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REPORT AND RECOMMENDATION
OF THE
PRESIDENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
TO THE
ETABLISSEMENT PUBLIC DE L'ELECTRICITE
WITH THE GUARANTEE OF THE
SYRIAN ARAB REPUBLIC
FOR THE
SECOND MEHARDEH THERMAL POWER PROJECT

June 4, 1975

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CURRENCY EQUIVALENTS

Currency Unit: Syrian Pound (LS)

LS 1	=	US\$0.27
US\$1	=	LS 3.70

Fiscal Year: January 1 to December 31

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1. I submit the following report and recommendation on a proposed loan to Etablissement Public de l'Electricite (EPE) with the guarantee of the Syrian Arab Republic for the equivalent of US\$72 million to help finance the Second Mehardeh Thermal Power project. The loan would have a term of twenty-five years, including 3 years of grace, with interest at 8-1/2% per annum.

PART I - THE ECONOMY

2. A report entitled "Current Economic Position and Prospects for Syria" (552a-SYR, January 30, 1975) was distributed to the Executive Directors in February 1975. An economic mission visited Syria in March/April 1975 and an updating report is currently under preparation. Country data sheets are attached as Annex I.

3. Since the attainment of independence in 1946, Syria has had numerous changes in regime which resulted in a shift of power from groups of land-owners, traders and industrialists to a rising class of officers, technicians and civil servants, and a shift of the economy from a laissez faire system to a largely publicly owned and regulated one. The Ba'ath Socialist Party--the ruling party since 1963--has provided substantial continuity of emphasis on economic and social development policies, which have prevailed in spite of Government changes and external tensions. During the 1960's an agrarian reform was completed, with redistribution of land to large numbers of formerly landless peasants. In November 1970, General Assad became President of the Republic. His regime has been characterized by a balance of firmness and conciliation in domestic policies; economic pragmatism; search for a better defined role for the private sector in the centrally regulated economy; and diversification in foreign economic relations. In March 1973, a permanent constitution was approved by referendum. General elections for the legislature in May 1973 gave the majority of the vote and seats to the Ba'ath Socialist Party. A national referendum reconfirmed President Assad for a seven-year term.

4. In the last decade, Syria has achieved diversification of production and rapid growth under fairly stable prices. Gross domestic product in real terms increased by an average of 9.8 percent per year between 1970 and 1972

compared to 5.8 percent between 1965 and 1969. GDP, however, grew by only 2 percent in 1973 mainly due to a large decline in agricultural output brought about by the severe drought conditions of late 1972 and early 1973. The disappointing performance in 1973 was also partly due to the effects of the October war and the resulting damage, particularly to power stations, refineries and pipeline terminals. The economy has almost completely recovered from the dislocations caused by the war and, in 1974, GDP is estimated to have grown by almost 13 percent, as a result of increased production of oil and phosphates as well as a large increase in agricultural output. With reported favorable weather and rainfall, GDP may grow by about 10-12 percent in real terms in 1975. On the other hand, prices which increased at a modest rate (averaging 4.5 percent per annum) between 1962 and 1973, rose by about 36 percent in 1974. This was due, on the demand side, to an increased level of Government expenditures, including additional expenditures on reconstruction after the October war, and a rise in foreign exchange reserves. Further pressure on prices was generated from the supply side through short-falls in agricultural production and increases in the cost of imports. However the Government is increasingly concerned about inflationary pressures in the economy and is considering further import liberalization as well as fiscal and monetary measures.

5. Despite its clearly declining share in exports and employment, agriculture remains an important sector of the economy accounting for about 21-23 percent of GDP during 1970-74, and provides employment for over half of the labor force. Mainly because of heavy dependence on uncertain rainfall, the agricultural sector in Syria is characterized by wide fluctuations in output. Industry accounted for about 21-24 percent of GDP over the period 1970-74, and about 10 percent of employment. The sector's average rate of growth was about 6.0 percent per year during 1969-72, mainly as a result of the growth of oil, electricity, phosphates and chemicals. After less than 2 percent growth in 1973, value-added in industry grew by 25 percent in 1974, as manufacturing and construction recovered sharply in that year.

6. After a modest decline of about 4 percent in 1970, total investment increased steadily both in absolute and relative terms. Aggregate investment as a percentage of GDP increased from under 16 percent in 1969 to an estimated 23 percent in 1974. Public investment was about two-thirds of total investment in 1974. The growth of consumption though rapid was still below the increase in GDP. Consequently, total consumption as a proportion of GDP fell from about 89 percent in 1969 to an estimated 84 percent in 1974. Averaging about 12 percent of GDP between 1969 and 1972 the gross domestic saving ratio increased to about 16 percent in 1974, and financed about 70 percent of aggregate investment. Gross national savings increased more rapidly from about 16.6 percent to an estimated 29 percent of GDP, mainly because of the substantial rise in grants and aid from other Arab states particularly in the past two years. The resource gap as a percentage of GDP declined from an average of about 5 percent between 1969 and 1972 to an estimated 2.2 percent in 1973, but rose to almost 7 percent in 1974. The decline was mainly due to an appreciable increase in exports of non-factor services, particularly oil transit dues; but import growth in 1974 outpaced the growth of current receipts.

7. The Syrian Government budget has been characterized by rising overall deficits for a number of years. Domestic revenues have been slightly higher than current expenditures so that the larger part of the development expenditures have been financed through external project assistance or through borrowing from the banking system. Since 1970, grants and other aid from Arab countries have assumed greater importance and have financed a substantial share of the overall deficits of the public sector in Syria. Estimates for 1974 indicate that the public sector accounts registered a large overall deficit. However, official transfers from Arab countries also rose substantially and recourse to the domestic banking system for financing the overall budget deficit was not necessary. The 1975 budget envisages almost the same level of revenues as in 1974 and an almost twofold increase in expenditures with development expenditures amounting to more than half of the total. Over the past two years, military expenditures represented 40 percent of the overall Government expenditure and about 14.5 percent of GDP. The anticipated increase in the overall deficit is expected to be financed from current transfers from abroad.

8. Government development expenditures are carried out in the framework of the Third Five Year Plan 1971-75. So far, development expenditures have fallen below the set targets and, for the first three years of the Plan, were about 38 percent of total planned expenditures. However, there has been a significant improvement in the rate of implementation in 1974, and further improvement is expected in 1975. Nevertheless, the rate of implementation for the Plan period is not likely to exceed 55 percent. This short fall is the result of weaknesses in project preparation and follow-up procedures as well as shortages of manpower and of foreign exchange to import necessary materials. However, implementation rates are expected to improve in the medium-term as the current efforts of the Government at strengthening the planning machinery, particularly project preparation and administration take effect and as the foreign exchange situation of the country improves. Absorptive capacity may also be expected to improve as the necessary infrastructure and other basic facilities are established, thereby permitting a more accelerated development of the productive sectors.

9. The balance of payments, which had been in surplus for several years through 1967, developed relatively large deficits in the following four years. A widening of the trade gap resulting from lagging growth of exports in relation to imports, was the main reason behind the deterioration. In the last two years, however, the trend was reversed once more and surpluses (particularly large in 1973 and 1974) emerged. Such surpluses were made possible by a rapid growth of exports and by an appreciable increase in official aid and grants received from Arab countries particularly in 1973. Thus, from a deficit averaging US\$32 million during 1969-71, the balance of payments developed a modest surplus of US\$7.3 million in 1972, US\$279 million in 1973, and an estimated surplus of US\$297 million in 1974.

10. Besides the recent large transfers from other Arab countries, important new developments have taken place in the last two years that may have a favorable impact on the future prospects and structure of the balance

of payments. The rise in prices (to an average of \$7 per barrel of oil and about \$35 per ton of phosphates) and the expected increase in production and exports of oil (to 10 and 12 million tons by 1976 and 1978 respectively) and phosphates, the increase in oil transit dues as well as anticipated improvement in earnings from tourism should lead to more diversification of exports, and reduce the trade gap. This improvement may be attainable in spite of the expected increase in imports resulting from increased spending by both the public and the private sectors.

11. Future prospects of the Syrian economy appear to be good and would be greatly enhanced if peace is restored to the area. As a result of recent changes in the direction of economic policies, the private sector should be able to increase its contribution to the future development of the Syrian economy. Private sector investment is likely to be in agriculture, small scale industries and the services' sector, while public sector investment is likely to be mostly in agriculture--particularly the Euphrates basin and other irrigation facilities - in oil, particularly exploration, pipelines, and refineries, and in phosphates development. It is anticipated that a large part of these investments may be financed by domestic savings which may grow by over 10 percent per year. In real terms GDP may be expected to grow by an average of around 8-9 percent between 1974 and 1980.

12. Despite the expected improvement in economic performance over the next five years, the planned large expansion in development expenditures will make Syria continually in need of borrowing abroad to finance projects, particularly in the public sector. Syria's external debt (excluding military) amounted to \$677 million by the end of 1974, and debt service payments were estimated at about \$52.7 million, equivalent to 5 percent of exports of goods and non factor services in 1974. With the prospect of rapidly increasing export earnings, the future debt service ratio is expected to decline despite an expected increase in the level of borrowing. In view of these improved prospects, Syria remains creditworthy for borrowing substantial amounts on conventional terms.

13. Following Iraq's nationalization of the facilities of the Iraq Petroleum Company (IPC), Syria nationalized the section of the IPC pipeline running through its territory, in June 1972, with a provision for compensation. At the time of nationalization, the company asked the Government to submit to arbitration, pursuant to the original convention, the question of Syria's right to nationalize the properties. While reasserting its willingness to compensate IPC, the Government questioned the company's interpretation of the arbitration clause and its applicability to nationalization as such. This led to a deadlock on the issue of arbitration rather than a discussion of compensation. Since then, Government officials have informed our staff on various occasions that the Syrian Government was prepared to discuss the amount of compensation with the company, and this position has been relayed to IPC and its shareholders. In view of substantial counterclaims on the part of the Government related to past IPC dues the Company informed the Bank that it preferred not to press for compensation for the time being.

PART II - BANK GROUP OPERATIONS IN SYRIA

14. Syria has to date received four IDA credits totaling \$47.3 million and two loans totaling \$96.6 million, (including \$8.6 million of supplementary financing for the first power project, approved on April 29, 1975) for projects in highways, water supply, irrigation and electric power. The first highway project is about to be completed satisfactorily after many delays. The other projects are expected to progress satisfactorily after some initial delays caused by lack of experience in competitive bidding and consultant's selection; however, substantial changes in the Damascus Water Supply project (CR 401) have been required as a result of large increases in costs and were approved by the Association on May 12, 1975. Though Syria is a member of the Corporation, IFC has made no investments. Annex II contains a summary statement of Bank loans and IDA credits as of April 30, 1975, and notes on the execution of ongoing projects.

15. In recent years, the Bank Group has established a close dialogue with the Government which has resulted in greater mutual understanding and increased Syrian interest in Bank financing. The Government's emphasis on economic management, and on austere, pragmatic and socially-oriented economic policies, provides an appropriate setting for the Bank to make a contribution to the country's economic development. Syria's relatively developed administrative structure, the Government's efforts to increase administrative efficiency and absorptive capacity, adequate public investment allocation and increasing interest in cooperating with the Bank Group have made it possible for Syria to absorb in the last two years increasing amounts of Bank Group financing. In line with the needs of the economy and the Government's investment strategy, the Bank Group plans to focus its future lending on (i) irrigation and rural development, to increase agricultural employment, production and exports while reducing food imports and the dependency on weather fluctuations; (ii) institution building in the public sector, by assisting water supply, sewerage, transportation and power projects of high priority. A Bank mission is in the field appraising a livestock project for FY76, focusing on the establishment of a feed reserve for drought years and for animal requirements, which would benefit about 17,000 semi-nomadic families which are among the poorest in the country. Other lending operations whose preparation is under way are a second water supply project, a telecommunications project, a tourism project and a sewerage project for the cities of Damascus, Homs and Hama. Studies for the latter are financed from Credit 401 (Damascus Water Supply Project).

PART III - ELECTRIC POWER IN SYRIA

16. Growth of power supply has played a key role in the economic growth of Syria in the sixties. The trend growth rate of sales for the period 1963-72 (i.e., excluding 1973 in view of war conditions) has been about 17.5 percent per year. Development has primarily been for industry. Per capita

energy consumption increased rapidly, from 76 kWh in 1960 to about 150 kWh in 1974. In spite of the progress made, however, public power supply has lagged behind the demand, particularly in the industrial sector, resulting in the proliferation of captive plants.

17. Until the mid-sixties, the power sector was fragmented in a large number of isolated power systems. The Government started a program of rationalization and expansion by creating in 1965 a Government-owned entity, Etablissement Public de l'Electricite, to consolidate and take over full responsibility for the entire electricity sector in Syria, as the successor to former local and foreign companies (which were nationalized in 1951). Considerable progress was made with the completion of a 230-kV transmission system linking the large urban areas of Aleppo, Hama, Homs and Damascus in 1968, the Thawra dam in 1969, and Lebanon (at 66 kV) in 1972. Before the October conflict, EPE owned only about 290 MW compared with the country's total installed capacity of about 780 MW. The balance (490 MW) represented captive plant capacity mainly in industry. About 47 percent of the population, living in about 3,000 villages with 2,000 inhabitants or less, has no access to electricity. Further progress in interconnection and expansion of the power system is required to meet the demand arising from continued industrial growth and to increase the supply of electricity in rural areas.

18. The Government's long-term strategy is based on the maximum use of the hydroelectric potential of the Euphrates river, which accounts for almost 38 percent of Syria's water resources, and on the expansion of thermal capacity employing indigenous fuel. The development of the Euphrates basin is expected to add 800 MW to the capacity installed in the country and to increase the country's irrigated land from the present 500,000 ha to about 1.2 million ha over a 40-50 year period. The first phase of the development began in 1968, with financial assistance from the USSR, and comprises the construction of a 60-m high earthfill dam at Thawra with a live storage capacity of about 7,400 million m³ and a power station with an installed capacity of 8 x 100 MW, of which 3 units are already in operation and the 5 remaining units are to be installed through 1979. The availability of power from Thawra is estimated to reach a peak of 2,200 GWh in 1978 and gradually decline thereafter, to about 1,100 GWh in 1990, since an increasing share of the available water will be used for irrigation. The possibilities of other hydro-power developments are limited, and further power development will be predominantly thermal, with oil as the main source of primary fuel.

19. Since 1971, EPE has been implementing an expansion program financed by the German Democratic Republic, to be completed substantially by 1975/76, of 66 kV and lower voltage transmission facilities to interconnect towns and villages and about 20 MW in new diesel plant. In early 1973, the Government embarked on a crash program to install 160 MW in gas turbine capacity. During the October 1973 conflict, a total capacity of 150 MW was damaged at the Kattineh and Hama thermal stations. The stations are being repaired and Kattineh is expected to be in full operation again in 1976. At Hama, 2 (out of 3) small units of about 5 MW will be written off; repair of the remaining

capacity of about 35 MW is expected to be completed in early 1977. The short-term impact of the war on power supply has been severe, but not prolonged, due to assistance from Lebanon, delivery of the gas turbines ordered before the war, and delivery of 10 gas turbines (240 MW) donated by various Arab states; already at the end of 1974, EPE's total effective capacity was about 415 MW, compared with a pre-war capacity of about 290 MW. With the addition of 800 MW in Thawra, the expansion of captive plants, and other ongoing changes in the system (including Bank projects) amounting to a net increase of about 720 MW total installed capacity in the country is expected to exceed 2,300 MW by 1978. In addition, the Government intends to increase its rural electrification program from about 40 villages in 1974 to 100 villages in 1975 and maintain the program at that level until the end of the decade. Funds have been included in the proposed loan for the execution of a study for a rural electrification program. EPE expects to start a 10-year program to convert the present 127/220-V distribution voltage in the major cities to 220/380 V. The Government intends to curb the replacement and expansion of captive plants located near interconnected facilities. About 1,300 km of 230-kV lines will be constructed to be financed out of an existing credit from the USSR, for completion by 1977/78, and a dispatch system, financed by the Abu Dhabi Fund, is to be completed in 1977. Discussions are under way for interconnecting Syria's power system with those of neighboring countries and funds have been included in the proposed loan to finance the necessary feasibility study. Funds have also been included in the proposed loan to finance a study on overall long-term energy requirements of EPE's system, including industrial plants presently connected, or to be connected with it.

PART IV - THE PROJECT

20. A report entitled "Appraisal of the Second Mehardeh Thermal Power Project - Syria" (No. 707a-SYR dated May 30, 1975) is being distributed separately. A loan and project summary is attached in Annex III. The project was appraised in the field in November/December 1974. Negotiations for the proposed loan were held in May 1975. The Syrian delegation was led by H.E. Hany Sawaf, Minister of Electricity.

21. The proposed project is an extension of the project financed under Loan 986-SY of May 23, 1974, the start of which was slightly delayed because of difficulties in the award of the equipment and construction contract, due mainly to the high price of bids. The timing of the proposed project is intended to allow EPE to exercise an option under the contracts for the first project which will result in considerable savings, both in investment and operating costs (para 28 below). The project forms 13 percent of EPE's \$704 million 1974-1980 development program. The first and the second project together would constitute 27 percent of this program. The proposed project consists of the second 150-MW stage of a thermal power station to be constructed at Mehardeh reservoir on the Orontes river; construction of six new and expansion of two existing 230-kV substations, construction of a new head-office building at Damascus; consulting and engineering services and training. The second 150-MW unit is identical to the first unit financed under the first Bank Loan. Most of the common facilities were provided for under the first

project except the 21-km oil pipeline between Hama and Mehardeh, which, together with unloading and transfer facilities at the dispatching site, would be financed by the proposed loan. The required transmission lines to be financed under an existing credit from the USSR, are to be in operation prior to the completion of the Project.

22. The proposed plant will be constructed about two kilometers north of the town of Mehardeh. No problem with dust emission is expected. The wind is predominantly easterly and a 125-m high chimney would assure diffusion of particles. Sufficient space would be provided on the site to install exhaust cleaning facilities if necessary in the future. Underground water would be used instead of water from the Orontes for cooling and other purposes during dry periods to assure that the requirements for irrigated areas fed from the Orontes are met.

The Borrower

23. During the relatively short period it has been in operation, EPE has focused mostly on the technical problems of integrating and operating numerous separate systems. Due to lack of experienced staff, the necessary reorganization of EPE has not yet been achieved. In view of the rapid expansion of its activity, the Company now plans to focus on improving its technical and administrative capacity. For this purpose, EPE has engaged consultants to be financed under Loan 986-SY to prepare a study for the improvement of its organization and operational and accounting methods, and will engage consultants shortly for a study for the unification and modernization of its tariff structure. The creation of a training school for technicians, on the job and other training programs, are also provided for under the first Loan, to improve EPE's management efficiency.

Project Execution

24. With the concurrence of the Bank, EPE has engaged the services of SOFRELEC of France for the feasibility studies, design, preparation of bid documents, evaluation of bids, supervision and administration of both the first and second stage of the Mehardeh project. Work on the proposed Project is expected to begin by mid-1975 and the Project completed by June 30, 1979. Because EPE's installed capacity is expected to rise from about 700 MW in 1975 to about 1800 MW in 1980, EPE has agreed to employ consultants to be financed under the proposed Loan, to prepare feasibility studies on (i) overall long-term energy requirements; (ii) use of flare gas for power generation at Souedie; (iii) interconnection with neighboring countries; and (iv) a rural electrification project. The proposed Loan also includes \$750,000 to complement the financing, provided for under Loan 986-SY, of the cost of the technician training school since bilateral assistance originally expected has not been obtained.

Project Cost and Financing

25. The estimated cost of the project excluding interest during construction is US\$89.4 million, including \$72 million in foreign currency. The overall cost of both stages of the Mehardeh power station, at about \$460 per

kW, is substantially above original estimates but still reasonable. The proposed Bank loan of \$72 million would finance the estimated foreign cost component of the project, equivalent to 81 percent of the total cost. Local expenditure would be financed by EPE's internal resources and Government contributions. The Government would supply EPE with funds to carry out the project and EPE's authorized expansion program, whenever such funds are unavailable from other sources. (Guarantee Agreement, Section 2.02). EPE is expected to provide 28 percent of the financing for its overall 1974-1980 investment program from internal sources, after debt service payment and working capital increase. The balance will be provided by net capital contributions by the Government (about 36 percent), consumers' contributions (about 2 percent) and long-term borrowing (about 34 percent).

Financial Performance

26. EPE's net operating revenue increased from LS 20.4 million in 1972 to LS 22.4 in 1973; the rate of return on average net fixed assets in operation correspondingly rose from 8.4 to 9.2%. Although EPE's net operating revenue for 1974 was severely affected by the 1973 war, its financial position remains basically sound. Damage to steam generating stations required restrictions of power supply and this, with a larger assets base resulting from increased prices and additional investments, will require a rate increase of at least 33 percent by 1978, in order to meet the rate of return covenant of the proposed Loan Agreement (Section 5.05) that is not less than 9 percent from 1978. This increase will be gradually introduced when EPE's tariffs are revised as a result of the tariff study to be carried out as part of the first Mehardeh Project. The Government has informed the Bank that all arrears from Municipalities and other Government agencies would be settled within about one year. These arrears represented debts unpaid as a result of disputes over the valuation of assets taken over by EPE. EPE's debt service coverage is projected to be satisfactory, increasing from 1.4 in 1975 to about 4 from 1978 onwards. Section 5.06 of the Loan Agreement provides that EPE would not incur any medium- or long-term debt without the Bank's approval, unless its net revenues cover debt service at least 1.5 times.

Economic Justification

27. EPE's sales are expected to increase at about 20 percent p.a. on the average through 1980. The share of sales to industry (including the National Oil Company), which has shown little variation in the past 10 years, would increase from 34 percent in 1963 to 74 percent by 1980 partly as a result of the incorporation of captive plants in the interconnected system. EPE's expansion program has been demonstrated by comparison with alternative programs to be the least-cost solution for meeting Syria's incremental electricity needs through 1980, even after taking into account the higher cost of equipment and somewhat lower sales than forecast during the first appraisal. The rate of return on the Project is estimated at about 13.5 percent, assuming an appropriate tariff increase.

Procurement

28. Except for teaching equipment, costing about \$750,000, which would be supplied as recommended by Electricite de France, as part of its training program, goods and services financed by the Bank have been or would be procured after international competitive bidding under the Bank's guidelines. EPE intends to purchase the power station and the substations by exercising an option obtained, in agreement with the Bank, from the bidders of identical equipment procured for the first Mehardeh project after international competitive bidding. EPE had initially requested a 16-month option which was subsequently reduced to six months, with the Bank's concurrence, to permit a reduction on the price charged to EPE for the second stage equipment by the lowest bidder. The advanced contracting for the second project would result in substantial savings and is also justified by a reduction of the high costs of operation of EPE's gas turbines, which the new generating unit will replace. Retroactive financing for downpayments for the power station and the substations and for engineering services will amount to about \$6-7 million.

Disbursement

29. The Bank would disburse 100% of the foreign exchange cost of the steam station and substations, training equipment and consultants. The estimated schedule of disbursement of the Bank's loan is in Annex III.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

30. The draft Loan Agreement between the Bank and EPE, the draft Guarantee Agreement between the Syrian Arab Republic and the Bank, the Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement and the text of a draft resolution approving the proposed loan are being distributed to the Executive Directors separately. Ratification of the agreements by the legislature is required under the laws of the Syrian Arab Republic and, owing to the lengthy legislative process involved, a period of six months has been allowed after the date of signature for the fulfillment of the conditions of effectiveness. The draft agreements conform to the normal pattern for loans for power projects. Features of the Loan and Guarantee Agreements of special interest are referred to in paragraphs 25 and 26 of this report.

31. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATIONS

32. I recommend that the Executive Directors approve the proposed loan.

Robert S. McNamara
President

Attachments
June 4, 1975

COUNTRY DATA - SYRIAN ARAB REPUBLIC

AREA	POPULATION	DENSITY
185,108 km ²	6.74 million (mid-1972)	75 Per km ² of arable land

SOCIAL INDICATORS

	Syrian Arab Rep.		Reference Countries		
	1960	1970	Turkey 1970	Tunisia 1970	Lebanon* 1970
GNP PER CAPITA US\$ (ATLAS BASIS) /1	180 /a	320 /b	370 /b	380 /b	700 /b
DEMOGRAPHIC					
Crude birth rate (per thousand)	..	48 /c	38 /d,e	38	41
Crude death rate (per thousand)	..	15 /c	13 /d,e	14	13
Infant mortality rate (per thousand live births)	..	93 /f,g	145 /h	106	82
Life expectancy at birth (years)	..	54	55 /i	56	58
Gross reproduction rate /2	..	3.5	2.6 /e,d	3.4	1.9
Population growth rate /3	3.3	3.3 /i	2.5 /i	2.1 /i	2.6 /j
Population growth rate - urban	..	5 /k	4.5 /i	3 /m,n	6 /n
Age structure (percent)					
0-14	46	49 /b	41.8	46 /f	43
15-64	49	47 /b	53.9	50 /f	52
65 and over	5	4 /b	4.3	4 /f	5
Age dependency ratio /4	1.0	1.1 /b	0.8	1.0 /f	0.9
Economic dependency ratio /4	2.2	2.5	1.1	2.1 /g	1.8
Urban population as percent of total	37 /k	44 /b,k	38.7 /i	44 /n,o	58 /n
Family planning: No. of acceptors cumulative (thous.)	..	..	484 /p,q	108	87
No. of users (% of married women)	..	..	8.2 /h	12	14
EMPLOYMENT					
Total labor force (thousands)	1,100	1,700 /b	14,500 /a	1,500 /b	570
Percentage employed in agriculture	47	54 /b	67	53 /b	19
Percentage unemployed	9 /r	5 /b	4	9 /b	6
INCOME DISTRIBUTION					
Percent of national income received by highest 5%	..	..	32 /h,t	..	26 /u,v
Percent of national income received by highest 20%	..	..	60 /h,t	..	55 /u,v
Percent of national income received by lowest 20%	..	..	3 /h,t	..	4 /u,v
Percent of national income received by lowest 40%	..	..	10 /h,t	..	11 /u,v
DISTRIBUTION OF LAND OWNERSHIP					
% owned by top 10% of owners	..	..	53	53 /w	57 /o
% owned by smallest 10% of owners	..	..	0.9	0.5 /w	1 /o
HEALTH AND NUTRITION					
Population per physician	5,200 /x	3,850	2,220	5,950	1,470
Population per nursing person	..	4,460	1,880 /y	730 /z	1,050 /y
Population per hospital bed	930 /x	1,010	490	410 /aa	260
Per capita calorie supply as % of requirements /5	102 /r	102	110	86	96
Per capita protein supply, total (grams per day) /6	74 /r	70	78	54	70
Of which, animal and pulse	28 /r	16	22 /ab	14 /ab	11
Death rate 1-4 years /7	..	..	15 /i	1.5 /o,ac	8
EDUCATION					
Adjusted /8 primary school enrollment ratio	65	88 /ad	111	107 /h	111 /ae
Adjusted /8 secondary school enrollment ratio	16	39 /ad	28	20 /h	40 /ae
Years of schooling provided, first and second level	12	12 /ad	11	13	12
Vocational enrollment as % of sec. school enrollment	6	4 /ad	14	34 /h	1 /ae
Adult literacy rate %	36 /af	40 /af	55 /ag	55 /aa,ah	69 /ah,ai
HOUSING					
Average No. of persons per room (urban)	2.1 /aj	..	1.9	2.6 /c	2.1
Percent of occupied units without piped water	58 /aj	..	64 /ak	60 /c	34
Access to electricity (as % of total population)	38 /aj,al	..	41 /aj	24 /c	98
Percent of rural population connected to electricity	11 /aj,al	..	18 /aj	..	98
CONSUMPTION					
Radio receivers per 1000 population	57	374 /a	107 /a	74 /a	211 /f
Passenger cars per 1000 population	4	5 /a	4	15 /a	57 /a
Electric power consumption (kwh p.c.)	77	183 /a	304 /a	188 /a	521 /a
Newspaper consumption p.c. kg per year	0.2	0.04 /a	2.2 /a	0.1 /a	1.7 /a

Notes: Figures refer either to the latest periods or to the latest years. Latest periods refer in principle to the years 1966-60 or 1966-70; the latest years in principle to 1960 and 1970.

/1 The Per Capita GNP estimate is at market prices for years other than 1960, calculated by the same conversion technique as the 1972 World Bank Atlas.

/2 Average number of daughters per woman of reproductive age.

/3 Population growth rates are for the decades ending in 1960 and 1970.

/4 Ratio of population under 15 and 65 and over to population of ages 15-64 for age dependency ratio and to labor force of ages 15-64 for economic dependency ratio.

/5 FAO reference standards represent physiological requirements for normal activity and health, taking

account of environmental temperature, body weights, and distribution by age and sex of national populations.

/6 Protein standards (requirements) for all countries as established by USDA Economic Research Service provide for a 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 somewhat 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.

/7 Some studies have suggested that crude death rates of children ages 1 through 4 may be used as a first approximation index of malnutrition.

/8 Percentage enrolled of corresponding population of school age as defined for each country.

/a Computed by applying to the 1970 figure the growth rate of GNP/Cap. in real terms from 1960 to 1970; /b 1972; 1965-70 UN estimate; /c 1965-70; /d Derived from sample survey estimates (240,000 persons), excluding 17 eastern provinces; /e 1971; /f AID estimate; /g 1968; /h 1965-67; /i 1960-72; /j Cities, Mahafeza centers and Mautika centers; /k Administrative centers of provinces and districts ("vilayet, and "kaza" centers); /l 1956-66; /m Over 10,000 population; /n 1966; /o 1964 - June 1974; /p 86 percent being IUDs; /q 1961; /r 15 years and over; /s Disposable income (Households); /t Personal disposable income (Households); /u Beirut and outskirts; /v Covering 4.5 million hectares of private land, excluding 0.8 million hectares in public ownership, and 2.1 million hectares of collective land; /x 1962; /y Including assistant nurses and midwives; /z Personnel in government services only; /aa Government hospital establishments only; /ab 1964-66; /ac Registered only; /ad Including UNRWA schools; /ae Excluding 26 percent of private schools; /af Definition not available; /ag Persons six years old and over who tell the census takers that they can read and write; /ah Read and write; /ai 10 years and over; /aj 1961-62; /ak Inside or outside; /al Percentage of dwellings with electrical lighting.

* Lebanon has been selected as an objective country on the basis of the strong and continuous economic, social, historical and political ties which bind the two countries.

ECONOMIC INDICATORS

	GROSS NATIONAL PRODUCT IN 1974 ^{1/}		ANNUAL RATE OF GROWTH (% constant prices)		
	US\$ Mln.	%	1960-65	1965-70	1974
GNP at Market Prices	3,995	100.0	8.5	5.5	12.7
Gross Domestic Investment	913	22.9	1.5	10.6	45.0
Gross National Saving ^{2/}	1,140	28.5	-	7.0	-60.3
Current Account Balance	227	5.7	.	.	.
Exports of Goods, NFS	1,059	26.5	8.1	0.6	- 9.4
Imports of Goods, NFS	1,329	33.3	0.0	4.6	43.1

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1973^{1/}

	Value Added		Labor Force ^{3/}		V. A. Per Worker	
	US\$ Mln.	%	Mln.	%	US \$	%
Agriculture	433	19.3	.86	50.5	505	38.3
Industry	504	22.4	.19	11.2	2,650	200.0
Services	1,309	58.3	.60	35.3	2,180	65.2
Unallocated	-	-	.05	3.0	-	-
Total	2,246	100.0	1.70	100.0	1,320	100.0

GOVERNMENT FINANCE

	General Government		
	(S.L. Mln.)	% of GDP	
	1974	1974	1970-74
Current Receipts	4,293	29.6	25.0
Current Expenditure	3,204	22.1	21.0
Current Surplus	1,089	7.5	4.0
Capital Expenditures	2,371	16.3	12.3
External Assistance (net)	2,003	13.8	-

MONEY, CREDIT and PRICES	1970	1971	1972	1973	Nov. 1973	Nov. 1974
		(Million S.L. outstanding end period)				
Money and Quasi Money	2,521	2,715	3,428	4,114	3,985	5,556
Bank credit to Public Sector	2,790	3,210	4,015	3,677	3,492	4,955
Bank Credit to Private Sector	551	570	578	653	694	735

(Percentages or Index Numbers)

Money and Quasi Money as % of GDP	39.2	36.5	38.6	43.7	..	185 ^{4/}
General Price Index (1963 = 100) ^{5/}	115	120	131	136	..	185 ^{4/}
Annual percentage changes in:						
General Price Index ^{5/}	-	4.4	9.2	3.8	..	36.0 ^{4/}
Bank credit to Public Sector	26.6	15.1	25.1	-8.4	.	42.0
Bank credit to Private Sector	-7.6	3.5	1.4	13.0	.	5.9

NOTE: All conversions to dollars in this table are at the average exchange rate prevailing during the period covered.

^{1/} Preliminary estimates.

^{2/} Including current transfers from abroad equivalent to US\$424 millions.

^{3/} Total labor force: unemployed are allocated to sector of their normal occupation. "Unallocated" consists mainly of unemployed workers seeking their first job.

^{4/} December.

^{5/} GDP deflator.

.. not available

. not applicable

TRADE PAYMENTS AND CAPITAL FLOWS

BALANCE OF PAYMENTS

	1972	1973	1974
	(Millions US \$)		
Exports of Goods, NFS	482	604	1,059
Imports of Goods, NFS	599	690	1,329
Resource Gap (deficit = -)	-117	-86	-270
Interest (net)	-7	-1	7
Workers' Remittances	68	51	66
Other Factor Payments (net)	-	-	-
Net Transfers	58	373	424
Balance on Current Account	2	337	227
Direct Foreign Investment	-	-	-
Net MLT Borrowing			
Disbursements	30	67	118
Amortization	-35	-40	-48
Subtotal	-5	27	70
Capital Grants	-	-	-
Private Short-term Capital (net)	17	-27	20
Other items n.e.i.	-7	-21	-17
Increase in Reserves (+)	7	316	300 ^{2/}
Gross Reserves ^{4/} (end year)	171	530	860 ^{3/}
Net Reserves ^{4/} (end year)	-36	285	455 ^{3/}
Fuel and Related Materials			
Imports	24	28	74
of which: Petroleum	(..)	(..)	(..)
Exports	52	77	434
of which: Petroleum	(52)	(77)	(434)

MERCHANDISE EXPORTS (AVERAGE 1972-74)

	US \$ Mln	%
Crude Oil	188	39.2
Raw Cotton	136	28.3
Textiles	48	10.0
Wool	15	3.1
Industrial Products	15	3.1
All other commodities	78	16.3
Total	480	100.0

EXTERNAL DEBT, DECEMBER 31, 1974

	US \$ Mln
Public Debt, incl. guaranteed	261.7
Non-Guaranteed Private Debt	-
Total outstanding + Disbursed	261.7
<u>DEBT SERVICE RATIO for 1974^{1/}</u>	
	%
Public Debt, incl. guaranteed	5.0
Non-Guaranteed Private Debt	-
Total outstanding + Disbursed	5.0

RATE OF EXCHANGEIBRD/IDA LENDING, (April 30, 1975) (Million US \$):

		IBRD	IDA
<u>Through January 1973</u>			
U.S. \$1.00 = S.L. 3.82	(Official)		
U.S. \$1.00 = S.L. 4.32	(Market)		
<u>February 1973 to June 1973</u>			
U.S. \$1.00 = S.L. 3.85	(Official)		
U.S. \$1.00 = S.L. 4.05	(Market)		
<u>July 1973 to January 1974</u>			
U.S. \$1.00 = S.L. 3.80	(Official and Market)		
S.L. 1.00 = U.S.\$0.26	(Official and Market)		
<u>February 1974 to Date</u>			
U.S. \$1.00 = S.L. 3.70			
S.L. 1.00 = U.S.\$0.27			
		Outstanding and Disbursed	- 9.9
		Undisbursed	88.0 38.7
		Outstanding incl. Undisbursed	88.0 49.6

^{1/} Ratio of Debt Service to Exports of Goods and Non-Factor Services.^{2/} Preliminary IBRD estimates.^{3/} November.^{4/} Data provided to the economic mission. Definition of reserves differs somewhat from that provided in the International Financial Statistics.

.. not available
. not applicable

STATUS OF BANK GROUP OPERATIONS IN SYRIA

A. STATEMENTS OF BANK LOANS AND IDA CREDITS

US\$Million

(as of April 30, 1975)

<u>Number</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>Amount (less cancellations)</u>		
				<u>Bank</u>	<u>IDA</u>	<u>Undisbursed</u>
46	1963	Syrian Arab Republic	Highways		8.5	-
298	1972	Syrian Arab Republic	Highways		13.8	13.8
401	1973	Syrian Arab Republic	Water Supply		15.0	15.0
469	1974	Syrian Arab Republic	Irrigation		10.0	10.0
975	1974	Syrian Arab Republic	Irrigation	63.0		63.0
986 a/	1974	Etablissement Public d'Electricité	Electricity	25.0		25.0
		<u>Total</u>		<u>88.0</u>	<u>47.3</u>	<u>126.8</u>
		of which has been repaid		<u>-</u>	<u>-.1</u>	
		Total now outstanding		<u>88.0</u>	<u>47.2</u>	
		Amount Sold		<u>-</u>	<u>-</u>	
		Total now held by Bank and IDA b/		<u>88.0</u>	<u>47.2</u>	
		Total undisbursed		<u>88.0</u>	<u>38.8</u>	<u>126.8</u>

a/ Amendment of April 29, 1975 increasing loan amount by \$8.6 million not included in above.

b/ Prior to exchange adjustments.

B. STATEMENTS OF IFC INVESTMENTS: None

(as of April 30, 1975)

C. PROJECTS IN EXECUTION 1/

Credit 298 - Second Highway Project; US\$13.8 million Credit of April 17, 1972;
Closing Date: June 30, 1978.

This project includes improvement and construction of 153 km of roads, linking Damascus with the Lebanese and Jordanian borders, and improvement of the road Tartous-Homs. It also includes feasibility studies and detailed engineering for bypasses for the cities of Homs, Hama, Aleppo and Deraa and the Aleppo-Tall Kojak road (about 470 km). No response was received to invitations to submit bids for the Damascus-Jordanian border road in 1974, and bidding will be repeated in 1975. Project construction started on the other sections in early 1975. Consultants for the studies are expected to be selected shortly.

Credit 401 - Damascus Water Supply Project; US\$15 million Credit of June 22, 1973; Closing Date: December 31, 1978.

This project consisted of four main elements: (i) installation of water mains to improve and expand the existing distribution system; (ii) construction of a 15-km tunnel to improve the supply of water to the city; (iii) pumping and storage facilities; and (iv) studies of pollution and sewerage problems in Damascus, Homs and Hama. In May 1973, the total cost was appraised at \$32.5 million with a foreign exchange component of \$17.8 million. The lowest evaluated bid for the first phase of the distribution works was about four times the appraisal estimate; the lowest bid for the tunnel was about ten times. Because of these high bid prices and since the tunnel may no longer be the least cost solution as compared with an overland pipeline or a multi-purpose dam, the Credit Agreement was amended on May 12 to exclude the source works, the main supply works and part of the distribution works not included in the priority phase, the Bank has proposed to the Government to consider financing them under a later loan after appraisal of possible alternatives. The remaining parts of the project are urgently required to increase the amount of water available to users by reducing distribution losses, and the Credit amount is sufficient to cover their foreign cost. The contract for the first phase of the distribution system has been awarded last April and construction will start shortly.

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 understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

Credit 469/Loan 975 - Balikh Irrigation Project; US\$10 million Credit and US\$63 million Loan of April 6, 1974; Closing Date: June 30, 1982.

The Project is the development of irrigated agriculture in an area of 48,000 ha gross or 41,000 ha net in the Balikh River Basin, including the resettlement of farmers that will be displaced by the filling of Lake Assad. The project includes use of consultants' services for the preparation of a master plan for the rehabilitation of agriculture in the Euphrates Valley between the Halabie-Zelabie Gorge and Abou-Kemal at the Syria-Iraq border, for the preparation of a feasibility study of a rehabilitation project covering about 55,000 ha on the right bank of the river in the valley and for the preparation of detailed designs and contract documents for the said area. The Loan and Credit became effective on September 12, 1974. Bids received for a first 10,000 ha stage are much higher than expected at the time of appraisal in February, 1974.

Loan 986 - Mehardeh Power Project; US\$25 million Loan of May 23, 1974; Closing Date: June 30, 1977.

This project consists of the first 150-MW unit of a new steam electrical power station at Mehardeh; eight 230-kV substations, consultant services and training. This project is co-financed by a US\$33 million loan by the Kuwait Fund, which includes a second portion of \$15 million to cover the considerable cost overrun of this project due to the increased level of world prices. The Bank has amended this loan on April 29, 1975 to increase it by \$8.6 million in order to finance the foreign exchange cost of the increase in capacity of the first power unit from 125 MW to 150 MW. Progress has been slow because the main contracts were awarded about 5 months late, due to difficulties in the evaluation of bids whose price was much higher than estimated. Management consultants were appointed in March 1975, and consultants for a tariff study are expected to be engaged before July 1975. This loan became effective on February 28, 1975.

SYRIA - Second Power Project

Loan and Project Summary

BORROWER: Etablissement Public de l'Electricite

GUARANTOR: Syrian Arab Republic

AMOUNT: US\$72 million equivalent

TERMS: Payable in 25 years including 3 years of grace at 8-1/2 percent interest per annum.

PROJECT DESCRIPTION: The project includes:

- (i) construction of the second 150-MW stage of the steam-electric power station at Mehardeh (including oil pipeline and associated unloading and transfer facilities).
- (ii) construction of six new substations and expansion of 2 existing substations.
- (iii) construction of a new head-office building at Damascus.
- (iv) consultant services and training.

ESTIMATED COST:

	US\$ Million			% of Project Cost
	Local	Foreign	Total	
Power Station				
Mehardeh Stage 2	6.1	39.1	45.2	51
Substation 230-kV	2.5	13.3	15.8	18
Head-office building	2.9	3.1	6.0	7
Engineering and Administration	<u>0.5</u>	<u>3.5</u>	<u>4.0</u>	<u>4</u>
Sub-total Direct Cost	12.0	59.0	71.0	80
Studies and Training	1.3	2.1	3.4	4
Contingencies/ ¹				
Physical	1.0	5.2	6.2	7
Price	<u>3.1</u>	<u>5.7</u>	<u>8.8</u>	<u>9</u>
	17.4	72.0	89.4	100

¹ See Annex 10 of Appraisal Report for details for Project contingency Components, which results in averages (including studies) as follows:

Physical: Local 7.9%, Foreign 8.6%
Price: Local 23.6%, Foreign 9.3%

FINANCING PLAN:

	US\$ Million	%
Proposed Bank Loan	72.0	81
Government/EPE resources	<u>17.4</u>	<u>19</u>
	89.4	100

ESTIMATED DISBURSEMENTS:

	(US\$ Millions for fiscal year)				
	1976	1977	1978	1979	1980
Annual disbursements	20.0	19.0	21.0	10.0	2.0
Cumulative disbursements	20.0	39.0	60.0	70.0	72.0

PROCUREMENT ARRANGEMENTS:

Major items will be purchased by exercising options under contracts awarded for the first stage project after international competitive bidding in accordance with the Bank Guidelines. Specialized teaching equipment, costing about \$750,000 and recommended by Electricite de France as part of the training program, would be purchased directly.

CONSULTANTS:

With the concurrence of the Bank, EPE has engaged the services of SOFRELEC of France for the feasibility studies, design, preparation of bid documents, evaluation of bids, supervision and administration of both the first and second stages of the Mehardeh project.

Contracts to be awarded:

- Study on overall long-term energy requirements
- Study on the use of flare gas for power generation at Souedie
- Study on the interconnection with neighboring countries
- Study on a rural electrification project.

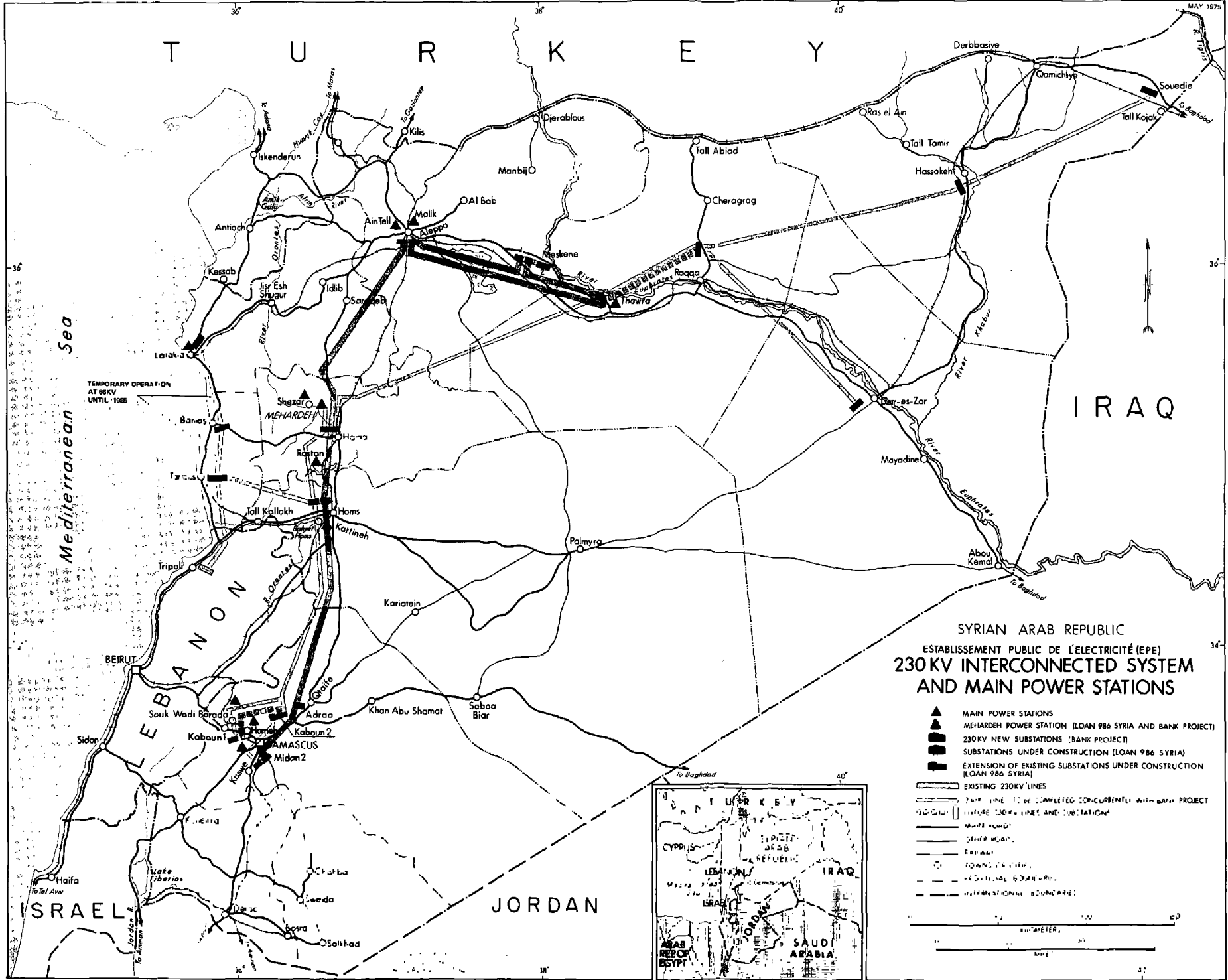
These studies are expected to require about 180 expert/month.

RATE OF RETURN:

13.5%

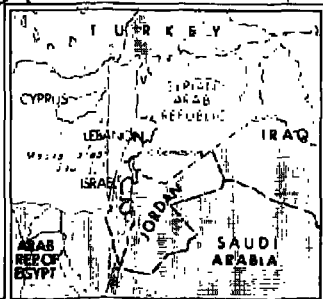
APPRAISAL REPORT:

707a-SYR, dated May 30, 1975.



SYRIAN ARAB REPUBLIC
ESTABLISSEMENT PUBLIC DE L'ELECTRICITE (EPE)
**230 KV INTERCONNECTED SYSTEM
AND MAIN POWER STATIONS**

- ▲ MAIN POWER STATIONS
- ▲ MEHARDEH POWER STATION (LOAN 986 SYRIA AND BANK PROJECT)
- 230KV NEW SUBSTATIONS (BANK PROJECT)
- SUBSTATIONS UNDER CONSTRUCTION (LOAN 986 SYRIA)
- EXTENSION OF EXISTING SUBSTATIONS UNDER CONSTRUCTION (LOAN 986 SYRIA)
- EXISTING 230KV LINES
- NEW LINE TO BE COMPLETED CONCURRENTLY WITH BANK PROJECT
- FUTURE 230KV LINES AND SUBSTATIONS
- HIGH VOLTAGE
- MEDIUM VOLTAGE
- TOWN OR CITY
- NATIONAL BOUNDARY
- INTERNATIONAL BOUNDARY



TEMPORARY OPERATION
AT 66KV
UNTIL 1985

