OFFICE MEMORANDUM

TO: Mr. Moeen A. Qureshi
FROM: Saad S. El Fishawy
SUBJECT: SAUDI ARABIA: Energy Affiliate

DATE: December 31, 1980

In Riyadh, on December 9, I met with Dr. Abdullah Al-Kuwaiz, Undersecretary of Ministry of Finance and National Economy. Minister Abalkhail was with Prince Fahd on a State visit to Pakistan.

I went with Dr. Al-Kuwaiz in detail over each of the main topics involved in the proposal, viz.: the program to be financed, means of financing, capital structure, organization and distribution of shares and voting. I summarized the variant points of view expressed by the participants at the meeting held on November 24, 1980. I also handed Dr. Al-Kuwaiz copy of the Note by the Chairman on that meeting. I indicated the next steps envisaged and outlined the timetable planned.

Dr. Al-Kuwaiz emphasized the support of Saudi Arabia of the Energy Affiliate and said that hopefully Saudi Arabia would have formulated its position on the issues raised by the time of the next meeting.

I also met with Sheikh Abdel Aziz Alquraishi, Governor of SAMA. He expressed general support of the proposal of the Energy Affiliate. With regard to borrowing, he said that things would remain suspended for the time being.

I got the same message from Mr. Ahmad Abdellatif, Deputy Governor of SAMA.

cc: Messrs. McNamara
    Stern o/r
    Chaufournier o/r

ElFishawy/rh
TO: Mr. Moeen A. Qureshi
FROM: Saad S. El Fishawy
SUBJECT: KUWAIT: Energy Affiliate

DATE: December 31, 1980

On Saturday, December 6, I first met in Kuwait with His Highness, Sheikh Jabir Al-Ahmad, the ruler of Kuwait, and then with Mr. Al-Hamad. My two-day visit to Kuwait coincided with the visit of the Deputy Prime Minister and Minister of Finance of Bulgaria, which was hosted by Minister Al-Ateeqy and I could therefore not see him.

In my meeting with His Highness Sheikh Jabir I explained in general terms the purpose of my visit to Kuwait and the proposed establishment of the Energy Affiliate. H.H. expressed support of the idea.

In the meeting with Mr. Al-Hamad I went in detail over each of the main topics involved in the proposal, viz.: the program to be financed, means of financing, capital structure, organization and distribution of shares and voting. I summarized the variant points of view expressed by the participants at the meeting held on November 24, 1980. I also handed Mr. Al-Hamad copy of the Note by the Chairman on that meeting. I indicated the next steps envisaged and outlined the timetable planned.

Mr. Al-Hamad preferred to reserve Kuwait's position on the several issues raised until he had time to study them carefully and give them full consideration. He promised to attend personally the next meeting of the committee on the establishment of the Energy Affiliate.

cc: Messrs. McNamara, Stern o/r Chaufournier o/r

ElFishawy/rh
Mr. McNamara asked Mr. Qureshi to present a brief summary of what had happened in the meeting on energy on November 24. Mr. Qureshi said that the results of the meeting had turned out rather mixed; however, they were generally better than could have been feared. He said that a number of areas were identified by participants, where there are clear differences of opinion. In his view, however, there is more room for maneuvering than could have been expected.

He explained that all participants had little difficulty in reaching a general agreement on the need for the establishment of an energy affiliate. The affiliate could facilitate and speed up an expansion of the Bank's lending program which participants agreed is critical but difficult to ensure through other means. On this general issue, some difficult questions were raised which could turn out to be red herrings. For example, the Brazilians mentioned that the Bank is trying to resolve a purely financial problem which may be its own and not necessarily that of the developing countries. The Saudis emphasized the same argument, asking whether there was a consensus that energy is sufficiently important to justify the establishment of a new institution, rather than to try and bridge over what is a short-term financial problem. Mr. Qureshi explained that he tried to introduce the elements of urgency and timing in his answer to this question. He added that Mr. Bergsten was very good in the meeting, especially in pointing out contradictions of the positions expressed by several participants, e.g., France and Saudi Arabia.

Mr. Qureshi then explained that all participants quickly reached an agreement on the need to provide a comprehensive approach to the energy problem which would extend over and above the oil and gas element and include all sources of energy, e.g., forestry, biomass and hydroelectric power. He said that the Arabs had put this as a precondition to discuss the energy affiliate. To Mr. McNamara who asked what was the rationale of the Arabs' position, Mr. Qureshi answered that the Arabs feel that, if the energy affiliate is focused exclusively on oil and gas, too much attention on the impact of oil and gas on developing countries may emerge. There is a political realization that their interest is not to isolate the oil and gas problem.

Commenting on the discussions with respect to the orders of magnitudes of the proposed lending program, Mr. Qureshi said that agreement was reached that the amounts were rather reasonable. He mentioned that the Saudis had questioned the size of the proposed program in view of the limited absorptive capacity in several countries. He added that Mr. Rovani had been very good in answering this question and dispelling some of the doubts expressed on this matter. On this point, the Germans were rather cautious, as indeed they were during the entire meeting, since their presence and their role during the meeting was low-keyed. In fact, Mr. Qureshi added, the German representative had told him before the meeting that he had clear instructions from his authorities not to say too much.

Mr. Qureshi then turned to what he termed the critical points which were discussed during the meeting. In the first place, on the matter of means of financing the proposed affiliate, he said that there was a general consensus that the affiliate should be market-oriented, although not completely market-based. Most participants agreed to see the affiliate as a recycling instrument which,
in addition to having access to international capital markets, should have the possibility of borrowing directly from capital-surplus countries. He said that Mr. Haberer especially emphasized this point which he related to the idea of floating votes.

On the issue of the structure of capital and the voting structure for the proposed affiliate, Mr. Qureshi explained that the participants in the meeting were clearly split in three groups. On one side, the French were strongly supported by the Arabs and, to a lesser extent, by the Canadians. On the other side, the Germans and the U.S. were very much together. In the middle, the developing countries were ready to be flexible, with the Brazilians leaning closer to the French side, the Indians closer to the U.S./German side, and the Kenyans somewhere in between. On the issue of capital structure, the French position essentially is that, in today's very difficult world, one has to be very innovative and imaginative and move away from the present situation with the Bank, IDA and IFC, which are clearly facing difficulties. On the other side, the Germans admit that perhaps they are not excessively innovative, but they do intend to keep their feet on the ground. The French position is that there should be a delinking of the subscription of capital and of the votes, to an extent much larger than is currently the case in the Bank. In this position, they are followed by the Arabs who explained that they are reasonably satisfied with the IFAD voting system (with one third of the votes each for industrialized countries, capital-surplus countries and developing countries). In addition, Mr. Haberer said that one should think in terms of comparable subscriptions between OECD countries and OPEC countries, and an important share to be attributed to the World Bank and possibly to other relevant institutions. He did not specifically mention developing countries as potential subscribers. Mr. Qureshi explained that he had told Mr. Haberer that the Bank would not object to being considered as a shareholder on behalf of developing countries. The Indian representative disagreed strongly with this position, expressing his fear that the Bank as a shareholder could be viewed as a surrogate for other countries, not the developing countries. He added furthermore that, if the paid-in capital were less than $1 billion, India would not have too much of a problem for subscribing its allocated share even in convertible currency terms. In Mr. Qureshi's opinion, developing countries certainly want a voice, even if this means that they would have to subscribe to the capital. Mr. Qureshi added that the U.S. and Germany did not take a specific position on the capital structure, but there was generally no opposition on their part to the possibility of an involvement of the World Bank as a shareholder. He concluded on this issue by saying that he had agreed to keep in touch with all participants on this matter on a bilateral basis. He added that he would also be in touch with some other member countries on this subject.

Mr. Qureshi then explained that the real question where strong differences of opinion were expressed was the issue of the organizational structure of the affiliate, especially with respect to a proposed IDA shell-type organization. He said that the French, the Canadians and the Arabs were on the same side, arguing that in today's world it is not difficult to separate the staff for the energy affiliate and to have a different management from the Bank. They agreed that clearly linkages and coordination should be established between the management of the affiliate and the management of the Bank and between both staffs. It was obvious that the French wanted the affiliate to be established in Paris, while the Canadians thought also about a separate location for the affiliate. On the other hand, the Germans expressed strong views that the affiliate should be an
integral part of the Bank. Mr. Qureshi stated his opinion that the Arabs would probably be satisfied with an identifiable institution dealing with energy within the World Bank. Mr. McNamara intervened to express his strong disagreement with the French position. He stated that he did not see any possibility for a separate institution. He suggested that the French position may have been prompted by the desire of Mr. Mentre to head the separate institution. Mr. Stern fully agreed with Mr. McNamara, saying that to create an entirely separate institution did not make sense substantively, and he added that there would be no way to create a new institution without seriously damaging the Bank. He observed, however, that the only thing that could be separated in the activities of the energy affiliate is the operation of drilling for oil and gas. Mr. McNamara commented that the French are pushing very hard on this issue and he suggested that a paper should be prepared on this subject. Mr. Qureshi said that Mr. Khouja, a very close associate of Mr. Abdulatif Al-Hamad, had suggested exactly that, namely, a paper be prepared on what could or could not be separated. Mr. McNamara said that such a paper would be extremely important and he stated his view that Mr. Stern should be responsible for the production of this paper. He then asked when another meeting of the group would be scheduled. Mr. Qureshi replied that it would be in about a month. Mr. Stern commented that Mr. Vibert could prepare the paper, but then Mr. McNamara asked whether there should not be a direct contribution by Mr. Wood, since he felt that it should not be left in Mr. Vibert's hands only. Mr. Stern agreed that the responsibility could be left with Mr. Wood who had attended the meeting on energy. Mr. Qureshi suggested to Mr. McNamara that he should discuss this subject with Mr. Al-Hamad during his forthcoming visit to Kuwait. He explained that the Arabs are worried on this issue and that the Bank definitely needs to get Mr. Al-Hamad's views on this. He added that he thought Mr. Al-Hamad was himself very cautious about the issue of management for the new institution. Mr. Stern suggested that discussions should take place as soon as possible with the French, adding that, if there were only the Kuwaiti, there would not be any problem. He said that it was important to find out the rationale for the French position. Mr. Qureshi expressed some worries about the position of the Germans. Mr. McNamara commented that it is clear that close associates of Chancellor Schmidt will be the key to a German decision.

Mr. McNamara then enquired about the forthcoming steps, in particular what would be discussed during the next meeting. Mr. Qureshi replied that the discussion would be on various alternatives for the capital structure and the voting powers. Mr. Stern asked Mr. Qureshi whether he would ask the various participants to present their positions on these issues at the next meeting. Mr. Qureshi replied that he would very much like to get their views. He explained that, in his view, it is possible to discuss various alternative figures. For instance, for the subscription to the capital, one possibility would be to get a 35% contribution from the OPEC capital-surplus countries, and a 40%-45% contribution from OECD countries. Mr. McNamara stated his view that, at least as far as an initial proposal is concerned, he would not talk about any Bank contribution to the capital base. Mr. Qureshi explained further that a possible proposal could be that the voting be proportional to the capital subscriptions. Mr. McNamara cautioned Mr. Qureshi not to go too far in the specificity of the proposals. He called his attention to the potential problems with other countries which were not participants of the meeting, e.g., the UK, Japan and The Netherlands. He further explained that, since getting the money is going to be difficult, he would not want to be tied up with a preset voting formula. Mr. Qureshi said, however, that he did not see too many difficulties with the approach he had suggested. Mr. Stern then recommended that proposals be presented to the Board with
a range of possibilities for the capital subscription and the voting power issues. Mr. Qureshi said that the Saudis want a significant role in the institution and that they would object to a clear domination of the institution by any particular group.

Mr. McNamara then summarized the agreement that two papers would be prepared by December 15, one dealing with alternative proposals for the capital structure, and the other with the organization alternatives. These papers should then be ready for the next meeting of the group in early January. Mr. Qureshi mentioned that, on organization, the papers ought to say that an organizational structure can be created within the Bank. Mr. McNamara presented his own view that there should be a vice presidency established to deal with the energy problems, the vice president controlling the regional work functionally and reporting directly to Mr. Stern.
THIS IS FURTHER TO MR. McNAMARA'S CABLE OF NOVEMBER 1
AND MY CABLE OF NOVEMBER 6 CONCERNING DISCUSSIONS ON
THE ESTABLISHMENT OF AN ENERGY AFFILIATE. WE PROPOSE
THAT DISCUSSIONS BE HELD IN WASHINGTON ON NOVEMBER 24
AT 10.00 AM IN THE WORLD BANK OFFICES. WE SHALL PLAN
FOR MORNING AND AFTERNOON SESSIONS AND IF NECESSARY THE
DISCUSSIONS WOULD CONTINUE ON NOVEMBER 25. BEST REGARDS,
MOEEN QURESHI, SENIOR VICE PRESIDENT, FINANCE, INTBAFRAD
BOOK OF 4

1. HIS EXCELLENCY MWAI KIBAKI, M.P., VICE PRESIDENT AND MINISTER FOR FINANCE, THE TREASURY, NAIROBI, KENYA

2. HIS EXCELLENCY ABDUL RAHMAN SALIM AL-ATEEQY, MINISTER OF FINANCE, MINISTRY OF FINANCE, 2029 FINANCE, KUWAIT, KUWAIT

3. HIS EXCELLENCY SHEIKH MOHAMED ABALKHAIL, MINISTER OF FINANCE AND NATIONAL ECONOMY, 201021 FINANS SK, RIYADH, SAUDI ARABIA

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THE DISCUSSIONS WOULD CONTINUE ON NOVEMBER 25. THE BANK
WOULD BE GLAD TO REIMBURSE TRAVEL TO WASHINGTON, MEET
HOTEL EXPENSES HERE AND ASSIST IN MAKING THESE ARRANGEMENTS
IF YOU SO DESIRE. WE LOOK FORWARD TO SEEING YOU ON TWENTY
FOURTH. BEST REGARDS, MOEEN QUERESHI, SENIOR VICE PRESIDENT,
FINANCE, INTBAFRAD.

Energy Affiliate

cc: Messrs. Abdulai, El-Naggar
Messrs. McNamara, Stern, Golsong
Thahane, Rotberg, Wood
Applegarth

MAQureshi/prc
Moeen A. Qureshi
Office of the Senior Vice Pres., Finance
BOOK OF TWO

1. MR. FRANCIS MASAKHALIA, THE PRINCIPLE SECRETARY
MINISTRY OF ECONOMIC PLANNING AND DEVELOPMENT,
NAIROBI 62/56 4 1000 KEGOT
KENYA

2. MR. ABDULLATIF AL-HAMAD, DIRECTOR-GENERAL OF
KUWAIT FUND FOR ARAB ECONOMIC DEVELOPMENT,
FINANCE 2527KT, KUWAIT

3. MR. MAHSOUN B. JALAL
EXECUTIVE DIRECTOR
INTERNATIONAL MONETARY FUND
THIS IS FURTHER TO MR. MCNAMARA'S CABLE OF NOVEMBER 1
AND MY CABLE OF NOVEMBER 6 CONCERNING DISCUSSIONS ON THE
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MORNING AND AFTERNOON SESSIONS AND IF NECESSARY THE
DISCUSSIONS WOULD CONTINUE ON NOVEMBER 25. THE BANK
WOULD BE GLAD TO REIMBURSE YOUR REPRESENTATIVE'S TRAVEL
TO WASHINGTON, MEET HOTEL EXPENSES AND ASSIST IN MAKING
THESE ARRANGEMENTS IF THIS IS DESIRED. BEST REGARDS,
MOEEN QURESHI, SENIOR VICE PRESIDENT, FINANCE, INTBAFRAD
BOOK OF 5

1. A SUA EXCELENCIA SR. ANTONIO DELFIM NETTO,
MINISTRO DO PLANEJAMENTO, MINISTERIO DO
PLANEJAMENTO, BRASILIA (DF), BRASIL

2. M. RENAUD DE LA GENIERE, GOUVERNEUR, BANQUE
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4. THE HONOURABLE R. VENKATARAMAN, MINISTER OF
FINANCE, MINISTRY OF FINANCE, 313546 FINECO,
NEW DELHI, INDIA

5. SEINE EXZELLENZ HERRN RAINER OFFERGELD,
BUNDESMINISTERIUM FUER WIRTSCHAFTLICHE
ZUSAMMENARBEIT (BMZ) BONN, GERMANY

TELEX NO. 8869452
I refer to Mr. McNamara's cable of November one concerning the establishment of an energy affiliate. In order to provide a focus for the discussions in late November, we have prepared the material below to set out possible approaches to key features of an energy affiliate associated with the bank group. The features are of course subject to change in the light of discussions with interested governments and alternative formulations are indicated in a number of areas.
ENERGY AFFILIATE : DISCUSSION NOTE

1) THE PROGRAM TO BE FINANCED

The most effective approach would be to design the affiliate to carry out the entire five-year program of lending in the energy sector identified by the bank in its study earlier this year (ENERGY IN THE DEVELOPING COUNTRIES, AUGUST 1980). This program, updated to cover the five years FY82-86, totals about USdollars 30 billion, and would meet about 10 percent of the developing countries' identified energy investment requirements in this period. The balance would remain to be financed by the recipient countries themselves and by other external lenders. Co-financing arrangements would therefore play an important role in meeting total energy investment needs.

The alternative approach of limiting the affiliate to a smaller program, undertaking only hydro-carbon investments, would
PROBABLY BE EASIER TO FINANCE, BUT IT WOULD PROVIDE A LESS ADEQUATE
RESPONSE TO THE ENERGY FINANCING NEEDS OF DEVELOPING COUNTRIES.
MOREOVER, BY FOCUSING ATTENTION ON ONLY ONE FACET OF THE ENERGY
PROBLEM, A MORE LIMITED EFFORT MIGHT NOT YIELD THE INTEGRATED
APPROACH TO PLANNING AND BALANCED ANALYSIS WHICH ARE DESIRABLE IN
VIEW OF THE IMPORTANT LINKAGES BETWEEN INVESTMENT DECISIONS IN THE
VARIOUS ENERGY SUBSECTORS AS WELL AS BETWEEN THE ENERGY SECTOR AND
OTHER SECTORS OF THE ECONOMY.
2) MEANS OF FINANCING

THE MOST PRACTICAL APPROACH TO MOBILIZING ADDITIONAL CAPITAL
UNDER CURRENT CONDITIONS WOULD BE TO STRUCTURE THE AFFILIATE TO
MINIMIZE CALLS ON GOVERNMENTS' BUDGETS AND TO PERMIT IT TO
FINANCE ITSELF TO THE MAXIMUM EXTENT POSSIBLE THROUGH BORROWINGS
IN NATIONAL AND INTERNATIONAL CAPITAL MARKETS. FOR THIS APPROACH
TO BE VIABLE, THE AFFILIATE WOULD NEED A BASE OF PAID-IN CAPITAL
AND SUBSTANTIAL BACKING FROM GOVERNMENTS IN THE FORM OF GUARANTEES.
THIS COULD BE ACHIEVED AS IN THE IBRD BY HAVING CAPITAL
SUBSCRIPTIONS WHICH ARE, SAY, 90 PERCENT CALLABLE AND 10 PERCENT
PAID-IN. IT MIGHT ALSO BE PRUDENT IN EARLY YEARS WHEN MARKET
ACCESS IS LESS ASSURED, FOR THE AFFILIATE TO PLAN ITS BORROWINGS
AT A LEVEL WHICH PROVIDES FUNDS EQUAL TO THE FULL AMOUNT OF ITS
COMMITMENTS. LIQUIDITY COULD BE REDUCED THEREAFTER TO LEVELS CALCULATED ACCORDING TO THE IBRD'S LIQUIDITY POLICY.

3) CAPITAL STRUCTURE

IF THE AFFILIATE WERE TO FOLLOW A MARKET-BASED APPROACH, LENDING LIMITS COULD BE SET AT A PRUDENT MULTIPLE OF THE AFFILIATE'S CAPITAL BASE. PRELIMINARY SOUNDINGS SUGGEST THAT A MULTIPLE AS HIGH AS 2.5:1 COULD BE ACCEPTED BY THE MARKETS. BECAUSE THE FULL AMOUNT OF THE IDENTIFIED PROGRAM WOULD NEVER BE OUTSTANDING AT ANY ONE TIME, A USDOLLARS 30 BILLION PROGRAM COULD BE CARRIED OUT ON A CAPITAL BASE OF ABOUT USDOLLARS 10 BILLION. CALLABLE CAPITAL SUBSCRIPTIONS FROM COUNTRIES WHOSE GUARANTEES ARE RECOGNIZED BY THE MARKETS COULD MAKE UP MOST OF THE CAPITAL BASE.

SINCE THE AFFILIATE WOULD FACE HEAVY START-UP COSTS, SOME ASSISTANCE FROM THE IBRD IN THE FORM OF PROFIT TRANSFERS OR ARRANGEMENTS TO DEFER ADMINISTRATIVE EXPENSES MIGHT BE DESIRABLE IN THE EARLY YEARS OF THE AFFILIATE'S OPERATIONS.

4) TERMS OF LENDING

ON THE ASSUMPTION THAT PAID-IN CAPITAL WILL BE ONLY A SMALL PART OF THE AFFILIATE'S FINANCING BASE, THE TERMS OF LOANS WOULD HAVE TO CORRESPOND CLOSELY TO THE TERMS OF BORROWINGS AND CLOSE ATTENTION WOULD HAVE TO BE PAID TO THE QUALITY OF ITS PORTFOLIO.
THIS CREATES A PROBLEM FOR THE PART OF THE INVESTMENT PROGRAM—AMOUNTING TO NEARLY USDOLLARS 4 BILLION—which is in COUNTRIES WHICH ARE NOT CREDITWORTHY FOR IBRD LENDING. IF IT WERE POSSIBLE TO ARRANGE FOR GRANTS TO THE ENERGY AFFILIATE FOR LENDING TO THESE COUNTRIES, THAT WOULD BE THE PREFERRED SOLUTION. IF GRANTS CANNOT BE OBTAINED, IT IS PROBABLE THAT THIS LENDING WOULD HAVE TO BE MADE BY IDA, AND ADJUSTMENTS MADE TO THE IDA PROGRAM TO ACCOMMODATE THIS LENDING.

5) STAFFING

THE STAFFING ARRANGEMENTS MOST CONSISTENT WITH AN INTEGRATED APPROACH TO ENERGY LENDING WOULD BE TO HAVE AN IDA-TYPE INSTITUTION (i.e. WITH THE SAME STAFF AS THE IBRD). THIS WOULD PERMIT THE AFFILIATE TO MAKE MAXIMUM USE OF THE BANK'S OPERATING EXPERIENCE, ESPECIALLY ITS ECONOMIC AND SECTOR WORK. SUCH AN APPROACH WOULD ALSO BE IN LINE WITH THE PREVAILING SENTIMENT AGAINST THE ESTABLISHMENT OF NEW INTERNATIONAL BUREAUCRACIES. ALTERNATIVELY, AN IFC-TYPE ARRANGEMENT COULD BE USED. THIS WOULD, HOWEVER, ENTAIL A SLOWER START-UP PHASE AND COULD DIMINISH THE ADVANTAGE WHICH THE AFFILIATE COULD OTHERWISE DERIVE IN ITS BORROWING OPERATIONS FROM CLOSE IDENTIFICATION WITH THE BANK.
6) DISTRIBUTION OF SHARE CAPITAL, VOTING ARRANGEMENTS AND BOARD REPRESENTATION

The distribution of shares in a market-based affiliate might simply depend upon the willingness of individual governments to support the affiliate through capital subscriptions. Thus, the distribution could differ significantly from the pattern which currently exists in the IBRD. A substantial majority of the shares would, however, need to be held by industrial and capital-surplus countries in order to provide the necessary assurance to creditors of the affiliate. Voting power would be weighted to correspond to the distribution of capital subscriptions.

Alternative distributions of shares or voting power arrangements that give weight to factors other than relative subscriptions could be considered if ways could be found to finance the affiliate satisfactorily without recourse to market borrowings.

Board representation would presumably also be based upon the distribution of subscriptions, although special measures could be considered to ensure a balanced representation. It is assumed that the affiliate would have its own charter and its own board to set policy and guide management.

/c
IN CONCLUSION, THE TENTATIVE CHARACTER OF THE APPROACHES PRESENTED IN THIS DISCUSSION PAPER MAY ONCE AGAIN BE EMPHASIZED. IT IS THE HOPE THAT THE DISCUSSION IN LATE NOVEMBER WILL BE BOTH COMPREHENSIVE AND CONSTRUCTIVE AND WILL PERMIT THE RAPID DEVELOPMENT OF FIRM PROPOSALS WHICH COMMAND GENERAL SUPPORT.

BEST REGARDS, MOEEN A. QURESHI, SENIOR VICE PRESIDENT, FINANCE
BOOK OF 1011

1. A SUA EXCELENCIA SR. ANTONIO DELFIM NETTO,
MINISTRO DO PLANEJAMENTO, MINISTERIO DO
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4. THE HONOURABLE R. VENKATARAMAN, MINISTER OF
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5. HIS EXCELLENCY MWAI KIBAKI, M. P., VICE
PRESIDENT AND MINISTER FOR FINANCE, THE
TREASURY, NAIROBI, KENYA

6. HIS EXCELLENCY ABDUL RAHMAN SALIM AL-ATEEQY,
MINISTER OF FINANCE, MINISTRY OF FINANCE,
2029 FINANCE, KUWAIT, KUWAIT

7. HIS EXCELLENCY SHEIKH MOHAMED ABALKHAIL,
MINISTER OF FINANCE AND NATIONAL ECONOMY,
201021 FINANS SK, RIYADH, SAUDI ARABIA

8. THE HONORABLE G. WILLIAM MILLER, SECRETARY
OF THE TREASURY, DEPARTMENT OF THE TREASURY,
WASHINGTON, D. C. 20220

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9. MR. FRANCIS MASAKHALIA, THE PRINCIPLE SECRETARY,
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NAIROBI 62/56 4 1000 KEGOT
KENYA

10. MR. ABDULLATIF AL-HAMAD, DIRECTOR-GENERAL OF
KUWAIT FUND FOR ARAB ECONOMIC DEVELOPMENT,
FINANCE 2527KT, KUWAIT

11. MR. MAHSOUN B. JALAL
EXECUTIVE DIRECTOR
INTERNATIONAL MONETARY FUND
AT THE RECENT ANNUAL MEETINGS, THE BANK WAS URGED BY A NUMBER OF 
GOVERNORS TO GIVE EARLY CONSIDERATION TO THE ESTABLISHMENT OF AN 
ENERGY AFFILIATE ASSOCIATED WITH THE BANK GROUP. AS A FIRST STEP, 
TO ENABLE THE BANK TO PREPARE SPECIFIC PROPOSALS IN THIS REGARD, 
I BELIEVE IT WOULD BE HELPFUL TO HAVE DISCUSSIONS WITH REPRESENTA- 
TIVES OF A SMALL GROUP OF COUNTRIES AS TO HOW SUCH AN AFFILIATE 
MIGHT BEST BE ORGANIZED AND FINANCED. I PLAN TO INVITE REPRESENTA- 
TIVES OF BRAZIL, FRANCE, GERMANY, INDIA, KENYA, KUWAIT, SAUDI 
ARABIA, AND THE UNITED STATES TO JOIN WITH US IN CONSIDERING THESE 
MATTERS. I WOULD BE MOST GRATEFUL IF YOU COULD NOMINATE A REPRE- 
SENTATIVE TO PARTICIPATE IN A FIRST MEETING OF THIS INFORMAL GROUP 
AT THE WORLD BANK OFFICES IN WASHINGTON DURING THE THIRD OR FOURTH 
WEEK IN NOVEMBER. A FURTHER MEETING IN DECEMBER WILL PROBABLY BE 
NECESSARY TO COMPLETE THIS PRELIMINARY AND INFORMAL EXCHANGE OF 
VIEWS. WE SHALL BE TELEXING YOU A DISCUSSION PAPER FOR CONSIDER- 
ATION AT THE MEETING FOLLOWING YOUR CONFIRMATION THAT YOUR 
REPRESENTATIVE WILL BE ABLE TO PARTICIPATE. WITH BEST REGARDS, 
ROBERT S. MCNAMARA INTBAFRAD
BOOK OF 8

1. A SUA EXCELENCIA SR. ANTONIO DELFIM NETTO,
MINISTRO DO PLANEJAMENTO, MINISTERIO DO
PLANEJAMENTO, BRASILIA (DF), BRASIL

2. M. RENAUD DE LA GENIERE, GOUVERNEUR, BANQUE
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2029 FINANCE, KUWAIT, KUWAIT

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MINISTER OF FINANCE AND NATIONAL ECONOMY,
201021 FINANS SK, RIYADH, SAUDI ARABIA

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WASHINGTON, D. C. 20220

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OFFICE MEMORANDUM

TO: Mr. Robert S. McNamara
Mr. Ernest Stern
FROM: J. Burke Knapp
SUBJECT: Set-up of Energy Affiliate

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NOV 3 O 2012
WBG ARCHIVES

The following comments and proposals take as a starting point Mr. McNamara's note of July 11, regarding the structure and organization of an energy subsidiary (call it the "Energy Investment Fund" - EIF).

I think we should seek to design a portfolio and capital structure for the EIF which will be as clean, simple and attractive to potential investors as possible.

I therefore propose:

a) That the portfolio be confined to "bankable" loans, i.e. loans meeting the Bank's normal creditworthiness standards, either on country grounds or on project (enclave) grounds. This would include loans even for high-risk projects (e.g. oil and gas pre-development loans) if they were made to a creditworthy country (or guaranteed by a foreign oil company).

b) That the equity element be confined to callable capital (a guarantee fund) subscribed voluntarily by Bank member governments (none paid in).

c) That oil, gas, (and coal?) pre-development projects not meeting Bank creditworthiness standards be financed through a separate revolving fund (call it the "Hydro-carbon Exploration Fund" - HEF) constituted by contributions from Bank profits. This fund would provide finance on IDA terms, perhaps with "wind-fall" provisions for profit-sharing. Its loans, if successful, would be refunded into project loans. It could be incorporated in IDA.

d) That the financing of other energy projects not meeting Bank creditworthiness standards be left to IDA.

e) That fuel-wood, alcohol, and other such projects be left to the Bank/IDA.

I offer the following comments:

(i) The $1.6 billion of high-risk projects that I propose be allocated to HEF seem to me to be a particularly unsuitable component for an EIF portfolio. This apple might spoil the whole barrel for prospective investors. Furthermore, I think this alternative way of allocating Bank profits would be more acceptable to our Executive Directors (i.e. to our member countries).
(ii) Transfers of Bank profits, in the order of magnitude discussed, would be well matched to the requirements of the HEF on a "fully-funded" basis. **Commitments** would be as follows (IDA-type component in oil and gas pre-development projects):

<table>
<thead>
<tr>
<th>FY81</th>
<th>FY82</th>
<th>FY83</th>
<th>FY84</th>
<th>FY85</th>
<th>Totals</th>
</tr>
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<tbody>
<tr>
<td>Exploration Promotion</td>
<td>70</td>
<td>60</td>
<td>35</td>
<td>35</td>
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<tr>
<td>Exploration Drilling -</td>
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<tr>
<td>Follow-up on past leads</td>
<td>40</td>
<td>135</td>
<td>135</td>
<td>150</td>
<td>200</td>
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<tr>
<td>National oil companies</td>
<td>-</td>
<td>50</td>
<td>-</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Follow-up on exploration promotion</td>
<td>-</td>
<td>30</td>
<td>200</td>
<td>200</td>
<td>90</td>
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<tr>
<td>Total</td>
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<td>200</td>
<td>300</td>
<td>350</td>
<td>390</td>
<td>345</td>
</tr>
</tbody>
</table>

Furthermore, before the end of the period, there should be some reflow to the revolving fund as pre-development loans are refinanced in development loans.

(iii) Of course Bank transfers to the EIF, like paid-in capital from member countries, would provide cost-free capital which would increase EIF's earnings or permit it to reduce its lending rate. But for the long run this is scarcely necessary. As for operating deficits in the start-up period, these could be mostly covered if the Bank were prepared to advance (or even absorb) administrative expenses during the start-up period.

(iv) Why indeed have a paid-in component in member country capital subscriptions to EIF? It poses an immediate requirement for budgetary funds, and (after it goes out on loan) offers less assurance to bond-holders than callable capital.

(v) What would be the consequence of the basic proposition of excluding from EIF projects not meeting Bank creditworthiness standards? To answer this question more analysis is needed of the $25 billion portfolio originally proposed for the EIF. But certain statements in principle can be made.
IDA can be presumed to have funds to cover IDA energy projects in the current FY81-85 program. EIF should hardly be expected to bail IDA out of this responsibility. However, it is possible that some of these could be turned into "bankable" enclave projects, thereby releasing IDA funds for financing non-bankable energy projects in the incremental "desirable" category.

2. The HEF proposed above would cover IDA-type oil and gas pre-development needs. To the extent that these are covered in IDA's current program (about $700 million), a corresponding amount of IDA funds would be released to finance other IDA-type energy projects in the incremental category.

3. More basically, decisions as to how much of the incremental program could be taken up by EIF depend on a) policy on blend countries and b) policy on enclave projects.

I mention the first point only because I understand that the initial Bank/IDA classification of incremental energy projects assumes that all such projects in blend countries are Bank-type. However, take India as an important example, is this sustainable? I assume there should be only one limit on Indian creditworthiness for hard lending from the Bank Group, whether from the Bank itself or its energy affiliate. Hence, unless an explicit decision is made to increase this limit, any incremental lending to India should be regarded as IDA-type. One thing that we can and should do, however, is to make sure that, in the largely arbitrary allocation of projects between Bank and IDA in blend countries, energy projects are given priority for assignment to the Bank so that they can then be hived off to the EIF.

As for policy on enclave projects, the Bank has been prepared in the first place to finance projects in non-creditworthy countries that were supported by effective guarantees from creditworthy foreign companies. There may be some opportunities for this in the hydro-carbon field, but hardly in electric power unless this is related to foreign private investment in consuming industries, e.g. aluminum.

Enclave projects have also been established on the basis of the pledge of foreign exchange revenues from the project (cf. Zaire copper), although in this case the security is so much weaker (being subject to the country's default on its "set-aside" obligation) that some have preferred to call these "semi-enclave" projects. Again some opportunities will arise for this in the hydro-carbon field, but none in the power field except in the rare case where power may be exported.

1/ Incidentally, I think a good case could be made for this.
2/ Leaving aside the oil and gas pre-development projects, these total about $3.1 billion, mostly in electric power.
Mr. Robert S. McNamara  
Mr. Ernest Stern  
- 4 -  
July 21, 1980

Could we go further than this (and if we do, it should be a matter of general Bank policy and not just for the EIF) and accept as a "bankable" enclave project one serviced by "set-asides" not from foreign exchange revenues of the project but rather from other foreign exchange earnings released by "import savings" attributable to the project. I would have serious doubts about the practicality of such an approach, (even in the clear-cut case of an oil production project which yields oil import savings), despite the fact that in general balance of payments analysis import savings are often equated with export earnings. But I think it requires consideration now in connection with the EIF discussions.

What happens then, to a high priority energy project in the incremental category that cannot be made in some way "bankable"? I assume that it will be picked up in the IDA program of the country concerned at the expense of some lower priority project in another sector.

cc: Mr. Vibert

JBKnapp:isk
In case you have not seen, this is the answer that Secretary Blumenthal sent to Mr. Garvin of Exxon re the World Bank new Petroleum program. I understand you have a copy of Mr. Garvin letter but for convenience I also attach it.

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**NOV 30 2012**

**WBG ARCHIVES**

**FROM:** Efrain Friedmann

**ROOM NO.:** D-1038

**EXTENSION:** 76975
Dear Mr. Garvin:

Thank you for your letter of January 15 regarding the World Bank's proposed expansion of its activities in support of increased production of primary energy fuels in the developing countries. The Bank's proposals are set out in a study recently reviewed and approved by the Bank's Executive Board. This study has been made public in order to encourage widespread discussion of the program and I am pleased to enclose a copy.

I know you share our view that increasing production of primary energy fuels in developing countries deserves high priority. The current high level of oil import prices exacts a substantial toll on the economies of these countries. Consequently, we strongly support an expanded Bank role to assist oil importing developing countries to achieve savings on such imports through increased production of their domestic energy resources.

We believe, and this view is widely shared among member governments, that the Bank's primary role in this area, as in others, is that of a catalyst, facilitating increased private capital flows and maximizing the total effort. The Bank's performance record gives us every confidence that the entire program, including participation in the financing of surveys, exploratory drilling, development and production, will be carried out with caution and financial prudence. It is our understanding, furthermore, that the Bank hopes through facilitating survey work to encourage widespread dissemination of geological data, both to reduce risks and to enlarge the possibilities for private bidding and participation in energy exploration and development.

I know the Bank would welcome continued discussion with the petroleum industry on technical as well as any other aspects of its program. Such discussions could help to ensure the success of the program and the benefits it
can provide to the developing countries involved as well as to the world economy. The U. S. Executive Director at the Bank, Edward Fried, would be happy to facilitate such discussions.

Sincerely,

[Signature]

W. Michael Blumenthal

Mr. C.C. Garvin, Jr.
Chairman of the Board
Exxon Corporation
1251 Avenue of the Americas
New York, New York 10020

Enclosure
January 15, 1979

The Honorable W. Michael Blumenthal
Secretary of the Treasury
Washington, D. C. 20220

Dear Mr. Secretary:

I understand that the World Bank is considering expansion of its activities in support of energy development in LDCs, including, in particular, the possibility of providing Bank loans for oil and gas exploration. We certainly share the goal of finding more oil and gas in the oil importing developing countries, or anywhere else for that matter. Industry activity in these countries has been extensive, and during the 1967-76 decade, for example, industry has explored in 83 such countries, drilling 3,770 exploratory wells in 65 of them.

Exploration for oil and gas is inherently risky. Where the presence of oil has yet to be established in developing countries, the commercial success ratio has been one in forty. Consequently such projects seem ill-suited to Bank lending. Traditionally returns on the relatively few successful projects have covered the cost, including dry holes, on the much larger number of unsuccessful projects. This would not be true were the Bank to finance such projects on a loan basis. Among the problems that this would give rise to is that poor countries, where oil exploration was unsuccessful, would be called on to pay the cost of such exploration anyway. Moreover, the risk which exists at every stage from early exploration activities through drilling delineation and development wells seems to me best suited to management by a competitive industry with equity capital at risk. Finally, were the Bank to offer to make loan financing available for exploration in a particular country, it should do so only after ensuring the acreage involved had first been offered to industry on reasonable terms. Otherwise, the Bank's loans might only be replacing already available risk capital.

I believe a program as complex as the one I understand the Bank is considering, implying a major change of the Bank's traditional role, and involving such a sizeable commitment of public funds, should be entered into only after it has had the benefit of extensive industry comment and discussion. This would require that the data used by the Bank's staff be made available to the industry for evaluation along with the conclusions and recommendations of the Bank on this proposal. I hope that in any Bank discussion of this subject, the United States could ensure that the Bank would undertake to make the arrangements necessary for providing an opportunity for such comment and discussion. We would be pleased to discuss this matter further with you, or your staff, if there is more information that we could provide.

Sincerely,

C. Garvin, Jr.
Chairman of the Board
November 30, 1978

Messrs. McNamara
Cargill
Stern
Chenery
Damry
Rovani
Friedmann

Energy Paper

Attached are Mr. Baum's suggestions for pages 27 and 28 of the draft discussed yesterday.

Paragraph 4.11 is new. Additions to or changes in paragraphs 4.11-4.14 of the earlier draft are underlined. I think the proposed new paragraph 4.11 is helpful, and I have no difficulty with Mr. Baum's other suggestions.

Raymond J. Goodman

cc: Mr. Baum

Note for Mr. McNamara:

The changes in new paras 4.12 and 4.15 that are not underlined accommodate your comments on yesterday's draft. The paragraphs are being re-numbered consecutively as you requested.
(ii) **Exploratory Drilling**

(No change) 4.9 The important and difficult phase of exploratory drilling, as explained in paragraphs 3.11 - 3.14, comes between the completion of survey work and the delineation of a petroleum deposit by appraisal drilling to the stage where it is ready for exploitation. It was suggested in the Minerals and Energy Report that the Bank could help member countries and private foreign companies to negotiate an acceptable agreement for exploration and production, if invited to do so, and confirm its willingness to consider making a loan for the eventual production facilities or related infrastructure. The first example of such an arrangement is the joint venture for potential crude oil and natural gas development established under agreements signed on November 14, 1978 between the Government of Pakistan, the Pakistan Oil and Gas Development Corporation and Gulf Oil Corporation, after extensive negotiations during which the Bank was asked to review and comment on the various draft agreements. The Bank has since written to the Government of Pakistan noting the latter's intention to request Bank assistance in financing the cost of production facilities if and when a commercial discovery is made, and in arranging additional financing from other sources; and expressing its willingness to consider doing so provided the project met the usual Bank criteria. 1/

1/ The possibility of Bank participation in other arrangements of this kind is under discussion in a number of countries.

(No change) 4.10 The Bank's presence at this critical stage, and its agreement to consider making a loan for production facilities if an exploitable deposit is found, should contribute to a greater willingness of host countries, on the one hand, and oil companies on the other, to reach agreement on the terms of a contract for exploratory drilling. However, the possibility of eventual Bank participation is likely to attract foreign companies to invest risk capital in exploration only in a relatively few countries which are deemed to have particularly good prospects for producing an exportable surplus of petroleum. In the majority of OIDCs it seems necessary for the host country itself to take all or part of the risk of exploration, and it is proposed therefore that the Bank help such countries to do so.

(new) 4.11 While lending for petroleum exploration is inherently riskier than for conventional Bank projects, the enhanced prospects for the economical development of petroleum resources in developing countries, together with measures that can be taken to minimize the technical risks, should make it prudent for OIDCs to borrow from the Bank for exploratory drilling in appropriate cases. Measures to reduce the technical risks would include ensuring that high quality geological and geophysical surveys had been undertaken in all cases, including a probability analysis, in financial and technical terms, of the risks and benefits, and had revealed favorable prospects for the discovery of petroleum in commercial quantities. Exploratory drilling would be carried out in stages and in limited areas, with a careful review of the findings at each stage before proceeding to the next or, if the results are clearly unpromising, terminating the exploration program (and cancelling the balance of the Bank loan or credit). The best available technical expertise would be provided to the borrowers to assess the results of the surveys and exploratory drilling.

1/ See Memorandum from the President dated November 16, 1978 (R78-253).
4.12 The relationship between the borrowing country, its national oil company (if any), international oil companies in particular cases, and the Bank could take a variety of forms. Some countries, with a well-established national oil company, might be able to carry out an exploratory program on their own, under a Bank loan. Countries which lack the experience to do exploratory work themselves would be encouraged to enter into an arrangement with an interested foreign company and assisted in obtaining fair terms under an appropriate type of petroleum exploration and production agreement. The Bank would make a loan or credit to the government to cover its share of the costs of exploration and the rest of the foreign exchange costs would be met by the foreign company, as an equity investment, as a loan, or by taking a participation in the Bank loan to the government. In countries that have an experienced national oil company, the Bank would make the loan to the company which would carry out the exploratory work either by itself or in association with a foreign partner. In IDA countries, the proceeds of a credit for exploration would be passed on to the national oil company.

4.13 Such an arrangement, under which the risk would be shared with the host country, assisted by a Bank loan or credit, is likely to attract oil companies to invest capital for exploration in a wider range of countries. However, there may well be countries in which even this arrangement would be an insufficient inducement to foreign investors because of the small size of the petroleum reserves or for other reasons. In these cases exploratory work would have to be carried out by exploration companies under service contract arrangements which the Bank would finance through a loan or credit to the government. A similar arrangement would be made in IDA credits for exploration.

4.14 A number of member governments have indicated informally that they would be interested in taking Bank loans for petroleum exploration under the type of arrangements described in paragraphs 4.12 and 4.13. Bank loans and credits for exploration would be made on the same terms as engineering loans and credits, namely 10 years of repayment with a suitable grace period, and like them would be re-financed from any subsequent loan or credit for production facilities. However, there would be less assurance than in other sectors that a project loan would follow. To reduce the annual repayment burden, provision would be made in the loan agreement to extend the terms of the loan to the normal limit for the country in the event that the exploratory drilling did not lead to a project suitable for Bank financing before the expiry of the grace period. A similar arrangement would be made in IDA credits for exploration.

4.15 In para 3.11 it was noted that the costs of a major drilling program are in the range $10 to $50 million; and there may be more than one program in a country. In the case of loans (credits) to national oil companies, or where the loan financed the costs of a service contract, the Bank loan would cover an appropriate share of the entire cost, depending on the circumstances of the country. In countries that entered into an agreement with a foreign company, under which the latter shared in the financing, the Bank loan (credit) would cover no more than half the foreign exchange cost. It is very difficult at this stage to anticipate the demand for Bank financing for exploratory drilling and therefore to estimate the amount of lending for this purpose. Assuming that the Bank made 8 to 10 such loans and credits a year, the drilling programs financed with Bank assistance would be on the order of $200 to 250 million (1978 dollars), of which Bank funds would cover about $150 million.
OFFICE OF THE PRESIDENT


Present: Messrs. McNamara, Cargill, Baum, Broches, Chenery, Damry, Stern, Rovani, Goodman, Friedmann

Mr. McNamara said that the paper should have the title "Program to Accelerate Petroleum Production in Developing Countries."

Mr. Cargill (who had not attended earlier meetings on this subject due to his absence) raised the issue of whether the Bank should do exploratory financing. He had serious doubts. If the oil companies were willing to undertake exploratory financing, the Bank should remain a lender of last resort. Mr. McNamara agreed, but in a large number of cases oil companies would not come in. Mr. Stern observed that it was impossible to demonstrate the degree of divergence of interest between oil companies and governments. Mr. McNamara said that one could state, however, that the oil companies were not doing enough in about 60 countries and that the oil companies' criterion of whether there was an exportable surplus should not be the criterion for the Bank in deciding whether or not to finance exploratory drilling. Mr. Cargill said that exploration was a very risky business and that the Bank would be betting on "the LDCs' shirt." Mr. McNamara said that this was a different point and he agreed that the Bank had to be extremely careful and had to develop considerable expertise. Mr. Cargill questioned whether his expertise was available; the oil companies "lost their shirt" all the time. Mr. Stern objected; on balance they did not "lose their shirt." Mr. Cargill added that the LDCs would have to enter into large financial commitments vis-a-vis the Bank long before they would know what the results would be. He was very uneasy as to whether the Bank was acting prudently in advising poor countries to assume such a high risk. Mr. Stern replied that the countries would share the equity risk with foreign companies. Mr. McNamara admitted that the universe in a specific country might be very small compared to the global risk universe of an oil company. The alternatives to the Bank's proposal contained in the paper would be to pool that risk between countries through an exploration fund or to do nothing. Mr. Stern explained the conclusion that the concept of pooling risk through an exploration fund was not yet developed enough for application. Mr. Cargill insisted that the oil companies were not involved in a number of countries because they had formed an opinion that there was no prospect in these countries with regard to an exportable surplus. Mr. Stern said that they had concluded that there was no prospect compared to the political risk. Mr. McNamara agreed. Chad was an example of a large potential but also a high political risk. Mr. Stern said that there were many uncertainties in many countries which deterred the oil companies; they could not be sure what the production terms would be after the exploratory drilling had been carried out. By giving the governments additional resources to share in that risk, the Bank would make it more attractive for the companies to come in because their cost would be lower. Mr. Chenery said that there was a strong general economic case for doing this; the cut-off point for the companies was at present much higher than for the countries which did not have to take the political risk into account. Mr. McNamara agreed. Mr. Baum observed that these issues of risk, implications for borrowers, etc., were not reflected sufficiently in the text of the paper. Mr. McNamara concluded that he understood Mr. Cargill's point but that the meeting agreed that these issues had been thought through.
In response to a question by Mr. Goodman, Mr. McNamara said that the increased lending for energy should be additional and should not be obtained by reducing lending to other sectors. In response to a question by Mr. Baum, Mr. McNamara said that the paper should not contain an explanation why an exploratory fund was not recommended at this point in time. However, since this question would probably come up at the Board, the answer should be put down in writing and should state that nobody knew at present how to put together such a fund. Mr. Stern added that even the French and Canadian EDs, who had been advocates of such a fund at the summit meeting, had now backed off from that idea.

After a page-by-page review of the paper, Mr. McNamara asked Mr. Goodman to redraft pages 27 and 28 in order to include Mr. Baum's comments and to distribute those pages for review by this group by tomorrow noon. The paper should be distributed to the Board before the end of the week.
I. THE PROBLEM

The conclusions of studies in the Bank, and those made by others, as to the likely consequences of the energy crisis are:

a) A new economic era has been launched by the rise in energy prices to the level needed to stimulate developments of the world's alternative sources of energy. It will take 5-10 years to develop such sources and bring them into production.

b) The current level of oil prices will yield Government revenues in the OPEC countries of about $85 billion in 1974 and $100 billion in 1975 compared to 1973 revenues of $23 billion.

c) Once demand and production patterns of the industrial countries have adjusted to the higher prices of energy, the total resource cost to them will not be a serious impediment to their growth. During the period of trade adjustment, however, there is a real danger of major trading countries adopting incompatible policies that will hamper the growth of total world output. The financial resources required by the industrial countries to maintain their reserve positions and exchange rates are likely to be available to them at a cost well within their capacity to carry additional debt.

d) The balance of payments impact on the developing countries, which amounts to 15-20% or more of total foreign exchange supplies in a number of these countries, is much more severe and will require some difficult adjustments in their trade patterns and in the financial flows to them. In a third of the principal developing countries, the oil impact will be largely offset by increased export earnings plus ready access to external capital; their development prospects will not be seriously affected. International action should, therefore, focus on the problems of the remaining countries (which contain over a billion people) for which the transition to a viable balance of payments position will be exceedingly difficult.

The possible reduction in growth in the industrial countries may mean reduced growth of demand for exports from developing countries in the next 2-3 years. Together with the anticipated increases in supply, this may lead to a decline in commodity prices and to a considerable fall in the presently favorable terms of trade for most primary producer countries. This will exacerbate the problem for many developing countries.

Even the current high commodity prices have had a very uneven impact on developing countries. Countries that are not exporters of minerals or other products in short supply have suffered from a substantial worsening in their terms of trade.

Even assuming that growth rates in the United States and other advanced countries are quickly restored to normal levels, we project that the growth of many of the poorest and most populous countries will be reduced substantially because of the higher cost of their imports and their limited supplies of foreign exchange.
In the absence of international action to offset this effect, this group of poor countries is likely to suffer most severely from the adjustment in the world economy. Some of them could even suffer negative growth in per capita incomes for the remainder of the decade.

II. CAPITAL REQUIREMENTS

In a recent Bank analysis, distributed to the Bank Board and subsequently to the current session of the U.N. General Assembly, it was estimated that the additional resources required by developing countries in the two years 1974 and 1975 to maintain their previously estimated rates of growth would total $10 billion. About half of this can be financed on conventional terms; the balance should be on concessional terms. For the longer term adjustment, i.e. through 1980, approximately $10 billion per year in additional capital may be required, again with nearly half being required on concessional terms. These requirements are in addition to December 1973 projections of capital available in the years 1974-78, which included a planned expansion in the Bank and IDA activities and continued growth in bilateral development programs.

The bulk of the concessional capital requirements is for the poorest countries, i.e. those with a per capita income of less than $200. These countries include the populous countries of Asia, many countries in Africa and those on the U.N.-designated least developed countries list -- with a total population of over 1 billion. The additional assistance requirements of this group are most urgent because:

a) They are least able to deal with the scarcities in such crucial items as fertilizer and food; indeed several (India, Bangladesh, Sahelian countries) have been among those severely affected by drought conditions in recent years.

b) Their exports have benefitted relatively less than those of other countries from rising commodity prices and the rapid growth of manufactured good exports.

c) Their capacity to adjust is more limited.

d) Their projected rates of growth were already below the average for all LDCs -- only slightly more rapid than population. Any substantial reduction in their import capacity, and hence their rate of growth, will result in a declining per capita income.

e) Their limited creditworthiness makes it essential that capital inflow be on concessional terms, but concessional capital is scarce.

III. RELATIVE CONTRIBUTIONS

Capital which is lent by the World Bank is borrowed on "conventional" terms and therefore the amounts required by the developing countries should be obtainable.
However, capital on concessional terms -- the type of capital most urgently needed by the poorest countries -- is very scarce and imposes a real burden on the donor. Contributions of such capital raise three questions for OPEC countries:

- Why make such contributions at all?
- What is a reasonable division of responsibility with the industrialized countries?
- What are appropriate relative contributions as between net oil exporters.

The rationale for assisting the poor is the same for all countries who are better off. Their relative wealth imposes an obligation to assist others which is universally recognized. The increased contribution by some OPEC members to a number of funds designed to assist the developing countries is a reflection of this principle. While the principle is sometimes embroidered by political, economic and commercial arguments, the essential reason for providing concessional capital is moral. In addition, the OPEC countries should consider that the rise in oil prices has created exceptionally difficult transitional problems for the poorest countries, for the reasons described above. The increased prices of oil mean that a substantial transfer of foreign exchange resources is taking place from the developing countries to OPEC countries. After taking account of possible increases in exports to OPEC countries, this net transfer may total $8 billion in 1974. The increase in oil prices which was designed by OPEC to improve the terms of trade between oil exports and imports, was not intended to reduce the already meager resources of the poorest developing countries. There is, therefore, a good additional reason to assist these countries in their adjustment to the higher long-term price of energy.

Although the increase in the price of oil will yield very substantial increases in revenue, the OPEC countries remain in the process of development and for most, their per capita incomes will remain well below that of the industrialized countries. In short, while the OPEC countries will have very large surpluses in their balance of payments, their real wealth will only develop as their economies grow and diversify. Since concessional lending from the sale of natural resources constitutes a gift of part of their capital stock, the presumption should be that all countries in a position to do so -- industrialized and oil producers -- should share in meeting the increased need for concessional capital. In addition, the industrialized countries must maintain their commitment to the earlier aid targets.

The relative contributions among OPEC countries can, in the final analysis, only be established by negotiation. Situations differ in the various OPEC countries and consequently the appropriate contribution of each will differ. One approach might be to link relative contributions to the volume of their oil sales. Each cent per barrel generates $100 million; and if about $0.20 per barrel were assessed, about $2 billion would be raised annually. This would seem an appropriate order of magnitude. If additional resources were made available by industrialized countries -- say, along the lines of the EEC proposal --
adequate concessional funds would be available for the low income countries. Alternatively, relative OPEC contributions might be determined by the size of current account balances, or by a combination of the two factors.

IV. CONCESSIONAL CAPITAL AND IDA

The major international source of highly concessional capital is IDA, which lends funds for 50 years, with a grace period of 10 years. A service charge of 3/4% is levied. Contributors make funds available on a grant basis; a non-interest bearing loan could also be acceptable. These terms are a reflection of the poverty of IDA borrowers, and only countries with a per capita income of less than $375 can be eligible. OPEC contributions to the low income developing countries to ease the transition to higher energy costs should be on comparable terms.

Many of the contributors to IDA also have bilateral assistance programs, or regional programs (such as the EEC), a portion of which consists of capital on highly concessional terms. These arrangements are complementary, not competitive, with IDA; they supplement IDA funds and enable the donor country to express its special national interests. A number of OPEC countries may wish to do the same -- by contributing to IDA while maintaining programs and continuing the development of new institutions. However, it will take time to organize new institutions and programs on the scale required. As the Bank has already indicated, it is prepared to assist in the organization, development or expansion of bilateral or regional aid programs and to provide management and other services to support their operations in the initial years.

Since IDA is an established institution, it has the capacity to quickly increase project preparation, commitments and disbursements to match the increased investment requirements in developing countries. It also has the capacity to manage quick disbursing program loans to help alleviate the immediate impact in selected countries. Supplementing IDA resources would be an effective way for the OPEC countries to meet the urgent resource requirements of developing countries. As bilateral programs and new institutions develop their capacity, the relative importance of the international channel and these others can be continually adjusted.

At present, industrialized countries hold 61% of the voting power in IDA, OPEC countries 4%, and other developing countries 35%. The industrialized countries plus Kuwait have provided the $10,640 million made available to date, including the $4.5 billion contributions planned for the next three years, 1974-76.

One approach would be for the OPEC countries to match the contributions of $1.5 billion per year for the 1974-76 replenishment of IDA resources. Under present rules, which base voting shares on cumulative contributions, this would raise their voting shares to about 15%. However, in view of the substantially changed situation, it may also be feasible to consider calculating voting shares on the basis of contributions to the 1974-76 replenishment only. On that basis, OPEC voting shares would rise to 33%; the share of other LDCs would remain at 35%, and that of the industrialized countries would be 32%. If the OPEC countries were to reach a decision on contributions, this alternative could be explored with the other IDA members.
V. BANK CAPITAL

Although the provision of concessional capital is the most crucial problem for the developing countries, the requirements for capital on "harder" terms is also important. The Bank plays a major role in channelling conventional funds to creditworthy developing countries at costs lower than they can obtain independently. At the same time, the Bank offers the purchasers of its bonds a highly rated, secure investment instrument. OPEC countries with surplus funds can meet both their investment objectives and their desire to assist developing countries not requiring highly concessional assistance by investing additional resources in the Bank. Such investments can take the form of purchases of Bank bonds or loans.

In addition, OPEC countries will almost surely wish to increase their equity in the Bank so that their voting power more accurately reflects their financial involvement. At present, their share in voting power is 4.8%, substantially underrepresenting their new role in the world. If OPEC countries wish to achieve a 15% share of IBRD voting power, they would subscribe to additional shares totalling about $3.4 billion (in terms of 1944 U.S. dollars); of this amount, $340 million would be paid in and the balance would remain callable as a guarantee for the Bank's bonds. Whenever capital is increased, all members have the right to increase their capital subscriptions. Therefore, the exact voting shares derived from these increases in capital depend on how many members would wish to increase their subscriptions.
PROSPECTS OF ACCELERATED COAL DEVELOPMENT IN LDCs AND THE WORLD BANK CONTRIBUTION IN THIS EFFORT

Background

1. The steep rise in oil prices, the vulnerability which accompanies heavy reliance on imported fuel, obtained from relatively few producers, and the difficulties of assessing the risks associated with nuclear power plants have stimulated serious consideration of a substantial return to coal use. More than 80 countries, including 52 LDCs, report coal occurrences. This memorandum reviews briefly the present role of coal in developing countries, the major constraints to a rapid increase in coal production in LDCs, measures which would help to accelerate LDC coal production, and the role of the World Bank in this effort.

Coal Resources and Production

2. Table 1 shows the distribution of coal resources and production.

Table 1 - World Coal Resources and Production by Regions

<table>
<thead>
<tr>
<th>Geocological Resources(^a)</th>
<th>Recoverable Reserves(^b)</th>
<th>Production</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Geological Resources/a</td>
<td>Recoverable Reserves/b</td>
</tr>
<tr>
<td></td>
<td>billion</td>
<td>billion</td>
</tr>
<tr>
<td></td>
<td>tce/c</td>
<td>tce/c</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Developed Market Economies</td>
<td>3,434</td>
<td>325</td>
</tr>
<tr>
<td></td>
<td>33.9 %</td>
<td>51.0 %</td>
</tr>
<tr>
<td>Centrally Planned Economies</td>
<td>6,461</td>
<td>246</td>
</tr>
<tr>
<td></td>
<td>63.8 %</td>
<td>38.7 %</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>230</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>2.3 %</td>
<td>10.3 %</td>
</tr>
</tbody>
</table>

| 10,125                      | 636                      | 2,774       |
| 100.0%                      | 100.0%                   | 100.0%      |

\(^a\)/ Includes all known coal occurrences that may acquire an economic value in the future.

\(^b\)/ Exploitable under present technical and economic conditions.

\(^c\)/ "Tons of Coal Equivalent" which corresponds to the calorific value of one metric ton of hard coal with 7,000 kcal/kg.
Although recoverable reserves in LDCs are only about 10% of the world total, it is generally agreed that the lack of geological survey and coal exploration activities in LDCs, rather than an actual scarcity of coal occurrences in that part of the world, accounts for the low estimates.

3. In 1977 LDC coal supplies met about 15% of their energy demand. Coal production in LDCs since 1973 has been growing at about double the rate as in the rest of the world but total output in developing countries still is low.

4. Coal reserves and coal production in LDCs are highly concentrated. Although 30 of the 52 developing countries 1/ with known coal occurrences produce some coal, four countries (India, Yugoslavia, the Republic of Korea and Turkey) account for more than 80% of coal production in LDCs; together with another seven countries (Pakistan, Taiwan, Vietnam; Brazil, Chile, Colombia and Mexico), they are responsible for 96% of present coal output. There are substantial differences in coal quality and use among the major LDC coal producing countries. While India extracts about 80% hard coal, including about one-fourth coking coal for its iron and steel industry, the Republic of Korea mines primarily anthracite (a coal of high heat value and high carbon) for commercial/residential heating, while Yugoslavia and Turkey produce predominantly brown coal for generation of electricity. Developing countries are marginal net importers of coal (to the extent of less than 10% of their own production), accounting for less than 1% of world coal exports and close to 6% of imports. LDCs trade only coking coal and anthracite with Brazil, Egypt and Korea being the main coal importing countries and India and Vietnam the main exporting LDCs.

Major Constraints to Coal Development in LDCs

5. The relatively modest growth of coal output, despite its apparent price advantage as compared to oil, is due to a number of factors, including relative prices, calorific values, availability and reliability of supply, transport availability and the satisfactory solution of technical and environmental problems that presently limit its use. Coal is difficult and expensive to distribute and the need to control dust, dispose of ash and to provide adequate storage - as well as to burn it in an environmentally acceptable manner - makes it still in most instances an inconvenient and costly fuel for all but the largest users. The principal impediment to rapid short and medium-term growth in coal development in developed countries is demand related. Partly because of the substantial materials handling, transport and environmental problems, partly because of uncertainties about future oil supply, prices and government energy policies, private and public investors have been hesitant to invest in coal utilization facilities and thereby generate the demand which would justify a massive increase in coal output and trade. But in the developing countries there is a supply constraint caused by lack of geological data, feasibility studies, lack of coal projects prepared for implementation, high infrastructure cost, low economic/financial viability of known deposits, and limitations of capital or technical knowledge.

1/ See attached table.
Lack of Geological Data and Preinvestment Work

6. In the past, the relative unattractiveness of coal compared to oil and the ready availability of coal in developed countries meant that few international mining companies explored for thermal coal in developing countries. The developing countries focused primarily on base metals and even where some coal exploration had been undertaken the economics of coal exploitation and use did not encourage the additional work that was necessary to establish the economic/financial and technical viability even of already known deposits. As a result, long lead times have now to be overcome to bring forward additional coal production. These lead times may range from 3-5 years where expansion of existing mines is possible, i.e. largely in LDCs with well established coal industries (such as in India, Turkey or South Korea) to as many as 10-15 years in countries which are virtually unexplored, though their potential for coal is promising. Of course, the time required to obtain the necessary geological data and do the preinvestment work depends on the countries, the size, location and quality of a deposit, the market prospects and the technical difficulties associated with exploiting a given coal body.

Lack of Economically Viable Projects

7. Exploitation of presently known coal deposits may yield (at projected opportunity costs of importing oil or exporting coal) a rate of return of about 10-15%. This is substantially lower than the economic returns expected from oil discoveries where returns may be as high as 50-100%. There are three major reasons for this disparity: (a) the international price of coal bears a close relationship to the cost of producing coal while the oil price does not; (b) coal resources are generally located in remote areas and large capital investments are needed not only for mine development but for bulk handling and transport (rail/port) facilities which are unlikely to exist in these areas. It has been estimated that in developing countries transport will account for 40-60% of the delivered cost of coal from new mines compared to 10-30% in developed countries; and (iii) the geological and physical/chemical coal characteristics of many known coal deposits in LDCs present technical problems which require costly mining, beneficiation or combustion techniques or special handling and blending requirements.

Capital Constraints

8. The development of a coal mine and associated infrastructure can require anywhere from US$20-150/ton (1978 dollars) of annual output depending on the location and scope of the mine development, the cost of associated beneficiation units and transport infrastructure. US$20 billion (1978 dollars) will be needed to increase coal production to some 432 million tce per year by 1990, 2.5 times the present level. This would be an ambitious target, but it would still only account for 17.5% of LDC energy consumption by then, compared to 15% at present.

9. Such a program would require substantial outside resources. Official bilateral aid and export credits have traditionally been available for coal development in LDCs. In 1977/78, the World Bank and Regional Development Banks have announced expanded coal lending programs. Further, a few coal exploration and development contracts have been signed, or are being
negotiated, with multinational companies, in particular by Exxon and others in Colombia, by British, U.S., Japanese and South Korean interests in Indonesia and by Anglo-American and Shell in Botswana and Swaziland. The efforts of multinational companies are directly linked to coal development for exports and in these cases the foreign sponsors provide equity financing and/or loans secured by long-term sales contracts.

**Demand Constraints**

10. Accessible, economically viable deposits of good quality thermal coal in LDCs will primarily be used for domestic consumption. At present, few developing countries have experience with coal utilization or can fall back on existing dual-fired power stations which would allow rapid increase of coal use. If coal utilization is actively encouraged by government policies in LDCs and utilities will use coal whenever economically justified, demand constraints should not be a major impediment to growth of coal output. In some small developing countries, such as Botswana and Swaziland, the lack of a sizeable domestic market, coupled with difficulties of competing in the export market, will hinder large-scale expansion of known, good quality coal reserves.

**Skills**

11. Even where the geology of a coal deposit is well known, where feasibility studies have been prepared, markets are established and capital is available, the capacity of LDCs - in terms of managerial skills and technical know-how - to implement coal mining or integrated coal/transport/power projects is limited in the medium term. Training would have to be part of any program to accelerate production.

**Measures to Accelerate Coal Development in LDCs**

12. A strategy to overcome the constraints to more rapid coal development in LDCs must alleviate the major supply constraints outlined above while ensuring that coal demand develops in line with coal supply prospects. Most developing countries have neither the human and financial resources nor the technical know-how to launch major coal development programs and integrate them in an overall planning effort. Thus, international, bilateral and regional agencies as well as private companies have a major role to play in helping developing countries to survey their coal potential, analyze the role coal may play in the energy supply/demand balance for each specific country and provide financial and technical support for the implementation of coal projects.

13. Decisions made now regarding coal resource delineation and the use of coal in electricity generation or other economic applications will only show a significant impact on LDCs' energy and foreign exchange balances in the late 1980s and 1990s. To ensure adequate coal supply by then, a conscious decision is needed by LDC governments to:

   (a) accelerate coal exploration and preinvestment work,

   (b) encourage coal utilization in power generation and other applications,

   (c) encourage the development and implementation of coal mining projects (including small scale) and associated infrastructure for domestic coal consumption or export whenever economically viable.
14. Such efforts by developing countries should be supported by developed countries and international agencies through:

(a) Funds and technical assistance for geological surveys, exploration and engineering work to determine the technical/financial/economic viability of integrated coal mining/transport and coal utilization projects. But financing for this activity is not the sole problem since available bilateral coal exploration funds have remained unused. For available funds to be effective, they have to be coupled with an adequate technical assistance effort not only in the immediate technical fields of coal exploration, but also to build up the necessary institutions/operating companies and to integrate coal use in an overall energy program;

(b) Technical assistance to governments and national utility companies in the technologies and economics of coal mining, handling and coal utilization;

(c) Technical assistance and training in project management and operation and coal mining projects and associated infrastructure and coal use facilities;

(d) Encouragement to multinational companies to provide funds, management or technical assistance for LDC coal projects from the initial exploration to the operational stage;

(e) Financing for all aspects of coal-related projects from the development of coal mines, coal handling and transport facilities to coal using installations such as coal-fired power plants, industrial burners, coal gasification units, etc. It is estimated that external sources have to provide at least 60-70% of the US$20 billion (1978 dollars) needed to bring LDC coal output and related infrastructure to an annual capacity of 432 million tce by 1990.

The policies of the developed countries, which together with CPEs now account for more than 85% of the world's energy consumption and will probably still be using more than 80% of global energy in the late 1990s, to foster the use of coal also will affect the development of the LDC coal potential as it should create demand for LDC coal in industrial countries, particularly in Western Europe and Japan, which are short of low cost energy resources. Increased research in the industrialized countries on coal mining and processing technologies to reduce coal production costs and on efficient coal handling and bulk transportation systems would also help the development of LDC coal deposits.
The Role of the World Bank

15. In January 1979, the Bank's Executive Directors approved a lending program of 2-4 coal/lignite projects a year with a Bank contribution of approximately US$100-200 million annually, including 1-2 exploration/engineering projects per year. One coal exploration/engineering loan has already been made to Indonesia. For FY80 four coal loans, including two exploration/engineering loans are in preparation, totalling US$118 million. For FY81 and 82, three coal loans each year totalling an estimated US$460 million are programmed. The total investment supported by Bank financing in these three years is estimated at US$ 2.5 billion. The World Bank will seek to associate private loan and equity financing, as well as public financing with these projects to help increase the sources of capital for this sector.

16. To accelerate coal lending in the future, additional engineering loans are being identified through coal sector surveys scheduled in 2-3 countries a year and through the general energy surveys and pre-appraisal/appraisal work in connection with Bank-financed oil and gas projects. These sector missions serve to discuss with governments their energy development policies. Pricing and other policies in this sector largely will influence the economics of coal exploration and development. The Bank has also started the systematic updating of country coal data on a periodic basis. The International Finance Corporation is also prepared to finance coal projects and has presently two investments in this sector under consideration.
## DEVELOPING COUNTRIES

<table>
<thead>
<tr>
<th>Country</th>
<th>1977</th>
<th>1980</th>
<th>1985</th>
<th>1990</th>
<th>Growth Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Botswana</td>
<td>3,500</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Morocco</td>
<td>(96)</td>
<td>0.6</td>
<td>0.9</td>
<td>1.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Namibia</td>
<td>80</td>
<td>0.4</td>
<td>1.0</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Nigeria</td>
<td>90</td>
<td>0.3</td>
<td>0.3</td>
<td>1.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Rhodesia</td>
<td>755</td>
<td>2.5</td>
<td>4.0</td>
<td>4.6</td>
<td>5.2</td>
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<tr>
<td>Swaziland</td>
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<td>0.1</td>
<td>0.5</td>
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</tr>
<tr>
<td>Zaire</td>
<td>(73)</td>
<td>001</td>
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<td>0.1</td>
<td>0.1</td>
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<tr>
<td>Zambia</td>
<td>73</td>
<td>0.8</td>
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<tr>
<td>Tanzania</td>
<td>(360)</td>
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<td>2/</td>
<td>2.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Burundi</td>
<td>n.a.</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
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<tr>
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<tr>
<td>Angola</td>
<td>(500)</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
</tr>
<tr>
<td>Cameroon</td>
<td>(500)</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
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<tr>
<td>Benin</td>
<td>n.a.</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
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</tr>
<tr>
<td>Egypt</td>
<td>(80)</td>
<td>2/</td>
<td>2/</td>
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<tr>
<td>Ethiopia</td>
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<td>2/</td>
<td>2/</td>
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<tr>
<td>Malagasy</td>
<td>(92)</td>
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<tr>
<td>Malawi</td>
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<tr>
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<td>2/</td>
<td>2/</td>
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<tr>
<td>Sierra Leone</td>
<td>n.a.</td>
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<td>2/</td>
<td>2/</td>
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<tr>
<td>Somalia</td>
<td>n.a.</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
</tr>
<tr>
<td>Tunisia</td>
<td>n.a.</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
<td>2/</td>
</tr>
<tr>
<td>Total Africa</td>
<td>7,220</td>
<td>5.0</td>
<td>8.3</td>
<td>15.4</td>
<td>33.9</td>
</tr>
</tbody>
</table>

| Asia           |      |      |      |      |                 |
| Afghanistan    | (85) | 0.2  | 0.2  | 0.6  | 1.0             |
| India          | 33,700| 104.7| 125.0| 145.0| 190.0           |
| Indonesia      | 1,430| 0.2  | 0.2  | 2.7  | 7.5             |
| Iran           | 193  | 0.9  | 1.0  | 1.5  | 6.6             |
| Pakistan       | (1,375)| 1.0  | 1.5  | 2.0  | 3.0             |
| Philippines    | (67) | 0.3  | 0.3  | 1.6  | 4.0             |
| Korea          | 386  | 15.3 | 19.0 | 22.0 | 25.0            |
| Taiwan         | (680)| 2.9  | 4.0  | 5.0  | 6.0             |
| Turkey         | 793  | 7.4  | 9.8  | 13.0 | 16.2            |
| Viet-Nam       | (3,000)| 6.0  | 10.0 | 15.0 | 20.0            |
| Thailand       | (78) | 0.2  | 0.5  | 2.0  | 6.0             |
| Burma          | (280)| 2/   | 2/   | 2/   | 2/              |
| Bangladesh     | 519  | 2/   | 2/   | 2/   | 2/              |
| Brunei         | (1)  | 2/   | 2/   | 2/   | 2/              |
| Cambodia       | n.a. | 2/   | 2/   | 2/   | 2/              |
| Laos           | n.a. | 2/   | 2/   | 2/   | 2/              |
| Total Asia     | 38,583| 136.1| 171.5| 210.4| 262.7           |

| Latin America  |      |      |      |      |                 |
| Argentina      | 280  | 0.5  | 2.3  | 3.5  | 7.5             |
| Brazil         | 8,098| 3.5  | 6.4  | 8.0  | 16.0            |
| Chile          | 162  | 1.2  | 2.0  | 2.5  | 7.5             |
| Colombia       | 443  | 3.7  | 5.0  | 10.0 | 20.0            |
| Mexico         | 875  | 6.0  | 6.7  | 8.0  | 9.3             |
| Peru           | 105  | 2/   | 0.2  | 0.3  | 0.4             |
| Venezuela      | 978  | 0.1  | 1.2  | 5.0  | 8.8             |
| Bolivia        | n.a. | 2/   | 2/   | 2/   | 2/              |
| Costa Rica     | n.a. | 2/   | 2/   | 2/   | 2/              |
| Ecuador        | (22) | 2/   | 2/   | 2/   | 2/              |
| Guatemala      | n.a. | 2/   | 2/   | 2/   | 2/              |
| Honduras       | (0.2)| 2/   | 2/   | 2/   | 2/              |
| Panama         | n.a. | 2/   | 2/   | 2/   | 2/              |
| Total Latin America | 10,971| 15.0| 23.8| 37.3| 69.5 |

| Europe         |      |      |      |      |                 |
| Yugoslavia     | 8,465| 19.8 | 29.5 | 38.2 | 46.0            |
| TOTAL DEVELOPING COUNTRIES | 65,219| 175.0| 233.1| 301.3| 432.1 |

* Annual growth rate in excess of 50% due to very low 1977 production base; n.a. - not available.
1/ Figures in parenthesis represent "geological resources," since no "reserve" data available.
2/ Output below 0.1 million tce in 1977.

Industrial Project Department
May 1979