

DATE: August 10, 1979

1. As I promised you, I have taken a look at the WDR III notebook you sent me. I am impressed by the awesome task you have set yourself with this report. My comments below are given in the order in which they occurred to me, which more or less follows the sequence of the papers in that notebook. In general, I am not commenting on the sequence of the various chapters, although I have some sympathy with the remarks made by Bevan Waide. I feel, however, that the best sequence of the discussion will become clearer as work progresses and it becomes clear which of the chapters can be developed far enough to merit highlighting in the report and which will have to be given less emphasis.

2. The first general remark is that I believe the system nature of human resource development needs to be more clearly emphasized. There is, of course, plentiful implicit recognition, for example when both the causal and consequential nature of relationships between poverty and human resource development is pointed out (see Outline). However, various sectoral aspects of HRD, such as health, education, etc., are very closely interrelated with each other as well as with other variables, such as income levels, employment opportunities, population growth, etc. If the accent is not put clearly enough on these interrelationships, we are in danger of coming to such silly conclusions as the recent overview of the Basic Needs work which gave top priority to literacy because it shows such a good correlation to life expectancy.

3. On the Health chapter, for example, the T. King note of June 4 recognizes the multiple interactions in that field. That's fine, but it does not talk sufficiently about interaction with education for example, or incomes. There is no mention of health education in there, which, I think, is a key feature of any improvement in health. I could also point to the fact that WHO some years back decided that rural health services, for example, would not succeed if there were not parallel to or part of rural development projects that simultaneously lead to higher incomes in the rural areas.

4. Another general point is that I believe differences within countries might be important enough to be talked about fairly early on in the report, for example in your draft of the introduction. I think differences in poverty levels within countries are a very important political issue as is recognized later in the AW note of May 31 on page 2 and in the undated paper on "Bodies of Evidence/Areas of Inquiry." Incidentally, in both these cases there is no reference to tribal differences in poverty exposure and, I think, that should certainly be included.

5. The note by AW of June 7, 1979, talks of a concept of "extreme poverty." I don't know what difference it is intended to make between poverty and extreme poverty, but I do hope that there is no intention of complicating the matter too much. This brings me to a general point related to the note by AW of May 31. I believe that item II(b)(i) really holds the key to a great deal of the report. If you must use a dollar cutoff for income to separate the poverty group from the rest of the population, then, I think, the choice of this cutoff level is crucial to very much of the remainder of the report. I also think that such a cutoff level may serve a purpose of public relations but is scientifically unjustifiable across countries. Similar considerations apply to two other of the indicators that are expected to be used here, i.e., life expectancy and infant and child mortality. At what level of life expectancy is one no longer suffering from poverty and becomes not so poor? The key point, however, is that, I believe, it is going to be very difficult to develop life expectancies for subgroups of a country's population. What you will end up with, therefore, is poor countries versus not-so-poor countries in terms of life expectancy and levels of child mortality (which are almost synonymous indicators anyway). This is obviously an unsatisfactory measure since all countries will have rich as well as poor population groups.

6. In the same paper under heading II(a), I have a hard time visualizing anything that will go beyond mere generalities. If correlations are to be discussed, you will need some precise and meaningful indicators. I don't see where you will get these for items 4, 5, 6, 8, and 9. This raises questions such as how to rate different degrees of shortfalls in nutrition, where to find anything reasonably reliable on morbidity, how to take account of other than physical aspects in access to modern health care and so on. Incidentally, why only "modern" health care and what is it?

7. With respect to demographic data in T. King's note of May 31, I would like to point out that Julien Condé of the OECD Development Center was involved with other institutions some two or three years back to establish a new set of life tables. This work should now be finished and it might be useful for you to get access to it, if you do not have it as yet.

8. In the paper on health nutrition, I think it would be useful to include an examination of the experience with child feeding programs and nutrition support to pregnant mothers. I assume you are using the paper on urban malnutrition prepared by Briscoe and others. I might also add that we have a public health consultant in this Department going around on some water supply missions to study the public health aspect of water supply and it might be useful for you to get in touch with him. His name is Jim Listorti.

9. Another remark refers to the position of the shelter sector in your report. For the moment I am quite unclear on how you are going to deal with it since the health chapter does not mention it while under sectoral policy issues and in the summary outline of May 4 it is tentatively included. A little more reflection will be needed to see whether shelter as such should be included or not. In fact, the poverty-oriented shelter interventions of this Department in their relation to human resource development are essentially provision of basic public services such as water and waste removal and sanitation questions in general. If these are properly covered, I don't think there is very much else that one can say about shelter as such in its role in HRD, but I am open to persuasion.
10. The chapter on education, as laid out in T. King's note of May 31, seems to concentrate more on the overall education system and its appropriateness than on education for the poor in specific terms. I attach a copy of a paper that was prepared with our help some time ago on education and training programs in projects for the urban poor. This might be helpful for the education chapter.
11. One has to agree with much of what Landel-Mills says on development administration in his note of June 4, 1979, but my feeling is that the overall dilemma that he points out remains unaddressed, i.e., how to break the vicious circle of weak government capacities which make it difficult to initiate and carry through a reform of administrative systems which is a precondition for better human resource development. The only thing he seems to advocate is technical assistance on page 6, which disregards the fact that there are a number of countries where technical assistance is no longer particularly welcome, especially in this sensitive area.
12. Another remark on this draft refers to page 4 where he makes a plea for participation of the poverty group in HRD. That is a fine idea, except that by the nature of the problems we face in education, health, water, etc., a large measure of popular participation is really quite impossible with the exception of some of the physical investments required. Even there, however, the political clout may be and often is held by people whose interests are not those of the poor. For example, in East African efforts to use self-help in school building, secondary schools were built in priority over primary schools, mostly because the private returns to secondary education were much more important but access to the secondary schools was obviously limited to the relatively privileged. Similar experiences were obtained in food-for-work programs in North Africa which have some self-help features and which produced assets (where they did!) that benefited the land owners rather than the poverty group. Experience with self-help in URB projects has also fallen well short of expectations. I believe popular participation in HRD would be extremely difficult to organize to benefit poverty groups and is a very delicate political matter.

13. The other note on development administration makes some good points on the questions of local finance (para. 5 on page 3) and I attach a paper that was written by this Unit on local finance as a background hoping that you will find it useful.

14. On the international implications, F. Stewart's note of May 31, item E, I am in overall agreement but for individual countries some of the arguments just don't hold. In the Yemen Arab Republic, for example, there is a very considerable impact of outmigration on the employment situation inside the country because a very high percentage of the labor force is actually abroad. Similarly, I don't think the employment impact is negligible in some of the major emigration countries, such as Turkey, Algeria, Morocco, Mexico. Also, the emigration in these cases is far from being just the educated part of the population. Finally, I think that the whole matter of international migration causes considerable political problems which might bear highlighting because they are sometimes resolved to the detriment of the poverty group. For example, the mass expulsion of several hundred thousand foreign workers from Ghana some years back surely had a severe impact on the poverty groups in their countries of origin.

14. I realize that many of these comments are of a more or less random nature, but I have some difficulty getting a very precise impression of what the report is going to look like from the assortment of notes in my copy of the notebook since a number of them show considerable overlap with each other and there are obviously a number of issues on which you have not yet taken a stand. I hope that the comments will, nevertheless, prove of some use.

cc: Messrs. Jaycox, Dunkerley, Churchill, Walters, Mould, Singh,
Cook, Rathman, Simmons, Sandstrom, Sud, Madavo,
Courtney, Lethbridge, Noman
Ms. Jackson, Kozlowski

FKahnert:jm

Mr. Paul Isenman, PPR

August 9, 1979

John M. Kalbermatten, Water and Wastes Adviser, TWT

WDR III

Mr. Willoughby, who went on annual leave the day he received your memo, asked me to reply on his behalf.

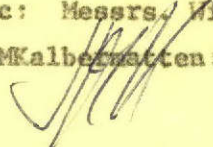
As you know from our discussion, the problem the Water Unit faces is really very simple. We have one economist, namely Fred Golladay, whose primary function is to review the water and sanitation sector lending operations of the Bank. This means participating in the review of project briefs, decision memoranda, yellow covers, including participation in formal and informal consultations, providing occasional support in the field, etc. In addition, he's expected to participate in the formulation and drafting of policy guidelines, policy papers and other reports requested from management. For example, Fred is at the moment finishing his input (essentially a redraft) on the water supply and sanitation basic needs paper. Following acceptance of that paper, we are committed to prepare a sector strategy paper which is to be ready by next September so Mr. McNamara can use both these papers as background for his participation in the U.N. session initiating the Drinking Water and Sanitation Decade.

I think you agree that this is already a rather full program. However, given Mr. Golladay's special qualifications in the health field, I'm also convinced that you should be able to take advantage of his expertise. I therefore repeat my suggestion that the WDR III budget provide funds to hire a consultant economist to assist the Water Unit in its routine work so Fred can spend the necessary time on the WDR. I'm unable to tell you at the moment how much consultant time we would need or whether we would need any. I would expect Fred to be available even during his work on the WDR for routine review of documentation. It would then be essentially his judgment to determine whether we will need some assistance from a consultant. I'm sure you understand that the budget of the Water Unit does not foresee this kind of massive "external" commitment which will be between 20 to 25 percent of Fred's time.

As to the dates, with October for the first draft, I should advise you that Fred will be occupied with the basic needs paper at least during the first half of September plus a few days late in September. However, I do believe he should have a week to ten days available in the second half of August when he returns to the office from two weeks annual leave he is started on August 6. So even under the best of circumstances, I suppose your deadlines might have to be modified to some extent.

cc: Messrs. Willoughby, Nanjundiah (TWT)

JMKalbermatten:bf



Mr. M. Yudelman, Director, AGR

August 7, 1979

Shankar N. Acharya, Research Advisor, VPD

AGREP Background Paper for WDR II

Attached is a copy of some preliminary comments I had made on the paper (I believe they were distributed to you nearly 8 months ago). In addition, extensive comments were made by those attending the meeting back in December. I fear my notes of the meeting (and my old marked up copy) were weeded out of my files, when I moved offices (and jobs) last month. I would suggest that you contact Randolph Harris (who was a discussant for the paper) and Attila Karaosmanoglu, (who chaired the review meeting) for their comments/notes. David Turnham was also a designated discussant -- though he was absent at the meeting -- and might have useful comments. Lyn Squire may also have some comments.

Meanwhile, I shall try and find time to review the paper again.

Attachments

cc: Messrs. A. Karaosmanoglu
D. Turnham
L. Squire
R. Harris

SAcharya:lt

Mr. Michael Wiehen, Director, ASA

July 30, 1979

THROUGH: Mrs. Ann Hamilton, Chief, ASADB
Roger Grawe, ASADB

South Asia Background Paper for WDR III

1. WDR III will draw on a set of background papers to be prepared in each region. I have been asked to undertake this task for South Asia. The paper would focus on strategic issues for human resource development and meeting "basic needs" in the region as a whole. A first draft would be required by November 15 and a revised draft, 3 weeks later, on December 7.
2. The opportunity cost of my working on this assignment would be a postponement of our work on trade policy in India. In particular the study on the effects of India's import liberalization could not be undertaken until the second half of FY80. 1/ However, I would plan to assist as usual with the exports estimates for the balance of payments section of the Economic Report. This could be done in December and January with little difficulty.
3. During the September-December period I estimate that the WDR assignment would require 60-70% of my time, the remainder being available for general economic work in the India Division.

[Redacted]

RGrave/bd
RD

1/ This cost may be mitigated with an early replacement for John Wall, particularly if that person already had some background in trade. A YP assignment and/or the use of consultants could also help fill this gap.

AUG 1 RECD

Mr. Paul Isenman

July 23, 1979

Michael Cernea

Sociological Inputs in the WDR III

As I indicated, Prof. Alex Inkeles will be out of the country (going to Greece and Israel) during Sept. - Oct. 1979. Therefore, he won't be available for the first round of brainstorming sessions and workshops.

But:

- 1) Nat Colletta might see him at Stanford in August, (Inkeles agreed);
- 2) draft papers could be mailed to him for review, which he usually does very meticulously and with great insight;
- 3) given his superlative expertise and direct conduct of comparative research in six LDC's on the relationships between individual values and development, I strongly suggest that he should be involved early in 1980 (after his return to the US) in a Washington workshops or review of final (pre-final) sections for the World Development Report III.

MCernea/dad

cc: Messrs. T. Davis, N. Colletta

Mr. Paul Isenman, Staff Director, WDR

July 16, 1979

Frederick Golladay, TWT and Bernhard Liese, PAS

World Development Report - Health

1. We propose that the chapter on health of the World Development Report a) report on the status of health at the beginning of the 1980s, b) review present efforts to improve health, c) explore the implications of trends in urbanization, sanitation, transportation and health care for levels of health and patterns of disease through the year 2000, and d) examine in detail three or four major policy issues confronting the health sector.
2. WHO is promoting the goal of "health for all by the year 2000" and reliance on "primary health care" as the corresponding operational strategy. While the goal is probably unattainable and the strategy only very vaguely understood, both countries and donors are making political commitments to expand and improve health care. As a result, there is likely to be substantial expansion and improvement of health activities. It is proposed that the WDR place the goal and the constraints in perspective. Health conditions have improved markedly over the past two decades in most developing countries though very significant pockets of very poor health persist. The rate of improvement has slackened over the past decade or so, suggesting that the developing countries may be confronted with chronically lower levels of health than economically advanced countries. At the same time the pattern of disease has begun to change. The diseases of childhood continue to explain most of the discrepancy between life expectancy in poor and wealthy countries but the diseases of affluence--those associated with lifestyles and middle age--are emerging as major cripplers in developing countries. The paper would document the state of health in 1980.
3. Past improvements in health have occurred primarily as a result of improvements in nutrition, sanitation, housing and education. Medical care has played a modest but growing role, and with recent advance in medical technology could play a still more significant part in the future. However, governments and donors, despite the rhetoric to the contrary have committed a declining quantity of real resources to the sector in recent years. The paper would produce estimates of public expenditures for health (in total and per capita) and would provide a cost-of-care index to deflate nominal outlays. It would also examine the growth in stocks of health manpower and their implications for the quantity of resources needed to employ them effectively in the future.
4. Notable changes are occurring in the character and pattern of disease as countries urbanize and industrialize. In order to place health policies in a longer-term perspective, the paper would examine this epidemiological transition. It would trace the effects of identifiable trends in health and would examine the changes in capacity to deal with these problems occasioned by improvements in transportation, educational achievements, etc.

5. The final part of the report would examine three or four major policy issues that may be expected to grow more prominent over the next two decades. We propose to consider items from the following list:

- a) institutionalization of deprofessionalized health care (the problem of developing viable mechanisms for quality control, supervision, staff development, accountability, etc. in systems of simplified medicine);
- b) control of the procurement and utilization of pharmaceuticals and thus costs;
- c) the choice of appropriate technologies in view of both acceptability to patients and medical efficacy;
- d) methods of financing recurrent costs and achieving financial control; and
- e) location of facilities and the structure of the system in light of expanding expectations and likely improvements in transportation.

6. The outline of the report would be as follows:

Chapter 1: A Report on Health Status - 1980

Mortality and morbidity: international and intranational comparisons; Health and the distribution of income; The problem of early childhood mortality; Role of health in development.

Chapter 2: Recent Efforts to Promote Health Care

Trends in national health budgets; External assistance for health; Estimates of real per capita expenditure; Growth of staff.

Chapter 3: Prospects for Health to the Year 2000

Implications of industrialization and urbanization; Consequences of likely improvements in sanitation, education, housing and nutrition; Demographic transition and the pattern of disease; Improvements in health care technology and organization and prospects for health.

Chapter 4: Major Policy Issues in the Health Sector

Institutionalizing low-cost health care; Procurement and utilization of pharmaceuticals; Appropriate technologies; Financing recurrent cost; Location of health care facilities.

FGolladay/BLiese:aq

OFFICE MEMORANDUM

yellow
DPA. World Dev. Report

TO: Files

DATE: July 12, 1979

FROM: Michael Cernea

SUBJECT: Sociological Issues in the Preparation of the WDR 1980

1. Mr. Paul Isenman, head of the Core Force preparing the World Development Report (WDR) for 1980, asked for comments on the outline of WDR III and for suggestions for the work-plan to assemble it.
2. The central topic of WDR III for 1980 will be "Human Resources and Poverty Alleviation." This is a shift from the economic/income focus of the first two WDRs towards more recognition of the major social components of the world poverty problem. Human resources are both a major objective of poverty alleviation and are also a significant determinant of the growth and productivity and income of the poor, as well as of societies as a whole.
3. My detailed comments on the sociological issues, as conveyed to Peter Knight and Paul Isenman, consisted, briefly, of the following:
 - (a) Despite the report's focus on social factors and consequences of poverty, the outline still omits several crucial sociological variables and processes.
 - (b) The analytical framework of the outline ignores the family. The family is (1) a producer and (2) a distributor of goods and services relevant to education, health and nutrition, and also (3) a mediator of resources provided from the outside. I suggested that the key mediating role of the family structures should be discussed in the report, based on the findings of the recent sociological research.
 - (c) The role of the value system and the aspirations of the poverty group, as a resource or a constraint for their self-development, is a second missing sociological perspective. Cultural patterns related to education, nutrition and health should be analyzed closely, since they control the population's resource allocation for these activities.
 - (d) The existing social stratification limits the access to administrative resources for education, health and nutrition. The role of social stratification should be incorporated into the report's analytical framework.
 - (e) There is need to analyze the experience of alternative policies for developing human resources, implemented in different centrally planned societies (not only China, as suggested in the outline). Important lessons can be derived from mistakes made in East European countries particularly in education and health-care policies.

Files

July 12, 1979

Page 2.

4. Subsequent to my comments, Mr. Isenman convened a meeting on July 7, 1979 to discuss the ways for incorporating the sociological issues into the work plan. During the meeting it was decided to recruit consultants for writing review and background studies on:

- (1) the role of the family in the development of human resources;
- (2) social stratification and the access to administratively distributed goods;
- (3) value systems, aspirations and the perceived opportunity structure.

5. A few workshops or working groups will be convened (including outside consultants) to discuss and follow-up on these issues. Sociologists will be included in the review process of the drafts of various sections of the WDR III. The core team for WDR III is attempting to recruit, on a part-time basis, a member with training and experience on sociological issues.

cc: Messrs. Yudelman, Christoffersen, Pickering, Davis, Turnham, Ahmad

Mr. Robert S. McNamara

July 12, 1979

Hollis B. Chenery

Final Revisions of WDR II

1. The attached ^{pages} contain revisions resulting from the Board discussions plus comments from you and Ernie. To my mind, the only remaining issue is whether to treat the July 1979 average price of OPEC oil (\$20.44) as the base from which future increases should be measured. This is shown in the redraft of para. 2.16 as you suggested. The alternative would take the 1979 average (\$17.73) as the base to recognize the possibility that increases in the next several years may not keep up with inflation, as was the case in 1974-78. If we adopt the second alternative, it would not be necessary to extend Figure 2 to include columns for 7/1/79, although it can be done if you wish.

2. The second alternative is unanimously preferred by your staff (Attila, Helen, Shankar and myself) because the likelihood of a recession in 1979-80 makes this a distinct possibility, even though in the latter part of the 1980s the trend in prices should again be upward. We can live with either solution, however.

Attachment

cc: Messrs. Stern, Qureshi, Karaosmanoglu, Acharya
Mrs. Hughes

Files

July 11, 1979

B.J. Choe, EPDCE

Mr. Deare's Question (UK ED)

1. This is in response to Mrs. Hughes' memo of July 9, regarding the consistency between the Mineral and Energy Paper (No.1588) and WDR II Table 3.6. As far as the historical data are concerned, the only difference is the classification of countries. The paper No.1588 was based on EPDCE commodity paper No.21, "International Energy and Petroleum: Prospects to 1985", which left out the whole of Southern Europe, South Africa, Singapore, Cuba, Puerto Rico, U.S. Virgin Islands, Bermuda and some Pacific Islands from its definition of oil-importing developing countries. WDR treats these countries as oil-importing developing countries.
2. The 1976 primary energy consumption of these countries amounted to 5.0 million b/d of oil equivalent, according to our data file. Subtracting this from the WDR total of 12.6 million b/d, we get 7.6 million b/d, which is close to 7.8 million b/d in the report No.1588. Note that the 1976 figure in the report No.1588 was not an actual but an estimate.
3. The difference in the projected 1985 levels is 7.9 million b/d, compared with 5 million b/d in 1976. In other words, the report No.1588 projected 5.2% annual growth in energy consumption for the left-out countries, between 1976 and 1985, compared with 5.5% annual growth for all the oil-importing developing countries in WDR II.

cc: Mrs. H. Hughes, EPD
Messrs. C. Chung, EPDCE
S. Singh, EPDCE (o/r)
A. Lambertini, EPDCE

BJChoe:jmca

Mr. Russell Cheetham, Assistant Director, EPD

June 14, 1979

Helen Bothwell, EPDCE

Country Economic Classification

1. This is to confirm our conversation of yesterday regarding the WDR country economic classification which our Division will begin adopting for all its future work.

2. As you instructed, we will follow the attached WDR list exactly as shown noting particularly that Cuba is to remain within the Centrally Planned Economies (Region 15) for all purposes (including trade). Our four main economic classifications which also comply with those of the WDR will then be as follows:

1. Developing Countries = Regions 1 through 5 PLUS
Regions 7 through 12.
2. Capital Surplus Oil Exporters = Region 6.
3. Industrial Countries = Regions 13 and 14.
4. Centrally Planned Economies = Region 15.

3. Also, we will scrupulously follow the WDR procedure of excluding the Capital Surplus Oil Exporters (Region 6) from the 'Developing Countries' grouping.

AB cc: Mrs. Hughes
Messrs. Colaco, Schwartz (EPDIE)
EPDCE Staff.

HBothwell:ji

Mr. R. Chander, EPDDR

May 25, 1979

B. J. Choe, EPDCE

Historical Growth Rates in Table 3.6 of WDR Text

1. This is a follow up to my memo of May 23rd and our conversation on the subject. The attached table shows the historical growth rates based on the EPD data bank.

2. Since 1976 is the latest year for which data are available and also the base year in Table 3.6, it would be desirable to show growth rates for 1960-76, rather than for 1960-75 as in existing Table 3.6. For this reason and for comparison with existing numbers, I have shown growth rates for both 1960-75 and 1960-76.

Attachment

Cleared with and cc: Mr. Singh, Chief, EPDCE

cc: Mr. Cheetham (EPD)

HISTORICAL ENERGY CONSUMPTION AND PRODUCTION GROWTH RATES ^{/a}

	<u>1960-75</u>		<u>1960-76</u>	
	<u>Production</u>	<u>Consumption</u>	<u>Production</u>	<u>Consumption</u>
Developing Countries	6.7	6.7	6.7	6.7
Oil Exporting Countries	7.2	6.9	7.2	6.9
Oil Importing Countries	5.4	6.6	5.2	6.7
Industrialized Countries	2.7	4.0	2.6	4.1
Centrally Planned Economies	4.4	4.3	4.4	4.3
Capital Surplus Oil Exporters	10.2	12.5	10.7	13.9
TOTAL	<u>4.5</u>	<u>4.5</u>	<u>4.5</u>	<u>4.5</u>

/a Compound annual growth rates, end point to end point, in percent per year.

Source: EPD data bank, based on U.N. Series J tape.

Mr. R. Chander, EPDDR

May 23, 1979

B. J. Choe, EPDCE

Table 3.6 of WDR Text

1. This is in response to your memo dated May 22. With regard to the 1976 actuals and the projections (both the levels and the growth rates), I suggest you to refer to the energy background paper (Energy in the 1980s: Global Supply and Demand Analysis, January 1979, EPD) and the subsequent revisions contained in Mr. Cheetham's memo to Acharya dated May 10.
2. The historical growth rates, as such, in Table 3.6 were not provided by me. I am not clear about the source and the method involved.
3. For your reference, the attached table provides a breakdown of the developing countries into the oil exporting and the oil importing groups. This table incorporates the revision of the historical data with respect to South Africa's petroleum consumption, as noted in Mr. Cheetham's May 10 memo (para. 5).
4. "Bunkers and others" is a hybrid category, including not only bunkers but also transportation losses, accounting errors, etc. As such, I think its growth rate would not make much sense, nor would be of much interest.

Attachment

cc: Messrs. Cheetham, Singh

BJChoe/sas

DEVELOPING COUNTRIES' PRIMARY ENERGY CONSUMPTION AND PRODUCTION, 1960 & 1975

(unit: million barrels per day of oil equivalent)

	1960		1975	
	Production	Consumption	Production	Consumption
Developing Countries	9.44	5.91	24.84	15.56
Oil Exporting Countries	6.54	1.42	18.44	3.84
Oil Importing Countries	2.90	4.49	6.40	11.72

Source: EPD data bank based on U.N. Series J tape.

Mr. Hans Fuchs, Director, IPD

May 21, 1979

L. Hartsell ~~Cash~~, Chief, IPDD1

WDR II - Draft of May 14, 1979

I have read the sections of this report dealing with minerals, paragraphs 8.2 through 8.23 and believe that, to the average reader, these paragraphs could have been better prepared had they not tried to present all of the petroleum countries and the mineral countries under the same general heading "mineral economies".

I believe that they would do better to call the total "Natural Resource-based Economies", and then to differentiate between Petroleum Economies and Mineral Economies. There is a world of difference between the economics of petroleum projects and the economics of mineral projects. For instance, in para 8.19 where they strongly recommend royalties, this is quite alright in petroleum economies but quite often has served as a disincentive for the development of the mineral sector in countries such as Bolivia and others. The recommendation later in the same paragraph to consider the possibility of investing mineral earnings in financial or real estate abroad instead of spending them domestically clearly relates more to petroleum economies than to mineral economies, most of which have no surplus to invest.

In para 8.8 the implication that mining has been a strong inducer of rural-urban migration in developing countries by the wage dualism may be true to a somewhat minor degree in the mining economies but I am not aware that this has created the major distortions which the paragraph seems to imply. In only a few of the countries are there reasonably large cities near the mines. To be sure, there are some problems with squatters and camp followers around mining camps, but I do not believe this is the point the paper is trying to make.

Nor would I be quite as inclined to make the point that mining does not make a contribution to improve health standards. Indeed, the hospitals and health facilities in many of the mining communities make a decided impact on the health of the surrounding region and mining hospitals normally treat a great many free patients from outlying communities.

We certainly fully agree that increased Government participation is going to happen in any event, although I think para 8.18 seems to indicate that the task of acquiring the full capabilities to handle large mining projects will be somewhat easier than it may perhaps turn out to be. The knowledge of the mining side itself is much more easier than the metallurgical and other highly developed technical skills and, with certain rare exceptions, the attainment of capability in those fields seems many years off.

May 21, 1979

Nor do I have any quarrel with the general development measures discussed in paras 8.20 through 8.23. One of our most practical problems in dealing with situations like this is perhaps illustrated by Zambia. It seems quite clear to us that the Bank is going to have to come to Zambia's assistance in the mineral field at a relatively early date since the current warning signs in that sector are ominous. The region however has been pushing diversification of the economy quite strongly--and with that we do not disagree--but to do so while seeing the copper sector slip to the point where, in two or three years time, the total tonnage may be considerably below the level achieved in recent years would not seem particularly sound. The point I am trying to make is that I think we must have a balanced view and work very clearly to see that the mining sector itself remains very sound; otherwise, the funds needed for development in other sectors simply may not be there.

LHCash:veo

cc: Messrs. Acharya
Chopra
Singh
Blitzer
Choe
Lambertini
Friedmann
Ezzati

Mr. Attila Karaosmanoglu, VPD

May 18, 1979


E. Friedmann, EWT

WDR-79 - Energy
Board Meeting - July 10
Background Reports

1. This is to confirm that in my absence, Mr. Philippe Bourcier (Division Chief, Petroleum Projects) and Mr. D.G. Fallen-Bailey (Senior Energy Specialist) will be available for handling questions regarding energy. I think someone from Helen Hughes department should also be at hand to answer questions on the global projections.

2. We intend to edit for publication the two main background papers prepared in EWT. In particular, I will carefully review the one on policies and options before going ahead with its distribution. Mr. Fallen-Bailey will contact shortly Peter Wright on this matter. I hope the above is satisfactory.

cc: Messrs. Y. Rovani, P. Bourcier, D.G. Fallen-Bailey, D. Hughart, EWT

 EFriedmann:rb

May 22, 1979

Dear Mr. Smith:

Mr. Chernick has told me of your interest in The World Bank Debt Reporting System (DRS). In response to your request for a description of the system, I am enclosing a copy of a manual on statistics on external indebtedness recently prepared with our assistance by the BIS. This manual provides brief but fairly comprehensive description not only of the DRS but of other information systems as well. In addition, I am enclosing a set of the DRS reporting forms to provide some indication of the detail available in the system.

Sincerely yours,

CS

Catherine Slappey
Chief,
External Debt Division
Economic Analysis and Projections Department

Encl.

Mr. Howard G. Smith
Deputy Director
Multilateral Programs Branch
200 Rue Principale
Hull
Quebec, Canada
K1A0G4

C.Slappey:dg.

OFFICE MEMORANDUM

*yellow copy
DPA World Dev Report*

TO: Mr. Shankar N. Acharya, WDR

FROM: Efrain Friedmann, EWT

SUBJECT: WDR 79 - Energy "module"

DATE: May 18, 1979

Per your request here are my comments on the draft attached to your memo of May 11.

General

1. I think the present draft is too low-key and bland in important respects. Important messages which should convey loud and clear are:

- (i) The supply and price picture is one of continued tightness and unpredictability. Tightness is due mainly to:
 - (a) increased concern for conservation of non-renewable oil resources in major oil exporting countries, resulting in production levels well below those technically feasible,
 - (b) lack of effective planning and action in most OECD countries, particularly the US, regarding conservation and investment in domestic energy supply development, and
 - (c) lack of adequate exploration and development of fossil fuels in most non-OPEC LDCs due to the various reasons given in draft but particularly to uninformed, unrealistic past and current policies of some governments vis-a-vis private foreign investment. The imbalance in world investment in exploration in LDCs compared with OECD countries is unwarranted by technical or economic reasons.
- (ii) The energy crisis is not a resource crisis, it is a crisis created by lack of adequate size and timing of investments, specially in N.A. and LDCs. It will be a long one because investments in energy conservation as well as supply development will in any case take years to influence the market situation.
- (iii) The crisis reflects a world transition from low economic cost of energy (OPEC and less so non-OPEC oil) to enormously higher economic cost energy (synthetic oil from coal, tar sands, shales, etc.). The OPEC price revolution is sustained by this basic economic reality.
- (iv) Finally, and specific to LDCs, the basic energy needs of the poor (for cooking, heating) can and should be supplied to the maximum possible extent by an improved technological and management approach to the current sources (i.e. biomass) until their standards of living and increased productivity require and allow the use of higher cost sources.

2. In addition I would suggest that the first part of the paper (paras. 3.52 to 3.54) discuss and present the following points:
- (i) Energy demand is primarily determined by expected economic growth, specially in OECD countries. Direct price effects on demand though important have long time lags and are of secondary impact in the short-medium term. The indirect effect of OPEC prices are however most important, because large oil prices increases trigger trade and fiscal policies which lead to low economic growth (and therefore low energy growth) as countries strive to fight inflation and maintain their balance of payments in shape.
 - (ii) The outlook for the supply of OPEC oil during the 80s has most probably changed in a permanent, not a short-term way only, by the Iranian revolution. The real impact of this revolution is that the Persian Gulf producers have all now become strong conservationists.^{1/} Given these supply policies the world oil market is likely to be tight through the 80s creating an upward pressure on prices, which lead us to the discussion of the main factors determining them.
 - (iii) There is no doubt that given the very small short-term price elasticity of energy and oil, any supply shortages may lead to large price increases as witnessed by spot prices statistics. However, the bulk of oil trade takes place under large, long term supply contracts, and the prices we have to consider are those which will apply to these. Since September 1973, these prices have been unilaterally fixed by OPEC in periodic meetings where compromises are usually reached among its members. The main factors which OPEC countries have in mind when discussing these are:
 - (a) The short-term economic and associated political impact of the increase. If the state of the world economy is healthy they are more likely to raise prices than otherwise. So far, in OPEC meetings the countries which have given most attention to this factor, particularly S.A.^{2/}, have prevailed.
 - (b) The longer term effects, specially the possibility of triggering a rapid and irreversible development of non-OPEC alternatives, i.e., heavy oils, tar sands, oil shales and coal liquefaction. The projected cost of these alternatives is a limiting factor specially for those

^{1/} The reasons for these new policies vary from place to place, but there is little doubt that in the case of S.A. the fall of the Shah is blamed on the social dislocation created by an excessively ambitious development program.

^{2/} S.A. with its large cash surpluses has an economic as well as a political interest in Western stability and strength.

countries with high reserve/production ratios such as S.A., Kuwait, UAE, Libya. As these projected costs have escalated from some \$7 in 74 to about \$25 currently, OPEC prices have still an interesting margin for future increases.

It may be noted that I do not list above as a main factor the market situation. This would normally be a very important one, if it could be expected to change in a manner likely to have an impact on OPEC. I do not believe this would be realistic for the period in consideration. The pre-Iranian crisis "glut" was expected to gradually disappear over the early or mid-80s under normal economic growth assumptions. With Iran, S.A., Mexico, and others joining the conservationist group of Kuwait and Libya, and the technically limited other exporters, the market will be tight throughout, in fact so tight that OPEC may very well claim that any future price increases are market determined.^{1/}

3. Where all the above discussion leads to? In the first place that in the equation:

$$\text{World Energy Consumption} = \text{OPEC production} + \text{non-OPEC production}$$

the main variables to work on by the rest of the word are the first and last one, OPEC production which could be and was in the past the most flexible has now become quite stiff.

4. The policy conclusions are obvious ones, the goals are clear. The practical question is how you implement them. How you reduce energy consumption with minimum social costs? How you increase non-OPEC supplies, where you allocate investments, R&D, etc.; how much you sacrifice environment, safety, price stability, etc. etc. These are the practical problems for OECD and oil importing LDCs.

5. The draft discusses these problems but it could be sharper. For OECD, the first, safer, universally accepted strategy is strong conservation. As for new supplies the main alternatives are coal and nuclear. The problems associated with them have been and are being discussed ad-nauseam. Many can be resolved by accepting higher costs (to protect the environment and increase safety). The balance between costs and risks is the difficult one, it needs good technical information and finally a clear value judgement proposed by strong political leaders and acceptable to the public. The impact of the Three Mile Island accident will be serious. In the US where the power industry is privately owned, utilities have been awakened to the possibly devastating financial losses from a nuclear incident such as that of Harrisburg. This factor may have a larger weight in slowing down the US nuclear program than public resistance. In the rest of the world, a review of current plant

^{1/} Of course, only apparently as OPEC supply restraints however well founded in terms of their own economic and political self interest, would be the real reason.

designs and operating procedures will no doubt slow down the programs somewhat. By how much will depend on remedies found and availability of alternatives, most notably imported coal. Coal exports can become a most interesting option for some coal rich LDCs (i.e. Colombia, Indonesia, etc.).

6. A final point, the world is dependent on oil from unstable areas. Short-term disruptions of supply may occur often and have serious consequences. Countries need to be prepared with stocks and contingency fuel allocation plans for short-term crisis situations.

7. Regarding paras. 3.58 to end, I have the following comments:

- In 3.58 second line change "net imports" for "energy."
- In 3.61 I would include:
 - (i) a more detailed projection through 1990 of the LDCs energy situation (i.e. Energy balances of LDCs by groups) and
 - (ii) a table of oil import (export) bills by country.
- In 3.63 I would say more sharply that the need is for most LDCs to take a realistic posture in order to attract foreign risk capital for exploration i.e. offer adequate financial rewards and security.
- In page 3-48, 3rd line should say US\$7.0 billion per year.
- In 3.66 I would eliminate the sentence "However, problem remains with respect to radioactive waste ..." I would add "LDCs should pay even more attention that the industrial countries to the problems of safety and security of operation as in these countries there are less readily available technical and other resources to deal with emergencies (such as the recent event of the Three Mile Island) and they are also more subject to social and political upheavals. We understand that IAEA is considering how to assist more effectively in these matters."
- In 3.69 I would add "Improved efficiency in industry, particularly in energy intensive ones, and improved urban transit systems - are areas where a conservation program may be immediately rewarding."
- In 3.70, seventh line should say "products in oil producing developing countries..."
- In 3.71 last line I would eliminate "infant industries."
- 3.74 "Desertification" may be appropriate to the Sahel. "Deforestation" is more appropriate for Haiti and El Salvador, since even though soil erosion is serious in Haiti, it is not a desert, and El Salvador is quite definitely nothing like a desert.
- 3.76 I would add at end of 10th line "...electrification programs, which can only be justified if they are associated with productive uses such as irrigation, agroindustry, etc."
- In 3.77 Alcohol as fuel. The following text is suggested. "Ethyl alcohol (ethanol) can be readily produced in most developing countries by fermentation or distillation of agricultural products having a high content of starch or sugar. The resulting crude

May 18, 1979

alcohol can be used as a fuel e.g. for cooking, and after dehydration can be used as an additive to automotive gasoline, or even as a substitute for it if the engine is suitably modified. The economics of production are complex and depend on a number of factors, including the value of the feedstock and credits taken for by-products, as well as the cost of fuel needed for distillation. In most cases ethanol from fermented agricultural products is still more costly than gasoline. Production is still of marginal quantities relative to fuel demand except in Brazil where a large program initially based on the sugar industry is being pursued with great determination and is projected to supply about 20% of gasoline consumption in the near future."

cc: Messrs. Karaosmanoglu, VPD
Chopra, WDR
Rovani, Fallen-Bailey, Hughart, EWT

EFriedmann:mbk

Mr. R. Chander, EPDDR

May 15, 1979

Helen Bothwell, EPDCE

Verification/Updating of WDR Text Tables and Charts

REFERENCE: Your memorandum of May 8, 1979

A check of the tables forwarded with the referenced memorandum indicates that Tables 3 and 6 fall under our responsibility. Please note the following changes on copies attached:

Table 3: The 1979 current \$ and constant \$ prices are revised projections; the 1970-78 prices are actual.

Table 6: The change in developing countries' energy consumption for 1976 has already been reported to you in a separate memorandum from Mr. Choe.

Attachment: Tables 3 and 6

AB
HBothwell:ji

OFFICE MEMORANDUM

DPA World Dev. Report

yellow

TO: Mr. S. Acharya, WDR

DATE: May 10, 1979

FROM: R. Cheetham, EPDDR

SUBJECT: WDR Energy Projections for Developing Countries

1. Following discussions with Ram Chopra and others, we have revised Table II.1 of the background paper on energy 1/ and have prepared three additional tables showing energy balances for the developing countries. These tables incorporate the following changes:

- (1) revised economic growth projections (WDR II computer run dated April 4, 1979);
- (2) revised petroleum supply projections for Mexico, India, and Egypt, with "other" petroleum suppliers included with oil importing developing countries;
- (3) revised assessments of interfuel substitution and, hence, revised demand projections for petroleum in major coal and natural gas producing countries;
- (4) updated coal supply projections (Mr. Strongman's May 3 memo).
- (5) The tables also include corrections for an error in the base year petroleum consumption in South Africa.

2. Revisions due to the above items (4) and (5) have led to changes in Table 3.6 of WDR II text (see Mr. Chander's memo, dated May 1, 1979), a copy of which is attached.

3. The other tables attached to this memo show the energy balance by type of fuels for the three major developing countries groups. In the course of preparing these tables, we have allowed for slightly more substitution of petroleum consumption by natural gas and coal, than in the previous version. The net result is a reduction of less than 5% in 1990 petroleum consumption.

4. As you know, the Industrial Projects Department recently revised their coal supply projections (Mr. Strongman's memo dated May 3). The main effect of the revised projections is to increase

1/ Refer to Table II.1 in "Energy in the 1980s: Global Supply and Demand Analysis," Economic Analysis and Projections Department, January 1979.

May 10, 1979

coal production by about 0.5 million b/d in 1990. The attached tables incorporate this change; we have assumed that the additional coal will be consumed domestically.

5. With reference to item (5), we recently detected an error on the U.N. energy tape, which is the basis of the historical energy balance data. The U.N. tape does not contain any petroleum consumption data for South Africa, while the published statistics do (World Energy Supplies by U.N.). South Africa consumed 0.25 million b/d of petroleum in 1976. The projected demand levels are accordingly adjusted upward.

Attachments

cc: Mrs. Hughes (EPD)
Messrs. Blitzer (EPD), Chander (EPD), Chopra (WDR), Strongman (IPD)
Lambertini (EPD).

RCheetham/SSingh/BJChoe/sas

Table II.1: WORLD SUPPLY AND DEMAND OF ENERGY AND PETROLEUM

(million b/d of crude oil equivalent)

	Actual		Projected				Growth Rates					
	1976		1980		1985		1990		1976-85		1985-90	
	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum
Developed Countries												
Production	46.5	12.6	53.2	15.4	61.0	15.7	70.7	14.5	3.1	2.5	3.0	-1.6
Consumption	69.8	35.1	76.8	37.9	91.5	43.5	109.7	48.5	3.1	2.4	3.7	2.2
Balance	-23.3	-22.5	-23.6	-22.5	-30.5	-27.8	-39.0	-34.0	3.0	2.4	5.0	4.1
Capital Surplus OPEC												
Production	16.1	15.8	16.1	14.7	23.5	20.1	25.5	20.6	4.3	2.7	1.6	0.5
Consumption	0.8	0.6	1.0	0.7	1.5	1.0	2.3	1.5	7.2	5.8	8.9	8.4
Balance	15.3	15.2	15.1	14.0	22.0	19.1	23.2	19.1	4.1	2.6	1.1	0.0
Developing Countries												
Production	26.5	19.5	31.5	21.5	41.5	24.9	51.3	27.6	5.1	2.8	4.3	2.1
Consumption	16.8	10.0	19.8	11.1	27.3	14.6	38.4	20.5	5.5	4.3	7.1	7.0
Balance	9.7	9.5	11.7	10.4	14.2	10.3	12.9	7.1	4.3	0.9	-1.9	-7.2
Non-OPEC Developing Countries												
Production	9.6	3.5	14.3	6.2	20.6	8.6	27.8	10.9	8.9	10.5	6.2	4.9
Consumption	14.5	8.5	17.1	9.3	23.5	12.5	33.0	17.4	5.5	4.4	7.0	6.8
Balance	-4.9	-5.0	-2.8	-3.1	-2.9	-3.9	-5.2	-6.5	-5.7	-2.7	12.4	10.8
Net Oil Importing Developing Countries												
Production	6.5	1.2	9.2	2.1	13.1	2.9	18.5	3.8	8.1	10.3	7.1	5.6
Consumption	12.6	7.2	14.9	7.9	20.4	10.6	28.5	14.6	5.5	4.4	6.9	6.6
Balance	-6.1	-6.0	-5.7	-5.8	-7.3	-7.7	-10.0	-10.8	2.0	2.8	6.5	7.0
Centrally Planned Economies												
Production	37.9	12.4	44.7	13.4	54.7	14.7	66.7	16.4	4.2	1.9	4.0	2.2
Consumption	34.4	9.5	41.4	11.0	52.1	13.3	64.3	15.0	4.7	3.8	4.3	2.4
Balance	3.5	2.9	3.3	2.4	2.6	1.4	2.4	1.4	-3.2	-7.8	-1.6	0.0
World												
Consumption	121.8	55.2	139.0	60.7	172.4	72.4	214.7	85.5	3.9	3.1	4.5	3.4
Bunkers & Others	5.3	2.6	6.0	3.6	6.5	4.5	7.0	5.5	2.3	6.3	1.5	4.1
Supply Requirements	127.1	57.8	145.0	64.3	178.9	76.9	221.7	91.0	3.9	3.2	4.4	3.4
Projected Production at OPEC Capacity	-	-	150.6	69.8	180.7	77.5	214.2	80.3	N.A	N.A	3.5	0.7
Capacity Balance	-	-	5.9	5.6	2.1	0.9	-7.5	-10.8	N.A	N.A	N.A	N.A

Table 3.6: PRIMARY COMMERCIAL ENERGY BALANCE, 1976-1990

	1976		1985		1990		1960-75		1976-90	
	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption	Production	Consumption
	----- (million barrels a day of oil equivalent)-----						----- (average annual growth rates (percent))-----			
Developing Countries	26.5	16.8	41.5	27.3	51.3	38.4	6.7	6.9	4.8	6.1
(Non-OPEC Countries)	9.6	14.5	20.6	23.5	27.8	33.0			7.9	6.0
(Oil-Importing Countries)	6.5	12.6	13.1	20.4	18.5	28.5			7.8	6.0
Industrialized Countries	46.5	69.8	61.0	91.5	70.7	109.7	2.7	4.0	3.0	3.3
Centrally Planned Economies	37.9	34.4	54.7	52.1	66.7	64.3	4.4	4.3	4.1	4.6
Capital Surplus Oil-Exporters	16.1	0.8	23.5	1.5	25.5	2.3	10.2	12.7	3.3	7.8
Bunkers and Others	-	5.3	-	6.5	-	7.0				
TOTAL	<u>126.9</u>	<u>127.1</u>	<u>180.7</u>	<u>178.9</u>	<u>214.2</u>	<u>221.7</u>	<u>4.5</u>	<u>4.5</u>	<u>3.8</u>	<u>4.1</u>

PRIMARY ENERGY BALANCE: NON-OPEC DEVELOPING COUNTRIES*

	1976	1980	1985	1990
<u>Production</u>	<u>9.6</u>	<u>14.3</u>	<u>20.6</u>	<u>27.8</u>
Petroleum	3.5	6.2	8.6	10.9
Gas	.9	1.3	2.3	2.7
Coal	3.6	4.6	6.0	8.2
Primary Electricity	1.5	2.2	3.7	6.0
(of which nuclear)	.1	.2	.7	2.1
<u>Consumption</u>	<u>14.5</u>	<u>17.1</u>	<u>23.5</u>	<u>33.0</u>
Petroleum	8.5	9.3	12.5	17.4
Gas	.8	1.1	1.7	2.1
Coal	3.7	4.5	5.6	7.5
Primary Electricity	1.5	2.2	3.7	6.0
<u>Net Imports</u>	<u>- 4.9</u>	<u>2.8</u>	<u>2.9</u>	<u>5.2</u>
Petroleum	5.0	3.1	3.9	6.5
Gas	- .1	- .2	- .6	- .6
Coal	.1	- .1	- .4	- .7
Primary Electricity	neg	neg	neg	neg

*Totals may not add due to roundings
 neg: negligible

Source: Economic Analysis & Projections Department,
 Commodities Division

PRIMARY ENERGY BALANCE: DEVELOPING COUNTRIES*

(million b/d of oil equivalent)

	1976	1980	1985	1990
<u>Production</u>	<u>26.5</u>	<u>31.5</u>	<u>41.5</u>	<u>51.3</u>
Petroleum	19.5	21.5	24.9	27.6
Gas	1.8	3.0	6.4	8.6
Coal	3.6	4.6	6.1	8.4
Primary Electricity	1.6	2.4	4.1	6.7
(of which nuclear)	0.1	0.2	0.9	2.4
<u>Consumption</u>	<u>16.8</u>	<u>19.8</u>	<u>27.3</u>	<u>38.4</u>
Petroleum	10.0	11.1	14.6	20.5
Gas	1.4	1.8	2.9	3.5
Coal	3.8	4.5	5.7	7.7
Primary Electricity	1.6	2.4	4.1	6.7
<u>Net Imports</u>	<u>- 9.7</u>	<u>-11.7</u>	<u>-14.2</u>	<u>-12.9</u>
Petroleum	- 9.5	-10.4	-10.3	- 7.1
Gas	- .4	- 1.2	- 3.5	- 5.1
Coal	.2	- .1	- .4	- .7
Primary Electricity	neg	neg	neg	neg

*Totals may not add due to roundings
neg: negligible.

Source: Economic Analysis & Projections Department,
Commodities Division

PRIMARY ENERGY BALANCE: OIL IMPORTING DEVELOPING COUNTRIES*

	1976	1980	1985	1990
<u>Production</u>	<u>6.5</u>	<u>9.2</u>	<u>13.1</u>	<u>18.5</u>
Petroleum	1.2	2.1	2.9	3.8
Gas	.4	.6	1.0	1.2
Coal	3.5	4.5	5.9	8.0
Primary Electricity	1.4	2.0	3.3	5.5
(of which nuclear)	.1	.2	.7	2.0
<u>Consumption</u>	<u>12.6</u>	<u>14.9</u>	<u>20.4</u>	<u>28.5</u>
Petroleum	7.2	7.9	10.6	14.6
Gas	.4	.6	1.0	1.2
Coal	3.6	4.4	5.5	7.2
Primary Electricity	1.4	2.0	3.3	5.5
<u>Net Imports</u>	<u>6.1</u>	<u>5.7</u>	<u>7.3</u>	<u>10.0</u>
Petroleum	6.0	5.8	7.7	10.8
Gas	neg	neg	neg	neg
Coal	.1	- .1	- .4	- .8
Primary Electricity	neg	neg	neg	neg

*Totals may not add due to roundings
neg: negligible

Source: Economic Analysis & Projections Department,
Commodities Division

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OFFICE MEMORANDUM

DPA. World Dev. Report

TO: Mr. S. Acharya, WDR

FROM: R. Cheetham, Assistant Director, EPDDR *RC*

SUBJECT: Retail Prices of Petroleum Products

DATE: May 9, 1979

1. At the request of Mr. Chopra, we have assembled information about the retail prices of petroleum products in 1973 and 1977 in industrialized countries, oil-exporting developing countries and oil-importing developing countries.

2. Table 1 shows the simple arithmetic average of prices of petroleum products for the three groups. In the time available, it has not been possible to compute the weighted averages for these prices. Table 2 shows the price increases in real terms. The international index of inflation was used to deflate the 1977 prices into 1973 constant dollars. This deflator may not be an appropriate one for this purpose, but again, time constraints prevent a more careful approach being taken.

3. You should note that these are rough estimates which are not comparable with the developing countries' energy price indexes in the energy background paper, in terms of both coverage and methodology.

Attachments

cc: Messrs. Chopra, Blitzler, Lambertini

RCheetham/SSingh/BJChoe/sas

Table 1: AVERAGE RETAIL PRICES OF PETROLEUM PRODUCTS, 1973 AND 1977

(U.S. cents per U.S. gallon, except Bunker C Fuel Oil, which is U.S. cents per 42 gallon barrel)

	Retail Price July 31, 1973	Retail Price July 31, 1977	Percentage Change 1973-77
<u>Industrialized Countries /a</u>			
Regular Gasoline	98.7	159.8	61.9
Household Kerosine	60.5	127.2	110.2
Distillate Fuel Oil	N.A	82.3	N.A
Bunker C Fuel Oil	548.7	1583.2	188.5
<u>Oil-Exporting Developing Countries /b</u>			
Regular Gasoline	42.8	52.4	22.4
Household Kerosine	18.6	14.2	- 23.7
Distillate Fuel Oil	N.A	24.9	N.A
Bunker C Fuel Oil	298.3	811.7	172.1
<u>Oil-Importing Developing Countries /c</u>			
Regular Gasoline	54.6	115.8	112.1
Household Kerosine	29.5	56.4	91.2
Distillate Fuel Oil	N.A	60.9	N.A
Bunker C Fuel Oil	527.5	1408.8	167.7

a/ Industrialized countries included are Austria, Belgium, Denmark, France, Germany, F.R., Italy, Japan, Netherlands, Norway, Sweden, and United Kingdom.

b/ Oil-exporting developing countries included are Bolivia, Ecuador, Indonesia, Iran, Mexico, Tunisia, and Venezuela.

c/ Oil-importing developing countries included are Argentina, Brazil, Burma, Chile, Colombia, Ethiopia, Ghana, India, Israel, Jamaica, Kenya, Morocco, Pakistan, Paraguay, Peru, Philippines, Spain, Sri Lanka, Thailand, Turkey, Uruguay, and Yugoslavia.

Note: The average prices shown above are simple arithmetic averages of the countries included. Conversion to the U.S. dollars presumably was done at the official exchange rates.

Source: International Petroleum Annual, U.S. Bureau of Mines, Department of the Interior, March, 1974 and March 1978 issues.

Table 2: AVERAGE PRICES OF PETROLEUM PRODUCTS IN REAL TERMS ^{/a}
(constant 1973 U.S. cents per U.S. gallon)

Region ^{/b}	Average Price July, 1973	Average Price July, 1977	Percentage Change 1973-77
Industrialized Countries	28.3	37.6	32.9
Oil-Exporting Developing Countries	15.8	16.0	1.3
Oil-Importing Developing Countries	23.2	33.2	43.1

a/ Weighted average prices of regular gasoline, household kerosine, and Bunker C Fuel Oil, deflated by the International Index of Inflation.

b/ For country coverage, see Table 1.

Note: The weights for industrialized countries were derived from the actual 1973 consumption in Western Europe; for both oil-exporting and oil-importing developing countries, from the actual 1973 consumption total of developing countries, according to the U.N. statistics (U.N. series J). Because of the lack of 1973 price data, distillate fuel oil prices were not included, but its consumption was added to heavy fuel oil consumption, thus giving a heavier weight to bunker C fuel oil.

CONSUMPTION WEIGHTS

	Industrialized Countries	Oil-Exporting Developing Countries	Oil-Importing Developing Countries
Regular Gasoline	16.0	20.8	20.8
Household Kerosine	3.3	11.3	11.3
Bunker C Fuel Oil	80.7	67.9	67.9
	<u>100</u>	<u>100</u>	<u>100</u>

Source: Average prices from Table 1.
Consumption weights from U.N. Series J.

OFFICE MEMORANDUM

TO: Files

DATE: May 4, 1979

FROM: A. Karaosmanoglu, Dir., Dev. Policy AK.

SUBJECT: Notes on European Trip for WDR II BriefingsGeneral Observations

Contacts proved to be very useful. Everywhere I met people with their well-worn copies of the 1978 World Development Report.

Bilateral aid authorities, the Scandinavians, the French and the British indicated that they had used the report in formulating policies and as inputs to speeches of ministers and others. Some people in the U.N. agencies and other international agencies said that they had used the report as an authoritative source, especially as a reference in inter-departmental disputes. Some felt that the WDR said things which they felt should be said but which they could not themselves say for a variety of reasons. (For instance, the people to whom I spoke in ILO were glad to know that in the 1979 Report we would raise the dualism in the labor markets, but felt that they, themselves, could not do it).

Almost everywhere I visited, questions were asked and concern was expressed about the consistency between our projections and the U.N. exercise for International Development Strategy. In every instance this was raised, I suggested that our model could be used for consistency tests and could show the implications of some target exercises contemplated or actually under way. I was glad to notice that in most instances people who were interested in models and projections knew, and were in contact with, our colleagues in the Bank who are working on the global exercise in one capacity or other.

One cause for concern was the apparent lack of interest shown by some bilateral aid officials to the problems of the middle income countries. As noted below, the position taken by Mr. J. K. Wright of the U.K. was extreme in this respect.

Everywhere I visited, without any exceptions, everyone expressed keen interest in seeing the background material as soon as possible, and there was general agreement that the subjects of human resource development and poverty were appropriate subjects for next year's report.

In two or three places questions were raised about the acceptability of repeating the same projections exercise year after year in view of changing structural relationships.

I informed them about the preparations for a new model and reminded them that structural relationships do not change that quickly.

All U.N. agencies felt that our high scenario was the minimum acceptable for them, while the OECD and bilateral aid agencies felt that the low scenario at this point looked like the most likely prospects.

In several U.N. agencies, many people had strong words against the Basic Needs approach. They saw it as the Bank's alternative to the new international economic order and one referred to it as the Bank's contribution to the efforts to create countries that looked like zoological gardens!

Below are some notes on the concern expressed or questions raised in different meetings.

Scandinavian Meeting (Stockholm)

Scandinavian officials' reactions to both the 1978 Report and my description of the 1979 Report were very favorable. The only concern expressed was the possibility of a de-emphasis of agriculture as a result of the treatment of industry this year.

OPEC Special Fund (Vienna)

Mr. Shihata was very complimentary to both last year's and this year's report. As expected, he expressed interest and concern (without being very specific) about the treatment of energy and OPEC assistance this year.

UNIDO (Vienna)

I saw only Mr. F. Carre who was keenly interested in knowing how our projections compared with their targets. In addition to the Lima target, they seemed to be preparing for a target statement on the desirable ratios between the exports and imports of LDCs to the industrial countries. I urged him to consider testing the feasibility and implications of it on our global model before finalizing the technical work on such a target.

WHO (Geneva)

The meeting with Mr. Mahler was one of the most interesting meetings. He is genuinely interested in what is said in WDR.

He made a strong plea to repeat the need for productive employment and increase in productivity as a basis of poverty alleviation.

Brandt Commission (Geneva)

I talked separately with Messrs. Avramovic, Ohlin and Cassen. Understandably, they all seemed much more concerned with their own report than with the WDR. Although they are not sure of support at the Commission and, much less, at the political level, they seemed more or less in agreement on the papers concerning international financial system and institutions.

ILO (Geneva)

Nothing special to report other than what I have already mentioned above.

UNCTAD (Geneva)

I had some interesting discussions with Messrs. Rossen, Arsenis and others. At the technical level, they expressed respect for what we are doing. At the political level, they see the Bank's position as clearly a rival to their position - although they have not expressed it clearly. They expressed satisfaction with the treatment of alternative scenarios in this year's prospects exercise. They are in touch with Bank staff involved in the projections exercise, and using similar country groupings in their's. It was felt that our high scenario was somewhat below that which they wanted to see, but agreed that it was in the same ball park as their target exercise.

They are in the process of preparing a preliminary report on similar issues for early fall, to be followed by a final report (Joint UNCTAD/UNIDO Report) in the spring of 1980. A special point was made to remind me that their position on financial questions may be different to that of the Bank's. When I pressed to find out what are the differences, I was handed, fresh from the print, the paper prepared for the Manila meeting.

FAO (Rome)

I had the feeling that the senior staff in FAO were somewhat reluctant to sit and discuss the WDR. The younger staff, however, were very enthusiastic and told me how they had used WDR to prove their points. In the discussions, they indicated that the rates of agricultural growth (3.8%) in our high scenario were the maximum they would feel on technical grounds, but they were instructed to make projections also for a 4% agricultural growth.

IFAD (Rome)

I had separate meetings with both the Vice Chairmen (Mr. Aziz and Mr. Ordoobadi) and a lunch where all were present. Mr. Sartaj Aziz seemed to be trying to be accepted as one of the spokesmen for the Third World. In fact, Mr. Shihata of OPEC Special Fund referred to him as such. He was rather critical of "the Bank approach". When I invited him to elaborate on the differences between the Bank and his approach, short of preaching revolutions, it turned out to be concern for a better choice of projects to reach the poor, and to reach larger numbers of the poor. He also expressed concern that in many instances funds for rural development projects were used unnecessarily to finance excessive technical assistance and imports from industrialized countries. When I asked him whether he thought these were not also the concern of the Bank, he said there were some projects which did not show the existence of the Bank's concern at all times.

IEA (Paris)

Mr. Hopkins, Snr. Deputy Executive Secretary of IEA is in general agreement with our approach towards energy. He promised to send us as soon as possible a new paper that is being prepared. He believes that the very recent oil price increases have already put energy prices above 1975 levels in real terms. He also believes that the low case is the more likely one, as things look at this point.

DAC (Paris)

I had a very pleasant and interesting exchange with Mr. John P. Lewis, Chairman. He is a strong supporter of the WDR. I was reminded that he had had a chance to comment on a draft last year and asked whether he could see this year's report as early as possible. He will be away from Paris until the end of the first week of June. I promised to send him a copy as soon as it goes to the Board.

OECD (Paris)

The meeting at OECD with Mr. Eldin, Dep. Secretary General, was a large one attended by representatives of all departments. Questions on matters concerning their interests were asked by most of them. A great many said that the OECD related assumptions of the base case now looked more optimistic. They were interested in the energy price assumptions; many felt that constant real price assumptions looked optimistic; they were ready to acknowledge, however, the difficulties involved in different assumptions.

UNESCO (Paris)

UNESCO appeared to be the least organized place I visited (after FAO). I was taken to four different meetings, one after the other. I had an interesting discussion with Mr. Major, the new Deputy Director General. He repeatedly told me that he wanted to change and improve the nature of the relations between UNESCO and the Bank. He was very glad to learn that next year we intend to look into the questions of human resource development and poverty.

In another meeting with people on the international side of UNESCO I listened -- I must confess with some pleasure -- to complaints that everyone, especially some ministers, had been asking what was being done by them in response to the analysis presented in WDR (a document -- they repeated a few times -- which they had not participated in preparing).

French Treasury

The meeting with Mr. Baquiast (Dep. Assistant Secretary of the Treasury) and his colleagues was quiet and interesting until we came to the point of discussing the question of urbanization. When I told him that, effecting the pace of urbanization appeared to be extremely difficult, therefore, rather than wasting energy in stopping urbanization, intelligent policies would be required to have an impact on the pattern of urbanization, Mr. Baquiast became excited and gave me a little speech on the importance of agricultural development to stop urbanization. They seemed to be very much concerned about the political implications of urbanization and would like to see some effort made either to stop it or slow it down. On inviting him to reserve his judgment on this issue until he had seen the report, he agreed that the position he had taken was unfair. But it would seem that they may want to take issue with the main message in that chapter.

U.K. (ODM)

I had a meeting with a group of about a dozen people chaired by Mr. J. K. Wright. He started by expressing strong displeasure over Mr. Stern's response to a memo from Mr. Deare, enquiring about the possibility of studying the absorptive capacity questions in low income countries. When I reminded him that low income countries were studied last year and that strong interest had been expressed in studying the problems of the middle income countries, and that it was necessary to have a more comprehensive picture of development, he said that they were not interested in middle income countries. I indicated that I was sorry for that lack of interest, but middle income countries were also members of the World Bank who borrowed from us and, therefore, we would be interested in that study. His

response was "no, not with our money". At that point, two of his colleagues said that, although, perhaps not as much as low income countries, they were interested in the development question in middle income countries. Mr. Wright then asked whether we were studying Rhodesia, since we were looking into middle income countries. He said a report with the contents we have would not contribute to any operational questions they had.

After this, the atmosphere of the meeting improved to the point where Mr. Wright apologized for the start which we had. He asked whether ODM could contribute to the preparation of next year's report. I promised to pass this offer on to the team that would be working on next year's report.

I had lunch with Mr. John Healey of ODM. He expressed surprise about the strong reaction Mr. Wright had shown on the study of the middle income countries.

AKaraosmanoglu:mb

cc: Mr. McNamara
Mr. Stern
Mr. Chenery
Mr. Acharya
Ms. Boskey
Mr. Waide

OFFICE MEMORANDUM

file
F338
DPA - Commodities

TO: Mr. Rudolf Hablutzel, EM1DA

DATE: April 25, 1979

FROM: Charles R. Blitzler, EPDCE

SUBJECT: Annual Review of Commodity Price Forecasts
Energy and Petroleum

1. You have raised a number of very interesting questions concerning the possible price strategies for OPEC which are described in paragraphs 12-15 in the draft "Energy and Petroleum" section of the annual review of commodity prices. I shall try to answer them one-by-one.
2. Your first question regards the use of "solar" as the backstop technology for petroleum. I merely meant to use solar as an example of a renewable energy source. What the world will be after it goes through the transition from petroleum-based energy, no one can say. There will likely be many new sources, but the most commonly mentioned are solar and fusion. The transition will be very gradual and likely to take several generations because so much in our lifestyles and production technologies will have to change. The point is not that people are likely to commute using solar paneled automobiles. Rather, I was trying to summarize, in as simple a manner as possible, the economic intuition coming out of the wide body of literature on how to effectively price non-renewable resources.
3. The second question also concerns this point. No one has said, including the economic theorists, that a backstop technology will take over all at once. It is a gradual process, of course. But, the price at which a backstop becomes readily available at more or less constant cost does put an upper limit on the price of what it is replacing, in this case petroleum. The central idea is that since petroleum is depletable, a seller will not be indifferent to the relationship between prices at two points of time. If prices are rising rapidly, a seller will seek to hold back supplies to take advantage of the higher rents promised tomorrow. If prices do not rise then sellers will over-produce and invest revenues elsewhere. Equilibrium exists only when prices go up at a rate sufficient to have the rent component earn the rate of return possible elsewhere. I do not dispute that this model is oversimplified. It cannot be relied on, by itself, to determine the path of future oil prices. But, I do feel strongly that it provides useful intuition as to why and how prices over a long period interact.
4. The next question concerns the impact of internal competition. There are several considerations. As countries compete for exports, as they do within OPEC through a variety of arrangements (discounting, long-term contracts, etc.), they are likely to recognize the value to themselves of rising prices; no other outcome is consistent with dynamic equilibrium for an exhaustible resource. Moreover, it seems that within a widely different group such as OPEC it is much easier to agree on frequent small changes than occasional large ones. It seems to me that the planned increases for 1979 (since overridden by short-run events) was a step in this direction which is likely to become more and more the norm in future years.

5. The idea of erratic price movements is not the opposite of the smooth approach. Rather it is a refinement which derives from introducing some market imperfections and technological realism into the analysis. This makes it much harder to derive analytic results, but both models lead to higher prices over time. The idea of the erratic price movement is really quite straightforward. By making the price rises occur occasionally, the uncertainty about future price is increased which works to dampen investment in alternatives since their profitability becomes less dependable. Perhaps you are correct that the market will foresee all of this perfectly, but I am not sure. My intuition is that it is easier to fool the world when it is less used to regular price rises.

6. In any case, the purpose of paragraphs 12-14 and the two "models" is to give the reader a feel for the considerations which go into determining future prices. If these do not illuminate then I will revise or eliminate them.

7. I tend to agree that the conclusion of paragraph 15, that gradual changes are on the whole superior, may be overstated. Without a fully articulated model of the world economy, the result cannot be rigorously derived. Yet, I do feel that small, regular increases are less disruptive of economic activity as a whole and are less likely to lead to wasteful cyclical fluctuations. Given the strong inter-dependencies between importing and exporting nations (especially between OECD and capital-surplus OPEC), it is likely that all groups gain from reductions in these fluctuations. From the viewpoint of mankind, I think it can be established that more and better dissemination of information is efficient. If frequent increases contribute to this process, it becomes an argument in their favor.

8. In summary, the paragraphs in question were written to enlighten the reader as to the variety of forces at work within OPEC. Your questions and ideas have been useful feedback on how well I did. In the next draft, I hope the ideas will be more readily transparent. Naturally, I welcome any further reactions you might have.

cc: Mrs. Hughes
Mr. Cheetham
Mr. Singh
Mr. Lambertini
Mr. Choe

CRBlitzer:jmca

Mr. R. Chopra, EM2

April 11, 1979

B. J. Choe, EPDCE

WDR II Energy Projections

The base case energy projections (Table II.1) in the background paper on energy prospects (January, 1979) used the WDR I economic growth assumption for the developing countries, since the WDR II economic growth projections were not available when the energy projections were made. Using the latest WDR II economic growth projections, the developing countries' energy demand projections have been revised, as shown in the attached table. The difference in economic growth assumption results in a 5% reduction in the developing countries' energy demand by 1990.

In the attached table the "other" category of the developing countries' petroleum production has been assigned to the oil-importing developing countries.

cc: Messrs. Singh (o/r), Colaco, Chung, Blitzler, Lambertini,

Attachment

BjChoe/sas

Table II.1: World Supply and Demand of Energy and Petroleum
 (million b/d crude oil equivalent)

	ACTUAL				PROJECTED				GROWTH RATES			
	1970	1975	1980	1985	1990	1995	2000	2005	1976-85	1985-90		
	ENERGY	PETROLEUM	ENERGY	PETROLEUM	ENERGY	PETROLEUM	ENERGY	PETROLEUM	ENERGY	PETROLEUM		
DEVELOPED COUNTRIES												
PRODUCTION	43.8	13.2	46.5	12.6	53.2	15.4	61.0	15.7	10.7	14.5	3.1	2.5
CONSUMPTION	61.1	39.4	69.8	35.1	76.8	37.9	91.5	43.5	107.7	48.5	3.1	2.4
BALANCE	-17.3	-17.2	-23.3	-22.5	-23.6	-22.5	-30.5	-27.8	-37.0	-34.0	3.0	2.4
CAPITAL SURPLUS OPEC												
PRODUCTION	11.8	11.7	14.1	15.8	16.1	14.7	23.5	20.1	25.5	20.6	4.3	2.7
CONSUMPTION	0.3	0.1	0.2	0.6	1.0	0.7	1.5	1.0	2.3	1.5	7.2	5.8
BALANCE	11.6	11.5	13.3	15.2	15.1	14.0	22.0	19.1	23.2	19.1	4.1	2.6
DEVELOPING COUNTRIES												
PRODUCTION	19.9	15.1	26.5	19.4	31.5	21.5	41.5	24.9	50.2	27.6	5.1	2.8
CONSUMPTION	14.3	6.5	16.5	9.7	17.5	11.0	27.0	14.8	38.0	21.5	5.6	4.8
BALANCE	5.6	8.6	10.0	9.7	14.0	10.5	14.5	10.1	12.2	6.1	4.2	0.5
OF WHICH:												
NON-OPEC DEVELOPING COUNTRIES												
PRODUCTION	7.0	2.7	9.6	3.5	14.2	6.2	22.6	8.6	27.4	10.9	2.9	10.5
CONSUMPTION	7.2	6.4	14.2	8.2	16.8	9.2	23.1	12.7	32.6	18.1	5.6	5.0
BALANCE	-0.2	-3.7	-4.6	-4.7	-2.6	-3.0	-0.5	-4.1	-5.2	-7.2	-6.6	-1.5
NET OIL IMPORTING DEVELOPING COUNTRIES												
PRODUCTION	5.0	1.2	6.5	1.2	9.1	2.1	13.1	2.9	18.1	3.8	5.1	10.3
CONSUMPTION	2.5	5.5	12.3	7.0	14.6	8.0	20.0	10.8	28.1	15.4	5.6	4.7
BALANCE	-3.5	-4.3	-5.8	-5.8	-5.5	-5.9	-6.9	-7.9	-10.0	-11.6	1.9	3.5
CENTRALLY PLANNED ECONOMIES												
PRODUCTION	28.9	7.9	37.9	12.4	44.7	13.4	54.7	14.7	60.7	16.4	4.2	1.9
CONSUMPTION	27.5	6.9	34.4	9.5	41.4	11.0	50.1	13.3	64.3	15.0	4.7	2.8
BALANCE	1.4	1.1	3.5	2.9	3.3	2.4	3.6	1.4	-2.4	1.4	-2.3	-2.7
WORLD												
CONSUMPTION	100.2	43.9	121.6	54.9	138.7	60.6	172.1	72.6	214.3	86.5	3.9	3.2
EXCESS/Others	4.2	2.9	5.3	2.6	6.0	3.6	6.5	4.5	7.0	5.5	2.3	6.3
SURPLUS/DEFICIT	104.4	46.8	126.9	57.5	144.7	64.2	178.6	77.1	221.3	92.0	3.9	3.3
PROJECTED PRODUCTION AT OPEC CAPACITY												
PRODUCTION	-	-	-	-	150.6	69.8	180.7	77.5	213.7	80.3	NA	NA
CAPACITY BALANCE												
BALANCE	-	-	-	-	5.9	5.6	2.1	0.4	-7.6	-11.7	NA	NA



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OFFICE MEMORANDUM

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DPA World Dev. Report

TO: Files

DATE: March 5, 1979

FROM: B. J. Choe, EPDCE *BC*SUBJECT: A Comparison of WDR II Energy Projections

The purpose of this memo is to clarify the major differences in the energy projections for WDR II, in comparison with those of WDR I and the draft board paper on petroleum exploration in developing countries. 1/

Developed Countries

In WDR I Table I.1, developed countries were inclusive of the Southern European countries, whereas WDR II Table II.1 excludes these countries from developed countries' group. Using WDR II's definition of developed countries, Table 1 compares the WDR II projections with those of WDR I.

Table 1: DEVELOPED COUNTRIES, WDR II VS. WDR I

(unit: million b/d of oil equivalent)

	1985		1990		Growth Rate (1975-90)	
	Production	Consumption	Production	Consumption	Production	Consumption
<u>WDR II</u>						
Energy	61.0	91.5	70.7	109.7	2.9	3.5
Petroleum	15.7	43.5	14.5	48.5	.9	2.7
<u>WDR I</u>						
Energy	62.7	92.9	73.9	108.9	3.2	3.4
Petroleum	19.0	47.2	21.9	53.5	3.8	3.4

As shown in Table 1, the major difference between the WDR II and WDR I projections is that WDR II assumes substantially lower levels of petroleum production, and hence consumption, than WDR I. For 1990, the

1/ Blitzer, Choe, and Lambertini, "Energy In the 1980s: Global Supply and Demand Analysis," WDR II Background Paper (January, 1979); Choe, Hoffmann and Vedavalli, "World Energy and Petroleum: Supply and Demand Prospects to 1990," WDR I Background Paper (February, 1978); "A Program to Accelerate Petroleum Production in the Developing Countries," draft Board Paper (November, 1978), the projections there drawn from Choe and Lambertini, "Energy Prospects in Non-OPEC Developing Countries, 1976-1985," draft paper (August, 1978).

WDR II's projected level of petroleum production is lower by 7.4 million b/d than WDR I, whereas consumption is lower by 5 million b/d. The 1985 levels also are accordingly lower. Projections available elsewhere range between 14 to 19 million b/d for OECD's 1985 petroleum production. WDR I assumed more or less the upper bound of the range and, therefore, received criticism at that time for being too optimistic. WDR II reflects a moderation in this regard by adopting the projections in the IEA's review of national energy programs.

The projected levels of total primary energy consumption in the two projections are essentially the same, as are the assumed economic growth rates. The fuel shares in total primary energy consumption reflect the different assumptions about indigenous petroleum supplies. WDR II assumes availability of more non-petroleum supplies than WDR I, primarily more coal and natural gas output in the U.S. as a result of the recently enacted National Energy Act.

Centrally Planned Economies 1/

Lower energy consumption growth rates in the CPEs -- envisaged in WDR II relative to WDR I (Table 2) -- are largely accounted for by the projected economic performance in the USSR, which accounts for almost 50% of the total energy consumption of the Centrally Planned Economies. Economic growth rates are projected at 3.5%-4.0% p.a. over 1980-90 in WDR II, compared to 5.0% p.a. in WDR I. The resulting energy consumption growth rates in the USSR are lower than the average of the CPE's.

Table 2: CENTRALLY PLANNED ECONOMIES, WDR II VS. WDR I

(unit: million b/d of oil equivalent)

	1985		1990		Growth Rate (1975-90)	
	Production	Consumption	Production	Consumption	Production	Consumption
<u>WDR II</u>						
Energy	54.7	52.1	66.7	64.3	3.8	3.9
Petroleum	14.7	13.3	16.4	15.0	2.2	2.4
<u>WDR I</u>						
Energy	56.7	55.5	69.2	68.2	4.1	4.4
Petroleum	17.4	17.3	21.0	20.9	3.9	4.7

1/ This section was contributed by A. Lambertini, EPDCE.

The differences between one report and the other are more marked on the side of petroleum. Production of petroleum in the USSR is projected to grow modestly over the next decade (around 1% p.a.) whereas domestic oil consumption is foreseen to be switched to natural gas in order to maintain some surplus for export. The USSR accounts for 83% of the petroleum production of the CPEs and almost 70% of their total petroleum consumption.

Capital Surplus OPEC

On the demand side, the projections in WDR I and WDR II do not differ significantly. WDR II allows for more rapid increase in consumption than WDR I, primarily in response to a 60% increase in 1976 over the 1975 level, which served as the base year for WDR I projections.

Petroleum production is projected in WDR II at 20.6 million b/d, compared with 23.7 million b/d in WDR I. The downward revision mostly is accounted for by a more cautious reassessment of Saudi Arabia's likely production. However, WDR II assumes more non-oil (natural gas) production in these countries than WDR I. This is precipitated by recent emphasis in these countries on maximizing utilization of natural gas for domestic purposes and for petrochemicals for exports.

Developing Countries

Again, one should add Southern Europe to the developing countries' group in WDR I Table I.1, to make the totals for developing countries comparable with those of WDR II Table II.1. Such an adjustment has been made in Table 3 below.

Table 3: DEVELOPING COUNTRIES, WDR II VS. WDR I

(unit: million b/d of oil equivalent)

	1985		1990		Growth Rate (1975-90)	
	Production	Consumption	Production	Consumption	Production	Consumption
<u>WDR II</u>						
Energy	40.6	28.2	49.5	39.9	4.7	6.6
Petroleum	24.0	15.5	26.3	22.6	2.6	6.5
<u>WDR I</u>						
Energy	39.8	27.7	46.9	38.8	4.3	6.4
Petroleum	26.3	15.6	28.6	22.1	3.1	6.3

First, the projected levels of total primary energy demand are about the same in both cases, WDR II being only slightly higher than WDR I. The underlying economic growth assumption is identical in both cases. However, the projection methodology is a bit different in that WDR II used a different country grouping for estimating income and price elasticities and did not distinguish between short-run and long-run income elasticities. Despite these differences, the results did not come out appreciably different.

Combined production of petroleum in capital-deficit OPEC and non-OPEC developing countries (excluding Oman, Spain, Greece, Israel, Portugal) projected for 1990 by CPS for WDR II, stands at about 28 million b/d. 1/ Despite increased output projected for Mexico, this is about the same level as the one adopted in WDR I. Note that WDR II's levels in Table 3 reflect CPS projections as of November, 1978. WDR II's projected level of petroleum production for 1990 is 2.3 million b/d lower than that of WDR I. The difference reflects two factors: (i) because of Iran's new political situation, its production level was reduced by 1 million b/d for 1985 and 1990 from the CPS's projected level; (ii) the output designated as coming from "other" countries in Annex A Table 5 (Annex 5 of the WDR II background paper) were not included in the total for developing countries as such, but counted as world production potential shown on the second last row of Table II.1 of the WDR background paper. The total of "others" amounts to .43 and .82 million b/d for 1985 and 1990 respectively. 2/

Total primary energy production is projected higher in WDR II, largely accounted for by higher natural gas projected for capital-deficit OPEC and higher solid fuels production than assumed in WDR I. Primary electricity output is more or less at the same level in both studies. The share of petroleum in total primary energy consumption is assumed to be about the same level in both studies.

Non-OPEC Developing Countries

Before proceeding, definition of non-OPEC developing countries should be clarified. What is called non-OPEC developing countries in WDR I main report 3/ and WDR II background paper is identical.

1/ Projections as of November, 1978. The revised version of January, 1979 has 28.4 million b/d.

2/ Projections as of November, 1978. The January version has .43 and .62 million b/d for 1985 and 1990 respectively.

3/ World Development Report, 1978, Table 19.

WDR I background paper did not produce separate projections for non-OPEC developing countries. The projections for this group in WDR I main report were later worked out from the materials of WDR I background paper. Only a subset of these countries is called as non-OPEC developing countries in the draft board paper. 1/

WDR II projections for non-OPEC developing countries are, therefore, directly comparable with WDR I main report. Table 4 shows such a comparison. As far as total primary energy demand is concerned, the difference is only small, and is largely explained by slight modification of the methodology as pointed out before. The lower production number reflects: "other" countries left out in the total petroleum accounting (.4 million b/d); reduction in the overall total (.3 million b/d); minor adjustments in the projections for Southern Europe.

Table 4: NON-OPEC DEVELOPING COUNTRIES, WDR II VS. WDR I

(unit: million b/d of oil equivalent)

	1975		1985		Growth Rate (1975-85)	
	Production	Consumption	Production	Consumption	Production	Consumption
<u>Total Energy</u>						
WDR II	9.1	13.3	19.7	24.2	8.0	6.2
WDR I	9.1	13.3	20.8	23.6	8.6	5.9

By making proper adjustments, Table 5 compares the WDR II projections with those of the draft board paper.

Only minor differences can be found in the projections for total primary energy demand, as economic growth assumption is almost identical. The WDR II petroleum production projections for non-OPEC developing countries did not incorporate CPS's subsequent revisions for Mexico, Egypt, and India. The earlier version put non-OPEC petroleum supplies in 1985 at 8.25 million b/d, including output of "other" category. The 7.8 million b/d level is net of this "other" category. Non-OPEC developing countries' petroleum demand is slightly

1/ The draft board paper defines non-OPEC developing countries as those in WDR I/WDR II, except for South Africa, Singapore, French Polynesia, New Caledonia, Guam, American Samoa, Cuba, Puerto Rico, Bahamas, Virgin Island, Bermuda, Portugal, Greece, Spain, Gibraltar, Israeli; but includes Oman.

Table 5: NON-OPEC DEVELOPING COUNTRIES: WDR II VS. DRAFT BOARD PAPER

(unit: million b/d of oil equivalent)

	Non-OPEC 1985		Oil-Importing Non-OPEC (1985)	
	Production	Consumption	Production	Consumption
<u>WDR II /a</u>				
Energy	17.5	18.0	10.6	14.8
Petroleum	7.8	9.6	2.7	7.8
<u>Board Paper</u>				
Energy	17.7	17.8	10.2	14.5
Petroleum	8.4	9.1	2.9	7.2

a/ WDR II totals for non-OPEC and oil-importing non-OPEC minus the WDR II projections (in our worksheets) for South Africa, Singapore, French Polynesia, New Caledonia, Guam, American Samoa, Cuba, Puerto Rico, Bahamas, Virgin Islands, Bermuda, Portugal, Greece, Spain, Gibraltar, Israel, plus the projections for Oman.

higher in WDR than in the earlier study, primarily because of slightly higher total energy consumption level.

CPS's Revision

CPS's revision of petroleum supply projections (Mexico, Egypt, and India) calls for a corresponding revision of Table II.1 of the WDR II background paper. The revised totals would be as Table 6. In this revision, the "others" are treated as before, i.e., included only as a part of world production potential instead of being allocated to specific developing countries' groups. CPS expressed that this treatment would be consistent with their idea of what "others" meant.

Table 6. over

Table 6: CPS REVISION OF PETROLEUM SUPPLY

(unit: million b/d of oil equivalent)

	1985		1990	
	Energy	Petroleum	Energy	Petroleum
<u>Developing Countries</u>				
Production	41.1	24.5	50.0	26.8
Balance	12.9	9.0	10.1	4.2
<u>Non-OPEC Developing Countries</u>				
Production	20.2	8.2	26.6	10.1
Balance	- 4.0	- 5.1	- 7.8	- 9.0
<u>Net Oil Importing Developing Countries</u>				
Production	12.7	2.5	17.3	3.0
Balance	- 8.4	-8.9	- 12.5	-13.3
<u>Projected Production at OPEC Capacity</u>				
	180.7	77.5	213.7	80.3
<u>Capacity Balance</u>				
	.9	- 0.3	- 9.5	-12.8

cc: Mrs. Hughes, EPD
 Messrs: Cheetham, EPD
 Chopra, EM2
 Singh, EPDCE
 Friedmann, EWT
 Blitzer, EPDCE
 Lambertini, EPDCE

BJChoe/sas

Mr. Shankar N. Acharya, WDR

February 26, 1979

Kenji Takeuchi, EPDCE

WDR II - Background Paper on "Export-Oriented Processing of Primary Commodities
in Developing Countries"

Encl:
Attached is the revised draft of the above mentioned background paper prepared by Mr. Choeng Chung and myself.

cc with attachment: Mrs. H. Hughes (EPD), Mr. R. Cheetham (EPD), Mr. Singh (EPDCE)
cc: Mr. A. Karaosmanoglu (VPD), Mr. D. Keesing (DED), Mr. C. Chung, (EPDCE)

KT:bt

KS

OFFICE MEMORANDUM

TO: Mr. Ram Kumar Chopra, EM2

FROM: M. Haug, IPDD1

SUBJECT: WDR II - Paper on Energy

DATE: February 23, 1979

After reading your Paper dated February 6, 1979, I have some small comments to offer, primarily concerning the coal related Chapters.

Page 9, Table 2: As in Mr. Ezzatti's Paper, I am not sure I understand on what basis certain LDCs were listed in Category V, "Coal Endowed and Potential Exporters". The list of countries with coal resources is much larger and is attached as Annex I. To my knowledge, however, Rwanda, listed under Category V, is not one of them. On the other hand, many countries listed such as Thailand, Peru or Bangladesh are not potential exporters. Since coal, unlike oil/gas, might be unexportable for technical reasons (combustion), independent of international fuel prices, it might be more appropriate to define Category V as "Coal Endowed LDCs" and list the appropriate countries.

Para. 22: All the items mentioned, i.e., financing of exploration, increased lending for petroleum, technical assistance, etc. were approved already by the Board in July 1977 based on Report No. 1588 "Minerals and Energy in Developing Countries". The only additional policy decision which came out of the January 1979 Board meeting -- according to our understanding -- was that "under special circumstances when the risk can be assessed and when all other rules of prudence have been taken into account", the Bank may consider exploration financing for fuel minerals even if the loan is not guaranteed by foreign sponsors. Also, the paragraph should refer to fuel minerals in general, not only to petroleum, since the Bank's change in policy included oil, gas, coal, oil shale, lignite, etc.

Para. 23: I do not know whether you had planned to rewrite the paragraph after having received the IPDD1 coal input in the Ezzatti Paper. Please let me know in case you want us to provide redrafts. Following are some comments, mostly refinements:

- In the sentence starting "The major producers among..." could you omit Mexico and Colombia. They are not in the same league as India, South Africa, South Korea and Turkey, but coal production which are much smaller are additions to the iron and steel industry or small-scale "artisanat" type undertakings.
- Could you broaden the following sentence and write: "The production of coal in developing countries is expected to increase by over 6% per annum, so that its share in

total energy production would increase from % in 1976 to 15% in 1990.

- The sentence starting "Important constraints to the development. . . ." should be modified as follows: "Important constraints to the developing countries are transportation bottlenecks, insufficient investment funds and technical know-how, demand uncertainties regarding exports and most immediately a lack of detailed geological or coal quality data and viable coal investment projects ready for implementation.

We are not aware that labor shortages are a constraint for coal development in LDCs -- an exception is South Africa which has followed a deliberate policy of minimum mechanization because of cheap available labor. The situation in South Africa, however, cannot be considered representative.

/hhs

cc: Messrs. Karaosmanoglu, Cash, Acharya

Coal-producing LDCs are: Argentina, Colombia, Indonesia, Philippines, Venezuela, Turkey, Mexico, Mozambique, Botswana, Morocco, Brazil, Chile, Nigeria, Pakistan, Peru, Thailand, Swaziland, Afghanistan, Burma, Zaire, Zambia, Tanzania, Rhodesia, Iran, Mongolia, South Korea, Taiwan, Viet-Nam, Yugoslavia, India.

LDCs with coal reserves but without coal production are: Bangladesh, Angola, Egypt, Cameroon, Malagasy Republic, Malawi, Sierra Leone, Benin, Ethiopia, Bolivia, Ecuador, Tunisia, Laos, Cambodia, Brunei, Niger, Guatemala, Honduras, Costa Rica, Panama, Somalia, Iraq.

*yellow*OFFICE MEMORANDUM *DPA World Dev. Report*

TO: Mr. R. Chopra, EM2 *M*

FROM: C. Blitzler, B.J. Choe, and A. Lambertini, EPDCE *A*

SUBJECT: Energy: Outlook and Issues

DATE: February 22, 1979

1. We read your draft with considerable interest. There is much that we fully agree with and, of course, we have great sympathy with the difficulties of integrating all the diverse themes which seem to inevitably fall under the banner of "energy". The draft covers the major points raised in our own and others' energy background papers rather well. On the other hand, much of the paper lacks clarity or organizational cohesion and fails to pick up issues raised in our background papers. Important points are often scattered in different sections; policy issues and justifications of projections are not well differentiated. We recommend a more complete introduction for the reader, combined with a more transparent taxonomy of the issues to be discussed and a more balanced summary of the background papers.
2. In the start of Section I, you characterize the base case projections as "moderately optimistic." While it is true that we project only a modest "gap" between hypothetical supply and demand and later say that these need not lead to sharp disruptions in prices, all of this can just as easily be seen as "moderately pessimistic", calling for more-than-anticipated adjustments on both supply and demand. In any case, it would be more useful to bring forth explicitly what constitutes "sensible policies" and "reasonable prices", and for whom. Indeed, you could build the entire paper around this theme.
3. In the same paragraph, you allude to the potential of syn-fuels in limiting price increases. While for the long run they may indeed play important role, during the 1980's their impact is likely to be minimal. But you give the impression that prices could go up by a factor of two and that this would be "moderately optimistic." (Parenthetically, the costs of the syn-fuels always seem to be twice the cost of oil.)
4. Similar ambiguities appear continually. For example, on page 3, you refer to the need for "appropriate plans" to ease the transition problems. Without any discussion of what these might be, the reader is left dangling. More substantively on that point, we think you again give too much emphasis to syn-fuel development and not enough to the role of fuel pricing or coal in smoothing the transition problems of the next decade. Moreover, you never quite tell the reader what these problems are or what the dimensions of an appropriate outcome would be.

5. You quite rightly bring out the idea that there are common interests and benefits to international coordination, the suggestions is never developed into any specifics. Specifically, what are areas of common interest and what are existing cooperative endeavors? Very little is said of different country-specific transitional problems. It would be useful to weave in some of the material from the three country studies to move the story along.

6. You twice mention that the gaps should not be taken too seriously. Without a more complete way to interpret them, how else can a reader react? How much "importance" is too much importance? The associated paragraph 9 on sensitivity analysis is perhaps too strongly stated. The statement, that demand by 1990 is reduced by 5% in developed countries and less than 10% (about 8% actually) in developing countries, could convey a wrong impression about relative price responsiveness in developed vs. developing countries. The numbers given are based on extreme values of the parameter ranges chosen for experimental purposes. Actually, econometric evidence suggest that for developed countries higher long-run price elasticity and lower adjustment rate is more likely combination, whereas for developing countries lower long-run price elasticity and higher adjustment rate could be more appropriate. The supply sensitivity to price is an experimental calculation with very little empirical backing and, therefore, should be treated as such. Is there a need to quote specific numbers rather than qualitative results?

7. In discussing industrialized economies, you explain slower projected growth in energy consumption partly in terms of "elasticity of energy consumption to GDP", a term which is never defined. What is needed is a review of the economic forces which lead to this decline.

8. We suggested in our background paper that energy conservation in developing countries may face more difficult problems than in developed countries, but did not mean to imply that the "possibilities" for conservation (in percentage terms to their total energy consumption) in developing countries are limited compared to developed countries. In fact, Annex IV conveys the opposite message.

9. Overall, Section II suffers from organizational problems. It is, at once, both descriptive and policy oriented, in a hard-to-follow way. Electricity, for example, is mentioned in the introductory paragraph, again in discussing coal, in the sections dealing with nuclear, geothermal, hydro, again in the demand paragraphs and finally in terms of pricing and income distribution. Table 2 stands out for the reader to examine carefully. But very little discussion is given to how it can or should be interpreted. What function is it serving as is? Also, it is not clear why so much emphasis is given to Bank lending policy.

10. Uncertainties in planning are inherent not only in energy but also in other areas. We would hesitate to say that the uncertainties are greater in the energy sector than in others. Anyway, one of the objectives of planning is to reduce the uncertainties.

11. Here are a few of our minor comments and questions on the section: energy prices have increased 40% for oil-importing developing countries; do you really know how many undiscovered petroleum deposits are small?; the distinction between "economical to develop" and "economically recoverable" in referring to coal is not clear; the conclusion to the section on energy and growth is ambiguous -- which side do you come out on; emphasize that the studies of industrialized economies which indicate little long-run impact of higher prices derive that conclusion from views of the substitutability of energy with other production inputs and changing patterns of production; in this regard, the conclusion on the top of page 19 seems reversed. Complementarity vs. substitutability is an interesting and important issue, which can be viewed again as a long vs. short-run adjustment problem; exchange rate problems also can explain the seemingly higher energy intensities of developing economies; the one-third fuel-input to electricity ratio does not seem bad to the informed reader and is meaningless to the uninformed; conservation potential is not less in developing economies, as discussed above; importing and exporting countries are not well differentiated in discussing domestic pricing -- vis, only importing countries have as a group raised prices to international levels; clear-up when subsidies refer to users and when to producers of energy.

12. The OPEC section is sort of a non-section, since it avoids any discussion of likely pricing policy and the forces which are likely to most crucial in determining cartel behavior. If Iraq is treated in a special way, why not Mexico and Iran also? (Libya is a capital-surplus OPEC country)

13. Having little expertise and having not received Hughart's paper, there is not much we can say about Section IV, other than point out some confusions we had. First, what is the difference between non-commercial and non-conventional energy; there are in fact important distinctions in the usual definitions. It is not obvious from the few modest conclusions why this material warrants a quarter of the draft. The most striking conclusion is that there is a serious firewood problem on the immediate horizon. The tone in which this is presented is in contrast to the mild optimism elsewhere. What exactly is the evidence for crisis? How widespread are the problems? etc?

14. Although our comments may appear severe, we do want to emphasize that there are many interesting ideas which are touched on in one place or another. Our principal concern is that these be organized in a cohesive manner so that a reader can see clearly what the relevant issues are, both internationally and internally. To do this in a paper of about 40 pages will require more deep editing to decide which ideas to drop so that what remains can be expanded appropriately.

cc: Messrs. Karaosmanoglu (VPD), Acharya (EAL), Singh (EPDCE), Cheetham (EPD)
Mrs. H. Hughes (EPD)

ALambertini/BJChoe/CBlitzer/sas

Dear Bill:

This was just received --- about 5 months late, although we had followed up several times.

I asked them to forward the additional data as it becomes available as it may be useful for our future and overall needs.

The attached data on coal may be of some interest to John Strongman, too.

Regards -
Tim

د افغانستان د اقتصاد وزارت
د ولسي شورا د اقتصادي پلانيگرت
د پلان د ولسي شورا د ولسي شورا
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MINISTRY OF PLANNING
DEMOCRATIC REPUBLIC OF
AFGHANISTAN

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File



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NO. 441-

13 February 1979

DPA World Dev. Report

Mr. James L. Theodores,
Resident Representative,
World Bank,
Kabul.

Dear Mr. Theodores,

This is with reference to your letter of September 10, 1978 in which you have sought data related to prices of energy products in connection with the second "World Development Report".

To obtain this information Information/Data Forms were sent to the concerned authorities. In response to that we have received information on coal from the Ministry of Mines and Industries. Though it is very late but since the information is still needed, as enquired over the telephone, we are sending this information in the attached form. As soon as the information on other aspects will be received by us, we will forward the same to you immediately.

With regards,

Sincerely yours,

M. Tarin
Deputy Minister of Planning

Encl: As above

Mrs. Catherine Slappey - EPD/ED

February 9, 1979

Malvina Pollock - EPD/ED

WDR I and WDR II Debt Data

1. The attached tables A and B give a precise explanation of the differences between the debt outstanding at December 31, 1975 as shown in WDR I and WDR II (see Table 2, Comparison of Projections of Capital Flows, copy attached).
2. Most importantly, the country coverage is quite different. An additional 25 countries plus EAC have been included in WDR II and these add \$13.3 billion to the end 1975 disbursed and outstanding.
3. A comparison of the debt outstanding for the original 71 countries shows that in WDR II there has been a slight downward revision of \$1 billion in the overall total debt outstanding at December 31, 1975, due to the fact that for some countries sizeable revisions have been made since the time the data was prepared for WDR I. Details of changes to individual countries are given in Table B.

Attachments

cc: Mr. Russell Cheetham
Mr. Francis Colaco
Mr. Boris Elazic-Metzner

MPollock:ebh *MP*

Table A: COMPARISON OF TOTAL EXTERNAL DEBT OUTSTANDING
AT DECEMBER 31, 1975 AND COUNTRY COVERAGE

(In billions of US dollars)

Outstanding MLT Debt at December 31, 1975	WDR I	WDR II	
	(71 Countries)	(96 Countries + EAC)	(71 Countries)
Public	71.4	77.0	73.0
Private	90.7	97.4	88.2
TOTAL	<u>162.1</u>	<u>174.4</u>	<u>161.1</u>

TABLE B: COMPARISON OF TOTAL EXTERNAL DEBT OUTSTANDING AT DECEMBER 31, 1975 FOR 71 COUNTRIES

(In millions of US dollars)

	W D R I			W D R II			C H A N G E		
	Disbursed/Outstanding 12/75			Disbursed/Outstanding 12/75			Total	Public	Private
	Total	Public	Private	Total	Public	Private			
Afghanistan	802.3	772.5	29.8	802.3	772.5	29.8	-	-	-
Algeria	4,474.9	1,081.0	3,393.9	4,474.9	1,081.0	3,393.9	-	-	-
Argentina	4,798.1	1,154.9	3,643.2	4,802.7	1,155.5	3,647.2	4.6	.6	4.0
Bangladesh	1,624.2	1,507.9	116.3	1,624.2	1,507.9	116.3	-	-	-
Bolivia	1,006.9	467.3	539.6	1,006.9	467.3	539.6	-	-	-
Botswana	143.4	143.3	.1	143.4	143.3	.1	-	-	-
Brazil	21,171.4	3,948.2	17,223.2	21,143.8	3,939.5	17,204.3	-27.6	-8.7	-18.9
Burma	278.8	242.0	36.8	278.8	242.0	36.8	-	-	-
Burundi	21.6	15.2	6.4	21.6	15.2	6.4	-	-	-
Cameroun	374.7	297.9	76.8	372.4	297.0	75.4	-2.3	-.9	-1.4
Chile	3,738.7	2,212.2	1,526.5	4,319.7	2,212.2	2,107.5	581.0	-	581.0
China, Rep. of	1,682.7	952.6	730.1	1,841.4	952.7	888.7	158.7	.1	158.6
Colombia	2,725.9	1,716.0	1,009.9	2,725.9	1,716.0	1,009.9	-	-	-
Costa Rica	419.7	243.7	176.0	419.7	243.7	176.0	-	-	-
Cyprus	76.3	55.2	21.1	76.3	55.2	21.1	-	-	-
Cuba	499.8	250.5	249.3	510.3	250.5	259.8	10.5	-	10.5
Czech Rep.	4,209.0	3,284.6	924.4	4,776.2	3,851.8	924.4	567.2	567.2	-
Dominican Rep.	204.2	153.5	50.7	204.2	153.5	50.7	-	-	-
Ethiopia	391.1	351.4	39.7	381.1	351.5	29.6	-10.0	-.1	-10.1
Fiji	49.2	34.8	14.4	49.2	34.8	14.4	-	-	-
Gambia, The	13.2	13.2	n.a.	13.2	13.2	n.a.	-	-	-
Ghana	610.1	417.1	193.0	610.1	417.1	193.0	-	-	-
Greece	4,380.4	493.4	3,887.0	3,555.3	493.4	3,061.9	-825.1	-	-825.1
Guatemala	298.6	158.4	140.2	298.6	158.4	140.2	-	-	-
Honduras	264.1	244.2	19.9	264.1	244.2	19.9	-	-	-
India	11,651.8	11,259.6	392.2	12,354.3	11,956.3	398.0	702.5	696.7	5.8
Indonesia	9,224.1	5,004.5	4,219.6	9,212.5	5,005.6	4,206.9	-11.6	1.1	-12.7
Iran	5,464.7	3,004.9	2,459.8	5,464.7	3,004.9	2,459.8	-	-	-
Israel	6,927.2	3,096.0	3,831.2	6,927.2	3,096.0	3,831.2	-	-	-
Ivory Coast	1,352.3	379.8	972.5	1,352.3	379.8	972.5	-	-	-
Jamaica	1,564.0	188.7	1,375.3	1,564.0	188.8	1,375.2	-	.1	-.1
Kenya	833.7	460.8	372.9	836.8	460.8	376.0	3.1	-	3.1
Korea, Rep. of	5,952.5	2,601.5	3,351.0	5,967.2	2,609.1	3,358.1	14.7	7.6	7.1
Lebanon	45.6	44.1	1.5	45.6	44.1	1.5	-	-	-
Liberia	169.4	156.6	12.8	169.3	156.5	12.8	-.1	-.1	-
Madagascar	170.8	159.9	10.9	170.8	159.9	10.9	-	-	-
Malawi	242.0	216.2	25.8	242.0	216.2	25.8	-	-	-
Malaysia	1,501.0	610.6	890.4	1,501.0	610.6	890.4	-	-	-
Mauritania	170.2	150.0	20.2	188.1	156.7	31.4	17.9	6.7	11.2
Mauritius	43.1	42.5	.6	49.6	42.5	7.1	6.5	-	6.5
Mexico	15,616.5	2,341.3	13,275.2	14,278.1	2,341.3	11,936.8	-1,338.4	-	-1,338.4
Morocco	1,604.4	1,095.4	509.0	1,755.2	1,082.0	673.2	150.8	-13.4	164.2
Nepal	33.7	33.0	.7	33.7	33.0	.7	-	-	-
Nicaragua	598.1	263.3	334.8	598.1	263.3	334.8	-	-	-
Niger	1,309.3	769.2	540.1	1,309.3	769.2	540.1	-	-	-
Pakistan	5,273.9	4,853.2	420.7	5,107.5	4,853.2	254.3	-166.4	-	-166.4
Panama	767.9	262.7	505.2	767.9	262.7	505.2	-	-	-
Papua, New Guinea	276.3	75.8	200.5	276.3	75.8	200.5	-	-	-
Paraguay	174.4	127.9	46.5	213.1	127.9	85.2	38.7	-	38.7
Peru	3,171.6	916.0	2,255.6	3,432.0	916.0	2,516.0	260.4	-	260.4
Philippines	2,773.2	882.6	1,890.6	2,773.2	882.6	1,890.6	-	-	-
Portugal	665.9	228.4	437.5	1,359.5	277.9	1,081.6	693.6	49.5	644.1
Senegal	382.9	159.2	223.7	310.1	159.2	150.9	-72.8	-	-72.8
Somalia	219.9	214.1	5.8	219.9	214.1	5.8	-	-	-
Spain	9,218.4	1,056.7	8,161.7	7,167.8	1,056.7	6,111.1	-2,050.6	-	-2,050.6
Sri Lanka	598.0	492.8	105.2	598.0	492.8	105.2	-	-	-
Sudan	941.7	541.6	400.1	1,290.8	705.3	585.5	349.1	163.7	185.4
Swaziland	47.0	45.4	1.6	47.0	45.4	1.6	-	-	-
Syrian Arab Rep.	660.7	510.0	150.7	660.7	510.0	150.7	-	-	-
Tanzania	814.1	744.3	69.8	814.1	744.3	69.8	-	-	-
Thailand	1,345.6	547.8	797.8	1,345.6	547.8	797.8	-	-	-
Trinidad and Tobago	150.1	78.6	71.5	150.1	78.6	71.5	-	-	-
Tunisia	1,075.3	869.9	205.4	1,046.5	842.3	204.2	-28.8	-27.6	-1.2
Turkey	3,297.9	2,989.9	308.0	3,281.6	2,952.2	329.4	-16.3	-37.7	21.4
Uganda	187.5	179.2	8.3	187.5	179.2	8.3	-	-	-
Upper Volta	63.3	61.3	2.0	63.3	61.3	2.0	-	-	-
Uruguay	615.7	263.2	352.5	675.1	263.2	411.9	59.4	-	59.4
Venezuela	2,076.9	553.2	1,523.7	2,076.9	553.2	1,523.7	-	-	-
Yugoslavia	5,765.2	1,776.0	3,989.2	5,818.0	1,791.2	4,026.8	52.8	15.2	37.6
Zaire	1,744.3	462.4	1,281.9	1,691.0	477.7	1,213.3	-53.3	15.3	-68.6
Zambia	1,077.2	532.8	544.4	1,077.2	532.8	544.4	-	-	-
TOTAL	162,118.6	71,513.9	90,604.7	161,186.8	72,949.4	88,237.4	-931.8	1,435.5	-2,367.3

Table 2: COMPARISON OF PROJECTIONS OF CAPITAL FLOWS, EXTERNAL DEBT AND INFLATION, 1975, 1980, 1985

(Billions US dollars at current prices)

	1976 Projections			1977 Projections						1978 Projections ^{/a}			1979 Projections			
	Reported in Annual Speech			Reported in Prospects			Reported in Annual Speech			Reported in World Development Report and in Annual Speech			Preliminary Projections for World Development Report			
	1975	1980	1985	1975	1980	1985	1975	1980	1985	1975	1980	1985	1975	1980	1985	1990
Supply of ODA from DAC																
Amount	13.6	22.8	..	..	..	..	13.6	24.4	..	13.6	24.4	43.6	13.6	23.0	41.5	69.0
Amount as % of GNP	0.36	0.33	..	..	..	..	0.36	0.37	..	0.36	0.37	0.39	0.36	0.33	0.33	0.33
External Finance Requirements																
Low Income Countries	7.2	9.2	..	5.8	8.4	16.5	5.8	8.4	15.5	8.8	12.0	21.3	9.0	12.3	21.5	32.7
Middle Income Countries	28.2	30.3	..	29.5	45.2	76.1	24.5	37.9	60.2	37.3	49.9	111.2	35.2	56.8	93.8	149.1
All Developing Countries	35.4	39.5	..	35.3	53.6	92.6	30.3	46.3	76.7	46.1	61.9	132.5	44.2	69.1	120.3	181.8
Types of Finance																
Public sources (including grants)	14.6	19.5	..	16.6	24.2	38.9	16.1	23.0	37.6	17.1	32.2	50.9	17.9	30.4	51.2	76.5
Low Income Countries	6.0	8.6	..	6.2	8.0	15.8	6.3	8.0	15.8	5.8	11.6	19.7	6.0	13.7	19.2	28.8
Middle Income Countries	8.6	10.9	..	10.4	16.2	23.1	9.8	15.0	21.8	11.3	20.6	31.2	11.9	19.7	32.0	47.7
Private sources (including private investment)	20.8	20.1	..	18.5	29.4	53.6	14.2	23.3	39.1	29.0	29.7	81.6	25.3	33.7	63.1	105.3
Low Income Countries	1.2	0.7	..	-0.5	0.4	0.7	-0.5	0.4	0.7	3.0	0.4	1.6	3.0	1.6	2.3	3.9
Middle Income Countries	19.6	19.4	..	19.0	29.0	52.9	14.7	22.9	38.4	26.0	29.3	80.0	23.3	37.1	60.8	101.4
Total	35.4	39.6	..	35.1	53.6	92.5	30.3	46.3	76.7	46.1	61.9	132.5	44.2	69.2	120.3	181.8
Note: At 1975 constant prices	35.4	27.7	..	35.1	36.2	44.2	30.3	34.1	40.3	46.1	44.5	67.9	44.2	45.5	56.4	62.7
Outstanding Medium and Long-Term Debt																
Public	56.1	106.0	..	..	..	..	57.8	124.9	238.5	71.4	152.2	290.3	77.0	159.4	302.1	505.5
Low Income Countries	23.6	41.7	..	..	..	..	23.0	42.3	79.3	27.0	52.5	104.0	29.4	54.4	105.9	173.4
Middle Income Countries	32.5	64.3	..	..	..	..	34.8	82.6	159.2	44.4	99.4	186.3	47.6	105.0	196.2	327.4
Private	60.6	121.1	..	..	..	..	62.3	134.1	258.1	90.7	133.5	358.3	27.4	225.5	437.5	772.7
Low Income Countries	4.8	7.2	..	..	..	..	3.4	5.2	7.0	7.2	14.0	8.5	7.2	15.4	15.4	19.2
Middle Income Countries	55.8	113.9	..	..	..	..	58.7	128.9	251.1	83.5	169.5	349.8	20.2	210.1	422.4	753.1
Total	116.7	227.1	..	..	..	..	120.1	259.0	477.0	162.1	335.7	648.6	174.4	355.0	740.0	1278.5
Note: At 1975 constant prices	116.7	158.8	..	..	..	..	120.1	191.0	250.7	162.1	241.3	332.3	174.4	254.2	346.9	458.0
International Inflation Index																
GNP deflator (1975=100.0)	100.0	143.0	..	100.0	148.1	209.7	100.0	135.6	190.3	100.0	139.1	195.2	100.0	152.1	213.3	235.4

^a The projections for the supply of ODA from members of DAC reported in the Annual Speech differed from those in the World Development Report. The figures from the Annual Speech are those reported in the right hand column entitled "1979 Projections".

OFFICE MEMORANDUM

TO: Distribution

DATE: February 6, 1979

FROM: Shankar N. Acharya

SUBJECT: WDR II - Paper on Energy by Mr. Ram K. Chopra

The attached paper by Ram is based mainly (but not exclusively) on the other background papers on energy which have previously been circulated to you. A condensed version of this paper will constitute the energy section of WDR II. We welcome your comments. Written comments will be particularly helpful and may be sent to Ram with copies for Mr. Karaosmanoglu and myself.

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SNAcharya:rbc

Energy: Outlook and Issues

1. This paper is based on the various background papers on energy that have been prepared for the second World Development Report and on a review of other energy work done both within and outside the Bank. The purpose of the paper is to provide a broad overview of the main recent developments and issues in energy, with the primary focus being on developing countries. As such, the paper discusses the industrialized countries and centrally planned economies mainly to provide the global framework within which the developing country issues are discussed and also to point out the major inter-relations between the industrialized, OPEC and non-OPEC developing countries. Moreover, the focus of the paper is on issues and main conclusions that can be derived from the available literature and it contains only limited factual information. For more detailed discussion of some of the issues raised in this paper, reference can be made to the background papers prepared for WDR II. 1/

I. Outlook for Commercial Energy

2. Global energy prospects have received considerable research attention and a wide range of demand and supply estimates are available. The variations result from the use of different assumptions regarding, among others, resource estimates, growth, conservation potential and price and income elasticities of demand. The/
base case
projections presented in Table 1 should be seen as an illustrative exercise to explore the implications of reasonable assumptions rather than as a forecast. Alternative scenarios were also projected to evaluate the sensitivity of the results to changes in the main assumptions.

1/ The major reference papers are: (i) Blitzler, Choe and Lambertini, "Energy in the 1980s, Global Supply and Demand Analysis"; (ii) Ezzati, "Energy Options and Policy Issues in Developing Countries"; and (iii) Hughart, "Prospects for Non-Commercial and Non-Conventional Energy Resources".

Table 1: WORLD SUPPLY AND DEMAND OF ENERGY AND PETROLEUM
(million b/d crude oil equivalent)

	ACTUAL				PROJECTED						GROWTH RATES				1960-75 Energy
	1970		1976		1980		1985		1990		1976-85		1985-90		
	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	Energy	Petroleum	
Developed Countries															
Production	43.8	13.2	46.5	12.6	53.2	15.4	61.0	15.7	70.7	14.5	3.1	2.5	3.0	-1.6	2.7
Consumption	61.1	30.4	69.8	35.1	76.8	37.9	91.5	43.5	109.7	48.5	3.1	2.4	3.7	2.2	4.0
Balance	-17.3	-17.2	-23.3	-22.5	-23.6	-22.5	-30.5	-27.8	-39.0	-34.0	3.0	2.4	5.0	4.1	-
Capital Surplus OPEC															
Production	11.8	11.7	16.1	15.8	16.1	14.7	23.5	20.1	25.5	20.6	4.3	2.7	1.6	0.5	10.2
Consumption	0.3	0.1	0.8	0.6	1.0	0.7	1.5	1.0	2.3	1.5	7.2	5.8	8.9	8.4	12.7
Balance	11.6	11.5	15.3	15.2	15.1	14.0	22.0	19.1	23.2	19.1	4.1	2.6	1.1	0.0	-
Developing Countries															
Production	19.9	15.1	26.5	19.4	31.5	21.5	40.6	24.0	49.5	26.3	4.9	2.4	4.0	1.8	6.7
Consumption	11.3	6.5	16.5	9.7	20.3	11.4	28.2	15.5	39.9	22.6	6.1	5.3	7.2	7.8	6.9
Balance	8.6	8.6	10.0	9.7	11.2	10.1	12.4	8.5	9.6	3.7	2.4	-1.5	-5.0	-15.3	-
Of which:															
Non-OPEC Developing Countries															
Production	7.0	2.7	9.6	3.5	14.2	6.2	19.7	7.7	26.2	9.6	8.3	9.2	5.9	4.5	
Consumption	9.8	6.4	14.2	8.2	17.5	9.6	24.2	13.3	34.4	19.1	6.1	5.5	7.3	7.5	
Balance	-2.8	-3.7	-4.6	-4.7	-3.3	-3.4	-4.5	-5.6	-8.2	-9.5	-0.2	2.0	12.8	11.1	
Net Oil Importing Developing Countries															
Production	5.0	1.2	6.5	1.2	9.1	2.1	12.8	2.6	17.5	3.1	7.8	9.0	6.5	3.6	
Consumption	8.5	5.5	12.3	7.0	15.2	8.3	21.1	11.4	29.8	16.3	6.2	5.6	7.1	7.4	
Balance	-3.5	-4.3	-5.8	-5.8	-6.1	-6.2	-8.3	-8.8	-12.3	-13.2	4.1	4.7	8.2	8.4	
Centrally Planned Economies															
Production	28.9	7.9	37.9	12.4	44.7	13.4	54.7	14.7	66.7	16.4	4.2	1.9	4.0	2.2	4.4
Consumption	27.5	6.9	34.4	9.5	41.4	11.0	52.1	13.3	64.3	15.0	4.7	3.8	4.3	2.4	4.3
Balance	1.4	1.1	3.5	2.9	3.3	2.4	2.6	1.4	2.4	1.4	-3.3	-7.7	-1.6	0.0	-
WORLD															
Consumption	100.2	43.9	121.6	54.9	139.5	61.0	173.3	73.3	216.2	87.6	4.0	3.3	4.5	3.6	4.5
Bunkers and Others	4.2	2.9	5.3	2.6	6.0	3.6	6.5	4.5	7.0	5.5	2.3	6.3	1.5	4.1	-
Supply Requirements	104.4	46.8	126.9	57.5	145.5	64.6	179.8	77.8	223.2	93.1	3.9	3.4	4.4	3.7	4.5
Projected Production at OPEC Capacity	-	-	-	-	150.6	69.8	180.2	77.0	213.4	80.0	N.A.	N.A.	3.4	0.8	
Capacity Balance					5.1	5.2	0.4	-0.8	-9.8	-13.1	N.A.	N.A.	N.A.	75.0	

3. In global terms, these projections (and a review of the literature) imply a moderately optimistic demand-supply balance through the next decade. The basic conclusion that emerges is that the global demand for energy is sustainable without the need for major/real oil price increases, provided sensible policies are followed regarding demand conservation and development of oil and non-oil resources, and provided there are no major production setbacks due to political reasons. The main reasons for this optimism are firstly, that technological substitutes to oil at the present state of knowledge, like oil shale and tar sands, can be produced at less than double the current price of oil. The expectation that research and development efforts will reduce the costs of production of oil substitutes places a limit to long-run oil price increases at less than double today's prices in real terms. This does not exclude short run higher prices because of political disruptions or deliberate decisions to conserve oil supplies. Given the long gestation lags and high investment costs of substitutes, large short run fluctuations cannot be ruled out in the absence of international understanding for responsible action. Secondly, reasonable efforts at conservation have resulted in lower energy/GDP elasticities in developed countries compared to the period prior to 1974. Thirdly, as a result of oil price increases exploration for energy resources in non-OPEC developing countries and developed countries is being intensified.

4. However, despite this moderately optimistic view, there are still serious concerns. They arise essentially from the fact that there is likely to be an increasing scarcity of liquid fuels and most scenarios predict a

peaking of petroleum production in this century. This coupled with the long lead times required for bringing new energy capacity into production leads to concerns about whether the required policies and adjustments will come forth in time. Another major factor is the high dependence on foreign sources of energy supply leading to concerns about the issue of access to energy in the required volumes at reasonable prices and on a continuous, uninterrupted basis. As the residual supplier of petroleum, which is the critical balancing factor in global energy demand-supply balances, the rate of production decided by OPEC countries is obviously very important. Changes in their production, which may result from their domestic considerations, could alter the world demand-supply balances.

5. Hence the energy problem over the next decade should be seen more as one of transition: adjusting to a higher price of energy and ensuring that incremental energy needs can be increasingly met economically from non-oil sources. What the projections show is that the transition can be managed without critical problems, provided appropriate plans are prepared and implemented. All the major groups of countries have their own problems of transition. For the OECD countries the major issues are among others demand conservation, nuclear power and synthetic fuels development. For the OPEC countries the major issue is the exhaustion of a non-renewable resource and hence the need for long term development plans to replace oil revenues. For the developing countries, since the opportunities for demand conservation are relatively limited, the main issues are exploration

and development of domestic commercial resources and non-commercial/non-conventional energy sources and the need to adjust to a higher energy price situation. There are clear benefits in coordination among the different groups of countries to ensure a smoother path of transition to a world of high price, non-oil based energy development.

6. The uncertainties inherent in the situation also make planning difficult. One needs only to look at the variations in energy resource estimates, the timing of the peaking of oil production and the divergent demand scenarios to appreciate the problem of uncertainty. One important implication of this is that despite a moderately optimistic long term demand-supply balance, short term demand supply imbalances may easily occur. Moreover, variations in the actual outcome from the assumptions made can easily result in greater problems than projected in our base case projections.

7. Finally, the aggregate picture hides the sharp differences among different groups of countries. For the oil importing developing countries, the projections imply a large continuing drain on their foreign exchange resources. Moreover, the limited non-commercial resources, particularly fuelwood, in developing countries imply a different energy crisis, which has as yet been given insufficient attention by the developing countries and the rest of the world.

8. In the base case projections presented in Table 1, assuming oil prices remaining constant in real terms, there is a potential excess supply situation in 1980 and a potential excess demand situation in 1990. The potential excess supply in 1980 would be considerably reduced if the oil

production in Iran does not recover sharply from the present low levels. The hypothetical gap in 1990 is likely to be closed by some combination of higher energy prices, increased conservation efforts, new supplies and reduced economic growth. However, in view of the uncertainties involved and the sensitivity of the results to small changes in the assumptions too much importance should not be attached to these hypothetical gaps.

9. In view of the uncertainties involved and the lack of professional consensus on what values to use for crucial parameters like price elasticity, sensitivity analysis was done with the help of a simple model to explore the impact on demand-supply balances in the eighties. The results show that with a moderate oil price increase of 2 percent per annum in the eighties and the most favorable assumptions regarding demand conservation and price elasticities, demand by 1990 is reduced by about 5 percent in developed countries and less than 10 percent in developing countries compared to the base case. On the supply side, the sensitivity analysis shows that supply is unlikely to vary more than 2 percent by 1990 compared to the base case in response to a similar moderate price increase because of the long lead times involved. If the projection period was to the year 2000 or beyond the supply sensitivities are likely to be higher. The impact of changes in income and price elasticities and demand conservation assumptions, though important, is not highly significant. It is still significant enough in relation to the hypothetical gaps that emerge in the base case projections to underscore the point that one should conclude

too much from these hypothetical gaps. On the other hand, small changes in economic growth rate assumptions lead to large changes. For example, if the growth rate of industrialized countries were reduced from 4.2 percent in the eighties in the base case to 3.5 percent per annum, that alone would lead to about a 6 percent reduction in total energy demand of those countries.

10. Industrialized countries dominate the energy market, accounting in 1976 for more than a third of world production and more than half of world consumption. Production in industrialized countries is expected to increase at 3.1 percent per annum during 1976-90 compared to 2.7 percent during 1960-75 as a result of the increased efforts to develop domestic energy resources. Given the long gestation periods involved, our oil and gas projections based on projects in the pipeline, are unlikely to be substantially affected by major new finds before 1990. Consequently, expansion is likely to come mainly from coal or nuclear sources. Non-conventional sources are unlikely to be quantitatively significant in this century. Overall about one-third of planned production increases during the eighties will come from coal and about another half from nuclear power generation. The major uncertainties in the coal and nuclear forecasts are the environmental and safety issues involved. Concern about these issues has led to long construction delays and cost overruns in nuclear power development and projections have been continuously revised downwards. In both the U.S. and Canada, an important unresolved issue is the transport of low sulphur western coal to the Eastern States.

11. Consumption in the industrialized countries is expected to grow slower than in the past, partly as a result of the slower rate of economic growth projected

for these countries and partly due to a decline in the elasticity of energy consumption to GDP. This is in line with the slowdown in energy consumption growth rates that have already occurred since the oil price increases and the substantial conservation potential estimated by most studies for industrialized countries. In most OECD countries, other than the U.S., energy prices have been substantially increased. Energy conservation has been an important ingredient of the energy programs of most of these countries and non-price conservation measures have been used in varying degrees in different countries. Between 1973 and 1976, energy consumption in OECD countries increased by only 0.65 percent while real GDP increased by 4.5 percent. With the energy intensity of national income being 25 percent higher in the U.S. than Western Europe, the scope of conservation is likely to be higher in the U.S.

12. In the case of developing countries (excluding capital surplus oil exporters), production is projected to increase slower than in the past despite the accelerating pace of exploration activity. This is mainly because of the slow growth of production in OPEC countries. As can be seen in Table 1, the growth of energy production in general and oil production in particular is projected to be fairly rapid in the oil importing developing countries and the non-OPEC oil exporters during the period 1976-85. For developing countries as a whole, the share of oil in total energy production is expected to fall from over 70 percent in 1976 to about 50 percent in 1990.

13. Consumption in developing countries is projected to grow slightly slower than in the past during 1976-85 and pick up again during 1985-90 because the possibilities for conservation in developing countries, as discussed below, are limited compared to developed countries. However, due to the

too much from these hypothetical gaps. On the other hand, small changes in economic growth rate assumptions lead to large changes. For example, if the growth rate of industrialized countries were reduced from 4.2 percent in the eighties in the base case to 3.5 percent per annum, that alone would lead to about a 6 percent reduction in total energy demand of those countries.

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higher growth rates assumed for developing countries and the higher income elasticities of energy demand compared to the industrialized countries, the projected growth of consumption for developing countries is faster than that of the industrialized countries. Consequently, their share in total world energy consumption rises from about 14 percent in 1976 to about 23 percent in 1990. Although the developing countries as a whole remain net exporters of energy, oil importing countries are projected to require increasing amounts of imported energy, implying an increasing burden on their balance of payments.

14. The centrally planned economies, which accounted for about 27 percent of world usage of primary energy in 1976 and about 30 percent of world production, consume energy at about the global average of about 3,600 kgce per year. The growth of energy production is projected to slow down somewhat to about 4 percent per annum compared to 4.4 percent during 1960-75. This is primarily due to a slower growth in the production of oil expected in the Soviet Union, because of the necessity to develop smaller oil fields in more difficult terrain. The faster expected growth in coal and hydroelectricity production, particularly in PR China, is not sufficient to offset the slower growth in oil production. Centrally planned economies as a group are expected to remain marginal exporters of energy throughout the next decade.

II. Recent Trends and Issues in Developing Countries

15. Primary energy consumption in developing countries during 1973-76 slowed down to an annual growth rate of 5 percent per annum compared to 6.9 percent between 1960-73. Generally speaking, oil exporting countries showed higher than average growth rates of consumption during 1973-76. Among the oil importing countries, energy consumption increased at slower rates and solid fuels and primary electricity increased their shares in total consumption. The energy/GDP multiplier i.e., ratio of energy consumption growth to the GDP growth rate, increased during the 1973-76 period in countries that benefitted from the oil price increase e.g., in Egypt, Iran and Indonesia. In countries like Brazil, Korea and the Philippines that maintained high growth rates, the energy/GDP multiplier also decreased in the post oil price increase period. The internal prices of energy have been substantially increased, averaging about 40 percent in real terms between 1973-76 in developing countries, with oil exporting countries typically below the average and oil importing above the average. The Latin American and Caribbean and East Asia and Pacific Regional countries

have typically raised prices more than Africa, Middle East and South Asia. Electricity prices typically increased less than the other energy prices.

16. Electricity consumption, as in the previous decade, increased at faster rates than total primary energy consumption, growing at 8.6 percent per annum between 1973-76. Consequently, the share of electricity in total primary energy consumption rose from 16 percent in 1960 to 25 percent in 1976. Compared to about 31 percent in OECD in 1976, this is still a low share and our projections imply a faster growth of electricity use than total primary energy consumption.

17. The faster growth of total energy consumption in developing countries compared to the industrialized countries is expected to continue in the future primarily because of the higher growth rates assumed for developing countries and their higher income elasticity of demand (1.2 to 1.5 compared to about one for industrialized countries). The higher income elasticity is due to the expected increases in the shares of industrial output and urbanization, which are generally more energy intensive and the increasing growth of energy intensive consumer durables. Finally, commercial energy is likely to increasingly substitute for non-commercial energy sources.

Development of Domestic Resources

18. For the purposes of simplifying the discussion of domestic energy resources in view of the widely divergent positions of various countries, Table 2 characterizes developing countries by their indigenous energy resources. Multiple resource endowed countries are identified by marginal notations. In view of the higher energy prices, greater attention is needed

Table 2: CHARACTERIZATION OF DEVELOPING COUNTRIES BASED ON THEIR
INDIGENOUS ENERGY RESOURCES *

<u>I. Net Oil Exporters</u>		<u>VI. Non-Commercial Energy Endowed</u>	
	Angola		Burundi
	Bahrain		Gambia
	Bolivia		Haiti
	Brunei		Honduras
	Congo	G	Kenya
	Egypt		Mali
	Malaysia		Mauritania
HCM	Mexico		Nepal
	Oman		Niger
	Syrian Arab Republic		Paraguay
	Trinidad and Tobago		Senegal
	Tunisia		Sierra Leone
	Zaire		Somalia
<u>II. Oil and/or Gas Producers</u>			Sri Lanka
	Afghanistan		Sudan
HN	Argentina	G	Togo
C	Bangladesh		Uganda
	Barbados		Upper Volta
	Burma	<u>VII. Potential Geothermal Energy Producers</u>	
HCG	Chile	H	Costa Rica
HCG	Colombia		El Salvador
	Morocco	HR	Ethiopia
H	Pakistan	O	Guatemala
C	Peru		Malawi
<u>III. Potential Oil and/or Gas Producers</u>			Nicaragua
	Benin	OR	Philippines
HCM	Brazil		Taiwan
	Cameroon	G	Tanzania
	Chad	<u>VIII. Solar/Wind Energy Endowed</u>	
G	Guatemala		Ghana (S)
	Guinea	G	Kenya
HCM	India	C	Rwanda (S)
HC	Philippines	G	Uganda
G	Tanzania	H	Uruguay
H	Thailand	C	Zambia
HCM	Turkey	<u>IX. Uranium/Thorium Endowed</u>	
	Vietnam	OR	Argentina
HC	Yugoslavia	ORC	Brazil
<u>IV. Hydropower Endowed</u>		ORC	India
	Argentina	ORC	Mexico
OCN	Brazil	OCG	Turkey
	Central African Empire	<u>X. Energy Resource Deficient</u>	
OCG	Chile		Cyprus
OCG	Colombia		Dominican Republic
G	Costa Rica		Fiji
RC	Ethiopia		Guyana
OCN	India		Jamaica
	Ivory Coast		Jordan
OCN	Mexico		Lebanon
O	Pakistan		Lesotho
	Papua-New Guinea		Madagascar
OG	Philippines		Mauritius
O	Thailand		Panama
OCGN	Turkey		Singapore
R	Uruguay		Suriname
OC	Yugoslavia		Yemen Arab Rep.
<u>V. Coal Endowed and Potential Exporters</u>		* Multiple energy resources endowed countries have been identified by placing one or more of the following energy resource codes in front of the country name:	
O	Bangladesh	O	Oil
	Botswana	H	hydro
ORH	Brazil	C	coal
ORC	Chile	R	renewable and non-commercial
ORC	Colombia	G	geothermal
ORH	India	N	uranium/thorium
ORH	Mexico	A	agricultural exporters
	Mozambique	M	mineral exporters
O	Peru		
R	Rwanda		
	South Korea		
	Swaziland		
	Thailand		
ORGN	Turkey		
OR	Yugoslavia		
R	Zambia		

to develop indigenous resources to the extent that they are economically attractive at prevailing world prices. The increase in prices has made some reserves commercially viable which were marginal at pre-1973 prices because of their small size and high cost of transport or enhanced recovery. It has also justified increased expenditure on resource exploration, particularly for petroleum and gas.

19. However, with a few exceptions, undiscovered petroleum resources are located in small deposits, which may not offer the prospect of substantial exports to interest international oil companies. Hence, many developing countries that do not have their own well developed oil companies, may find that though they have economically exploitable resources, they cannot attract the expertise of the international oil companies to exploit them. However, in the longer term, as developing countries become more important in world oil production, the interest in exploiting their oil resources may increase in attractiveness. Progress in this regard requires a vigorous effort to improve the knowledge of location, scale and commercial exploitability of the resources to reduce uncertainty and also for the host country to offer attractive terms for exploration and subsequent production. 1/

20. The Bank's experience shows that the exploitation of resources in many developing countries has been held back by the lack of effective energy planning institutions and trained administrators, inadequate study and understanding of energy pricing and the inadequate analysis of data derived from exploration activities. A survey done by consultants appointed

1/ For a more detailed discussion, see "A Program to Accelerate Petroleum Production in Developing Countries", IBRD, November 1978.

by the Bank suggested that about 50 developing countries need help in training and institution building activities and most of them need advice in framing or amending legislation and/or procedures to improve cooperation with international companies. Most governments will need the help of foreign companies to help them with one or more phases of their petroleum development and production. Since petroleum agreements are complex documents, skilled negotiators are needed and hence external advice and help would be needed.

21. The study done by the consultants also gave the following main results. Firstly, 54 of the 70 countries were in need of assistance to reevaluate existing data, implement new surveys and test wells. Secondly, of the 600 sedimentary basins with petroleum potential that have been identified so far, 200 basins are still unexplored or lightly explored and many of these lie in developing countries, partly in difficult high cost areas. A serious constraint for exploratory drilling is the shortage of risk capital for investment in developing countries. Of the 70 countries covered by the survey, 23 countries have prospects for finding high quantities of petroleum and a further 15 have prospects of locating fair quantities. Of the 23 countries with high prospects only seven have been explored adequately and another six moderately. Of the 15 countries with fair prospects, only one has been explored adequately. Although the ultimately recoverable reserves (URR) of developing countries are not known with any certainty, it is estimated that oil importing developing countries, which presently account for 2 percent of the world proven reserves, could account for 15 percent

of the world's URR. Yet the drilling density in developing countries in 1976 was less than 3 percent of that in the industrialized countries.

The costs of exploration are high and rising and the cost of drilling may be two to five times as high in developing countries as in the U.S. Estimates made by a UN group of experts in 1977 suggest that the additional financing requirements for petroleum exploration in oil importing developing countries may be of the order of US\$1 billion a year over the period 1978-90, nearly half of which in countries that are presently non-producers.

22. It was in view of the above considerations, that the World Bank decided in January 1979 to start financing exploratory drilling to act as a catalyst and provide technical assistance and act as an honest broker in the negotiations between countries and oil companies. In addition, it decided to increase its lending for petroleum production and technical assistance in energy planning.

23. The geological coal resources of the developing countries, which may become economical to develop, have been estimated at about 3 percent of the world total and technically and economically recoverable reserves at 14 percent of the world total. However, as more careful estimates are prepared of coal resources in developing countries, the estimate of geological resources is likely to rise significantly. The reserves are distributed unevenly among the developing countries, as is the production. In 1976, coal production in developing countries was equivalent to 3.3 million barrels a day of oil equivalent or about 12 percent of total energy production in developing countries. The major producers among developing countries were India and South Africa, with Yugoslavia, South Korea, Turkey, Mexico and Colombia being other important producers. The production of coal in developing countries is expected to increase by over 6 percent per

annum, so that its share in total energy production would rise to about 15 percent in 1990. These projections were developed on a country by country basis and they were based on announced development plans and Bank assessments. The production forecasts are subject to considerable uncertainty, particularly after 1985. Important constraints to the development of coal production are transportation bottlenecks, labor shortages and insufficient investment funds. Development of coal resources also has social, environmental and health impacts. In low income African countries like Botswana and Zaire, where the scale of production is quite small, development is limited by the cost of infrastructure requirements, limited marketing opportunities and because the coal is generally of low to medium quality. Countries like Yugoslavia and Turkey have significant lignite reserves. Although export possibilities are limited, they are being used for major power development.

24. In general, coal production is not expanding sufficiently in developing countries despite the increase in prices. Available information indicates that about 30 developing countries have known, but only partially explored, coal and lignite resources. The problem in many countries is not so much one of identifying new resources but a more reliable determination of extent and quality of existing resources to permit an economic evaluation. Also risk and uncertainties regarding overall development costs and marketing opportunities have made some coal deposits marginal.

25. The power projects based on coal currently being executed or prepared in / developing countries are mainly for new plants and there has been little switching from gas/oil to coal in existing plants. This is mainly because existing plants lack dual-fired boilers and major investments would be needed to make the

switch. Chile has the only oil-fired plant that is being retrofitted to use coal.

26. Hydropower plays an important part in electricity generation. Although hydropower plants accounted for 40 percent of installed capacity in developing countries in 1976, the vast hydropower potential is still very underexploited. In Africa, which has over 20 percent of the world's hydropower resources, only about 2 percent of the continent's potential has been developed. In Latin America and Asia, with 20 percent and over 25 percent respectively of the world's potential, only 6 percent and 12 percent of their respective potentials have been developed. The economics of hydropower have become significantly more attractive with the rapid rise in the prices of fossil fuels. However, although the operating costs of hydropower are small, the capital costs are large and hence the choice for hydropower plants would need to consider the availability of capital and foreign exchange.

27. The increase in oil prices has focussed attention on the production of synthetic crude oil from oil shales, tar sands, heavy oil deposits and coal. Current estimates of oil shales in place are between 3 to 4 trillion barrels. Estimates for heavy oils/tar sands are between 3 to 5 trillion barrels, representing over 12 times the proven recoverable reserves of oil. However, complex technology and cost factors allow less than 10 percent of these resources to be recovered. Cost estimates for oil from tar sands and shale range between \$15-25, mostly towards the higher end of the range and are therefore at present not competitive with petroleum production. Heavy oils

recovered through in-situ methods offer better promise, with costs ranging from \$12-20 a barrel. Moreover heavy oils have less severe environmental problems and require smaller energy inputs than tar sands and shale oil. The majority of shale oil exists in the U.S., although the Soviet Union, China and Brazil have some reserves. In the case of heavy oils, Venezuela may account for as much as two-thirds of world reserves, with the balance located primarily in Canada and the Soviet Union. However, heavy oils have been produced economically only in small quantities and largescale economic production techniques still need further development. Some efforts are being made in this regard in Venezuela.

28. Despite the safety and environmental problems associated with nuclear power, significant additions have been made in the last decade to nuclear power plants. The additions in 1978 are equivalent to over 0.6 million b/d of oil equivalent and nuclear plants under construction and in the planning stage are three times as much as the existing capacity in the world (204 nuclear power reactors operating in 1977). Developing countries like Pakistan, India, Argentina and Taiwan already have access to nuclear power and Brazil, Iran, Mexico and South Korea are also expected to be nuclear power producers by 1980. However, there is strong opposition to nuclear development based mainly on problems of radioactive waste disposal, security and siting near inhabited areas. Moreover, nuclear plants are about twice as capital intensive as oil or coal fired plants, although the fuel cost is only half to one-sixth as much, and the cost of nuclear power plants has risen by 2-3 times in recent years. Developing countries are at a

relative disadvantage in nuclear power development because of shortages of capital, skilled labor and management and the relatively large size (600 MW) of commercially available power plants, which restricts its use to the middle income or exceptionally large countries like India. Availability of raw materials is also an important consideration. The geological prospect for finding uranium is very promising in many Latin American countries, some of whom have considerably increased their exploration activities and investment expenditures in recent years.

29. Amongst other possibilities, geothermal energy can be used in places where power requirements are small, because baseload electricity generated from high temperature geothermal sources can be substantially cheaper than electricity from oil or fossil fuels. Hence, despite the risks, it may be worthwhile to evaluate such resources more carefully.

30. Many developing countries do not have adequate energy information systems and the capability for collecting and analyzing the necessary data. Moreover, the capability for national energy planning in developing countries is very limited in most countries. Development of these capabilities in the developing countries, with the help of international and bilateral assistance from industrialized countries, should be given high priority.

31. The total upstream investment requirements of non-OPEC developing countries for the exploration of oil and gas, their development and production, including crude oil pipelines are estimated at about US\$6.8 billion (1977 dollars) over the period 1976-85. Of this 80 percent is for oil and the rest for gas. The investment requirements for coal are US\$ billion over the same period. The estimate of capital expenditures required for power facilities

commissioned during 1977-90 for all developing countries is about US\$450 billion. In total, these add up to substantial investment requirements for the development of energy resources in developing countries.

Energy and Growth

32. Although the increase in energy prices substantially raised the energy import bills of developing countries, the impact on economic growth rates was not so severe. Compared to the industrialized countries, whose GDP growth declined from percent per annum during 1960-73 to percent during 1973-77, for the developing countries as a whole the growth declined only to percent from percent in the comparable periods. However, this historical experience does not conclusively show that the impact of energy prices on growth is not strong. There are several possible explanations of the relatively higher growth rates of developing countries consistent with the assumption that energy prices play a major role in determining growth rates. A number of countries had good harvests. Others have benefitted from increased trade, remittances and/or ^{aid} flows from oil exporting countries. More generally, the availability of external capital has allowed the developing countries to reduce the costs of adjustment not only to higher energy prices but also to the slower growth of developed countries.

33. What is likely to be the impact of continuing high energy prices on the growth of developing countries? This question has not been studied carefully. Studies have focussed on the effects of growth and development on energy, mainly analyzing the effects on demand, technologies, price and investment policies, etc. In the developed countries, studies have shown, particularly for the U.S., that changes in energy prices do not have a strong effect on long run growth because

the energy sector is a small component of the whole economy (less than percent in the U.S.) and there is scope for substituting other inputs for energy.

34. In the case of developing countries, there is insufficient data available to precisely measure the value share of energy in GDP. Rough estimates for a group of developing countries indicate that the share of energy is likely to be usually less than 8 percent of GDP. Consequently, although increases in energy prices will and should lead to substitution for energy by other inputs, this is analagous to the substitution called for if substantial price increases occur for any input other than energy. It is unlikely that developing countries will make major adjustments in their growth strategies or substantially change the sectoral shares of investment because of higher energy prices. The possible scope for adjustments in developing countries is discussed in the next section.

35. In the short run, the substitution of other inputs for energy is obviously extremely limited, except in some auxiliary operations. Shortages of energy supply would therefore constrain growth in the short term. Over the long term, higher energy prices can cause changes in the energy/GDP multiplier as evidenced by the differences between Europe and the U.S. However, the nature of the long run substitution between energy and other inputs is disputed. Engineering data shows reductions in energy consumption with the use of improved equipment when the price of energy goes up. But econometric analysis suggests complimentarity and not substitution. A plausible explanation is that expensive energy does lead to energy

saving changes in equipment, but as a result the package of new equipment plus energy becomes more expensive relative to other inputs leading to a substitution by other inputs for the packages. Finally, although there seem to be possibilities for the substitution of labor for energy, the extent of substitution possibilities have not yet been carefully studied.

Demand Conservation

36. Differing energy intensities among countries can be explained by: (i) variations in sectoral composition because, for example, heavy industry uses considerably more energy than services; (ii) variations in choice of techniques within a sector; and (iii) variations in efficiency of use.

37. The principal consumers of commercial energy are the industrial and transportation sectors. Together their share of final energy averages 70-90 percent, with industry accounting for nearly 50 percent. Although the energy used per dollar of GDP is 20 percent higher in OECD countries compared to developing countries, the industrial sectors in developing countries have energy intensities 40 percent higher than in OECD countries and in the transportation sectors it is 20 percent higher. The use of energy in commercial and service sectors per dollar of GDP and in the household sector is considerably lower in developing countries than in the OECD countries.

38. This does not necessarily mean that the use of energy in developing countries is more inefficient in the industrial or transport sectors. A comparison of a selected group of industries showed that the energy input of several industrial branches is very similar in developing and OECD countries. The more likely explanation therefore lies in the varying product composition of the industrial sectors in different countries. Moreover within industry, the

share of heavy industry has a major influence on the overall energy intensity of the sector, because heavy industry has an energy intensity 2-3 times the manufacturing sector as a whole. The use of energy saving technologies in heavy industry is equally applicable in developing and developed countries. The main difference is that in developing countries, because of the smaller capital stock and the faster projected growth rate, capital stock will change more rapidly and permit the use of more energy efficient technology as it evolves. As in the past, with technical progress, new industrial technologies are likely to be more energy efficient. In Germany, for example, between 1953-73, energy per unit of industrial output fell 42 percent. Moreover, with the exception of transport equipment and rubber/asbestos products, all industries reduced their energy intensities by at least 10 percent. The highest reductions occurred in chemicals and plastic products. Considering that this occurred in a period of falling real prices of energy, it is likely to happen in the future for developed countries and developing countries could benefit from such technical progress.

39. In transportation, the mix of modes largely determines the average fuel intensity per ton-km and per passenger-km, with intensities declining from air to road to rail or bus transportation. Since the number of cars in relation to GDP are typically higher in developed countries, one would expect the average intensity in passenger transportation to be higher in developed countries than developing countries. The explanation for the higher intensity in total transport in developing countries is therefore likely to lie in freight transportation. In various developing countries, despite the growth

of railway freight transportation, road traffic still accounts for over 50 percent of total freight transportation compared to a range of 20-40 percent in most developed countries. Moreover transport intensity (defined as ton-kms per dollar of GDP) tends to be higher in developing countries due to the lower average value of each ton of freight compared to developed countries and also because the transport intensity of an economy tends to stabilize as the location of economic activity settles down, that is, a balanced regional development is approached. The combination of higher transport intensity plus the use of less efficient modes of transportation for freight lead to higher energy intensities in the transport sector in developing countries.

40. Consequently, a decline in the energy intensity in the transport sectors can be expected in developing countries as they become more developed. In fact declines are already taking place in middle income countries. Moreover, significant energy savings could be achieved only by intermodal shifts. However, fuel inputs of freight transportation are small: they represent only 8-12 percent of total cost of railways and 10-15 percent of road freight. Hence they are unlikely to be the dominant factor in determining intermodal choice.

41. In passenger transportation, although road transportation is likely to remain the main mode, improvements are possible through increased use of mass transport and improvements in fuel efficiency. The fuel efficiency of trucks could be improved by further dieselization. The fuel efficiency of railways has been improving in the past, and should continue to do so, as

a result of more efficient use of locomotives and rolling stock and the phasing out of steam locomotives. Encouragement of the use of other efficient modes of transport would also help to improve overall energy efficiency. For example, coastal shipping has been growing slowly: in Brazil the share of coastal shipping dropped from 21 percent in 1960 to 10 percent in 1974. In the African countries, with a few exceptions, internal waterways have been severely underutilized.

42. Some efficiency improvements in the power sector are possible. Electricity consumption in developing countries has grown faster than total energy and is likely to continue to do so in the future. For example in Turkey and Brazil, it takes 25 percent more fuel inputs to produce one kwh than plants in some OECD countries. The lower operational efficiency in developing countries is partly due to the smaller system sizes, which tend to have lower load factors because they cannot exploit economies of scale. Interconnection of country power systems can lead to savings through larger unit sizes, reduced system reserves and diversity of peak loads. Two areas offering such prospects are some countries in West Africa and Central America. However, variations in system frequencies can sometimes make this difficult. Another possibility is conversion of existing steam plants from oil to coal. However, the attractiveness of this has been diminished by the increase in coal prices along with oil prices, high transport costs for coal and the high investment requirements for conversion. Moreover, most existing plants do not have dual-fired boilers, which would make retrofitting expensive. The use of associated gas, which is presently

flared, for power generation would be another policy that various countries could consider. Finally, higher overall efficiencies are possible if power stations are combined with steam supply stations for heating or, more importantly, process steam. At present only about one third of the fuel input to thermal power stations is converted into electricity for distribution.

43. The potential for energy savings in the residential sector are limited, except in some of the high and middle income developing countries, because most of the energy conservation possibilities are in the space heating and cooling systems whose use so far has been very limited. Other uses of commercial energy are also at low levels in the residential sector and savings possibilities are therefore limited.

44. Overall, although there are possibilities for increasing the efficiency of energy use in developing countries, particularly in the industrial, power and transport sectors, the possibilities of demand conservation are more limited in developing countries compared to developed countries. This is mainly because of the low absolute level of energy consumption, high costs of conservation measures and the need to make changes in lifestyles to implement some of the measures. However, the evolution of the sector composition of developing countries towards the pattern of developed countries and the adoption of available energy efficient techniques should lead to a reduction in the energy intensity in intermediate uses and government policy can help to encourage their adoption through price and non-price measures.

Domestic Energy Prices

45. As mentioned earlier, various oil importing developing countries have substantially raised energy prices since 1973. However, typically the domestic prices of energy are still below international levels. Moreover, some countries in North Africa, Middle East, Africa and South Asia regions, particularly the oil exporting countries and those that are self-sufficient in energy, have increased their energy prices less than the other developing countries. In addition, the products for direct consumption like gasoline are generally more heavily taxed than those for intermediate uses like fuel oils. However, in some cases like India, kerosene prices are subsidized because it is considered to be a basic commodity required by the poorer sections of society. Finally, the real prices of electricity in a sample of countries increased only 9.6 percent between 1973-75 as compared with a 29 percent increase in the average price of energy. The main reasons for the slower price increases in electricity are that the costs of hydroelectricity, which is the main source of electricity, were not directly affected by oil price increases, and because of the high capital costs involved, total costs increase much slower than the cost of fuel.

46. The issue of energy pricing is a complex one mainly because the reasons for subsidized prices in energy are extremely varied among different energy uses and different countries. The case of kerosene quoted above is the basic commodity argument which is used in many other countries in addition to India. Another argument used is the need of infant industry for subsidized inputs to encourage the process of industrialization. Thirdly, in oil exporting countries or those with abundant gas reserves, it is politically very difficult to tax

energy heavily because of the substantial energy resources available at low costs of production compared to the international price.

47. The production, processing and to a large extent even consumption of energy are dominated by public agencies in many developing countries. To the extent that the purchase of energy is an intra-governmental transaction and to the extent that government agencies are often heavily subsidized by budgetary funds, the effect of energy price changes on real resource allocation is much more limited than market economies. It is necessary to bear this qualification in mind in evaluating the impact of energy price changes.

48. There are important internal resource transfer implications of domestic energy prices. Low energy prices, either by subsidies on imported energy or the sale of domestic energy sources above cost but below international prices, lead to rents being passed on to consumers. If international prices are used, then producers get this rent or else the government can tax away the rent. Generalized subsidies for energy use have income distribution effects, because the higher income groups, due to their disproportionately higher energy consumption, benefit more than the poor from consumer subsidies.

49. Although the use of selective energy price subsidies can be justified in particular cases, generalized subsidies are likely to be inefficient and have undesirable resource allocation effects. However, severe political difficulties may arise in any efforts to dismantle price subsidies too quickly, particularly when the low income consumers are affected. Consequently, efforts should be made to gradually move energy prices towards international levels,

with selective subsidies used to meet particular aims like providing kerosene at affordable prices to low income families. Similarly, infant industry needs for cheaper energy and other inputs can be met by subsidies to infant industries through selective tax/subsidy schemes rather than through general energy price subsidies.

50. Direct regulation of energy use via non-price measures such as standards for energy efficiency may be desirable for consumer durables such as automobiles and household appliances but would be too cumbersome to administer in the production sectors. The common effort to subsidize energy saving equipment through accelerated depreciation and tax credits may have the reverse of the desired effect and increase energy use if it makes the new equipment plus energy package less expensive relative to other inputs. Various policies in developing countries that subsidize the use of capital equipment may also have the effect of increasing energy use by encouraging equipment-cum-energy intensive methods of production. Moreover, the use of subsidized electricity rates have not only an adverse income distribution effect but also have led to difficulties in many developing countries of financing of power investment programs. Finally, the continuation of subsidized energy prices may hinder the development of oil substitutes, unless specific financial allocations are made by the Government to the appropriate government agencies to spend the required amounts to develop domestic energy resources. However, in this area, the role of non-price factors is very important and should be given the necessary attention. The development of alternative fuels can be hindered by non-price factors such as environmental controls, security concerns, mining hazards and technical capabilities.

III. Issues for OPEC Countries and Other Major Oil Exporters

51. The issues that face OPEC countries are similar to those for other emerging major exporting countries like Mexico and hence a discussion of the OPEC country issues can cover other energy exporters as well.

52. Views on demand-supply balances in the future are strongly affected by judgements on whether OPEC countries (and countries like Mexico) will take the necessary actions and policies to supply the remaining energy needs of the rest of the world after they have used up domestic supplies to meet their demands. OPEC countries together now produce less than 30 percent of total world energy production. Consequently, a 5 percent increase in the net import requirements of the non-OPEC world would imply a more than 15 percent change in OPEC production to meet the needs. These numbers underscore both the importance of OPEC countries as the residual suppliers as well as the caution with which one should interpret any energy projections up to 1990 or beyond. Our base case projections imply that despite the growth of non-oil sources during the eighties, the share of oil in total world commercial energy consumption is likely to decline from 45 percent in 1976 to only around 40 percent in 1990.

53. For the capital surplus oil exporters (Saudi Arabia, Kuwait, UAE and Qatar), which together with Iraq have two thirds of the total reserves of OPEC countries, rates of production will be determined partly by political considerations and partly by the expected real rates of return on the surplus financial assets that accumulate due to rates of oil production that generate revenues greater than domestic absorption needs. International understanding between

the industrialized countries and OPEC countries, particularly the capital surplus ones, is important to ensure that these "swing producers" will produce oil at the required rates. Moreover, stability of the industrialized countries and the reserve currencies is very important for the OPEC countries to maintain the real price of oil and also ensure an acceptable rate of return on their assets. This is clearly an area of mutual interest for the OPEC and industrialized countries.

54. OPEC members other than the capital surplus oil exporters and Iraq are expected to maintain their technical capacities and in most cases production at present levels. Algeria, Nigeria and Indonesia could quickly absorb higher oil revenues but are faced by slipping production schedules and a resource base that gives no assurance of significant future growth. Iran has been facing considerable uncertainties over future production, even before the current political crisis. Ecuador, Gabon and Qatar would have difficulty raising production. Hence, in view of the fact that Kuwait and Libya, which could raise production, have decided to adopt conservationist policies, Saudi Arabia and Iraq are the major swing producers.

55. Another area of mutual interest is in the setting of oil prices. The base case projections imply some upward pressure on oil prices in the eighties. It would be advantageous for all to have gradual, predictable oil price increases in real terms in small doses rather than sharp changes at unpredictable intervals. This would have the advantage of permitting a smoother transition by facilitating planning for investment in alternative

energy resources and reducing the growth costs for the oil importing countries. Such price increases are not seen as posing serious difficulties for growth in non-OPEC countries.

56. However, as the base case projections imply, oil importing developing countries are already projected to face rising oil import bills even with oil prices remaining constant in real terms. Consequently, special assistance will need to be made available to such countries, if the policy of gradually rising oil prices is not to affect them too adversely.

57. All OPEC countries face the major issue of developing their non-oil resources to generate alternative income to replace oil revenues. This important area of developmental planning is beyond the scope of this paper. International assistance continues to be needed to provide the necessary technical expertise and equipment needed by the OPEC countries in this endeavour.

IV. Non-Commercial and Non-Conventional Energy

58. The energy used in traditional sectors, both urban and rural, in developing countries is generally referred to as "non-commercial" energy, although it is often bought and sold. The most important forms are firewood, charcoal, plant and animal residues, human and animal effort and solar energy and to a lesser extent wind and hydro power. Many of these forms are also referred to as 'non-conventional' energy.

59. Although the share of such energy in global energy supply is limited to an estimated percent, it still supplies about half of the total

energy requirements of developing countries, more than 85 percent of the requirements of rural areas and in some countries like Nepal, Tanzania and Mali it represents over 90 percent of total energy consumed. In most countries, the demand for traditional fuels is dominated by household uses, primarily cooking. As a rough order of magnitude, about half of the world's population today cooks food using non-commercial energy sources. There is of course considerable variation among countries, with the middle income countries typically having a much lower reliance on non-commercial sources than the low income developing countries. For example in Latin American countries, kerosene is used more frequently than elsewhere.

60. Traditional energy systems are frequently integrated in complicated agricultural and socio-economic systems. In many agrarian systems, like the ones in Bangladesh, virtually all the agricultural products including by-products are put to productive use. The right to collect fuel requirements is separated from the right to grow crops and is in many cases being lost in the transition from traditional to modern land tenure systems. The "inter-connectedness" and the "tightness" of the use of energy resources and their inter-relationship with village socio-economic systems points to the need for extreme caution in proposals for major changes in agricultural techniques. For example, before introducing high yielding crop varieties which produce a lower ratio of straw to grain, it would be advisable to analyze the effects on the energy and livestock sectors.

61. The analysis of non-commercial energy flows and related issues are difficult because of the extreme scarcity of reliable data. As a result, quantitative estimates and projections have to be treated as indicative of broad orders of magnitude. However, despite these serious limitations, the qualitative dimensions of the problems can be discussed and although considerable research will be needed to improve the data base, evolve appropriate technologies and define the trade-offs involved, corrective policies and actions can and must be taken now to solve some of the emerging problems in the use of non-commercial energy resources.

62. The prospects and constraints in the utilization of non-commercial energy can be conveniently discussed under three headings: (a) energy and basic needs; (b) energy and modernization; and (c) alternative technological possibilities.

Energy and Basic Needs

63. Heat for cooking is the most important requirement. Fuel-gathering, mainly wood but also dung and crop residues, take up increasing amounts of a rural family's time, particularly as the forests available nearby get denuded for the satisfaction of basic needs. In many of the densely populated areas of the world, forests have been reduced to insignificance as a result not only of fuel gathering but also as a result of land-clearing for agricultural purposes. This is not only causing shortages of wood for other essential purposes such as housing but also severe environmental damages affecting soil and water resources.

64. Deforestation and desertification have resulted from trees being indiscriminately felled. The hills of Nepal are literally washing away in various parts, where the demand for fodder to feed domestic animals, the expansion of agricultural land and the demand for firewood are causing deforestation on the hillsides with severe effects on soil quality, erosion and water supply. It is estimated that the present rate of deforestation would lead to completely bare hillsides in Nepal in less than fifteen years. In less acute form, deforestation problems are affecting many other countries in Asia, Far East and Africa and to a lesser extent in other regions. In Bara in Sudan, for example, the landless people cut trees not only for their own needs but also to produce and sell charcoal because they have no alternative employment.

65. The urgency of the fuelwood problem cannot be overstated and it has appropriately been labelled the "other energy crisis". The traditional solution to deforestation - planting trees - will not work if people are forced to cut them down prematurely as a matter of survival. There is a history of failure of reforestation projects (for example in) where the problem of urgency was ignored.

66. The loss of soil as a result of deforestation not only makes it difficult to reestablish forest production on the affected areas but also may lead to problems downstream. The eroded soil may be deposited in reservoirs (shortening their lives), irrigation canals (raising maintenance costs) or riverbeds (increasing the flood level). In addition soil erosion leads to more irregular water runoffs, which decreases useable water and

increases flood potential. Desertification occurs when the vegetation cover is reduced to meet forage and fuel needs and the wind blows away the soil. Fuel scarcity can also affect agricultural productivity by forcing people to withdraw cow dung and crop residues from use as fertilizers and soil conditioners.

67. Although the precise magnitude of the problem is unknown, it is clear that increasing pressure of population will prevent the continuation of past fuel gathering practices. At the current rate of deforestation, the tropical forests of developing countries would disappear in about sixty years. It is estimated that at least twelve countries (including for example, Pakistan, Tunisia, Kenya and El Salvador) with a total population of about 150 million people are currently using woodfuel, on a national basis, greater than sustainable forest yields. Under present trends, another four countries with a population of about 175 million (including for example Nigeria and Bangladesh) will by 1990 be using more woodfuel than sustainable forest yields. Although the majority of countries at present use on a national basis less than the estimated forest yields, this does not mean that they do not have deforestation problems. Deforestation often occurs because fuel gathering is concentrated in easily accessible areas. Thus Zaire consumes only about 2 percent of its sustainable yield but experiences severe deforestation problems around Kinshasa. In countries like India, Egypt, Morocco and Mexico, forest resources are either quite limited or else are located in less populated areas.

68. Apart from use of fuelwood, animal and crop residues for cooking, a variety of other non-commercial energy sources are used in rural and urban areas. Wind energy is used for example in separating grain from chaff, drying meats and hauling water. Space heating has relied largely on architectural adaptations, supplemented by the use of biomass fuels. Solar energy is used for crop drying. Human and animal power is widely used for water hauling, transport, harvesting and initial processing and tilling. Traditional fuels are not used exclusively by the poor. Tradition continues to favor the use of charcoal in higher income families and a positive income elasticity of demand for woodfuels has been found by some studies. A host of cottage industries and smallscale enterprises employ traditional fuels, e.g., blacksmiths, brickmakers, streetside vendors. Moreover, there are examples of traditional fuels used in the modern sector e.g., use of charcoal for steel making in the Philippines and Brazil.

69. The main issues that arise in the use of non-commercial energy resources in other than cooking and heating needs are related to the limited availability of such resources and the efficiency with which they are used. In view of the increasing pressure of population, it is extremely important that the efficiency of utilization should be improved considerably because large sections of the world population will continue to need to rely on the use of limited non-commercial energy resources. Moreover, there is a need to develop renewable resources to supplement the other depletable resources. These issues are further discussed in the sections on rural electrification and on alternative technologies.

70. Indicative projections of animal dung and crop residues show that the resource base does not exist sufficiently in various countries to make biogas a major contributor to energy supplies. These countries include for example, Ghana, Korea, Egypt and Sri Lanka.

Energy and Modernization

71. The increased price of petroleum and other commercial energy sources has made the energy requirements of modernization more expensive. It is often assumed that the process of modernization to increase productivity and employment necessarily implies increased use of conventional forms of energy. This needs to be qualified in two important respects. First, possibilities exist to improve the efficiency of using non-commercial sources and also to develop renewable non-conventional sources to meet some of the needs that are presently met by conventional sources of energy (see section on alternative technologies).

72. Secondly, because of the huge costs of providing conventional energy sources, large sections of the world population will have to continue to rely on non-commercial sources of energy for the foreseeable future. There are at present about 0.5 billion households without electrical services. It might be technically feasible to provide connections to half this number of households at an average cost of US\$2,000(?), but the cost would be a staggering US\$500 billion. It may be more practical to improve the utilization of locally available energy resources. Moreover, efforts need to be made to devise measures to reduce the cost of rural electrification programs.

73. Another example of practical limitations is provided by the desire for agricultural mechanization. Cost considerations again would make it impossible to introduce mechanized agriculture everywhere. Consequently, there is a need to improve the efficiency of non-commercial fertilizer sources and also to improve the efficiency of utilization of draft animals.

74. Thus, although present cost relationships may restrict the alternatives to conventional energy resources to a relatively narrow range of technologies and applicabilities, there are already some technologies that are practical and competitive and others ought to be developed to fulfill a need that cannot feasibly be met by conventional energy sources. In the meantime, improvements are needed in existing uses and technologies. The use of worn rubber tires has already increased the load carrying capacity of an ox cart by a factor of four.

Alternative Technologies and Recommendations .

75. There is a fairly wide range of technologies and their possible applications that can be discussed under the general heading of non-commercial and non-conventional sources of energy. Since energy is not a homogenous

commodity and various forms have different properties and have limited substitutability among them, it is useful to consider promising technologies under different headings.

76. High temperature heat/fuel technologies. Improved stove design is capable of cutting firewood consumption by at least half compared to open fires. Various stoves have been designed and tested in many countries and the two most widely accepted are of Guatemalan and Indian design. The main problems in the wide use of improved stoves are the promotion and distribution of stoves, the design and implementation of extension and artisan training schemes and ensuring village participation in stove design and maintenance. Given the low cost of these stoves (US\$5-10 each) and the use of primarily local materials in their construction, the design of an effective forest energy project should include components such as stoves to encourage the efficient use of existing fuelwood resources in addition to creating additional fuelwood.

77. Furthermore, because of the close inter-relationship between forestry, fodder and food production, rural forestry programs need to be integrated wherever possible with agricultural or rural development projects. Given the immediate basic needs of the rural population and the history of failed forest projects that ignored the urgency of the fuelwood needs, forest regeneration programs are likely to be more successful if they are integrated in a rural development program which is perceived to meet the immediate needs of the people. Otherwise calls for afforestation and soil conservation

are unlikely to succeed. With proper management and selection of appropriate fast growing species, forest areas can produce fuelwood up to five times the output of a natural forest. The largest cost elements in establishing fuelwood plantations are in land and unskilled labor, so that rural populations can produce fuelwood at low cash cost. However, alternative land uses are frequently higher value uses. Another constraint is that even fast growing trees take 5-10 years to mature and it is difficult to control premature felling for urgent needs. Consequently, early start of afforestation programs, before problems become acute, is very important. Another key issue is likely to be a central government commitment to decentralize ownership so that the village and district levels can effectively participate in the management and development of local wood resources. South Korea and the Philippines, for example, have begun major afforestation programs.

78. The other major high temperature technology is biogas plants, which are in use in various countries, mainly in India, China and Korea. Economies of scale in biogas plant construction and operation make it more viable for relatively wealthy families with 4-5 heads of cattle and sufficient land to utilize the sludge produced/ for fertilizer. Community plants require village scale public utilities, which are difficult to organize and maintain. An Indian subsidy program for biogas plants was dropped when it was found that it led to an increase in the effective price of dung causing hardships to the poorer people. To have an important effect on low income families, biogas plants will need to be developed which are cheap, need little maintenance and use locally available materials as fuel.

79. Charcoal yields can be doubled by improved design of the kilns. The problems are that due to the high cost of the kilns, they are worthwhile where substantial wood supply can be guaranteed to the owner, which requires land use controls. The use of solar cookers is limited because it limits cooking to the sunny hours of the day. Other possible alternatives that have some promise for development, but for largescale applications are processes like increased recovery and use of processing and millwaste residuals such as sugarcane, bagasse and sawdust.

80. Low temperature heat technologies. Simple solar devices without focussing collectors can be used for a variety of purposes. Solar water heaters are economical alternatives where people are willing to pay for heat. Consequently they are more suited for use in higher income regions and the modern sector. Similarly solar dryers can be used for drying to reduce losses due to rotting, insects and rodents, provided proper designing is done to use local materials for local production. Solar water distillation is also being currently used in various parts of the world.

81. Mechanical and electrical energy. The most promising possibilities are micro-hydro and windmills. Micro-hydro schemes can be used to provide power in small isolated communities. However, given the volume of water and head requirements, applicability is likely to be limited, mainly to middle income countries with populated high rainfall mountainous areas, such as in a number of Latin American countries. Windmills of both advanced and traditional designs exist and are worth considering in areas with adequate wind and poor rainfall such as Northern Mexico, Peru, some North and East African countries and India. The use of photovoltaic cells is likely to remain limited until

costs decline sharply to cases like telecommunications, which require small amounts of electricity in locations where alternatives are very expensive.

82. Vehicle and tractor fuels. Fuel requirements of mechanized vehicles are difficult to meet with sources other than petroleum. Alcohol is the most promising candidate. However, it is more efficiently produced on an industrial scale, is still considerably more expensive than petroleum fuels and raises issues related to the need for providing large amounts of raw material requirements.

83. In conclusion, what emerges from the above review of non-commercial and non-conventional energy sources and technologies is that although the state of the art is still in its infancy and substantial survey, research and development work will be needed, the qualitative dimensions of the problem are reasonably clear. Moreover, in view of the urgency of the problem, particularly in fuelwood supplies, it is imperative that action on a substantial scale be taken now.

- (i) A number of measures can be taken now in many countries to develop afforestation and reforestation programs, improve the efficiency of cooking stoves and charcoal kilns, develop smallscale hydro and wind systems and improve the use of millwastes.
- (ii) Research and development work is needed to improve our understanding of the quantitative dimensions of the problem, evaluate and develop alternative technologies and improve

project design and implementation of these technologies. To improve our understanding of the problem, systematic surveys are needed of traditional energy supply and trade and environmental effects of non-commercial energy sources. R&D efforts at present are focussed disproportionately on providing mechanical power and electricity and need to be focussed much more on the needs for cooking and the improved use of draft animals. International cooperation in R&D efforts is needed to avoid duplication and allow for cross-fertilization of ideas. Although the technology of devices using sources like solar energy is not sufficiently advanced to make a quantitatively significant contribution in this decade, continued research in these areas is still important.

84. In the application of new technologies and development of programs greater emphasis will be needed to try and develop projects in an integrated rural development approach, both from the point of view of being perceived by the affected populations as meeting their urgent basic needs and also to fully appreciate the effects of the proposed actions on the interconnected socio-economic systems operating in the rural communities.

85. In recognition of these needs, the Bank has begun to reorient its lending programs. Firstly, fuelwood components are included in 14 out of 34 projects and 11 out of 22 rural development projects approved or planned

for the period 1976-80. Some of these projects include provisions for technical improvements in charcoal production and wood burning stoves. Secondly, in recognition of the serious financial, institutional and social constraints in the application of these alternatives, the Bank has participated in planning a pilot exercise in rural energy planning in Colombia to prepare regional projects comprising conventional and non-commercial/non-conventional energy sources. A rural development project in Bolivia includes funds for the development and adaptation of solar energy devices. In another project the Bank is acting as executing agency for a UNDP solar pump project for smallscale irrigation in India, Mali, Sudan and the Philippines. The direction of change in Bank lending appears to be in the right direction and hopefully lending for non-commercial energy will gradually become quantitatively more important. However, there is a clear need to substantially increase the resources devoted to analytical and survey work on non-commercial/non-conventional sources in the Bank.

OFFICE MEMORANDUM

Dubai
Jan 28 1979

TO: Distribution

FROM: Donald B. Keesing, WDR Core Group DBK

SUBJECT: Developing Countries' Exports and Imports of Manufactures

DATE: January 26, 1979

DPA World Dev. Report

See Jan. 15, 79

The attached note, consisting at my request mainly of tables, has been done by Mrs. Plesch as a background contribution for WDR II. Due to the pressures of WDR work, this is the closest we shall be able to get this year to an updated report on developing countries' trade in manufactures. Though not designed mainly for operating department use, some of the tables and numbers may still be useful for this purpose.

Distribution: Chief Economists and

Messrs. Ardito-Barletta, Balassa, B. deVries, Haq, Hinkle, K
Kavalsky, B. King, Lerdau, Meo, Nowicki, Pfeffermann,
Please, Pursell, Rhee, Robinson, Shilling, D. Williams,
Zaidan,

Mrs. Datta-Mitra

cc: Messrs. Acharya, Westphal
Mrs. Plesch

Please
4
1/27

NRIC

Mr. R. Cheetham, Assistant Director, EPD

January 26, 1979

Vinod Dubey, Chief Economist, EMENA

1978 World Development Report--Calculation of Average Annual Rates of
Inflation for ALGERIA

1. The Executive Director for Algeria, Mr. Moncef Belkhodja, has received a cable (copy attached) from Mr. Abdesselam, Minister of Light Industry, Algeria, asking details on the calculation of the average rates of inflation shown for Algeria for the periods 1960-70 and 1970-76 in Table 1 of the annex to the World Development Report 1978.
2. Since country data shown in this Report were not prepared in the Region, we are not in a position to provide this information. I would be very grateful if you could provide Mr. Belkhodja's office with the necessary data and explanations.
3. It appears that the figures shown in the World Development Report as "Average Annual Rates of Inflation" are in fact average GDP deflators. Let me note that using GDP deflators as indicators of domestic inflation may be misleading in the case of oil exporting countries during the 1970-76 period. Indeed, the average GDP deflators in these countries were strongly influenced by the fourfold increase in oil prices in 1973-74 and do not reflect domestic inflation. Furthermore, in the case of Algeria it would have been prudent not to indicate such data in a Bank Report since there are no official series of National Accounts at constant prices and GDP deflators.

Attached: copy of telex

cc: Messrs. Bart, de Lusignan, Merat, Asfour -- EMENA
Messrs. Karaosmanoglu, Mrs. Hughes, Mr. Lee-- DPS
Mr. Damry

FLaporte/VDubey/ad'A



Record Removal Notice

File Title Economics Analysis and Projections - DPA - World Development Report Correspondence - Volume 2	Barcode No. 30045709
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Document Date Jan 26, 1979	Document Type Incoming wire
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Correspondents / Participants
To : Mr. Moncef Belkhodja, Executive Director for Algeria

Subject / Title
1978 World Development Report - Calculation of Average Annual Rates of Inflation for Algeria

Exception No(s).

1 2 3 4 5 6 7 8 9 10 A-C 10 D Prerogative to Restrict

Reason for Removal
Communications of Executive Directors' Offices

Additional Comments

The item(s) identified above has/have been removed in accordance with The World Bank Policy on Access to Information. This Policy can be found on the World Bank Access to Information website.

Withdrawn by Chandra Kumar	Date Dec 3, 2013
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Mr. Richard Westebbe, Senior Economist, WA2DR

January 22, 1979

Johannes F. Linn, World Development Report Core Group

Your Comments on My WDR II Background Paper

1. Thanks for setting the record straight on the ILO report "Abidjan Urban Development and Employment." Before my background paper sees the light of day outside the Bank there will be an opportunity to review the citation of this report and to make appropriate changes.

2. Given the extremely limited time which was available to me for revisions between the review meeting of the First Draft of my paper and the deadline for submission of the Discussion Draft, only very few changes could be incorporated at that point. During the next round of revisions I will also gladly consider your comments regarding informal labor markets, with particular reference to the World Bank's "Ivory Coast: Special Report on Employment."

cc: Mr. Acharya

JFLinn:bd

Mr. L. Hartsell Cash, Chief, IPDD1

January 22, 1979

Marianne Haug, IPDD1

WDRII - Coal Data Input, IPD

1. Following my discussion with Messrs. Hilton and Strongman today on the status of the coal study which our division is supposed to prepare as input to the WDRII report, I called Mr. Chopra to clarify the type of input which is needed from our division at this point in time when substantial portions of the WDRII have been completed.

2. In line with the discussions Mr. Strongman had with Messrs Blitzer and Chopra last week, I agreed that we would prepare, as soon as possible, the coal chapters needed for the reports prepared by Blitzer and Ezzati respectively. I said that we would do our best to have drafts for these chapters within the next two weeks and hopefully by the end of this week. I pointed out to Mr. Chopra that we are also working on the Board report on coal development and at a later date the coal chapters and the Board report would have to be reviewed for consistency. However, we do not expect that major changes regarding issues or figures will be needed.

MHaug:cp

- cc Messrs Chopra
- Blitzer
- Ezzati
- Hilton
- Strongman

Mr. Aklilu Habte (EDC)

January 31, 1979

S. H.
S. Heyneman (EDC)

Human Resources and Poverty Alleviation:
The 1980 World Development Report

1. Nothing which I would have wanted in this report outline has been left out. In my view we should give it, and the coming product, every ounce of support which we can muster.

2. I would ask only that the following facts be discussed under what is already a thoughtful outline:

(a) Rates of Return: The fact that the economic rates of return for educational investments tend to be highest in poor countries, and for basic education (under Part II-A and VI-D);

(b) The Impact of Educational Resources on Learning: The fact that investments in school resources have a heavier impact on the amount of knowledge acquired in poor countries than similar investments do in rich countries (under Part II-A and VI-D);

(c) Social Privilege and Learning: The fact that how much knowledge one acquires in education is less determined by social privilege in poor countries than it is in rich countries (under Part II-B and VI-D);

(d) Determinants of Occupational Attainment: The fact that in those LDCs on which we have evidence, knowledge is the strongest determinant of occupational attainment, considerably more powerful than social privilege - contrary to the evidence from industrialized societies (under Part II-B and VI-D);

(e) The Amount of Knowledge Generated by Schooling: The fact that the aggregate amount of knowledge generated through education in LDCs is half, or in some cases, a tenth the aggregate amount of knowledge generated through education in industrialized societies, principally because the value of educational facilities in LDC schools is approximately one-tenth - though the kind of cognitive skills, and the amount of time educational institutions have to transfer them, are very similar (under Part VI-D and IX-B);

(f) Under-Development and Access to Information: Lastly, the point that access to information has now become a principle determinant of economic competitiveness, between poor countries and rich countries, and between rich and poor within all countries (under Part IX-B).

3. With the exception of (f), which is a prognosis, the others can be documented.

cc: Messrs. Hultin, Chittleburgh, Haddad, Wodajo

SH: th



Record Removal Notice

File Title Economics Analysis and Projections - DPA - World Development Report Correspondence - Volume 2	Barcode No. 30045709
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Document Date Jan 18, 1979	Document Type Board Record
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Correspondents / Participants

Subject / Title
World Development Report, 1979 - Current Status - Statement by Mr. Acharya

Exception No(s).

1
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 10 A-C
 10 D
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Reason for Removal
Board Record

Additional Comments
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Withdrawn by Chandra Kumar	Date Dec 3, 2013
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NRIC F338
DPA-World Dev Report

Mr. Ali Ezzati

January 17, 1979

James J Fish, EMPPE

World Development Report II

I have read with interest the draft background energy paper for WDR II. Because of time constraints these comments are necessarily brief, and not comprehensive.

1. Much of the general material seems based on opinion rather than fact or realistic forecast. By contrast, the specific sections on coal, oil, nuclear, and electricity are quite specific but could be a bit more adventurous e.g. what are the prospects for increasing world trade in coal, and the Bank's role?
2. The analysis of soft alternatives at times seems to ignore the technical realities (e.g. "solar voltaic technology is suitable for local manufacture in developing countries" ...?). A more explicit exposition of the real status and prospects would be useful. A logical Bank-supported research project would be an OED-type evaluation of some existing alternative energy installations such as gas digesters, micro hydro, and the Brazil ethanol program (which even the Brazillians are beginning to have second thoughts about). In the analyses, explicit investigation of the role of O & M costs in alternative technologies should be reviewed. The economic feasibility of most technologies which rely on diffuse resources is highly sensitive to these costs and the usual rule-of-thumb estimate of annual O & M costs as a percentage of investment does not fit with real life situations.
3. The section on conservation could usefully be expanded to cover possible Bank roles e.g. in the electric power sector, more emphasis on load management techniques and system efficiency improvements.

cc: Messrs. R. Chopra, Friedmann, Acharya, Russell, Pollan
EMENA, Division & Chron. Files

9 JJFish:ms

OFFICE MEMORANDUM

Files
DPA-World. Dev. Report

TO: Mr. Bela Balassa

DATE January 17, 1979

FROM: Shankar N. Acharya

SUBJECT: Your Background Paper for WDR II: Some Quick Comments

1. Predictably, I found your paper enjoyable and stimulating. I have little trouble in agreeing with your conclusions and policy implications. As requested, I offer a few suggestions for improving the paper, relating to Sections II and III.
2. Non-traded Inputs (pp. 16-17): These are excluded from your calculations on the grounds that "the share of non-traded inputs in the total varies from country to country and, in the absence of information on these shares ...". There seems to be a mild contradiction here; the fact that the shares vary across countries must be based on actual information. More importantly, you assert that the exclusion of non-traded inputs implies no presumption of bias in the results "since such inputs are used in production for exports and import substitution as well". The reason given is hardly adequate to justify the assertion. The question of differential use of non-traded inputs and the associated labor continues to go a-begging.
3. Average labor-input coefficients for exports and imports: You note (p. 17) that your results "conflict with the now-popular view according to which trade in manufactured goods between the industrial and developing countries has negligible net employment effects...". It would be interesting if you could offer some reasons for this difference, as I remain intrigued as to why your results are so different from, for example, Schumacher's for Germany. Is this difference attributable to the latter's inclusion of indirect employment effects through the I-O tables? In particular, is it due to the latter's inclusion of indirect employment effects associated with non-traded inputs?
4. A quibble regarding wording on p. 18 "Apart from differences in export structures of developed and developing countries ...". Your labor-input data do not pertain to the export structures of developing countries, but rather to imports from them.
5. Implications of Future Trends: You rightly observe (p. 26) that "neither balanced nor proportional expansion of trade in manufactured goods between developed and developing countries appears to be a likely occurrence" and then go on to make approximate use of the WDR I projections as an alternative. I use the word approximate for several reasons. First, your use (p. 27) of the developing country total manufactured export projections as proxy for developing country exports to developed countries

probably biases the results in favor of lower average labor-intensity of developed country imports from developing countries, because the composition of developing country exports to developed countries is known to be more labor-intensive on average than total developing country exports of manufactures - essentially because inter-LDC trade is less labor-intensive, on average, than total developing country exports. Second, in estimating future exports of manufactured goods from the developed countries to the developing ones you deploy certain developing country income elasticities for import demand. Could you offer some substantiation for these assumed elasticities?

6. Indeed instead of resorting to these approximations, why not use the actual growth rates embedded in the global model base run for WDR I for the export categories you require? In fact, it would be particularly interesting to use the export growth projections underlying the WDR II base run (forthcoming in a couple of weeks); I am asking Don Keesing to follow up with you on this. Of course, some elements of the approximation (arising from the differences in the definition of manufactured exports, and the country classifications) will remain.

cc: Recipients of Mr. Balassa's paper.

Messrs. Chenery

Karaoosmanoglu

Wolf

SNAcharya:rbc

*Central Files**DPA World Dev. Report*

OFFICE MEMORANDUM

TO: Messrs ~~Ali~~ Ezzati & Ram Kumar Chopra
DATE: January 17, 1979

FROM: M. Haver ~~IPDD1~~

SUBJECT: WDR II - Background Paper
Energy Options and Policy Issues in Developing Countries
Some comments

We have reviewed the draft paper with interest and would like to make some specific comments about the chapters concerning coal and oil shale for which the Industrial Projects Department has responsibility.

The general comments on paragraph 3.2 "Coal Exploration and Development Option" starting on page 92 are twofold:

- (a) the content of the chapter does not reflect the title, i.e., there is no discussion what type of exploration and development options are open in the coal sector if you exclude the general tone of the paragraph which seems to convey the impression that coal can be developed easily everywhere;
- (b) this general impression which this chapter conveys, namely that coal is a easy, geographically widely disbursed and commercially attractive alternative to oil is contrary to our research and experience as expressed in the Board report dated November 30, 1978. The message of this paragraph appears to us entirely misleading, for example,
 - (i) economically mineable coal resources are not widely distributed over various regions and countries in the world, but as for petroleum are located in very specific countries,
 - (ii) the transport and other infrastructural bottlenecks are not in process to be resolved within a short period but will present, during the next decade, a major obstacle to developing commercially viable coal resources. In short, there is a major potential to expand coal production in developed and developing countries, however, in many projects particularly in developing countries, the present and expected oil price might still not be sufficient to make these projects viable.

This chapter therefore will have to be toned down substantially and we expect to provide some input developed from our coal study shortly.

In addition, here are some minor comments.

Page 93, second paragraph: Does a comparison of 1976 and 1977 figures really give anything? It appears that the upward trend is more the result of the business cycle and long-plan coal exports from Australia to Japan than a shift from oil to steam coal.

Page 93, Third paragraph: The sentence stating that the regional distribution of world coal exports changed in 1977, reflecting the growing importance of Africa and Oceania in the world coal trade is, in our opinion, misleading. It gives the impression that developing countries are taking a strong portion of coal trade. In reality, this reflects the importance of South Africa and Australia who developed as major coal exporting countries in the '70s. It certainly had nothing to do with the year 1977, but are projects which had been planned in the '60s independent of the oil crisis.

Page 95, last paragraph: Based on National Coal Board projections, the report states that the demand for coking coal will increase by 50% because of a steep steel output increase by 1985. This contradicts entirely the World Bank's steel production forecast and we do expect that steel production has still to regain its prerecession level and will not grow more than 2% per annum in the '80s.

Page 96, second paragraph: I presume from the statistical evidence that the sentence should read: "The results indicate that the quadrupling of oil prices in 1973 and 1974 had not contributed to more rapid growth in coal production and trade."

Regarding paragraph 12.1.2 "Coal Exploration and Development Program," the paragraph should state whether the Bank will get involved in coal exploration and preinvestment work and to what extent lending will be for development projects.

What does the writer mean when he states on page 267 that World Bank financed projects might be non-marginal deposits? One of the problems we do face is that the developing countries with significant coal reserves such as India, Chile, Romania, Turkey and Yugoslavia, for various reasons, do not want World Bank involvement in the sector, thus excluding the more promising projects.

Page 268: Where do the figures in the table come from? They do not correspond with the report presented to the Board on November 30th and discussed yesterday. The FY81 project list should include three projects for \$110 million. The countries quoted below the table are also not correct and should read Indonesia, Thailand, Colombia, Viet Nam and Afghanistan.

Regarding oil shale, you might want to mention the potential existing in Morocco.

MHaug:cp

cc Messrs Cash
Strongman
Hilton
Acharya

Mr. Russell J. Cheetham, EPD

February 12, 1979

Ernest Stern, Vice President, Operations

WDR - Base Case

I looked at the WDR - Base Case projections and they seemed very reasonable. On ODA, I wonder whether it is reasonable to assume the shift to low income countries as we did last year. The 1970-1975 data do not suggest much movement.

Would you let me know when the Base Case is final. At that time I would like to send a note to the Chief Economists asking them to flag on the CPPs any deviation from the growth rates projected in the WDR and the reasons therefore. If the country is in the sample panel the country projection should be used. We can discuss this further when the Base Case is ready to be circulated.

ES:dpw

OFFICE MEMORANDUM

TO: Files

DATE: January 16, 1979

FROM: John E. Strongman, IPDD1 *JES*

SUBJECT: Coal Issues in the WDR II Paper:
Energy in the 1980's: Economic Issues

I met with C. Blitzer on Monday, January 15th to discuss several issues raised at the WDR II meeting on January 10, 1979.

1. OECD Coal Estimates

It was agreed that JES would provide C. Blitzer with latest IEA coal supply and demand estimates for OECD countries and that these would be used in the WDR II Report energy balances. The main implication of this is a reduction in USA coal supply from 1090 million tce to 840 million tce in 1985 - equivalent to a reduction of 3.3 MBDOE.

2. PRC

The WDR II projection is that PRC coal production will increase from 490 million tce (6.4 MBDOE) in 1976 to 1390 million tce (18.1 MBDOE) by 1990 - an annual growth rate of 7.7%. I argued that this was unrealistically high.

Blitzer was unwilling to modify his PRC coal production forecast. He argued that the rate of coal production included in WDR II was necessary if the economic growth rate used in the projection was to be achieved. Instead he said he would modify the text to point out that the projection was at the high end of the likely range and might not be achieved.

3. Asian CPEs

The Asian CPEs are comprised of N. Korea, Laos and Mongolia. The WDR II coal supply projection for the Asian CPEs is as follows:

<u>1976</u>	<u>1985</u>	<u>1990</u>	
0.7	1.5	2.3	MBDOE
54	115	177	million metric tons

The growth rate from 1976-1990 is 8.9% per year. I argued that a more reasonable growth rate would be to use an arithmetic (straight line) growth of 0.6 MBDOE (46 million tce) for the 9 years from 1976-85 and 0.4 MBDOE (30 million tce) for the 5 years from 1985-1990. Blitzer agreed to reduce the projection but only to 7% annual growth per year insisting that (a) this rate was consistent with previous coal supply growth and (b) this was the rate necessary to sustain the N. Korean economic targets.

However, he said that he would include a reference in the text that such a high growth rate was at the top end of the likely range and could be very hard to achieve.

4. CMEA Coal Production (excluding USSR)

The present coal production forecast for the CMEA countries excluding USSR is 2.0% annual growth. We discussed that this seemed rather low and agreed to increase it to 2.5% per year growth.

5. Text on LDC Coal Supply (pages VI-7 and VI-8)

Blitzer requested that IPD strengthen and expand the discussion of the LDC coal outlook and provide revised forecasts if desired. I agreed to provide an expanded section in time for it to be included in a revised version of the paper to be issued next Friday, January 20th.

cc: Mr. Cash
Ms. Haug

OFFICE MEMORANDUM

TO: Mr. Donald B. Keesing, WDR II
FROM: Phi Anh Plesch, DEDND ^{TAP}
SUBJECT: Statistical Trends in Developing Countries' Exports
and Imports of Manufactures.

DATE: January 15, 1979

DPA World Dev Report

Filed Separately
Attached please find:

- A set of tables covering various aspects of developing countries' trade in manufactures using sources presently available within the Bank namely: United Nations, UNCTAD, GATT and national statistics. The main problem I encountered in using these sources is the difference in the country coverage of the major economic groupings. Where feasible an attempt was made to adjust results to fit WDR I's definition of developing countries which includes also Southern Europe, Israel and South Africa and oil-exporting capital surplus countries. In many cases this was not possible because of time constraints. Thus these tables suffer somewhat from a lack of geographical homogeneity. However, the primary purpose of the whole exercise is to mine all available information on the above subject and to provide working tools to those who are interested; adjustments to these tables, if the nature of the data permits, can be made to meet specific requirements.
- A brief note highlighting only the recent trends, and not the structural features - in developing countries' trade in manufactures with a particular emphasis on what happened in 1977.

Attachment.

cc: Mr. L. Westphal, DEDND
WDR Core Group

Mr. Ram Chopra, WDR

January 2, 1979

A. Ezzati, EWT

Energy Options and Policy Issues of Developing Countries - WDR-II

filed under DPA-WDR

1. A copy of the study entitled "Energy Options and Policy Issues of Developing Countries," which has been prepared as a background paper for the World Development Report-II, is enclosed for your review. Additional copies have been sent to you for distribution to others in the Bank for review.

2. As you note, the scope of the original task is somewhat expanded in order to address and analyze certain important energy issues. However, the limited resources and the short deadline did not allow an in-depth analysis of some issues, such as the domestic and international energy pricing policies, but it is expected that more detailed analyses on these issues will be made available in the near future. The following annexes to the study have been prepared and will be included in the final version of the report.

Annex A Energy Resource Assessment and Characterization of Developing Countries,

Annex B Methodology for Ranking and Evaluating Energy Options,

Annex C Case Study of Energy Options Analysis; and

Annex D Domestic and International Energy Pricing Policies and Elasticities, Supporting Data and Case Studies.

Attachment

cc: Mr. E. Friedmann, EWT

AEzzati:rb