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REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL DEVELOPMENT ASSOCIATION
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED DEVELOPMENT CREDIT
TO THE
PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN
FOR A
THIRD HIGHWAY PROJECT

April 29, 1981

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CURRENCY EQUIVALENTS

<u>Currency Unit</u>	=	<u>Calendar 1980</u> <u>Yemeni Dinars (YD)</u>	<u>April 1981</u> <u>YD</u>
US\$1	=	YD 0.345	0.345
YD1	=	US\$2.90	2.90

Fiscal Year

April 1 to March 31	(prior to 1975)
April 1 to December 31	(1975)
January 1 to December 31	(from 1976)

GLOSSARY OF ABBREVIATIONS

HA	-	Highways Authority
ICB	-	International Competitive Bidding
ICU	-	Independent Construction Unit
MOC	-	Ministry of Construction
MOP	-	Ministry of Planning
PCLT	-	Public Corporation for Land Transport
PDRY	-	People's Democratic Republic of Yemen
UK	-	United Kingdom
UNDP	-	United Nations Development Program
USSR	-	Union of Soviet Socialist Republics
WFP	-	World Food Program
YAR	-	Yemen Arab Republic

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

THIRD HIGHWAY PROJECT

CREDIT AND PROJECT SUMMARY

Borrower: People's Democratic Republic of Yemen

Amount: SDRs 10.3 million (about US\$12.5 million equivalent)

Terms: Standard IDA

Project Description:

The project seeks to promote the social, economic and administrative integration of the country by improving access to the towns of Ataq, As Said and Nisab, in the presently isolated Shabwah Governorate, through construction of a two-lane paved road (92 km). This road is also expected to stimulate agricultural production in the vicinity of these towns. It would also strengthen PDRY's road construction capabilities (i) through about 130 manmonths of consultants assistance to the Ministry of Construction (MOC) for improvement of project preparation capabilities, management, and operations of the MOC's construction units, including the independent construction unit (ICU) established under the project and (ii) through training of MOC and ICU staff including about 90 manmonths of long and short-term overseas fellowships. The principal beneficiaries of the road construction would be road users and the cooperatives, state farms and individual farmers responsible for the marketed surplus of the region's crops. The current level of activity in the zones of influence is sufficiently high to indicate that the road is economically justified on the basis of the existing level of agricultural production. The risks to the project such as delay in the commencement or completion of road construction are not significant as indicated by the sensitivity analyses.

<u>Estimated Cost:</u> ^{1/}	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----US \$ Million-----		
Establishment of ICU	0.9	7.5	8.4
Construction of Naqabah-Nisab road (92 km)	7.2	18.6	25.8
Technical Assistance for MOC	0.2	1.2	1.4 ^{2/}
Training	<u>0.1</u>	<u>0.6</u>	<u>0.7</u>
Base Cost	8.4	27.9	36.3
Physical Contingencies	0.5	1.4	1.9
Price Contingencies	<u>0.4</u>	<u>4.2</u>	<u>4.6</u>
 Total Project Cost	 <u>9.3</u>	 <u>33.5</u>	 <u>42.8</u>

1/ Not including duties and taxes from which the project is exempt.

2/ Including US\$400,000 retroactive financing for project preparation.

<u>Financing Plan:</u>	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
	-----US \$ Million-----		
Government	9.3	-	9.3
IDA	-	12.5	12.5
Kuwait Fund	-	10.5	10.5
OPEC Fund	-	<u>10.5</u>	<u>10.5</u>
 Total	 <u>9.3</u>	 <u>33.5</u>	 <u>42.8</u>

<u>Estimated Disbursements:</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
	-----US \$ Million-----			
Annual	2.5	4.1	3.4	2.5
Cumulative	2.5	6.6	10.0	12.5

Estimated
Completion Date: December 31, 1984

Rate of Return: About 16 percent.

Staff Appraisal Report: No. 2250-YDR of April 17, 1981.

INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT OF THE IDA
TO THE EXECUTIVE DIRECTORS ON A PROPOSED DEVELOPMENT
CREDIT TO THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN
FOR A THIRD HIGHWAY PROJECT

1. I submit the following report and recommendation on a proposed development credit of SDRs 10.3 million (about \$12.5 million equivalent) on standard IDA terms to the People's Democratic Republic of Yemen (PDRY) to help finance a Third Highway Project. The Government is discussing with other external sources, the provision of \$21.0 million equivalent under joint and parallel financing arrangements toward the cost of the project.

PART I - THE ECONOMY ^{1/}

2. An economic mission to review the second Five-Year Plan ^{2/} visited PDRY in March-April 1979 and its report entitled "People's Democratic Republic of Yemen: Special Economic Report--The Second Five-Year Plan (1979-83)" (2683-YDR) dated January 25, 1980, was distributed to the Executive Directors on February 6, 1980. An updating economic mission is now in PDRY. Its preliminary findings will be incorporated into the President's Report for the Al Mukalla Water Supply Rehabilitation Project, scheduled for Board consideration in June, 1981. A country data sheet is attached as Annex I.

Development Objectives and Constraints

3. Over the past decade, the Government of PDRY has consistently pursued a strategy of developing the country within the context of a socialist society. The principal objectives of the Government have been: (a) to satisfy the basic needs of the population for food, essential consumer goods, shelter, employment, health care and other social services; (b) to develop the production capacity of the economy, especially in agriculture, fisheries, industry, construction and minerals; (c) to strengthen the infrastructure sectors, i.e., transport, power and telecommunications; (d) to raise education standards, emphasizing technical and higher education; and (e) to increase exports of domestic products.

4. In pursuing these objectives, the Government relied primarily on a strong public sector and on cooperatives. Major institutional reforms were initiated with the nationalization of foreign properties in 1969 which brought the bulk of the modern service activities in and around Aden (banking, insurance, shipping, trading) under Government control. Subsequent investment in manufacturing, power, construction and mineral exploration has given the

^{1/} Part I and Annex I of this report are identical to those in the President's Report for the proposed Wadi Beihan Agricultural Development Project, which is to be considered by the Executive Directors on the same date as the proposed project.

^{2/} This plan has recently been revised (see paras. 6 and 7).

public sector a dominant influence over industrial activities. Two agrarian reform laws enacted in 1968 and 1970 have fundamentally changed the land tenure conditions, breaking up large feudal holdings. Simultaneously, new farm organizations--state farms and production cooperatives--were created to facilitate the introduction of modern cultivation and marketing techniques. Fishing and consumer cooperatives were also established. More recently, two of the remaining foreign-owned installations--the Aden Refinery (British Petroleum) and an international communications facility (Cable and Wireless)--were transferred by mutual consent to the Government of PDRY.

5. Private enterprises have been allowed to exist mainly in trade, manufacturing and construction. But the private sector was given a subsidiary role and private entrepreneurs are expected to follow the lead of the public sector. Cooperation between public and private enterprises is encouraged in some areas, such as light industries, and a limited number of joint ventures are now active. Foreign private investors have been encouraged to participate in oil exploration.

6. Increasingly comprehensive economic and social planning is being used as the principal tool to implement PDRY's development objectives. In 1971 the Government launched its first development program, covering the three-year period 1971/72-1973/74. The program focussed largely on a number of public sector projects which were to be carried out with the help of foreign capital and technical assistance. It was followed by a more detailed Five-Year Plan (1974/75-1978), which in addition to the investment program, introduced specific targets for the major economic and social sectors. Work on the Second Five-Year Plan (SFYP) originally envisaged to cover the 1979-83 period had started in early 1979. However following a recommendation by the Council on Arab Economic Unity asking Arab countries to synchronize their five-year economic plans, the SFYP will now cover the 1981-85 period with 1979 and 1980 serving as transitional years. The revised SFYP is expected to be approved very shortly. It consists of a macro-economic framework, sector analyses and investment objectives. In addition to infrastructure and productive sectors the Plan covers such areas as foreign and domestic trade, manpower development, social sectors, and production planning. While still relying on technical assistance from foreign experts, the Government has substantially strengthened its own planning capability. Plan preparation and execution has thus become increasingly the responsibility of Yemeni staff in the Ministry of Planning, in technical ministries, and in public enterprises and cooperatives.

7. The latest available draft of the revised second Five-Year Plan, which is to be finalized shortly, shows that the Government continues to pursue the overall development objectives outlined in paragraph 3 above. It proposes a total investment of \$1,475 million (in 1980 prices) for 1981-85 of which 39 percent is allocated for infrastructure (including electric power), 19 percent for agriculture and fishing, 11 percent for industry including oil and mineral exploration, 4 percent for education, 17 percent for housing, and 10 percent for other services. The Plan assumes that about \$1,050 million (71 percent) will be financed through foreign capital, and the remaining \$425 million from domestic resources. The Plan calls for an overall growth target of 10 percent per annum with sectoral growth targets of 14 percent for industry, 9 percent each for agriculture and fisheries, and 11 percent for transport and communications.

8. In implementing the Plan the Government faces a number of constraints, the most important ones being limited natural resources, insufficient technical and managerial skills, low levels of productivity, and worsening labor shortages in the construction sector. A harsh climate severely limits the area available for cultivation, although substantial increases in agricultural output could be achieved through higher yields, and by substituting cash crops for subsistence agriculture. The narrow domestic market and few known raw materials limit the scope for industrial development. These constraints are compounded by the rugged topography which creates severe difficulties for internal transportation resulting in increased domestic transport cost.

9. Lack of adequately trained manpower is another major constraint. The Government has tried to fill the gap with bilateral and multilateral technical assistance, including UNDP which maintains a large program in PDRY. In addition, again with foreign assistance (including IDA), a large education and training program was launched and in recent years has become increasingly technically oriented. Supported by scholarships for higher education abroad and the establishment of technical training institutions in PDRY, the country is now generating a growing flow of technically trained people who could gradually reduce the shortage of skilled manpower.

10. Low productivity in the public and cooperative sectors, including the construction sector, is one of the principal problems faced by the Government. The reasons for this can be traced largely to inadequate incentive systems, weak management, shortage of trained manpower, lack of spare parts, and inadequate maintenance. The revised Plan recognizes these constraints and gives priority to measures aimed at increasing productivity. In this context, the Government has recently been engaged in the review of the structure of domestic prices aiming at selective price increases as incentives for agriculture producers and fishermen. Following this, farm gate prices of some agricultural products were raised by up to 50 percent in June 1979 and again in 1980 by a similar amount on a wider range of products; and producer and consumer prices for fish were increased in September 1979, and the consumer prices again in March 1980. These increases in prices for produce marketed through state channels have been accompanied by measures to permit farmers and fishermen, both as individuals and in cooperatives, to sell a portion of their output on the free market at prices substantially above state procurement prices.

Recent Economic Developments

11. The Government's emphasis on the public sector has led to a rapid increase in public spending. Priority was given to public investment which increased from \$4 million in 1970 to \$173 million in 1978. The allocation of investment funds appears to have been well chosen: half of all public sector investments during the first Five-Year Plan (1974/75-78) went to the commodity producing sectors with agriculture and fishing receiving 35 percent, and industry and mineral exploration 15 percent. A large share (32 percent) was invested in infrastructure (including electric power) while the remaining 18 percent was spent for education and other social services. The sharp increase in public investment was accompanied by a major expansion of current government spending on education, health and other public services.

12. High levels of investment and other public spending have accelerated the rate of economic growth. GDP at constant prices grew at an annual average rate of about 7 percent during 1973-78, compared with only 2 percent per annum during 1970-73. The major growth sectors were fishing, industry, construction, trade, transport and government services. Agricultural output increased only slowly, reflecting the productivity problems mentioned above. More recently industrial production has picked up mainly as a result of increased oil refining. GNP rose at a faster rate than GDP (12 percent per annum during 1973-78) due to a rapid increase in workers' remittances.

13. Substantial progress has been made in achieving a balanced income distribution, and in the development of social services. State ownership of production facilities and egalitarian wage/salary structures have reduced income differentials in the growing public sector. Supplies of basic foodstuffs and other essential consumer goods are readily available to the urban population. School enrollment has risen sharply, and health services have been significantly improved. However, large differences still persist in the standard of living between urban and rural areas. Rural incomes are estimated to be only about one-third of average urban incomes, although in some regions rural incomes are supplemented by remittances from family members working abroad. The basic reasons for rural poverty appear to be low productivity of the agricultural and fisheries sectors and possibly adverse terms of trade between these sectors and the rest of the economy. Solutions to the problem can therefore only be found in tackling these basic issues.

14. To sustain the massive increase in public spending for development (para. 11), the Government had to make a major effort in mobilizing financial resources. With a low per capita income, there were severe limitations on raising domestic resources. The principal instrument used in mobilizing domestic funds was taxation and until recently containment of Government employee salaries. However, these were increased in September 1979. New taxes have been introduced and tax collection improved. As a result, total government receipts rose from a level of 12 percent of GNP in 1969/70 to 21 percent in 1978. Government revenue continued to increase in 1979, especially self-financing by public enterprises from their retained profits which increased from \$4.9 million in 1978 to \$12.5 million in 1979, and again in 1980.

15. To supplement the insufficient domestic resources, the Government turned for help to friendly nations and international agencies. Increasing amounts of foreign aid were provided, largely by socialist countries, and more recently by Arab nations. In addition, PDRY received support from regional and international organizations, including IDA and the IMF. The exact amount of all foreign resources put at the disposal of the country is not known since some of the commodity aid has not been recorded either in the budget or in the balance of payments. But, on the basis of identifiable aid, it is estimated that aggregate disbursements including transfers rose from an average level of some \$8 million per annum during 1969/70-1971/72 to about \$131 million in 1978.

16. The rapid expansion of the public sector, especially the growth in investment, has induced a considerable flow of additional imports. The value of imports has more than quadrupled since the beginning of the decade, from an average of \$89 million per annum during 1970/71 to an estimated \$387 million in 1978, with further increases in 1979 and 1980. Besides the devaluation of the US dollar, this mainly reflects price increases for foodstuffs and petroleum products and the growing capital goods imports necessitated by the country's ambitious development program. The growth in import value has placed a heavy burden on PDRY's foreign exchange budget, all the more so as the country exports relatively little and thus benefits only marginally from price rises in the world markets.

17. Indigenous exports, mainly fish and cotton, have been able to cover only a minor share of the import bill. In 1978, they were estimated to be about \$18 million or some 5 percent of commodity imports. Much more important than commodity exports are PDRY's invisible earnings which are dominated by worker's remittances. The latter rose rapidly since the mid-1970s, increasing from \$56 million in 1975 to an estimated \$320 million in 1979, and to still higher levels in 1980. This has been due to rising wage levels in the oil surplus countries, to some additional emigration, and to new incentives which liberalized "own exchange" imports, allowed the construction of private dwellings, and offered higher interest rates to non-resident bank depositors.

Foreign Aid and External Debt

18. Fast growing exchange earnings and increasing disbursements from foreign aid (para. 15) have enabled PDRY in recent years to cover its import requirements and to strengthen its foreign reserves. The latter rose from \$55 million at end 1975 to \$212 million at end 1979, equivalent to almost half of the imports of that year.

19. The large inflow of foreign loans led to a rapid accumulation of PDRY's external public debt even though part of the aid was provided in the form of grants. Total debt outstanding (including undisbursed) as of end 1979 amounted to \$915 million, of which \$372 million was disbursed. Bilateral sources accounted for \$665 million or 73 percent of total commitments with the USSR providing the bulk (\$369 million), followed by China (\$142 million), other Eastern European countries (\$104 million), Arab countries (\$48 million) and by Denmark (\$2 million). Multilateral aid amounted to \$250 million including \$175 million from Arab Funds, and \$63 million from IDA. The average terms of all loans are highly concessionary giving a grant element of about 58 percent. In addition, PDRY has received about \$180 million (until the end of 1979) in grant assistance, mostly from Arab countries.

20. The soft terms of PDRY's external debt has resulted in relatively small debt service obligations. Debt service payments in 1979 were \$5 million or 1.4 percent of total exchange earnings from exports of goods and services (including workers' remittances). However, PDRY's debt service

obligations are projected to increase steadily in future years, which will exert additional pressure on its balance of payments. Therefore, in view of the above and the limited resources of the country, the Bank's assistance to PDRY should continue to be on IDA terms. For the same reason, local cost financing by IDA is justified.

21. In 1969, under Nationalization Law No. 37, the Government nationalized most of the foreign-owned enterprises (para. 4). This law provided for compensation in the form of 20-year Government bonds bearing interest of 2 percent. Twenty-five percent of the net annual profits of all the nationalized companies were to be used for servicing the bonds. In response, some of the foreign banks which were nationalized froze substantial Yemeni deposits which they had transferred abroad. Immediately after the promulgation of Law No. 37, the Government appointed a British firm of accountants of international repute to audit the accounts of all the nationalized companies and evaluate their assets. The audit report was submitted to the Government in September 1971. Settlements were reached soon after with three of the foreign banks involved. Agreements were finalized with three additional banks in 1977, with the oil companies in late 1977, early 1978, and in 1979 and with a development finance company in mid-1978. Contacts with other former owners have been maintained with a view to reaching mutually acceptable settlements. Dialogue with debtors has, however, been very slow since they have only recently responded to the Government's efforts to settle claims. The Government professes its desire to reach a mutually satisfactory solution with all claimant companies, and has expressed its willingness to consider such settlement outside the terms of the 1969 Nationalization Law.

PART II - WORLD BANK OPERATIONS 1/

22. IDA's lending program in PDRY supports the Government's long-range economic objective of broadening the base of a service-oriented economy centered around Aden, by developing the productive capacity of the other sectors of the economy and promoting investments in the outlying regions. Efforts have been directed towards projects in the transport sector, which would not only help to integrate the disparate regions of PDRY, but, more importantly, link production areas with the main markets. This will be continued. IDA will also continue to assist in agriculture, including the key fisheries subsector, education, water supply and sewerage, petroleum exploration and power. In addition new sectors being examined are industry and health. Technical assistance and institution-building will continue to be an integral feature of IDA projects in PDRY.

23. PDRY joined the Bank in 1969 and IDA in 1970, but is not a member of IFC. Assistance to PDRY commenced in 1971 and, after a pause of about two years (February 1976 to February 1978) because IDA funds allocated to PDRY for this period had been committed more rapidly than envisaged, resumed

1/ Part II is substantially the same as in the President's Report for the Wadi Beihan Agricultural Development Project, which is to be considered by the Executive Directors on the same date as the proposed project.

again in 1978. To date, IDA has had 15 operations in PDRY, for a total commitment of \$84.2 million. Of this total, \$20.3 million has assisted the transport sector, \$27.3 million the agriculture and fisheries sector, \$14.0 million the power and energy sector, \$9.4 million the education sector, and \$13.2 million the water supply sub-sector. Project implementation in PDRY is characterized by delays and in some cases cost overruns. Common causes of delay have included the time required to arrange the required cofinancing, difficulties in recruiting and retaining foreign advisors and in attracting foreign contractors, inexperience in project mobilization, and in recent years shortages of both skilled and unskilled manpower. But projects are in almost all cases being properly implemented even if delayed, and the difficulties faced are mitigated to a considerable degree by the generally positive attitude of the officials responsible for project implementation. Lessons learned from experience in earlier projects are being taken into account in our follow-up projects. Annex II contains a summary statement of IDA credits as of March 31, 1981, and notes on the execution of ongoing projects.

24. Future operations are both in the preparation and study stages. An agricultural development project in Wadi Beihan and a water supply project for the town of Mukalla will be presented to the Executive Directors in FY81. A second power project is under preparation, as is a third fisheries project, a third education project and a follow-up agricultural project in Wadi Hadramawt. Project possibilities in health, industry and a second petroleum exploration project are also under consideration. As in the recent past, the costs of future projects are expected to be substantially higher than the funds IDA can provide to PDRY. Therefore, efforts will be continued to encourage other development agencies to join IDA in the financing of suitable projects. From FY71 through FY80, IDA has been successful in securing through its projects about \$78 million of cofinancing from other aid donors (UNDP \$0.7 million, Kuwait Fund \$15.3 million, Arab Fund \$34.2 million, Islamic Development Bank \$5.5 million, Abu Dhabi Fund \$16 million, OPEC Fund \$3 million, and EEC \$3 million), thus helping to increase the inflow of development aid to the country.

PART III - THE TRANSPORT SECTOR

The Economic Geography of PDRY

25. Apart from the city of Aden (population 270,000), the 1.8 million inhabitants of PDRY live in small communities in a few widely scattered areas where water is available, and are separated from one another by considerable distances of empty desert and arid mountains. Cultivated areas account for only 0.3 percent of the country's total land area. The standard of living is low (per capita GNP in 1979 is estimated at \$500 principally

due to remittances) and the rural population is to a large degree self-sufficient, depending on small-scale agriculture where water is available.

26. PDRY's transport system is limited, reflecting the country's severe lack of resources and the limited economic development until recent years. At independence in 1967 there were only about 200 kms of surfaced roads, mostly in and around Aden. The rest of the country was served only by low-standard tracks or by limited air services using unpaved airstrips. Traditional dhows plied between Aden and Mukalla. Since then the Government has concentrated a substantial part of the national development budget on providing transport facilities to connect the nine principal populated areas which are also of agricultural importance (see map). Roads have been the primary means to connect these areas, since coastal shipping is handicapped by shallow coastal waters and the lack of ports other than at Aden and Mukalla; railways are impracticable due to the rugged terrain and low traffic volumes; and aviation is relatively high cost.

27. As a result of the expansion of the road network in recent years, many parts of PDRY are becoming more accessible. Road transport accounts for about 90 percent of both total passenger and freight traffic. There are no railways. Transport services are either state-owned or under close government regulation. Only the Shabwah Governorate (population 100,000) and the Al Gheidah Governorate (population 70,000) still face major transport difficulties. The proposed project primarily addresses the need for better roads in the Shabwah Governorate.

Transport Policy, Planning and Coordination

28. The Government continues to attach considerable importance to the role transport improvements can play in promoting the economic, social and administrative integration of the widely scattered populated areas of the country. The allocation to transport under the First Five-Year Plan (1974-78) was YD58 (\$174) million, or 24 percent of the capital budget, and transport projects actually absorbed 27 percent of total development outlays. The provisional transport sector allocation for the second Five-Year Plan (1981-85) is about YD93 (\$270 million) of which about YD40 (\$116 million) may go to roads. This is 8 percent of planned total expenditures.

29. Three ministries are responsible for the main aspects of the transport system: Construction (MOC) for roads, Communications for road transport services and shipping, and aviation, and Planning (MOP) for coordinating the planning of investments in the sector. Issues of road transport affecting both the Ministries of Construction and Communications are adequately coordinated informally by officials of the two ministries concerned.

Ports, Shipping and Civil Aviation

30. The port of Aden handles almost all of PDRY's foreign trade. General cargo traffic, though modest in absolute terms, is growing rapidly after several years of decline. In 1975, IDA and the Arab Fund financed the Aden Port Rehabilitation Project which is close to completion. The country's only other general cargo port is Mukalla, where a new port is under construction with the help of loans from the Arab Fund and the Kuwait Fund. Coastal shipping plays a limited role because of the shallow beaches and lack of harbors as does air traffic.

Highway Subsector

31. The backbone of the PDRY highway network is the 620 km long coastal road from Aden to Mukalla, which was started from Aden in the mid-1960s and completed to Mukalla in 1977. One other arterial road is paved, that from Aden to Kersh on the Yemen Arab Republic (YAR) border (about 100 km) but is in poor condition and is being upgraded (para. 36). The asphalt roads in and around Aden and other short stretches mostly in the western governorates bring the total length of asphalted roads in 1980 to about 1200 km, or 20 percent of the network. There are also some 255 km of cobblestone roads, mostly in the Wadi Hadramawt. The rest of the network is made up of unsurfaced tracks, estimated at about 4,400 km. Many of them are cut by flash floods and dune movements at different times of the year, and with few exceptions are only passable by four-wheel drive passenger vehicles and trucks.

32. Traffic volumes at 700-1,500 vehicles per day on roads in the Aden area, less than 300 vehicles per day on other paved roads, and less than 100 vehicles per day on the tracks, are generally low even on the paved roads. They reflect not only the difficulties of terrain and the long distances between communities, but also the modest size of the vehicle fleet, 13,000 vehicles in 1977, and the generally low level of vehicle utilization. The latter is due to the lack of adequate vehicle maintenance through shortage of spare parts and skilled mechanics, and many vehicles are out of action for long periods and/or scrapped after relatively short working lives. The training of automotive mechanics under the IDA Second Education Project is designed to help alleviate this serious problem.

Subsector Organization

33. Responsibility for the road network is divided between the MOC in charge of the construction and maintenance of the asphalted roads, and the governorate authorities, who maintain the rest of the network and carry out small-scale construction works. The MOC was reorganized in 1979 and comprises four main departments: administration, engineering, the Highway Authority (HA), and the General Directorate for Corporations (responsible for the construction units). Road investment planning is carried out at two levels in the MOC: (i) the Planning Unit, reporting directly to the Minister, which advises on policy issues and is responsible for sectoral planning in the MOC and for coordination with the MOP; and (ii) the Road Planning Unit of the Highway Authority which is responsible for the more technical aspects of project preparation and implementation.

34. The MOC's engineering department carries out highway design on smaller construction projects to the extent possible with its limited number of qualified staff. In this task it has received valuable assistance from two UNDP technical advisers. Major design such as the Mukalla-Wadi Hadramawt road are carried out by consultants or a bilateral aid team. Consultants, financed under the Second Highway Project, reviewed design standards and recommended that the maximum single axle-load limit be raised from 8 to 13 tons, which is adequate for the country's needs and in conformity with neighboring Saudi Arabia and YAR. The Government promulgated the appropriate regulations in 1980, and has agreed to take the necessary measures to ensure that the dimensions and axle loads of vehicles using the Borrower's roads do not exceed limits consistent with the road's design standards (Development Credit Agreement, Section 4.03).

35. The Government undertakes all road construction by its own construction units under the supervision of the Ministry of Construction. These construction units were set up following unsuccessful international tenders with high bids. The main reasons for the high bids have been limited prospects for continuing work in PDRY, more attractive work in richer neighboring gulf states and difficult local working conditions. Furthermore, there are no private sector civil engineering contractors in PDRY. The construction units operate independently, have their own accounting system and are assisted by bilateral aid experts and management consultants for the more complex works. The quality of construction is satisfactory and, as the units gain experience, it can be expected to improve. The proposed project would assist in further strengthening their construction capabilities. There are now four such construction units and a fifth unit, which is of a somewhat different nature (see para. 43), was established on March 24, 1981 for the construction of the project road located in the central part of PDRY. These construction units would also be entrusted at a later stage with the construction of the feeder roads and the maintenance of the road network.

36. Because of the shortage of domestically generated resources, construction projects have had to be financed with extensive external assistance, the Government often contributing less than 10 percent of total project cost. The People's Republic of China lent an estimated \$20 million towards the cost of the Aden-Mukalla road. The Mukalla-Wadi Hadramawt road was jointly financed by IDA (\$15.5 million) and the Kuwait Fund (\$15.3 million), while the Aden-Taiz road improvement is being financed entirely by the Arab Fund at a cost of about \$20 million for the section within PDRY (Aden to Kersh). The Association is also financing the construction of cobblestone feeder roads under its two agricultural projects: \$1.9 million under the Wadi Hadramawt project (1976) and \$100,000 under the Wadi Tuban project (1978). Other assistance has been received from the German Democratic Republic, the USSR, Hungary and the World Food Program (WFP).

Maintenance

37. As a result of a sustained effort over the last several years, including a doubling in the allocation of funds for maintenance, the MOC is now carrying out highway maintenance on the paved network at an adequate

level in money terms. The paved network is all relatively new and deliberately designed to keep maintenance to a minimum. Maintenance on the unpaved network, where there are blockages from dune movements and infrequent localized flash floods, is carried out on an 'ad hoc' basis by the individual Governorates, with some funding from the World Food Program (WFP). Until recently the MOC maintenance teams have been organized centrally, which inhibited prompt action. However, as the paved network grows and the value of maintenance is better understood, the MOC is moving to decentralize these activities. It is also considering entrusting maintenance operations on a contract basis to the construction units under its General Directorate for Corporations. Highway maintenance is adequate and is being supported by other donors for the time being. But the Government has indicated that it is interested in IDA assistance in financing a road maintenance project at some point in the future.

38. The MOC remains understaffed at all management levels. Useful on-the-job training was provided under the First Highway Project (1971 to 1974) and by bilateral technical assistance to the mechanical workshops, while the Association under the Second Highway Project, UNDP and bilateral sources have provided overseas fellowships for mid-level management and specialized trade candidates. The results have been mixed because of language difficulties and difficulties in finding suitably qualified candidates. In 1977 the Government established a construction industries training center under the supervision of the MOC. The proposed project provides for continuation of training, this time particularly for construction and maintenance supervisors and site managers, including some overseas fellowships.

Road Transport Services

39. Public passenger transport is controlled by the Public Corporation for Land Transport (PCLT), an agency of the Ministry of Communications. It operates the main bus services and regulates privately owned passenger transport. Most government corporations and agencies operate their own truck fleets. Common-carrier trucking is still predominantly in the hands of private owner-operators, under regulation by the PCLT. The PCLT has also recently established its own fleet of trucks, which it intends to build up to take over all common-carrier trucking from the private sector. Rates and fares are high because of high operating costs and overheads and the large number of vehicles out of action for long periods. The Government is considering recommendations to improve road transport services, made by consultants financed by IDA under the Second Highways project.

Previous Transport Projects

40. IDA has financed three projects in PDRY's transport sector to date: the First Highway (Credit 240-YDR), Second Highway (560-YDR), and Aden Port Rehabilitation (Credit 584-YDR). The first Highway project was completed in December 1975 and was reasonably successful in attaining its objective of organizing the Highway Authority and providing technical assistance. However completion was about two years late, due to delays in procuring equipment, partly because the Government was unfamiliar with the

Bank's Procurement Guidelines. There were also shortages of qualified counterpart staff. The Project Performance Audit Report (PPAR)(dated March 13, 1978) concluded that continued effort was required over several successive projects for institution building. The status of the other two projects which are being implemented satisfactorily are referred to in Annex II. Implementation experience, discussed elsewhere in this chapter under the relevant headings, has been generally satisfactory despite difficulties in attracting foreign contractors and qualified expatriate advisors. Delays have resulted but their impact has been mitigated by the responsiveness of the Yemeni authorities responsible for implementation. The lessons learned from previous transport projects have been taken into account in the proposed project, which would include substantial provisions for training and technical assistance.

PART IV - THE PROJECT

Introduction

41. The proposed Third Highway Project was identified in a preliminary feasibility study under the First Highways Project. The Second Highways Project accordingly included a full feasibility study of a 300-km paved road linking the main towns of the Shabwah Governorate. The first phase of this study, completed in January 1978, confirmed that construction of the first 92 km was economically justified at that time. The Government requested IDA's assistance in financing this road as an important link in the planned primary network and the first priority after the Mukalla-Wadi Hadramawt and Aden-Kersh roads now under construction. Simultaneously, technical assistance needs were identified by supervision missions during 1977 and 1978, aided by the findings of the advisors to the MOC in highway economics provided under the Second Highway Project. An appraisal mission visited PDRY in June 1978. Reappraisal took place in October, 1980. Negotiations were held in Washington, D.C. in March/April 1981. The PDRY delegation was led by Mr. Al-Attas, Minister of Construction. A report entitled "Staff Appraisal Report on a Third Highway Project in the People's Democratic Republic of Yemen" (No. 2250-YDR, dated April 17, 1981) is being circulated separately to the Executive Directors. A map showing the proposed highway is attached to this report. Special conditions in the Credit Agreement are summarized in Annex III.

Background

42. As noted in the preceding paragraph there was a two-year hiatus in the preparation of this project. This was because the cost estimates for the project based on the original design standards doubled once detailed engineering was completed in late 1978. The design standards called for a 6 meter wide road with an 8 percent maximum gradient, 80 meter curves and bridges. Given its limited experience with internationally procured civil works, the Government decided to call for bids, conducted according to IDA's

Procurement Guidelines, before firming up the financing plan. The six responses were opened in February 1980 and all were substantially above the updated cost estimates. The Government decided to reduce costs through design changes in the project by increasing gradients and sharpening curves and then negotiated with the lowest bidder, a national independent construction unit organized as a contractor (para. 43). The result was a 35 percent reduction in costs. This process was completed in September 1980, and the Government requested IDA to reappraise the project. The construction standards proposed are appropriate for traffic safety, traffic demand and the economic and social needs of the areas served. The Government may make additional design modifications to reduce costs during construction in the light of its initial implementation experience. The Government has agreed to construct the project road in accordance with a program that includes design standards agreed with IDA (Development Credit Agreement, Section 3.04).

43. Of the six original bidders, five were foreign and one, the low bidder, was the construction unit to be established by the Government in the Shabwah Governorate. It was included in the tender as an independent bidder under conditions specified in the bidding documents which were approved by IDA (see paras. 51 and 52 for additional information).

Project Objectives

44. The proposed project would promote social, economic and administrative integration of the country, by improving access to the towns of Ataq, As Said and Nisab, and indirectly to the Wadi Beihan in the Shabwah Governorate and by stimulating agricultural production in the vicinity of the above towns. It would also help strengthen PDRY's road construction capabilities.

Project Description

45. The project would consist of: (i) the establishment of an independent construction unit for the Shabwah Governorate; (ii) the construction of a two-lane paved road from the Aden-Mukalla highway at Naqabah to Nisab (92 km) via Ataq, the capital of the Shabwah Governorate, with a branch serving As Said; (iii) technical assistance to the MOC to strengthen project preparation and implementation capabilities, and for construction supervision and monitoring of the project road; and (iv) training in all aspects of MOC operations, and in management and operations of a road construction unit, including overseas fellowships.

46. The project road would comprise a 92 km priority section of the 300 km road linking the main towns of the Shabwah Governorate and one of the PDRY's four main agricultural areas with the rest of the country. The existing road is a non-engineered track and is inadequate to serve traffic demand. The road would link the three main towns of the central part of the Shabwah governorate: As Said (population 17,000), Ataq (9,000) and Nisab (22,000). The area served by the road has a good potential for cultivating

high-value cash crops including fresh fruit and vegetables for the Aden market, provided that the transport obstacles can be overcome. The International Fund for Agricultural Development (IFAD) is financing an agricultural project in the Nisab area, and IDA is proposing to finance the Wadi Beihan Agricultural Development Project with an \$8 million credit to be presented to the Executive Directors in FY81.

47. Under the technical assistance component, about 130 manmonths of technical assistance would help to strengthen the MOC's project preparation capabilities, its ability to review the investment, procurement and work programs of all the construction units, and to improve management operations within the units. The same team would also be responsible for construction supervision of the project road, and would assist the MOC with project monitoring (see para. 51).

48. Training would cover project management, construction, planning and management, workshop management, equipment operation and maintenance, survey and road design, and cost accounting and control. It would also include about 60 manmonths of postgraduate overseas training for MOC staff and about 30 manmonths of short-term overseas fellowships for qualified ICU staff. The details of this training program were agreed with the Government at negotiations.

Cost Estimates and Financing

49. The project cost estimate, which includes \$400,000 of retroactive financing for project preparation (see para. 53), is based on actual contract prices as of January, 1981, taking into account the revised construction standards, and the fee for the management consultants. The cost of technical assistance is based on an average manmonth rate of \$10,000. This is an appropriate cost for consultant firms in PDRY. A physical contingency of 10 percent on the quantity related items is estimated for road construction and consultants' services. Price contingencies on foreign costs are compounded annually at a rate of 9 percent (1981), 8.5 percent (1982) and 7.5 percent thereafter; and on local costs at a rate of 4 percent (1981) and 2 percent thereafter. The local rates are low because strict price controls would be applied to the project during the construction period. The total cost of the project exclusive of duties and taxes, which are not applicable to development projects in PDRY, is estimated at \$42.8 million with a foreign exchange cost of \$33.5 million and a local cost of \$9.3 million.

50. The foreign exchange cost of the project would be financed by the proposed IDA credit of \$12.5 million, a proposed Kuwait Fund loan of \$10.5 million equivalent, and a proposed OPEC Fund loan of \$10.5 million. The Government would finance the balance of \$9.3 million corresponding to the estimated local costs. Because of the shortage of local resources (see para. 20), the Government continues to seek an increase in the Kuwait Fund loan to finance part of the local costs. The OPEC Fund loan would parallel finance the equipment purchases for the establishment of ICU and jointly finance part of the construction works. IDA and the Kuwait Fund would jointly finance the construction works, the technical assistance and

training. The signing of the Kuwait Fund loan agreement and the effectiveness of the OPEC Fund loan agreement would be conditions of effectiveness of the IDA credit agreement (Development Credit Agreement, Section 6.01(a) and (b)).

Implementation

51. Project implementation would be the responsibility of MOC through its General Directorate for Corporations, responsible in turn for the construction unit (ICU), legally constituted in March 1981, which would construct the project road, and through the Highways Authority (HA) for construction supervision. MOC would be assisted by consultants in the supervision of the ICU and the other construction units, in management and operation of the ICU, in construction supervision and in project monitoring. The Government has agreed to retain consultants whose qualifications, experience and terms of reference would be satisfactory to IDA (Development Credit Agreement, Section 3.02). The ICU, for which the construction of the project road would be its first operation, would be managed and operated by qualified management consultants who were selected in accordance with procedures satisfactory to IDA before they prepared the ICU bid. The ICU would have freedom to act as a contractor in that it may: (a) hire expatriate and local staff at competitive and incentive wage rates; and (b) import construction materials, vehicles, equipment and spare parts as needed. It would also be provided with adequate working capital and equipment by the Government (Development Credit Agreement, Section 3.03(a) and (b)). The ICU would also be responsible for the maintenance of the project road, as well as for the construction and maintenance of any economically justified feeder roads in the Shabwah Governorate that may be built at a later date. Yemeni nationals would gradually assume the tasks initially performed by management consultants. Therefore, close monitoring of project implementation would benefit future operations of the construction unit. Furthermore, monitoring of the effects of the road construction on economic activity in the zone of influence would enable the Government to decide the proper timing for construction of the road to Beihan and any other feeder roads. Terms of reference for the consultants were agreed with IDA at negotiations. The Government would be assisted in this monitoring by the consultants referred to above. The Government has agreed as a condition of credit effectiveness to enter into a contract with ICU on terms and conditions satisfactory to IDA (Development Credit Agreement, section 6.01(c)). It is expected that the project road would be completed by December 31, 1984.

Procurement and Disbursement

52. Bidding for the civil works in accordance with IDA's "Guidelines for Procurement" took place in February 1980. The lowest evaluated bid was from the independent construction unit (ICU) for whom a bid was prepared by qualified management consultants selected in consultation with IDA (see para. 51). The same consultants who assisted in the preparation of the ICU bid would be retained for management of the construction works (see para. 51). The equipment required to establish the ICU would be procured either

according to MOC procurement regulations or in accordance with the guidelines of the OPEC Fund.

53. Disbursements from the credit account would be made on the basis of 40 percent of the total construction cost of the Naqabah-Nisab road, 100 percent of the foreign exchange cost of consultant services for project preparation, 50 percent of the foreign exchange cost of consultant services for technical assistance, 100 percent of the foreign exchange cost for postgraduate training of MOC staff, and 50 percent of the foreign exchange cost for training ICU staff. Retroactive financing, for expenditures incurred after March 1, 1981 and in an amount not exceeding \$400,000 equivalent would be made for consultants services to assist the MOC with project preparation (Development Credit Agreement, Schedule 1(paragraph 4)).

Benefits and Risks

54. The proposed project is primarily designed to improve the one access road, from the coastal region to the Naqabah-Ataq-Nisab area, and the Wadi Beihan beyond, which is now in very poor condition. The economic return from savings in transport cost alone is estimated at 16 percent. In addition, agricultural production would be stimulated by the provision of the paved road, but these additional benefits would constitute only a 10 percent increase in total benefits in about ten years.

55. Most of these benefits would accrue in the first instance to: (a) the owners of vehicles, that is private owner-operators and government-owned transport operators, trading and distribution companies, and (b) to the cooperatives, state farms and individual farmers responsible for most of the marketed surplus of the region's crops. As transport costs decline, the Government's system-wide regulation of rates and fares would enable it, if it so decides, to lower rates and fares so that vehicle operating savings are passed on to public users of common carriers.

56. The sensitivity of the economic return has been tested by assuming a decrease of 25 percent in benefits, an increase of 20 percent in construction costs, and a one-year extension (40 percent) in the construction period. With these assumptions, the economic return would still be 10 percent. The economic justification of the project is more sensitive to a reduction in benefits than to an increase in costs. The net present value of the project, at a 10 percent discount rate, becomes negative either when transport cost savings are 43 percent lower or when construction costs are 74 percent higher than estimated.

57. It is not practicable to quantify the benefits of the "excess" construction capacity that would be built up under the project but not fully used during its life. The investment is however justified because experience has shown that PDRY will continue to rely on its own construction capacity to implement its roads investment programs at reasonable cost and because the residual equipment and installations would be used to construct other economically justified road projects in the Shabwah Governorate, principally the continuation of the road to Wadi Beihan (160 km).

58. Farmers in the road's zone of influence may not be willing to adopt Government programs to promote cash crops in replacement of subsistence crops, and the groundwater supply may prove disappointing. However, the current level of activity in the zone of influence, as reflected in existing traffic, is sufficiently high to indicate that the road is economically justified even if the projected benefits from agriculture are not realized. Risks to the project such as delay in commencement or completion of road construction are fairly small now that the contract for the work has been awarded, and in any case are not significant as indicated by the sensitivity analyses.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

59. The draft Development Credit Agreement between the People's Democratic Republic of Yemen and the Association and the Recommendation of the Committee provided for in Article V, Section 1(d) of the Articles of Agreement of the Association are being distributed to the Executive Directors separately. Special conditions of the project are listed in Section III of Annex III. Additional conditions of effectiveness include the signing of the Kuwait Fund loan agreement, the effectiveness of the OPEC Fund loan agreement, and the completion of a contract by the Borrower with the independent construction unit which is satisfactory to IDA (Development Credit Agreement, Section 6.01(a), (b) and (c)).

60. I am satisfied that the proposed credit would comply with the Articles of Agreement of the Association.

PART VI - RECOMMENDATION

61. I recommend that the Executive Directors approve the proposed credit.

Robert S. McNamara
President

Attachments
April 29, 1981
Washington, D.C.

TABLE JA
YEMEN PDR - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	YEMEN PDR			REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{1/4}	
	1960 ^{1/b}	1970 ^{1/b}	MOST RECENT ESTIMATE ^{1/b}	MIDDLE INCOME NORTH AFRICA & MIDDLE EAST	MIDDLE INCOME LATIN AMERICA & CARIBBEAN
TOTAL	133.0				
AGRICULTURAL	93.3				
GNP PER CAPITA (US\$)	..	..	500.0	818.5	1562.9
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	299.0	463.0	523.0	545.0	1055.9
POPULATION AND VITAL STATISTICS					
POPULATION, MID-YEAR (MILLIONS)	1.3	1.5	1.8	.	.
URBAN POPULATION (PERCENT OF TOTAL)	28.0	32.1	34.3	45.7	63.4
POPULATION PROJECTIONS					
POPULATION IN YEAR 2000 (MILLIONS)			3.0	.	.
STATIONARY POPULATION (MILLIONS)			6.0	.	.
YEAR STATIONARY POPULATION IS REACHED			2125	.	.
POPULATION DENSITY					
PER SQ. KM.	4.0	4.5	5.4	40.7	28.1
PER SQ. KM. AGRICULTURAL LAND	14.0	16.0	19.0	598.6	81.7
POPULATION AGE STRUCTURE (PERCENT)					
0-14 YRS.	45.3	44.1	46.7	44.0	41.4
15-64 YRS.	52.0	53.2	50.7	52.5	54.7
65 YRS. AND ABOVE	2.7	2.7	2.6	3.5	3.9
POPULATION GROWTH RATE (PERCENT)					
TOTAL	1.9	1.9/c	1.9/c	2.6	2.7
URBAN	6.0	3.2	3.4	4.5	4.1
CRUDE BIRTH RATE (PER THOUSAND)					
	54.0	54.0	48.0	41.6	34.8
CRUDE DEATH RATE (PER THOUSAND)					
	30.0	26.0	21.0	13.7	8.9
GROSS REPRODUCTION RATE					
	..	3.5	3.5	2.9	2.5
FAMILY PLANNING					
ACCEPTORS, ANNUAL (THOUSANDS)	..	..	..	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	..	..	16.2	..
FOOD AND NUTRITION					
INDEX OF FOOD PRODUCTION PER CAPITA (1969=71=100)					
	100.0	92.0	103.0	93.5	106.9
PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)					
	84.0	91.0	91.0	103.6	107.4
PROTEINS (GRAMS PER DAY)					
	31.0	33.0	35.0	69.8	65.6
OF WHICH ANIMAL AND PULSE					
	18.0	16.0	18.9	17.5	33.7
CHILD (AGES 1-4) MORTALITY RATE					
	54.0	38.0	31.0	17.5	8.4
HEALTH					
LIFE EXPECTANCY AT BIRTH (YEARS)					
	36.0	40.0	44.0	54.4	63.1
INFANT MORTALITY RATE (PER THOUSAND)					
	..	..	..	..	66.5
ACCESS TO SAFE WATER (PERCENT OF POPULATION)					
TOTAL	..	..	24.0	62.5	65.9
URBAN	..	..	30.0	82.9	80.4
RURAL	..	..	5.0	45.1	44.0
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)					
TOTAL	..	..	..	..	62.3
URBAN	..	..	..	..	79.4
RURAL	..	..	..	..	29.6
POPULATION PER PHYSICIAN					
	..	32380.0	7411.0	4688.7	1849.2
POPULATION PER NURSING PERSON					
	..	..	1565.0	1751.5	1227.5
POPULATION PER HOSPITAL BED					
TOTAL	1154.0	978.0	660.0	635.5	480.3
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
ADMISSIONS PER HOSPITAL BED					

HOUSING					
AVERAGE SIZE OF HOUSEHOLD					
TOTAL	..	..	..	..	..
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
AVERAGE NUMBER OF PERSONS PER ROOM					
TOTAL	..	..	..	..	..
URBAN	..	..	..	..	..
RURAL	..	..	..	..	..
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)					
TOTAL	..	..	22.0/d	..	..
URBAN	..	..	..	..	..
RURAL	..	..	1.6/d	..	..

TABLE 3A
YEMEN PDR - SOCIAL INDICATORS DATA SHEET

YEMEN PDR		REFERENCE GROUPS (WEIGHTED AVERAGES - MOST RECENT ESTIMATE) ^{/d}				
		1960 ^{/b}	1970 ^{/b}	MOST RECENT ESTIMATE ^{/b}	MIDDLE INCOME NORTH AFRICA & MIDDLE EAST	MIDDLE INCOME LATIN AMERICA & CARIBBEAN
EDUCATION						
ADJUSTED ENROLLMENT RATIOS						
PRIMARY:	TOTAL	13.0	61.0	77.0	76.4	99.7
	MALE	20.0	96.0	99.0	92.2	101.0
	FEMALE	5.0	24.0	54.0	59.9	99.4
SECONDARY:	TOTAL	5.0	10.0	26.0	33.3	34.4
	MALE	8.0	15.0	39.0	41.9	33.5
	FEMALE	2.0	4.0	13.0	24.2	34.7
VOCATIONAL ENROL. (% OF SECONDARY)		5.0	3.0	2.0	9.8	38.2
PUPIL-TEACHER RATIO						
PRIMARY		29.0	31.0	30.0	39.2	30.5
SECONDARY		21.0	20.0	23.0	23.1	14.5
ADULT LITERACY RATE (PERCENT)		..	..	27.1/ ^a	39.7	76.3
CONSUMPTION						
PASSENGER CARS PER THOUSAND						
POPULATION		9.0	7.0	7.1	15.3	43.0
RADIO RECEIVERS PER THOUSAND						
POPULATION		54.0	54.0	59.0	139.6	245.3
TV RECEIVERS PER THOUSAND						
POPULATION		2.5	15.0	19.0	29.0	84.2
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION						
		..	1.0	..	22.2	63.3
CINEMA ANNUAL ATTENDANCE PER CAPITA						
		..	2.4	..	2.8	..
LABOR FORCE						
TOTAL LABOR FORCE (THOUSANDS)						
		342.2	395.1	433.1	..	..
FEMALE (PERCENT)						
		4.2	4.8	5.0	9.6	22.2
AGRICULTURE (PERCENT)						
		70.0	64.7	60.0	47.0	37.1
INDUSTRY (PERCENT)						
		14.6	17.6	21.0	23.8	23.5
PARTICIPATION RATE (PERCENT)						
TOTAL		28.2	27.4	26.6	26.1	31.5
MALE		33.4	31.5	49.8	47.4	48.9
FEMALE		2.3	2.7	2.7	4.7	14.0
ECONOMIC DEPENDENCY RATIO		1.7	1.8	2.0	1.9	1.4
INCOME DISTRIBUTION						
PERCENT OF PRIVATE INCOME RECEIVED BY						
HIGHEST 5 PERCENT OF HOUSEHOLDS						
	
HIGHEST 20 PERCENT OF HOUSEHOLDS						
	
LOWEST 20 PERCENT OF HOUSEHOLDS						
	
LOWEST 40 PERCENT OF HOUSEHOLDS						
	
POVERTY TARGET GROUPS						
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN		..	..	..	262.5	..
RURAL		..	..	140.0	140.4	190.8
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN		..	..	90.0	202.1	474.0
RURAL		..	..	87.0	122.2	332.5
ESTIMATED POPULATION BELOW ABSOLUTE POVERTY INCOME LEVEL (PERCENT)						
URBAN		..	..	..	22.1	..
RURAL		..	..	20.0	33.1	..

.. Not available
 . Not applicable.

NOTES

^{/a} The group averages for each indicator are population-weighted arithmetic means. Coverage of countries among the indicators depends on availability of data and is not uniform.

^{/b} Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961; for 1970, between 1969 and 1971; and for Most Recent Estimate, between 1974 and 1978.

^{/c} Birth and death rates are crude estimates. The natural rate of increase does not agree with observed population growth rate; ^{/d} percent of population; ^{/a} age 10 years and over.

Most recent estimate of GNP per capita is for 1979, all other data are as of April, 1980.

DEFINITIONS OF SOCIAL INDICATORS

Notes: Although the data are drawn from sources generally judged the most authoritative and reliable, it should also be noted that they may not be internationally comparable because of the lack of standardized definitions and concepts used by different countries in collecting the data. The data are, nonetheless, useful to describe orders of magnitude, indicate trends, and characterize certain major differences between countries.

The reference groups are (1) the same country group of the subject country and (2) a country group with somewhat higher average income than the country group of the subject country (except for "Capital Surplus Oil Exporters" group where "Middle Income North Africa and Middle East" is chosen because of stronger socio-cultural affinities). In the reference group data the averages are population weighted arithmetic means for each indicator and shown only when at least half of the countries in a group has data for that indicator. Since the coverage of countries among the indicators depends on the availability of data and is not uniform, caution must be exercised in relating averages of one indicator to another. These averages are only useful in comparing the value of one indicator at a time among the country and reference groups.

LAND AREA (thousand sq. km.)

Total - Total surface area comprising land area and inland waters.

Agricultural - Estimate of agricultural area used temporarily or permanently for crops, pastures, market and kitchen gardens or to lie fallow; 1977 data.

GDP PER CAPITA (US\$) - GDP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1977-79 bases); 1960, 1970, and 1979 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita; 1960, 1970, and 1978 data.

POPULATION AND VITAL STATISTICS

Total Population, Mid-Year (millions) - As of July 1; 1960, 1970, and 1978 data.

Urban Population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries; 1960, 1970, and 1978 data.

Population Projections

Population in year 2000 - Current population projections are based on 1980 total population by age and sex and their mortality and fertility rates. Projection parameters for mortality rates comprise of three levels assuming life expectancy at birth increasing with country's per capita income level, and female life expectancy stabilizing at 77.5 years. The parameters for fertility rate also have three levels assuming decline in fertility according to income level and past family planning performance. Each country is then assigned one of these nine combinations of mortality and fertility trends for projection purposes.

Stationary population - In a stationary population there is no growth since the birth rate is equal to the death rate, and also the age structure remains constant. This is achieved only after fertility rates decline to the replacement level of unit net reproduction rate, when each generation of women replaces itself exactly. The stationary population size was estimated on the basis of the projected characteristics of the population in the year 2000, and the rate of decline of fertility rate to replacement level.

Year stationary population is reached - The year when stationary population size has been reached.

Population Density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area.

Per sq. km. agricultural land - Computed as above for agricultural land only.

Population Age Structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population; 1960, 1970, and 1978 data.

Population Growth Rate (percent) - total - Annual growth rates of total mid-year populations for 1950-60, 1960-70, and 1970-78.

Population Growth Rate (percent) - urban - Annual growth rates of urban populations for 1950-60, 1960-70, and 1970-78.

Crude Birth Rate (per thousand) - Annual live births per thousand of mid-year population; 1960, 1970, and 1978 data.

Crude Death Rate (per thousand) - Annual deaths per thousand of mid-year population; 1960, 1970, and 1978 data.

Gross Reproduction Rate - Average number of daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970, and 1977.

Family Planning - Acceptors, Annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family Planning - Users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of Food Production per Capita (1969-71=100) - Index of per capita annual production of all food commodities. Production excludes seed and feed and is on calendar year basis. Commodities cover primary goods (e.g. sugarcane instead of sugar) which are edible and contain nutrients (e.g. coffee and tea are excluded). Aggregate production of each country is based on national average producer price weights; 1961-65, 1970, and 1978 data.

Per capita supply of calories (percent of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day. Available supplies comprise domestic production, imports less exports, and changes in stock. Net supplies exclude animal feed, seeds, quantities used in food processing, and losses in distribution. Requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distribution of population, and allowing 10 percent for waste at household level; 1961-65, 1970, and 1977 data.

Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day. Net supply of food is defined as above. Requirements for all countries established by USDA provide for minimum allowance of 60 grams of total protein per day and 20 grams of animal and pulse protein, of which 10 grams should be animal protein. These standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey, 1961-65, 1970 and 1977 data.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day; 1961-65, 1970 and 1977 data.

Child (ages 1-4) Mortality Rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group; for most developing countries data derived from life tables; 1960, 1970 and 1977 data.

HEALTH

Life Expectancy at Birth (years) - Average number of years of life remaining at birth; 1960, 1970 and 1978 data.

Infant Mortality Rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to Safe Water (percent of population) - total, urban, and rural - N. Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to Excreta Disposal (percent of population - total, urban, and rural) - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

Population per Physician - Population divided by number of practicing physicians qualified from a medical school at university level.

Population per Nursing Person - Population divided by number of practicing male and female graduate nurses, practical nurses, and assistant nurses.

Population per Hospital Bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally curatorial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities. For statistical purposes urban hospitals include WHO's principal general and specialized hospitals, and rural hospitals local or rural hospitals and medical and maternity centers.

Admissions per Hospital Bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average Size of Household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to Electricity (percent of dwellings) - total, urban, and rural - Electrical dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION**Adjusted Enrollment Ratios**

Primary school - total, male and female - Gross total, male and female enrollment of all ages at the primary level as percentages of respective primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, male and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger Cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio Receivers (per thousand population) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.

TV Receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV sets in countries and in years when registration of TV sets was in effect.

Newspaper Circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema Annual Attendance per Capita per Year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

LABOR FORCE

Total Labor Force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc. Definitions in various countries are not comparable; 1960, 1970 and 1978 data.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force; 1960, 1970 and 1978 data.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force; 1960, 1970 and 1978 data.

Participation Rate (percent) - total, male, and female - Participation or activity rates are computed as total, male, and female labor force as percentages of total, male and female population of all ages respectively; 1960, 1970, and 1975 data. These are ILO's participation rates reflecting age-sex structure of the population, and long time trend. A few estimates are from national sources.

Economic Dependency Ratio - Ratio of population under 15 and 65 and over to the total labor force.

INCOME DISTRIBUTION

Percentage of Private Income (both in cash and kind) - Received by richest 5 percent, richest 20 percent, poorest 20 percent, and poorest 40 percent of households.

POVERTY TARGET GROUPS

Estimated Absolute Poverty Income Level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated Relative Poverty Income Level (US\$ per capita) - urban and rural - Rural relative poverty income level is one-third of average per capita personal income of the country. Urban level is derived from the rural level with adjustment for higher cost of living in urban areas.

Estimated Population Below Absolute Poverty Income Level (percent) - urban and rural - Percent of population (urban and rural) who are "absolute poor".

PDRY: ECONOMIC INDICATORS

NATIONAL ACCOUNTS

	1978 ^{1/}		Annual Rate of Growth (%) (constant prices)	
	US\$ mln	%		
GNP at market prices	792	100		
Gross Domestic Investment	240	30		
Gross National Savings	171	22		
Exports of goods & NFS	93	12		
Imports of goods & NFS	427	54		
			<u>1973-78</u>	<u>1978</u>
GDP at factor cost	497	100	7	14
of which:				
Agriculture & Fisheries	78	16	3	-1
Industry ^{2/}	62	12	10	27
Infrastructure ^{3/}	126	25	16	12
Trade, Real Estate, Finance	124	25	7	3
Other Services	107	22	4	14

GOVERNMENT FINANCE

(in millions Yemeni Dinars)

	<u>1974/75</u> ^{4/}	<u>1975</u> ^{4/}	<u>1976</u>	<u>1977</u>	<u>1978</u>
Total receipts ^{5/}	23.1	17.0	32.1	43.4	56.0
Current expenditures	27.6	25.6	39.2	47.4	61.4
Current deficit	-4.5	-8.6	-7.1	-4.0	-5.4
Development expenditures	20.7	19.1	39.2	56.9	59.9
Overall deficit	-25.2	-27.7	-46.3	-60.9	-65.3
Borrowing from Banking System	11.4	10.1	15.6	18.5	17.4
Other Assets and Accounts ^{6/}	-15.0	12.5	-2.0	-1.4	-6.7
External Financing	28.8	5.1	32.7	43.8	54.6

MONEY AND CREDIT

(million Y.D., Outstanding, end Period)

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
Money and quasi-money	55	67	98	140	168	217
Bank credit to Government	24	37	62	72	87	110
Bank credit to non-Gov't. Sector ^{7/}	19	24	31	49	59	61

^{1/} Provisional.

^{2/} Includes petroleum refining and mining.

^{3/} Includes electricity and water, construction, transport and communications.

^{4/} The fiscal year was April 1-March 31 until March 31, 1975 when it became April 1-December 31, 1975 and thereafter is on a calendar year basis.

^{5/} Includes current & development revenues from domestic sources and self-financing of public enterprises.

^{6/} Includes the change in the Balance of the Development Fund (- = increase).

^{7/} Includes public sector agencies.

<u>BALANCE OF PAYMENTS (US\$ million)</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Exports ^{/1}	8	8	26	25	18
Imports ^{/1}	-190	-179	-268	-364	-387
<u>Trade Deficit</u>	<u>-182</u>	<u>-171</u>	<u>-242</u>	<u>-339</u>	<u>-369</u>
Non-factor Services, net	22	17	24	18	17
Factor Services, net	48	59	122	187	265
Workers' Remittances	(41)	(56)	(115)	(180)	(258)
Investment Income	(7)	(3)	(7)	(7)	(7)
<u>Current Account Deficit</u>	<u>-112</u>	<u>-95</u>	<u>-96</u>	<u>-134</u>	<u>-87</u>
Official Transfers	1	10	46	55	36
Official M & LT Capital, net	60	47	72	70	94
Gross Disbursements	(60)	(48)	(74)	(71)	(95)
Repayments	(-)	(-1)	(-2)	(-1)	(-1)
Miscellaneous Capital (incl. errors & omissions)	43	25	5	28	43
Change in Official Reserves (- = increase)	8	13	-27	-19	-86
Memo Item:					
Gross Official Reserves (end year)	68	55	82	101	187

MERCHANDISE EXPORTS

Average 1977-78
US\$ Million Percent

Fish & Fish Products	12	60
Agricultural	5	25
Industrial	1	5
Other	<u>2</u>	<u>10</u>
	20	100

EXTERNAL DEBT (DECEMBER 31, 1979)

US\$ Million

External Public Debt Outstanding	915
Of which: Disbursed	372
Debt Service Payments in 1979	5
Debt Service Ratio (Exports of Goods and Services, Including Remittances) ^{2/}	1.4 Percent

RATE OF EXCHANGE

<u>Prior to December 1971</u>	<u>As of December 1971</u>	<u>From February, 1973 to date</u>
US\$ 1.00 = YD 0.42	US\$ 1.00 = YD 0.38	US\$ 1.00 = 0.34
YD 1.00 = US\$ 2.40	YD 1.00 = US\$ 2.61	YD 1.00 = US\$ 2.90

^{/1} Net of re-exports.

^{/2} Based on preliminary estimates of exports of goods and services.

April 19, 1980

THE STATUS OF BANK GROUP OPERATIONS
IN THE PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN

A. Statement of IDA Credits
(As of March 31, 1981)

<u>Credit</u> <u>No.</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>----- \$ Million -----</u>	
				<u>IDA</u>	<u>Undisbursed</u>
Two credits fully disbursed				5.1	
370-1 YDR	1973	PDRY	Fisheries	1.6	.03
494- YDR	1975	PDRY	Education I	5.4	0.8
560- YDR	1975	PDRY	Highways II	15.5	1.4
584- YDR	1976	PDRY	Aden Port Rehabilitation	3.2	0.9
615- YDR	1976	PDRY	Wadi Hadramawt Agric. Proj	7.0	1.3
768- YDR	1978	PDRY	Wadi Tuban Agric. Proj	5.2	3.9
829- YDR	1978	PDRY	Power	5.0	3.5
865- YDR	1978	PDRY	Education II	4.0	4.0
932- YDR	1979	PDRY	Fisheries II	10.0	10.0
1038- YDR	1980	PDRY	Aden Water Supply	13.2	12.4
1050- YDR	1980	PDRY	Petroleum Dev. Assistance	9.0	8.9
Total				84.2	47.13
of which has been repaid					
Total now held by IDA				<u>84.2</u>	
Total undisbursed					<u>47.13</u>

NOTE: Exchange adjustment not included.

1/ This Annex II is identical to those in the President's Reports for the proposed Wadi Beihan Agricultural Development and Al Mukalla Water Supply Rehabilitation Projects.

C. Projects in Execution 1/

CR. No. 370-YDR Fisheries Project: \$3.5 million Credit of April 12, 1973; Effective Date: February 14, 1974; and \$1.6 million Supplementary Credit of February 6, 1975; Effectiveness Date: February 14, 1974; Closing Date: September 30, 1981

The project is now nearing completion. The major component, the fish cold store and freezing facility at Mukalla became operational, after a two-year delay, in June 1978. The delay was primarily due to the difficulties encountered in finding a suitable project manager and cost overruns requiring supplemental financing, which was approved by the Association in January 1975. The smaller receiving station at Shibr is now fully operational, and the 100 fishing vessels financed under the credit have all been delivered.

CR. No. 494-YDR Education I Project: \$5.4 million Credit Approved July 12, 1974; Effectiveness Date: February 5, 1975; Closing Date: December 31, 1981

This credit is assisting the Government in making qualitative improvements in the educational system and in meeting priority manpower needs. Implementation is proceeding satisfactorily but is about two years behind appraisal estimate due to (i) initial delays in declaring the credit effective and in the negotiations of contracts with UNESCO and the consultant architects; (ii) more recent delays arising from curricula revisions affecting design completion; and (iii) shortages of labor and materials which have delayed construction. Five of the ten institutions, including two previously completed extensions, were ready for the 1980-81 academic year. The remaining institutions are expected to be completed by mid 1981. About 95 percent of the equipment has been received, and together with furniture, is being delivered and installed in project institutions as they are completed. To permit final disbursements for construction and to allow the technical assistance program to operate using credit funds, the Closing Date has been extended to December 31, 1981.

CR. No. 560-YDR Second Highway Project: \$15.5 million Credit of June 20, 1975; Effectiveness Date: September 17, 1975; Closing Date: December 31, 1982.

This project is financed jointly with the Kuwait Fund for Arab Economic Development. Since international competitive bidding for the construction element of the project produced no responsible bids, arrangements were made

1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered, and the action being taken to remedy them. They should be read in this sense, and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

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for the works to be carried out by a government construction unit which is assisted by the UK Crown Agents. Because of the remoteness of the project area and the concomitant logistic problems, the severe shortage of domestic skilled manpower and the lower than expected output from construction equipment due to particularly harsh construction conditions, implementation of the civil works is about three years behind appraisal estimates. However, considering these difficulties, construction of the road (358 km) started in March 1976 is making satisfactory progress and is approximately 60 percent complete. Likewise, total project cost is now estimated to be about 25 percent over the appraisal estimate as a result of the extra quantities of rock that had to be excavated, the additional drainage and protective works needed because of floods and the general increase in the price of construction equipment and materials. Construction and road maintenance equipment have been procured. Consultants (Dorsch-Germany) have completed the economic studies and the final engineering of the Naqabah-Beiha roads. Consultants (Sotegni-Italy) have completed the technical assistance component and the overseas training program has been completed with six Yemeni engineers having completed 9-12 months training courses (4 in the UK and 2 in West Germany). The project is expected to be completed by December 1982.

CR. No. 584-YDR Aden Port Rehabilitation Project: \$3.2 million Credit of September 8, 1975; Effectiveness Date: February 3, 1976; Closing Date: March 31, 1982

The project which is being cofinanced by the Arab Fund for Economic and Social Development is assisting the PDRY Government in rehabilitating the port of Aden to reattract traffic passing through the reopened Suez Canal. The project provides for (a) the procurement of floating craft, cargo-handling, workshop and navigation equipment, spares and stocks; (b) rehabilitation of the slipway for the National Dockyard Company; and (c) technical assistance. All equipment except some navigational items have been received and most are already in use, although there has been a substantial delay in the rehabilitation of the slipway. A cost accountant and a marine engineer have been appointed. There was a savings of \$850,000 in the purchase of floating craft and IDA has agreed that this can be used to purchase containers handling equipment required for the port.

CR. No. 615-YDR Wadi Hadramawt Agricultural Project: \$7.0 million Credit of April 22, 1976; Effectiveness Date: September 16, 1976; Closing Date: June 30, 1982

The project aims at increasing agricultural production on about 8,100 ha of irrigated land in the Wadi through the adoption of improved cultural practices and the provision of agricultural equipment and supplies, construction of feeder roads and extension services. It also includes provision for a date packing plant and a rural water supply component, and funds for a hydrogeological survey and feasibility study for increased groundwater use.

ANNEX II

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The date packing plant has been completed, the rural road component is progressing satisfactorily, but the pace of village water supply works has been slow. The hydrogeological survey and feasibility study have since been completed and form the basis for a second phase project aiming at intensification of irrigation on about 3,700 ha.

Initial problems, with staff recruitment and retention, delayed execution of the project by about two years. High cost of labor, inefficient tractor services, marketing restrictions, and pricing policy of the agricultural produce have been impediments to increased production. Government has recently taken steps to improve its agricultural pricing and subsidy policy, and has also contracted a consultant's study (financed under Credit No. 768-YDR/Wadi Tuban Agricultural Project) on agricultural prices, taxation and subsidy with a view to improving these policies. The increased availability of the agricultural machinery purchased under the project and improvement in pricing and marketing policy of the agricultural produce would assist in achieving the project's objectives.

CR. No. 768-YDR Wadi Tuban Agricultural Project: \$5.2 million Credit of March 22, 1978; Effectiveness Date: April 25, 1979; Closing Date: June 30, 1983

The project seeks to improve agricultural production on cooperatives and state farms through an increased use of inputs, improved practices and the construction of an improved groundwater irrigation network. Inputs and farm machinery are to be provided through credit. An expatriate project manager is under recruitment but all other technical assistance staff is now on post. A water management study is nearing completion and an agricultural prices, taxation and subsidy policy study is underway. Construction of a village water supply scheme is well advanced and survey work for feeder roads was started. The Arab Fund, which cofinances this project, approved its loan of \$6.1 million in February 1980. With a total area of 7,000 ha, the project has 36,000 principal beneficiaries, while the water supply scheme would benefit about 6,000 persons.

CR. No. 829-YDR Wadi Hadramawt Power Project: \$5.0 million Credit of July 14, 1978; Effectiveness Date: September 18, 1979; Closing Date: December 31, 1984

The project is providing an impetus to agricultural development in Wadi Hadramawt by electrifying all irrigation water pumping in the Wadi through the erection of a 16-MW diesel generating plant and the construction of about 1,000 km of related transmission and distribution networks. Institution-building objectives would be achieved through technical assistance comprising training of the power company's (PCEP) personnel, and consultants' services for a tariff study, and a power development study. Soil testing of the project site has been completed, the contract for equipment and materials has been awarded and erection of the plant, although one year behind schedule because of skilled manpower shortages, is underway. The tariff study is completed and discussions with Government on implementation of its recommendations as well as on the power company's manpower development program are at an advanced stage.

CR. No. 865-YDR Education II Project: \$4.0 million Credit Approved
December 14, 1978; Effectiveness Date: June 18, 1979;
Closing Date: June 30, 1982

The project will assist the Government in establishing three vocational training centers (VTCs) which would be the forerunner of VTCs to be constructed in other parts of the country to train urgently needed skilled and semi-skilled workers. The project consists of construction of an industrial, an agricultural and a commercial training center, and the procurement of furniture and equipment. Arrangements for fellowships to be financed from bilateral funds have been completed. Construction of the commercial VTC in Mukalla started in June 1980, about 11 months behind the appraisal estimate due to delays in designs and tender, and is now expected to be completed in Summer 1982. With IDA's approval, two existing schools are being converted into agricultural and industrial VTCs in lieu of constructing two new VTCs. These conversions should be completed by mid-1982. Furniture and equipment are under acquisition. Satisfactory curricula have been developed.

CR. No. 932-YDR Fisheries II Project: \$10.0 million Credit and \$3
million EEC Special Action Credit of August 10, 1979;
Effectiveness Date: April 3, 1981; Closing Date: June
30, 1987

The project seeks to increase income and economic well being in the Sixth Governorate, which is one of the poorest and most remote regions of PDRY, and consists of the construction of a fisheries-cum-general cargo port together with supporting infrastructure at Nishtun; the construction of fish receiving, processing and storage facilities together with the development of an efficient system for exploiting fish; and the construction of a 19 km road to provide a link between the new port and the nine fishing villages which would supply fish under the project. The project also includes technical assistance comprising consultants' services to assist with project implementation and operation; experts to assist the Ministry of Fish Wealth in fleet management, cold store operations and export marketing; and a national study to assess nutritional deficiencies for a possible future IDA-financed project. Bids were invited for the construction of the port and related shore facilities, were opened on April 7 and are now being evaluated. Construction is expected to get underway within the next 6 months. The Government has appointed the project manager, who is a well qualified individual.

ANNEX II

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CR. No. 1038-YDR Aden Water Supply Project: \$13.2 million Credit of July 11, 1980; Effectiveness Date: March 27, 1981; Closing Date: December 31, 1985

The project, which constitutes the first construction stage of a long-term water supply master plan, seeks to increase the critically short supply of potable water, and meet the maximum demand up to 1987, in Aden, the capital and largest urban area in PDRY, and to rehabilitate the existing system which is fast deteriorating. It provides for the expansion of the distribution network into the poorer districts of Greater Aden to allow low-income residents to be directly connected to the public system. The project also provides for technical assistance aimed at improving PWC's management capability. Initial implementation proceeding satisfactorily.

CR. No. 1050-YDR Petroleum Development Assistance Project: \$9.0 million Credit of July 11, 1980; Effectiveness Date: November 19, 1980; Closing Date: September 30, 1983

The project is supporting the Government's efforts to intensify the search for indigenous oil/gas reserves and assist in improving its planning of the petroleum subsector by strengthening the Petroleum Exploration Department's (PED) capacity to carry out and supervise geophysical surveys and interpret their results. It includes (a) a 15-month seismic survey to provide a loose grid of key reconnaissance seismic profiles over a large portion of the onshore area prospective for petroleum and natural gas in PDRY; and (b) technical assistance to PED for project management services, data evaluation to promote exploration acreage to foreign investors, and training of PED's staff. The primary objective is to uncover prospects sufficiently attractive to oil companies to undertake exploration in PDRY. Initial implementation proceeding satisfactorily.

PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN
THIRD HIGHWAY PROJECT

Supplementary Project Data Sheet

Section I: Timetable of Key Events

(a)	Time taken by country to prepare project	4 years, 6 months (April 1976 to October 1980)
(b)	Agency responsible for preparation	Ministry of Construction
(c)	First Bank mission to consider project	July 1977
(d)	Appraisal missions	June 1978, and October 1980
(e)	Negotiations completed	April, 1981
(f)	Credit effectiveness	By December, 1981

Section II: Special Bank Implementation Actions

No special actions needed.

Section III: Special Conditions in the Credit Agreement

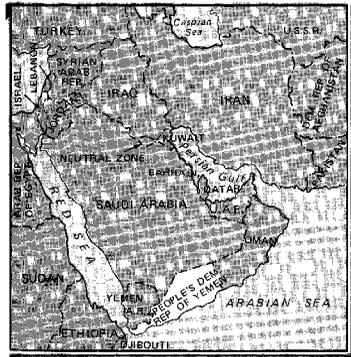
1. Conditions of Effectiveness

- (i) the signing of the Kuwait Fund loan agreement (para. 50);
- (ii) the effectiveness of the OPEC Fund loan agreement (para. 50); and
- (iii) Government to enter into a contract with the independent construction unit which is satisfactory to IDA (para. 51).

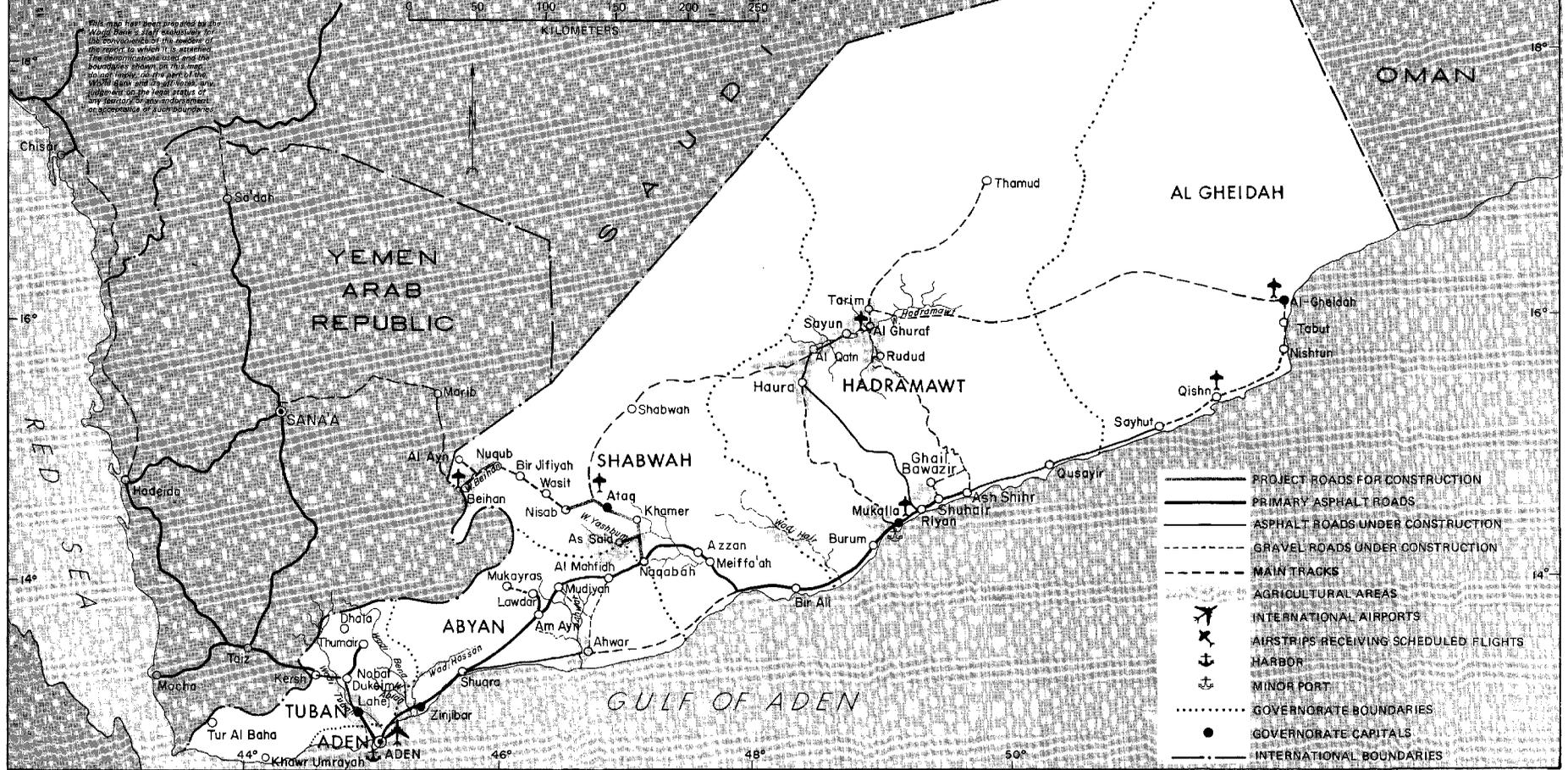
2. The Borrower has agreed to:

- (i) take the necessary measures to ensure that the dimensions and axle loads of vehicles using the Borrower's roads do not exceed limits consistent with the road's design standards (para. 34);
- (ii) construct the project road in accordance with a program that includes design standards agreed with IDA (para. 42); and
- (iii) provide adequate working capital and equipment for the independent construction unit (ICU) (para. 51).

PEOPLES DEMOCRATIC REPUBLIC OF YEMEN TRANSPORT INFRASTRUCTURE



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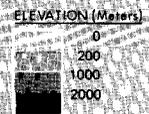
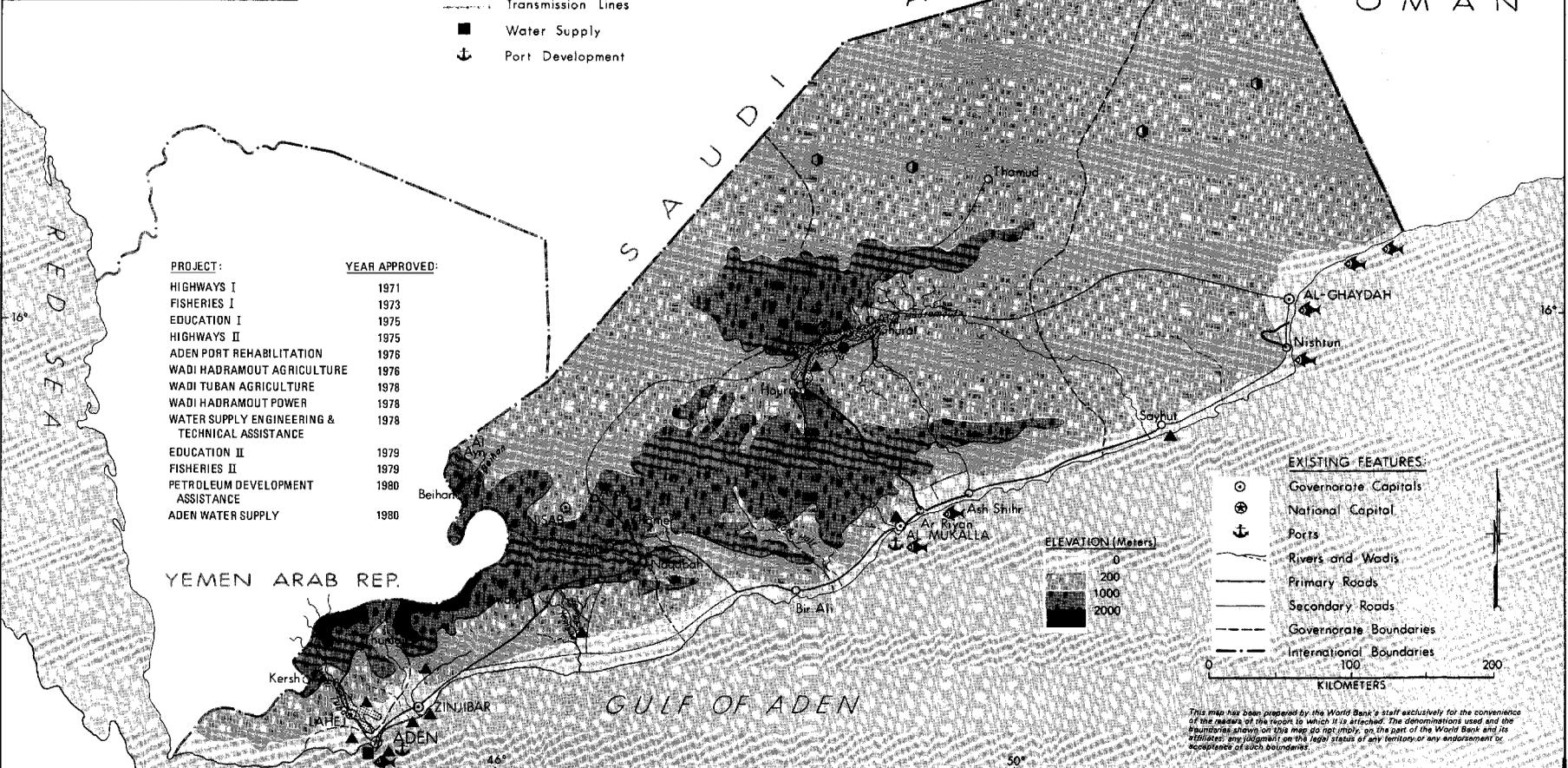
- PROJECT ROADS FOR CONSTRUCTION
- PRIMARY ASPHALT ROADS
- ASPHALT ROADS UNDER CONSTRUCTION
- GRAVEL ROADS UNDER CONSTRUCTION
- MAIN TRACKS
- AGRICULTURAL AREAS
- INTERNATIONAL AIRPORTS
- AIRSTRIPS RECEIVING SCHEDULED FLIGHTS
- HARBOR
- MINOR PORT
- GOVERNORATE BOUNDARIES
- GOVERNORATE CAPITALS
- INTERNATIONAL BOUNDARIES



PEOPLE'S DEMOCRATIC REPUBLIC OF YEMEN IDA-ASSISTED PROJECTS BY SECTOR

- PROJECTS:**
- Agriculture
 - Fisheries
 - Petroleum Exploration Assistance
 - Education
 - Highways
 - Power Stations
 - Transmission Lines
 - Water Supply
 - Port Development

PROJECT:	YEAR APPROVED:
HIGHWAYS I	1971
FISHERIES I	1973
EDUCATION I	1975
HIGHWAYS II	1975
ADEN PORT REHABILITATION	1976
WADI HADRAMOUT AGRICULTURE	1976
WADI TUBAN AGRICULTURE	1978
WADI HADRAMOUT POWER	1978
WATER SUPPLY ENGINEERING & TECHNICAL ASSISTANCE	1978
EDUCATION II	1979
FISHERIES II	1979
PETROLEUM DEVELOPMENT ASSISTANCE	1980
ADEN WATER SUPPLY	1980



- EXISTING FEATURES:**
- Governorate Capitals
 - National Capital
 - Ports
 - Rivers and Wadis
 - Primary Roads
 - Secondary Roads
 - Governorate Boundaries
 - International Boundaries
- 0 100 200
KILOMETERS

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