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REPORT AND RECOMMENDATION

Report No. P-2160-SYR

OF THE

PRESIDENT OF THE

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED LOAN TO THE

ETABLISSEMENT PUBLIC D'ELECTRICITE

WITH THE GUARANTEE OF THE

SYRIAN ARAB REPUBLIC FOR A

REGIONAL ELECTRIFICATION PROJECT

March 2, 1978

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CURRENCY EQUIVALENTS
(as of January 31, 1978)

Currency unit	=	Syrian Pound (LS)
Syrian Piaster (ps)	=	LS 0.01
LS 3.95	=	US\$1.00
LS 1.00	=	US\$0.253
LS 1,000,000	=	US\$253,000
US\$1,000,000	=	LS 3,950,000
Fiscal Year	=	Calendar Year

GLOSSARY OF ABBREVIATIONS

AYC	-	Arthur Young & Co. (US)
CDP	-	Caisse de la Dette Publique
EPE	-	Etablissement Public d'Electricite
OCS	-	Overseas Consultancy Service of British Electricity International, Ltd. (UK)
SOFRELEC	-	Societe Francaise d'Etudes et de Realisations d'Equipment Electrique
USAID	-	United States Agency for International Development

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SYRIA

REGIONAL ELECTRIFICATION PROJECT

LOAN AND PROJECT SUMMARY

Borrower: Etablissement Public d'Electricite (EPE)
Guarantor: Syrian Arab Republic
Amount: US\$40 million equivalent
Terms: 17 years including 4 years of grace, at interest rate of 7.45 percent per annum.

Project Description: The Project is a first stage of the Ten-Year National Rural Electrification Plan aimed at providing electricity service to all villages with at least 100 population by 1987. The project would consist of about 5,000 km of 20-kv transmission and 380/220-volt distribution lines and related equipment, about 70 MVA of distribution transformer capacity and 33 man-years of consulting services. The project would serve approximately 900,000 rural population in 1,200 villages in 11 out of the 14 Mohafazats (administrative districts) in Syria. No particular project risks are presently envisaged; however, the project is contingent on the completion of the related 66-kv transmission lines and 66/20-kv substations included in EPE's 1977-82 construction program.

Project Costs:

	-----US\$ Million-----		
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>
20-kV Distribution Lines	5.0	9.3	14.3
Distribution Transformers	0.8	3.8	4.6
380/220-V Distribution System and Related Equipment	29.2	35.7	64.9
Engineering and Administration	<u>1.3</u>	<u>3.3</u>	<u>4.6</u> /1
Subtotal	36.3	52.1	88.4
Contingencies:			
Physical	3.6	5.2	8.8
Price	<u>21.7</u>	<u>16.9</u>	<u>38.6</u>
Total Project Cost	<u>61.6</u>	<u>74.2</u>	<u>135.8</u>

/1 Includes 0.3 million for technical assistance in manpower development and planning.

Financing Plan:

-----US\$ Million-----				
<u>Total</u>	<u>Bank</u>	<u>USAID</u>	<u>EPE</u>	<u>Government</u>
135.8	40.0	34.2	30.0	31.6

Estimated
Disbursements:

<u>Bank FY</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Annual	15	16	9
Cumulative	15	31	40

Rate of Return: 8.5 percent

Appraisal
Report:

Report No. 1747-SYR, dated March 2, 1978

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT
TO THE EXECUTIVE DIRECTORS ON A PROPOSED LOAN
TO ETABLISSEMENT PUBLIC D'ELECTRICITE (EPE)
WITH THE GUARANTEE OF THE SYRIAN ARAB REPUBLIC

1. I submit the following report and recommendation on a proposed Bank loan of US\$40 million equivalent to the Etablissement Public d'Electricite (EPE) with the guarantee of the Syrian Arab Republic to help finance a Regional Electrification project. The loan would have a term of 17 years, including 4 years of grace, with interest at 7.45 percent per annum.

PART I - THE ECONOMY

2. A report entitled "Current Economic Position and Prospects for Syria" (no. 806-SYR, dated October 31, 1975) was distributed to the Executive Directors on November 12, 1975. This section is based on the findings of a Basic Economic Mission which visited Syria in April 1977, and whose report is in the final stage of preparation. Country data sheets are attached as Annex I.

3. Since attaining independence in 1946, Syria has had several changes in regime which resulted in a shift of power from groups of landowners, traders, and industrialists to a rising class of officers, technicians, and civil servants, as well as a shift of the economy from an essentially laissez-faire system to a largely publicly-owned and centrally regulated one. The Ba'ath Socialist Party, the ruling party since 1963, provided substantial continuity of emphasis on economic and social development policies which have, by and large, prevailed in spite of internal Government changes and tensions within the Middle East. During the 1960s an agrarian reform was carried out, with redistribution of land to a large number of formerly landless peasants; also large segments of the industrial, finance and trade sectors were nationalized. 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, a concerted search for a better defined role for the private sector in a centrally regulated economy, as well as diversification of foreign economic relations. These aims have been pursued gradually and, in spite of continued political uncertainty in the Middle East, substantial reorientation of economic policies and diversification of production have been achieved.

4. The Government's attention to economic and financial matters has led to a sustained on-going effort in conceptualizing objectives, identifying constraints, and formulating alternative strategies. As a result, an increasingly pragmatic assessment of economic policies has been taking place within the Government (and the ruling Ba'ath Party). The cabinet formed in August 1976 has as one of its key tasks the implementation of new economic policy directives,

strengthening of economic management, and tightening of controls over investment decisions in the public sector. The Prime Minister, General Khleifawi, a former head of the Economic Committee of the Ba'ath Party, and Prime Minister in the first cabinet formed after President Assad's accession to power, defined shortly after the change in cabinet the principles which henceforth are to guide Syrian economic policies. The Prime Minister's program, while re-affirming the Ba'ath Party's commitment to general socialist principles and the dominant role to be played by the public sector, called for improvements in management of the public sector and attempted to define a role for the private sector (including the specification of activities open to private investment, exclusively or jointly with the public sector, and the provision of the necessary safeguards and incentives to stimulate private investment). The program also called for the formulation of a wages and price policy, review of the economic planning system, transformation of the existing Industrial Bank into a genuine industrial development finance institution, and changes in interest rate policies to promote greater consistency with interest rates charged in neighbouring countries and to stimulate domestic savings.

5. The 1973 petroleum price increase, which boosted Syria's own petroleum export earnings, and the sharp rise in Arab grants following the October 1974 Rabat agreement, augmented financial resource availability in the short run, leading to revisions of the Third Plan (1971-75) and sharp increases in public investments. However, adverse financial developments, rooted in the high investment rates of 1974-75 and external developments, including the discontinuation of oil transit by Iraq, a decline in Arab aid and the impact of the Lebanese civil war, put unexpected financial constraints on investment and growth, and delayed the finalization of the Fourth (1976-80) Plan to early 1977. For 1976-80, the Plan called for: real growth of 12 percent yearly in GDP; increases in real terms of 7 percent per annum in exports; and a domestic savings/GDP ratio of about 23 percent. With the constraints on resource availability that have emerged, the Government however has decided not to implement the Plan fully and in fact to limit its investment program for 1977-80 mainly to ongoing projects. Further revisions of the public investment program for 1978-80 are underway with a view to take account more appropriately of financial and other constraints.

6. The strategy underlying the current investment strategy places particular emphasis on industrialization, with investment in agriculture remaining substantial. The industrial development strategy stresses import-substitution in consumer goods, and a substantial expansion of resource-based industries, such as cotton textiles, cement and fertilizers. Significant exports of manufactured goods by 1980 -- particularly textiles and fertilizers -- is a primary objective of the Government's investment program in the manufacturing sector. In agriculture, the Government's overall objectives are the same as those in the previous Plan: self-sufficiency in major domestic food needs, meeting the raw material requirements of industry, and provision of a production surplus for export. Rational land and water use, the stabilization of annual fluctuations in output and the improvement in consumer diets

through an increase in protein supply are further objectives. The strategy to achieve these objectives includes expansion of irrigated agriculture, intensification of crop production and achievement of a better balance and complementarity between crop and livestock production.

7. Economic growth during 1971-75 is estimated at close to the 8 percent target level, and growth in 1976 was also around 8 percent. Public investment during 1971-75 reached about 70 percent of the original Plan target, with about 55 percent of the total outlays being made in the last two years of the Plan period, largely as a result of greater availability of financial resources. The elasticity of savings with respect to GDP fell to 1.0, compared to a target of 1.8, reflecting a shortfall in the public savings effort, particularly in recent years. A substantial number of manufacturing projects, including those in fertilizers and steel rolling, came on stream during the Plan period, thus diversifying the structure of industrial output. Particularly heavy expenditures were made in industry, energy and fuel in 1974 and 1975, as a large number of projects were commenced. Investments in irrigation and agriculture appear to have remained stagnant in real terms during the Plan period and fell substantially short of the target and the Plan's overall achievement rate. Nonetheless, the Euphrates basin investments were substantial and if the serious technical problems faced so far are overcome, may lead to higher growth and stability in the production of the agricultural sector in the future. Progress in the fields of transport and communications kept pace with the overall implementation rate of the Plan. Investments in social services reached a high proportion of planned allocations, although substantial needs remain in education, health and urban services.

8. In response to the several economic and political factors which came into play in the last few years (temporary slow-down in Arab aid, loss of transit revenues and concessionary crude oil supplies from Iraq, military expenditures in Lebanon, and the inflow of refugees from Lebanon), the rate of economic growth slowed down from 11 percent in 1975 to almost 8 percent in 1976. The budget deficit continued to increase from SL 3.1 billion in 1975 to SL 4.5 billion in 1976, and is expected to amount to SL 6.0 billion in 1977 implying government savings of zero. The balance of payments, reflecting similar trends, moved from a current account surplus of SL 280 million in 1975 to a deficit of over SL 3.1 billion in 1976, and external reserves fell in 1976 by SL 1.4 billion. Data for 1977 are not available, but economic growth is thought to have been around 6 percent (agriculture, 4 percent; industry, 10 percent).

9. The Government, faced with the reduced availability of economic resources, has been making efforts at austerity, and has introduced a number of policies designed to meet the financial stringency, and to redress the structural disequilibrium which has evolved in the balance of payments, as a result of the changed pattern of resource availability and usage in the last four or five years. With slow but increasing effectiveness, the Government has reassessed the economic situation; as a result, the Fourth Five-Year Plan, which was approved in April 1977, was severely curtailed (para. 5).

More formal development planning has been temporarily suspended, wisely, for immediate efforts at rational investment decision-making. To meet the financial stringencies, current expenditures under the 1977 budget have been held to 1976 levels, and public investment has temporarily been restricted only to on-going projects. Simultaneously, the Government has been conducting a wide-scale review of economic profitability of the various on-going projects, as well as of the new projects that had been proposed in the Five-Year Plan.

10. Increasingly aware of the needs to improve the economy's performance, the Government has begun to take measures to relieve constraints on the country's development. Following the years of financial ease (up to early 1976), fiscal performance needs to be improved, if development is to proceed without interruption and without entailing potentially serious inflationary and public debt management problems. This will require continuation of the efforts begun in 1977 to improve domestic resource mobilization and tighten control of expenditures. Efforts which are underway in the Ministry of Finance to reform the tax system and to improve the Ministry's budgetary and control functions need to be increased. In addition, action must be taken to increase the efficiency of economic enterprises and their contribution to the budget through improved management, including introduction of sound accounting practices (for which a law was passed in 1974) and control, as well as improved efficiency in production and introduction of cost-related pricing. The State Planning Commission is presently studying capacity utilization in agriculture, industry and transport with a view towards finding means of increasing growth through improved utilization of existing capacity rather than new investments. The Government has also sought UNDP assistance in planning, and the Bank is considering how best to respond to a Government request for assistance in project identification, preparation and implementation. While these efforts are expected to have only a small impact in the years immediately ahead, they are likely to yield considerable fruits in the long run.

11. The shortage of skilled manpower may cause bottlenecks in project implementation. The uneven spatial distribution of employment is also likely to pose problems as a large proportion of public investment in agriculture and industry is to take place in the Northeast, where the population density is much lower than in the Western Coastal belt. Measures will be required to attract population and to provide sufficient skilled manpower to the Northeast region. The overall manpower situation and the difficulties currently encountered in fostering an efficient public administration and public economic sector are exacerbated by emigration of trained technicians and skilled labor abroad and the outflow of trained manpower from the public sector to the private sector as a result of wide wage differentials. To alleviate the shortages the Government will provide extensive training facilities for augmenting the supply of skilled manpower. It may however have to revamp the structure of incentives so as to enable the public sector to attract and retain an efficient cadre of administrators, technicians and other skilled

workers. In the past emigration to neighboring labor-deficit countries and to some extent low labor force participation rates among females have contributed to reduced requirement for employment creation through public investment. While the Government is fully committed to increasing productive employment opportunities, there is an urgent need to formulate a coherent employment strategy consistent with the current and future investment strategy.

12. Perhaps the most significant obstacle to long-run economic and social progress in Syria is the absence of effective planning and administrative institutions. Administrative problems are too complex and deep-rooted to be amenable to even medium-term solutions. There is, nevertheless, an urgent need to implement a wide-ranging administrative reform to tackle the wide variety of existing administrative problems so as to develop administrative capacities and capabilities, particularly in the formulation and execution of development plans, programs and projects.

13. Syria's economic prospects depend heavily on the availability of financial resources and also on absorptive capacity in the various sectors. Considering these constraints, a reduced investment program will be implemented during the 1977-80 period. This new level of investment would be consonant with the Government's concern for improving the quality of investments. Tentative Bank projections indicate that such investment would be sufficient to generate real GDP growth in the neighborhood of 6 to 7 percent per year in the early 1980's. The sources of growth in the late 1970's are likely to be the manufacturing and construction sectors, with agricultural production stabilized at higher levels, rather than mining and commerce which were the leading growth sectors during the Third Plan.

14. On Bank assumptions, the requirements of a growing aggregate demand would entail an increase in the current account deficit from \$800 million in 1976 to \$1,030 million in 1980. The Government is expected to implement measures to improve domestic resource mobilization, following the studies currently underway, so as to narrow the savings-investment gap, and thereby the resource gap.

15. At the end of 1977, external public debt outstanding and disbursed, excluding military debt, was estimated to be around \$1,776 million (31 percent of GDP) of which 80 percent was held by Governments (28 percent, OPEC; and 47 percent, centrally planned economies), and only 4 percent by multilateral organizations (exclusively the World Bank Group). On Bank assumptions, gross external capital requirements during 1978-80 will be \$3.2 billion. As a result, Syria's debt service ratio is expected to rise from 9.6 percent in 1976 to 16 percent by 1980, and 23 percent by 1985. If assumptions for 1980-85 are simply extrapolated beyond, the debt service ratio is expected to be 26 percent by 1990. The Bank Group's share in total public debt outstanding and disbursed is projected to increase to 4.2 percent and in total debt service payments to 3 percent in 1980. Subject to continued prudent debt management, to which the Government started giving priority in 1977, Syria remains creditworthy for Bank lending.

PART II - BANK GROUP OPERATIONS IN SYRIA

16. Syria has to date received four IDA credits totalling US\$47.3 million and ten loans totalling US\$319.1 million (including one loan of US\$12.5 million on Third Window terms), net of cancellations. Although Syria is a member of the Corporation, IFC has made no investments. At the end of 1976 the Bank Group accounted for 14 percent of Syria's total outstanding public debt; by 1980 it is expected to account for 10 percent of total outstanding public debt and 7 percent of public debt service obligations. Annex I contains a summary statement of IDA credits and Bank loans as of February 24, 1978.

17. Project implementation has generally suffered substantial delays due largely to circumstances beyond Syria's control. The 1973 hostilities brought works to a standstill and diverted the country's resources first to military, then to reconstruction tasks; the unsettled conditions in the region and weaknesses in the administrative system caused project implementation to slow down. The above developments were compounded by the high rate of world inflation and generated considerable cost overruns in most projects. As a result, the scope of the Damascus Water Supply and Mehardeh Power Projects had to be revised and additional financing secured. In the case of the Balikh Project, the Government obtained a \$50 million loan from the Government of Iran and has undertaken to provide the Bank with a new financing plan for the project as soon as the current reassessment of the development program of the Euphrates Valley is completed. In the case of the Second Highway Project, the Government obtained a \$45.9 million loan from USAID to finance one of the components originally included in the project and has decided to upgrade the project roads to four lane standards. Disbursements of Bank loans had reached, as of September 1977, 60 percent of appraisal estimates and 95 percent of revised estimates. The Government has however been requested by the Bank to deal with problems of project implementation, which still calls for improvement.

18. Lending for infrastructure accounted for over two-thirds of Bank Group lending to Syria thus far. It aimed at fostering well designed sector policies and strengthening various public institutions in charge of power, water supply, highways and telecommunications. The objective of lending for irrigation development (Balikh Project) was to help increase and stabilize agricultural production and farmers' incomes which are subject to wide fluctuations under rainfed conditions. The livestock development project for which a loan was approved in FY77 provides for fundamental improvements in feed and flock management policy as well as credit to sheep farmers, most of whom are among Syria's poor nomadic population, with an aim to increasing and stabilizing incomes in the sheep subsector throughout Syria. Due to delays in selecting and appointing consultants, this loan has not yet become effective. Effectiveness of the loan for Aleppo Water Supply has also suffered from delays in implementing tariff increases, which have now been introduced; effectiveness is expected in the near future.

19. A diversification of lending operations in Syria is envisaged through a gradual shift of emphasis away from infrastructure projects, toward quicker yielding projects in the directly productive (agricultural and industrial) sectors with export or import substitution potential. However, project preparation according to Bank standards remains a serious constraint in these sectors. Bank lending in coming years is therefore bound to apply to a number of infrastructure projects with a high economic and social priority (e.g. education and the provision of basic urban services, such as water supply). A Third Highway project has been recently appraised and negotiations are scheduled to begin in Washington shortly; it will include the construction and/or upgrading of high priority sections of Syria's main highways. Also recently appraised was an irrigation/drainage project providing for the rehabilitation of salt-affected lands in the lower Euphrates area. Projects under preparation include agro-industry (cotton seed processing), rainfed agriculture (integrated development in the northeastern region), and water supply and sewerage facilities (for Damascus, Hama, Homs).

20. The lending activities described above would help to improve project preparation and implementation, especially in those sectors in which the Bank has not been previously involved, and strengthen sector policies and institutions. The proposed operations will include significant technical assistance and training components to achieve the above objectives.

PART III - POWER SECTOR IN SYRIA

21. Up to 1951 the Electric Power Sector was in the hands of private, local and foreign electric utility companies. Although all private holdings were nationalized in 1951, the sector lacked organization and remained fragmented. In 1965 the sector was consolidated under Etablissement Public d'Electricite (EPE). In 1974, EPE was made an agency of the then newly created Ministry of Electricity. The relationship between EPE and the Ministry requires more effective organization than is currently the case and has been reviewed by Arthur Young & Company, the consultant for the management study financed by the Bank under Loan 986-SYR. The recommendations of this study have been approved by EPE and the Ministry of Electricity and are awaiting final approval by the Government for implementation (see below para. 33).

22. For all practical purposes, EPE represents the whole power sector in Syria since continued expansion of EPE's transmission and distribution lines has progressively integrated most isolated loads. The average annual growth of total sales for the EPE interconnected system for 1966-76 exceeded 15 percent per annum. The 1976 peak demand was 327 MW and total generation was 1,459 GWh. The peak demand for 1977 is estimated at 428 MW and the total generation at 1,914 GWh, with installed capacity of 1,275 MW and average generation capability of about 3,802 GWh. The distribution of electricity

sales in 1976 was as follows: households and commercial - 40 percent; Government industry and services - 31 percent; private industry - 28 percent; and irrigation - 1 percent. Particularly rapid growth of demand is expected in irrigation (85 percent per annum) and other rural uses (78 percent per annum). By 1982, the distribution of electricity sales is estimated to be as follows: household and commercial 22 percent; Government industry and services 52 percent; private industry 13 percent; and irrigation 13 percent.

23. System expansion and development so far has been primarily aimed at meeting the industrial load growth. For 1977, following commissioning of the Thawra hydroelectric units (8 x 100 MW), hydropower is expected to cover 85 percent of the total generation while steam will account for 11 percent, and combustion turbines and diesel sets for the remaining 4 percent. In 1978, hydrogeneration is expected to reach 89 percent of the total due to better utilization of the available Thawra energy, with steam generation making up the rest. Recently completed construction increased the length of 230-kV transmission lines to about 1,800 km. The system also has about 1,500 km of 66-kV, 4,000 km of 20-kV lines, and 11,500 of low voltage distribution lines. The proportion of the population with access to electricity was estimated at 50 percent in 1977 (with an average per capita consumption of about 250/kWh per annum) and is expected to be at least 65 percent in 1980 following the implementation of several projects including the proposed project. The proportion of rural population with access to electricity is expected to increase substantially from about 20 percent in 1977 to about 70 percent in 1987.

24. The power sector figures prominently in the Government's Five-Year Plan and EPE is committed to a large expansion program to keep up with a projected growth in load of about 18 percent per annum between 1977-82. Total cost of the 1977-82 power development program is estimated at about US\$1.1 billion. The major investments would include expansion of the Mehardeh thermal plant (2 x 150 MW); Baniyas thermal power station (2 x 150 MW) scheduled for operation in 1983; about 1,900 km of 230-kV transmission lines and corresponding substation capacity; and 2,800 km of 66-kV transmission lines aimed at supporting plans for some 13,000 km of future urban and rural distribution systems also included in the current expansion program. These investments are expected to be financed by Government grants of US\$392.4 million (35 percent), internally generated funds of US\$310.4 million (27 percent), Government operating subsidy of US\$86.5 million (8 percent), long-term borrowings of US\$324.6 million (29 percent) including existing loans of US\$75.9 million, and customers' contributions of US\$14.3 million (1 percent).

25. Several constraints presently hinder the performance of the power sector in Syria. Firstly, EPE has still to become a full-fledged, autonomous efficiently managed electric utility. Gains are slowly being made in this direction. Arrangements are presently underway to modernize EPE's accounting system and the Bank agreed with the Government and EPE during negotiations on a plan to eliminate the debts and arrears due to EPE from Government agencies (para 37). In addition, EPE is expected to institute reasonable tariff increases over the next several years to strengthen EPE's financial viability (para. 36). Secondly, EPE lacks the skilled staff to implement the

system expansion plans and to maintain adequately existing equipment. To alleviate this need, a specialized training center, "Institut Moyen d'Electromecanique" is being constructed in Adraa (see para. 34). The institute would be fully operational in 1978.

26. The proposed loan would represent the third Bank lending operation for power in Syria. The first loan (986-SYR) cofinanced by the Kuwait Fund was made in 1974 for the first stage (150-MW) of the Mehardeh Steam electric generating plant, and was later amended, increasing the loan amount by US\$8.6 million to meet the cost of the enlarged project scope. The second loan (1144-SYR) was made in 1975 to finance the second 150-MW unit at Mehardeh. Physical implementation of both projects have proceeded satisfactorily with the first unit expected to become operational in 1978. However, managerial and financial problems persist due to delays in changing over to a new accounting system and implementing the organizational improvements which were proposed by the management consultants. In addition the Government has been slow in approving tariff increases necessary to ensure EPE's financial autonomy. To expedite the resolution of these problems, agreement was reached during negotiations with EPE and the Government on a timetable for increasing EPE's tariffs, as well as implementing a utility accounting system and the necessary organizational changes (paras. 33, 36 and 38).

PART IV - THE PROJECT

27. The staff report entitled "Syria - Regional Electrification Project" (No. 1747-SYR) dated March 2, 1978 has been distributed separately. The proposed project was prepared by EPE and the consulting firm SOFRELEC and was appraised in May/June 1977. Negotiations were held in Washington between January 24 and February 3, 1978 and the delegation from EPE and the Government was led by Mr. R. Idriss, General Director of EPE.

Project Objectives and Description

28. The project is the first stage of a ten-year National Rural Electrification Program aimed at providing electricity service from the National Grid to all villages with at least 100 population by 1987. The project would provide electricity service to 900,000 inhabitants in 11 out of the 14 Mohafazat (administrative districts) in Syria, including about 150,000 rural households for whom adequate supply of electricity would be made available for the first time. The project would also serve health care, education and communication centers as well as infrastructure services such as water supply and industries as part of the Government's drive to increase agro-industrial activity and to improve the quality of life in rural Syria. Specifically, the project would consist of the following:

- (a) constructing about 5,000 km of 20-kV and 380/220 volt distribution lines and installing related equipment;

- (b) providing about 70 MVA of 20/0.4-kV distribution transformer capacity and street lighting equipment; and
- (c) technical assistance to strengthen EPE's capabilities in manpower planning and development.

Project Execution

29. Under the Second Mehardeh Project (Loan 1144-SYR) SOFRELEC completed a feasibility study including preliminary design, cost estimates and technical specifications on electrification of all rural areas in Syria. Based on the SOFRELEC study, US engineering consultants to be engaged by EPE with USAID financing would develop detailed designs and prepare bidding documents for the project. As an integral part of this work, the consultants are expected to revise the preliminary designs of the 380/220-V system which presently appear over-dimensioned, to make them more cost effective. The appointment of project consultants would be a condition of loan effectiveness (Sections 3.02(a) and 7.01(a) of the Loan Agreement).

30. EPE would be responsible for project implementation assisted by the USAID-financed consultants who would provide project management and supervision. The consultants would also assist EPE in developing adequate extension policies for new consumer connections in the National Rural Electrification Plan which EPE would be required to monitor as a condition of the proposed loan (Section 4.06 of the Loan Agreement). The Bank has sent the draft Terms of Reference for the consultants to EPE and USAID. The consultants would prepare detailed construction schedules and develop critical path schedules to facilitate project implementation. EPE would be required to review these schedules and report periodically to the Bank on the progress of project implementation (Section 3.04(d) of the Loan Agreement). The Government and EPE established a Project Unit within the Rural Electrification Department (Section 3.01(c) of the Loan Agreement) and appointed a Project Unit Director prior to negotiations for the proposed loan. Adequate staffing of the unit has been made a condition of loan effectiveness (Section 7.01(c) of the Loan Agreement). Agreement was reached during negotiations that the Project Unit would coordinate the on-going transmission and expansion program to synchronize the construction of the 66-kV lines and 66/20-kV substations needed to supply the project and being implemented with development assistance from the Democratic Republic of Germany (Section 3.01(b) of the Loan Agreement).

Project Costs and Financing Plan

31. The estimated cost of the project including contingencies but excluding import duties is US\$135.8 million, of which US\$74.2 million (or 55 percent) would be in foreign exchange. The cost of 20-kV distribution works including transformers is estimated at about US\$18.9 million including about US\$13.1 million in foreign exchange, and the cost of the 380/220-V distribution system and related equipment is estimated at US\$64.9 million including US\$35.7 million in foreign exchange. Physical and price contingencies are estimated at US\$8.8 million and US\$38.6 million respectively. Physical contingencies

were assumed at 10 percent for both local and foreign components. Price contingencies were estimated at 7.5 percent between 1977-79 and 7 percent between 1980-81 for equipment and materials and 9 percent and 8 percent respectively for comparable periods for civil works.

32. The proposed Bank loan of US\$40 million to be made directly to EPE would amount to about 30 percent of total project costs and about 54 percent of the foreign exchange costs. The proposed Bank loan would meet the full foreign exchange cost of 20-kV transmission lines, including 20/0.4 kV distribution transformers and 24 percent of the foreign exchange cost of the 380/220-V distribution lines. The proposed Bank loan would also be used to finance the full foreign exchange costs for installation and erection and the technical assistance to EPE for manpower planning and development. A USAID loan of US\$34.2 million was provided to the Government at an interest rate of 2 percent per annum for 40 years including a 10 year grace period and will be on-lent to EPE. The USAID funds would be used to finance the full foreign exchange cost for engineering services and 76 percent of the foreign exchange cost of the 380/220-V distribution lines and related equipment. The full local currency costs of the project would be met partly from EPE's internally generated funds, and partly through Government grants.

Management and Staffing of EPE

33. The Board of Directors is the highest authority in EPE and is presided over by the Minister of Electricity, or his Deputy for Technical Affairs. A management advisory committee composed of EPE senior staff advises the General Director on day-to-day decisions. The General Director is appointed by the Prime Minister and serves also as a member of the Board of Directors. Other Board members are appointed directly by the Ministry of Electricity. All appointments are for indefinite periods. EPE is to be reorganized along the lines proposed in a study prepared by Arthur Young and Co., Management Consultants, and financed under Loan 986-SYR. Under the new organization day-to-day management authority would reside with the General Director as at present; however, there would be increased delegation of authority to a Deputy General Director and five Assistant General Directors for Operations, Engineering and Planning, Financial Affairs and General Services, Regional and Commercial Affairs, and Projects and Rural Electrification. During negotiations the Bank agreed with the Government and EPE on a timetable for implementing the Management Consultant's recommendations affecting EPE's organizational structure, no later than December 31, 1978. Appointment of consultants to start implementing the recommended organizational changes has been made a condition of loan effectiveness (Section 3.02 of the Guarantee Agreement; and Sections 4.07 and 7.01(b) of the Loan Agreement).

34. EPE's labor costs are expected to increase substantially between 1977-82 due to inflation, estimated at 8 percent per annum, and to its expansion program requiring trained operators and additional employees. EPE has now about 13,000 employees, with a projected increase to about 21,000 by 1980. The increase is acceptable in view of the accelerated development planned for EPE. At the request of EPE, the Project includes the services of a manpower

development advisor to prepare long-range plans for personnel selection, training, and development. Intensive training for the Mehardeh power plant personnel is currently being carried out in temporary facilities at Hameh Power Station. Once the permanent buildings are completed, all internal training activities will be moved to the institute at Adraa (see para. 25).

Financial Performance of EPE

35. EPE's net operating revenues decreased from LS 20.4 million in 1972 to LS 9.5 million in 1976 with losses of LS 28.3 million in 1974 and LS 18.1 million in 1975. The decreases resulted from restricted sales and increased cost of generation from diesel and combustion turbines installed to replace the steam capacity lost during the 1973 War.

36. Under the existing Loan Agreements and the proposed loan, EPE was required (through December 31, 1977) to maintain its average electricity rates at levels not below those existing as of May 31, 1973. During negotiations, agreement, similar to that concluded under the Second Power Project (1144-SYR), was reached that EPE would obtain revenues from the supply of electricity sufficient to yield an annual return of not less than 9 percent on revalued average net fixed assets in operation (Sections 5.04 of the Loan Agreement and 3.02 of the Guarantee Agreement). However, the Government requested that the 9 percent requirement should be partially waived until 1980, to minimize the inflationary impact of a precipitous increase in tariff during this period of steep increase in EPE's fixed assets and of general reappraisal of the Government's investment and pricing policies. It was therefore agreed that between 1978-80 EPE could earn the required 9 percent rate of return from a combination of tariff increases and direct Government cash contributions to meet any shortfall in EPE's net income not derived from tariff revenues. During 1978, the cash contribution may be equal to the full difference of EPE's revenues from the 1977 tariffs and the amount that EPE would have obtained had it raised its tariffs to a level necessary to obtain a 9 percent return on its net fixed assets in operation. On a similar basis, the Government cash contribution would cover no more than 70 percent of the shortfall in EPE's net income in 1979 and no more than 40 percent in 1980. EPE would increase tariffs in 1979 and 1980 to supplement the Government contribution and earn a 9 percent rate of return. In 1981 and for subsequent years, EPE would be required to meet the entirety of the 9 percent rate of return from tariff revenues. In addition, it was agreed that EPE will prepare a satisfactory progressive rate structure for household electricity consumption by defining the first block of consumption that should benefit from the lowest rates. EPE's proposal will be completed by September 30, 1978, and implemented no later than January 1, 1979. The Bank's agreement to the Government's request to waive partially the rate of return requirement was predicated on the fact that EPE's net fixed assets have been rising steadily to replace capacity lost during the 1973 war while electricity sales have lagged because of delays in restoring industrial production. It was therefore felt that a gradual increase in tariffs over a three-year period would be necessary to enable the Government to continue with its efforts to reorganize the industrial and energy sectors as well as to allow sufficient time for EPE's

expected load growth to materialize. Asset revaluation will be required annually, starting in 1979. Although somewhat lesser increases will be needed through 1982, EPE would have to nearly double its average selling price by 1982. On this basis, EPE should be able to finance about 27 percent of the 1977-88 investment program (see para 24) from internally generated funds.

37. Between 1977 and 1982 EPE's gross fixed assets in operation are estimated to increase from LS 1.4 billion to LS 5.2 billion (about LS 7.1 billion after revaluation). Even though EPE's long-term debt will increase from about LS 400 million in 1977 to about LS 1.4 billion in 1982, EPE's debt equity ratio will remain fairly constant at about 20:80 between 1978-1982, because of substantial Government contribution to EPE's equity, offsetting foreign borrowing in EPE's capital structure. Under previous Agreements with the Bank, EPE agreed not to incur additional debt without the Bank's agreement unless its debt service coverage ratio with reference to maximum debt service including the debt service on the debt to be incurred was at least 1.5. This will remain a covenant of the proposed Loan Agreement (Section 5.05 of the Loan Agreement). EPE's receivables have currently accumulated to excessive levels (over 150 days' billing) with most of the accounts due from Government entities and the municipalities. EPE's plan for reducing its accounts receivables was discussed during negotiations. It was agreed that EPE would eliminate all the old debts and arrears due from Government entities and municipalities and would reduce all its receivables to 90 days billing maximum by December 31, 1978. In addition, EPE would ensure that its accounts receivable shall thereafter not exceed that limit (Section 5.06 of the Loan Agreement).

38. Presently, EPE's accounting records are kept in several centers and sent annually to the Head Office in Damascus. Consequently, control is lacking over accounting functions to ensure completeness and consistency necessary for the efficient management of EPE as well as the development of an appropriate tariff base. During negotiations agreement was reached that EPE would engage consultants to begin implementation of the proposed accounting system developed for EPE by Arthur Young & Co. (Section 5.01(b) of the Loan Agreement), including revaluation of assets employing methodology acceptable to the Bank, by June 30, 1978. The appointment of the consultants has been made a condition of loan effectiveness (Sections 3.02(b) and 7.01(b) of the Loan Agreement).

Audit

39. EPE's financial statements for 1974 and 1975 were audited by the firm of Jalal Abu-Ghazebbeh (Kuwait) who are acceptable to the Bank and are preparing the audits for the 1976 and 1977 accounts.

Insurance

40. Insurance of EPE's major assets is adequate. However, because of the large additions of major planned investments some of which are nearing completion, EPE agreed during negotiation to undertake, with the assistance of

underwriters, a review of its insurance practices. The review would determine whether any changes related to inspection and safety aspects are needed in existing coverage to comply with sound utility practices. EPE has agreed to submit the results of the review to the Bank for comment by June 30, 1979 (Section 4.03(b) of the Loan Agreement).

Disbursement

41. Disbursement of the Bank loan would be for 100 percent of the foreign exchange cost of distribution equipment and materials, foreign consultants, and of technical assistance for manpower development, 70 percent of the expenditures for local consultants, and for 35 percent of EPE's total expenditures for the installation and erection contracts. Disbursements are estimated at US\$15 million in 1979, US\$16 million in 1980 and US\$9 million in 1981. No retroactive financing is anticipated. The proposed closing date is June 30, 1982.

Procurement

42. Contracts for supplying equipment and materials to be financed from the proposed Bank loan would be awarded under international competitive bidding (ICB). Since no Syrian manufacturers are likely to submit bids, no provision for local preference is necessary. Bid packages would be grouped by voltage levels: one group for 20-kV lines and distribution transformers (US\$6.2 million), and the other for 380/220-V distribution system and street lighting (US\$21.2 million). Each group could be awarded as a single contract or in two or more subgroups to allow flexibility and promote competition thereby favoring lower costs and prompt execution of the project. To ensure equality for all bidders in the evaluation and comparison of bids, it was agreed during negotiations that bidders required to deposit bid bonds, or to secure their contracts by means of performance bonds or bank guarantee shall show separately the cost of such bonds or guarantee which will be deducted during comparison with bids submitted by bidders (Government-owned construction firms) who are exempted from depositing such bonds or guarantees. Minor quantities of standard distribution equipment and materials needed to match and line up new construction with existing facilities would be procured under "international shopping" after inviting quotations from at least three manufacturers. Total cost of contracts awarded under international shopping would not exceed US\$1,000,000 equivalent. Installation and erection contracts would also be awarded under international competitive bidding, except for about 20 percent, to be done by EPE's own service crews (mostly installation of service drops and customer connections). The interest of foreign contractors in these contracts is likely to be limited because of the wide geographical dispersion of project facilities; local contractors however would be capable of carrying out installation and erection works for the project if no foreign bids are received, as is the case with on-going projects in the sector.

Project Justification

43. (a) Demand. The project would help meet part of the expected demand for electricity in the villages to be generated by

implementation of the National Rural Electrification Plan. The long-term average growth rate in demand under the Plan has been estimated at 18.2 percent per annum. The project which constitutes the first phase of the Plan, would achieve initial connection rate of 50 percent during the first year of electrification for most villages served under the project with complete coverage during the project implementation period (1977-82). Since implementation of the plan would generate considerable load for EPE, it would also contribute to correcting part of the imbalance which currently exists between generation and distribution capacity due to slower growth in power demand than had been expected following the 1973 war.

- (b) Least Cost Alternative. A break even analysis indicates that a village of at least 500 inhabitants could economically be supplied with electricity at a maximum distance of 18.2 kilometers from the central grid, beyond which local generation becomes more economical. The project constitutes the least cost alternative for the electrification of 1,200 villages 90 percent of which have over 500 inhabitants each and the distance between any of the villages and the nearest source of centrally supplied electricity is about 11.2 kilometers.
- (c) Economic Analysis. The return on investment in the project is 8.5 percent based on an average revenue of 0.24 LS/kWh which represents the current cost per kWh paid by the rural customers served by isolated system. If a tariff of 0.21 LS/kWh is used the rate of return would decrease to 6.1 percent. The rate of 8.5 percent constitutes the minimum return on investment for the project, because: (a) at present, electricity prices in Syria are heavily subsidized; (b) the load forecast does not include the possible use of power for private irrigation pumping which uses highly subsidized diesel fuel as its principal energy source, thereby making the use of electricity financially unattractive even with the prevailing low tariffs and distorting the allocation of resources within the energy sector. During negotiations the Bank was informed that increasing electricity tariffs is being considered by the Government only as a first step in the Government's effort to rationalize prices within the energy sector; and (c) the analysis does not take into consideration the non-quantifiable benefits of rural access to electricity service and secondary benefits resulting from the positive impact that the availability of power would have on small scale industries and handicrafts in rural areas and on stemming the flow of rural-urban migration.

Project Risks

44. With project management and implementation being initially provided by consultants no special implementation risks are foreseen. However, the project is contingent on the completion of the related 66-kV transmission lines and 66/20-kV substations included in EPE's 1977-82 construction program (see para 27 above). Although EPE's 1977-82 investment program appears large and the possibility of some delay exists, the implementation risks associated with the project per se are minimal since the project is independent of the execution of the generating capacity in the program as presently envisaged. Moreover, the entire foreign exchange requirements of the project are being met by the proposed Bank and USAID loans while the local currency needs would be met by the Government and EPE.

45. The project's impact on the environment is negligible as it consists entirely of power distribution facilities and house connections.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

46. The draft Loan Agreement between the Bank and EPE, the draft Guarantee between the Syrian Arab Republic and the Bank, the draft Report of the Committee provided for in Article III, Section 4 (iii) of the Articles of Agreement of the Bank, and the text of a draft resolution approving the proposed loan are being distributed separately. Special conditions of the project are listed in Section III of Annex III. In addition to the features of the Loan and Guarantee Agreements which are referred to in the text and listed in Section III of Annex III, the Bank's loan would be declared effective only after the Government and EPE have met all the conditions precedent to the first disbursement under the USAID loan.

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

PART VI - RECOMMENDATION

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

Robert S. McNamara
President

Attachments
Washington, D.C.
March 2, 1978

TABLE 3A
SYRIAN ARAB REP. - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOU KM2)	SYRIA			REFERENCE COUNTRIES (1970)		
	1960	1970	MOST RECENT ESTIMATE	TUNISIA	TURKEY	ALGERIA**
TOTAL	185.2					
AGRIC.	124.2					
GNP PER CAPITA (US\$)	250.0*	450.0*	780.0*/a	370.0*	500.0*	530.0*
POPULATION AND VITAL STATISTICS						
POPULATION (MID-YR, MILLION)	4.6	6.3	7.7/a	5.0	35.6	13.4
POPULATION DENSITY PER SQUARE KM.	25.0	34.0	42.0/a	30.0	46.0	6.0
PER SQ. KM. AGRICULTURAL LAND	37.0	56.0	62.0/a	67.0	65.0	30.0
VITAL STATISTICS						
CRUDE BIRTH RATE (/THOU, AV)	46.6	47.6	45.4	44.7	40.6	50.0
CRUDE DEATH RATE (/THOU, AV)	20.1	16.2	15.4	16.9	14.4	18.4
INFANT MORTALITY RATE (/THOU)	145.8	123.1	112.5	125.0	153.0/a	..
LIFE EXPECTANCY AT BIRTH (YRS)	46.3	53.0	56.0	51.6	54.4	50.7
GROSS REPRODUCTION RATE	1.4	3.5	3.5	3.4	2.6/b,c	3.5
POPULATION GROWTH RATE (%)						
TOTAL	3.6	3.3	3.3	2.3/a	2.5	2.9
URBAN	4.2	5.0	4.5	3.0/b	4.9/d	4.4
URBAN POPULATION (% OF TOTAL)	37.0	43.5	46.2	40.1/c	38.7	35.6
AGE STRUCTURE (PERCENT)						
0 TO 14 YEARS	46.3	49.3	49.3	46.3	41.7	47.2/a
15 TO 64 YEARS	48.9	46.3	46.3	50.2	54.0	48.4/a
65 YEARS AND OVER	4.8	4.4	4.4	3.5	4.3	4.4/a
AGE DEPENDENCY RATIO						
ECONOMIC DEPENDENCY RATIO	1.0	1.2	1.2	1.0	0.9	1.1/a
	2.1	2.1/a	2.2/a	1.8/c,d	1.1/e	2.6/a
FAMILY PLANNING						
ACCEPTORS (CUMULATIVE, THOU)	..	..	..	112.2	..	..
USERS (% OF MARRIED WOMEN)	..	..	..	12.0	8.2	..
EMPLOYMENT						
TOTAL LABOR FORCE (THOUSAND)	1100.0/ab	1600.0	1800.0	1300.0/c	14500.0/f	2600.0/a,b
LABOR FORCE IN AGRICULTURE (%)	47.0/ab	47.8	49.9	57.0/c	67.0	50.0/a,b
UNEMPLOYED (% OF LABOR FORCE)	8.5	6.4	4.8	12.0/c	4.0/g	15.0/a
INCOME DISTRIBUTION						
% OF PRIVATE INCOME REC'D BY-						
HIGHEST 5% OF HOUSEHOLDS	..	..	..	..	32.8/h	..
HIGHEST 20% OF HOUSEHOLDS	..	..	..	..	60.8/h	..
LOWEST 20% OF HOUSEHOLDS	..	..	..	..	2.9/h	..
LOWEST 40% OF HOUSEHOLDS	..	..	..	..	9.4/h	..
DISTRIBUTION OF LAND OWNERSHIP						
% OWNED BY TOP 10% OF OWNERS	..	..	..	53.0	53.0	..
% OWNED BY SMALLEST 10% OWNERS	..	..	..	0.5	0.9	..
HEALTH AND NUTRITION						
POPULATION PER PHYSICIAN	4600.0	3860.0	3070.0	5950.0	2250.0	7860.0
POPULATION PER NURSING PERSON	6660.0	4500.0	5810.0	730.0/f	1770.0/i	2730.0
POPULATION PER HOSPITAL BED	900.0	1010.0	980.0	410.0/g	500.0	340.0
PER CAPITA SUPPLY OF -						
CALORIES (% OF REQUIREMENTS)	102.0	98.0	104.0	94.0/h	110.0	78.0
PROTEIN (GRAMS PER DAY)	74.0	70.0	75.0/c	63.0/h	78.0	45.0
-OF WHICH ANIMAL AND PULSE	28.0	16.0/b	..	14.0/h	22.0/i	9.0/c
DEATH RATE (/THOU) AGES 1-4	..	4.1	..	1.5/c,j	14.7/k	12.0/a
EDUCATION						
ADJUSTED ENROLLMENT RATIO						
PRIMARY SCHOOL	65.0	89.0	101.0	100.0	109.0	75.0
SECONDARY SCHOOL	16.0	39.0	47.0	23.0	28.0	11.0
YEARS OF SCHOOLING PROVIDED (FIRST AND SECOND LEVEL)	12.0	12.0	12.0	13.0	11.0	15.0
VOCATIONAL ENROLLMENT (% OF SECONDARY)	6.0	3.3/c	4.4/d	12.0/i	14.0	20.0
ADULT LITERACY RATE (%)	36.0/c	40.0	..	..	55.0/l	26.0
HOUSING						
PERSONS PER ROOM (URBAN)	2.1/c	..	..	2.7/c	1.9	2.8/a,b
OCCUPIED DWELLINGS WITHOUT PIPED WATER (%)	58.0/c	..	..	60.0/c	64.0	77.0/a
ACCESS TO ELECTRICITY (% OF ALL DWELLINGS)	38.0/c	41.7	..	24.0/c	41.0	34.0/a
RURAL DWELLINGS CONNECTED TO ELECTRICITY (%)	11.0/c	10.2	..	..	18.0	12.0/a
CONSUMPTION						
RADIO RECEIVERS (PER THOU POP)	57.0	224.0	374.0	77.0	89.0	52.0
PASSENGER CARS (PER THOU POP)	4.0	5.0	7.0	13.0	4.0	11.0
ELECTRICITY (KWH/YR PER CAP)	81.0	151.0	227.0	155.0	247.0	138.0
NEWSPRINT (KG/YR PER CAP)	0.2	0.2	0.1	0.1	0.7	..

SEE NOTES AND DEFINITIONS ON REVERSE

NOTES

Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961, for 1970 between 1968 and 1970, and for Most Recent Estimate between 1973 and 1975.

* GNP per capita data are based on the World Bank Atlas methodology (1974-76 basis).

** Algeria has been selected as an objective country on the basis of the similarity in the economic organizations of the two countries, with the leading role in capital formation assigned to the public sectors, and the similarity in the gross reproduction rate and age structure of the two populations, (as well as the distribution of population in urban areas, and the labor forces in agricultural employment).

<u>SYRIA</u>	<u>1960</u>	<u>/a</u> 6 years of age and over; <u>/b</u> Syrian population only; <u>/c</u> 1961-62.
	<u>1970</u>	<u>/a</u> Ratio of population under 15 and 65 and over to total labor force; <u>/b</u> 1964-66; <u>/c</u> Including UNRA schools.
	<u>MOST RECENT ESTIMATE:</u>	<u>/a</u> 1976; <u>/b</u> Ratio of population under 15 and 65 and over to total labor force; <u>/c</u> 1969-71 average; <u>/d</u> Including UNRWA schools.
<u>TUNISIA</u>	<u>1970</u>	<u>/a</u> Due to emigration population growth rate is lower than the rate of natural increase; <u>/b</u> 1956-66; <u>/c</u> 1966; <u>/d</u> Ratio of population under 15 and 65 and over to total labor force; <u>/e</u> Covering 4.5 million hectares of private land, excluding 0.8 million hectares in public ownership, and 2.1 million hectares of collective land; <u>/f</u> Personnel in government services only; <u>/g</u> Government hospital establishments only; <u>/h</u> 1964-66; <u>/i</u> Excluding technical economy and technical industry; <u>/j</u> Registered only.
<u>TURKEY</u>	<u>1970</u>	<u>/a</u> 1967; <u>/b</u> Excludes 17 eastern provinces; <u>/c</u> 1965-67; <u>/d</u> 1965-70; <u>/e</u> Ratio of population under 15 and 65 and over to labor force age 15 and over; <u>/f</u> 15 years and over, excludes unemployed; <u>/g</u> Registered only; <u>/h</u> Disposable income; <u>/i</u> Including assistant nurses and midwives; <u>/j</u> 1964-66; <u>/k</u> 1967-68; <u>/l</u> Persons six years and over who tell the census takers that they can read and write.
<u>ALGERIA</u>	<u>1970</u>	<u>/a</u> 1966; <u>/b</u> Excluding military personnel in barracks, and 274,663 nationals abroad of whom 229,020 are economically active, also excluding 1,200,000 females mainly occupied in agriculture; <u>/c</u> 1964-66; <u>/d</u> Total, urban and rural.

R6, January 9, 1978

DEFINITIONS OF SOCIAL INDICATORS

Land Area (thou km²)

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

Agric. - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market & kitchen gardens or to lie fallow.

GNP per capita (US\$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1973-75 basis); 1960; 1970 and 1975 data.

Population and vital statistics:

Population (mid-year million) - As of July first; if not available, average of two end-year estimates; 1960, 1970 and 1975 data.

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

Population density - per square km of agric. land - Computed as above for agricultural land only.

Vital statistics

Crude birth rate per thousand, average - Annual live births per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate.

Crude death rate per thousand, average - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.

Infant mortality rate (/thou) - Annual deaths of infants under one year of age per thousand live births.

Life expectancy at birth (yrs) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970 and 1975 for developing countries.

Gross reproduction rate - Average number of live 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 1975 for developing countries.

Population growth rate (%) - total - Compound annual growth rates of mid-year population for 1950-60, 1960-70 and 1970-75.

Population growth rate (%) - urban - Computed like growth rate of total population; different definitions of urban areas may affect comparability of data among countries.

Urban population (% of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries.

Age structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population.

Age dependency ratio - Ratio of population under 15 and 65 and over to those of ages 15 through 64.

Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.

Family planning - acceptors (cumulative, thou) - Cumulative number of acceptors of birth-control devices under auspices of national family planning program since inception.

Family planning - users (% of married women) - Percentages of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

Employment

Total labor force (thousand) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc.; definitions in various countries are not comparable.

Labor force in agriculture (%) - Agricultural labor force (in farming, forestry, hunting and fishing) as percentage of total labor force.

Unemployed (% of labor force) - Unemployed are usually defined as persons who are able and willing to take a job, out of a job on a given day, remained out of a job, and seeking work for a specified minimum period not exceeding one week; may not be comparable between countries due to different definitions of unemployed and source of data, e.g., employment office statistics, sample surveys, compulsory unemployment insurance.

Income distribution - Percentage of private income (both in cash and kind) received by richest 5%, richest 20%, poorest 20%, and poorest 40% of households.

Distribution of land ownership - Percentages of land owned by wealthiest 10% and poorest 10% of land owners.

Health and Nutrition

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, "trained" or "certified" nurses, and auxiliary personnel with training or experience.

Population per hospital bed - Population divided by number of hospital beds available in public and private general and specialized hospital and rehabilitation centers; excludes nursing homes and establishments for custodial and preventive care.

Per capita supply of calories (% 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 distributions of population, and allowing 10% for waste at household level.

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 Economic Research Services 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 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.

Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.

Death rate (/thou) ages 1-4 - Annual deaths per thousand in age group 1-4 years, to children in this age group; suggested as an indicator of malnutrition.

Education

Adjusted enrollment ratio - primary school - Enrollment of all ages as percentage of primary school-age population; includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education, enrollment may exceed 100% since some pupils are below or above the official school age.

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

Years of schooling provided (first and second levels) - Total years of schooling; at secondary level, vocational instruction may be partially or completely excluded.

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

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

Housing

Persons per room (urban) - Average number of persons per room in occupied conventional dwellings in urban areas; dwellings exclude non-permanent structures and unoccupied parts.

Occupied dwellings without piped water (%) - Occupied conventional dwellings in urban and rural areas without inside or outside piped water facilities as percentage of all occupied dwellings.

Access to electricity (% of all dwellings) - Conventional dwellings with electricity in living quarters as percent of total dwellings in urban and rural areas.

Rural dwellings connected to electricity (%) - Computed as above for rural dwellings only.

Communication

Radio receivers (per thou pop) - 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.

Passenger cars (per thou pop) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearse and military vehicles.

Electricity (kwh/yr per cap) - Annual consumption of industrial, commercial, public and private electricity in kilowatt hours per capita, generally based on production data, without allowance for losses in grids but allowing for imports and exports of electricity.

Newsprint (kg/yr per cap) - Per capita annual consumption in kilograms estimated from domestic production plus net imports of newsprint.

SYRIA: ECONOMIC DEVELOPMENT DATA SHEET

	Actuals					Estimated		Projected			Annual Growth Rate					Percent of GDP
	1965	1972	1973	1974	1975	1976	1977	1978	1980	1985	1965-72	1972-75	1975-76	1976-80	1980-85	1976
A. NATIONAL ACCOUNTS (SL million, 1975 prices)																
1. GDP	11935.0	17587.4	17613.5	18708.5	18855.1	20927.0	22303.8	23869.3	27330.4	36916.1	5.7	7.3	10.5	6.9	6.1	100.0
2. TT Adjustment (gains +)	-1398.5	-1757.1	-962.4	168.2	-	-	288.6	222.9	304.4	376.0	-	-	-	-	-	-
3. GDY	10536.5	15830.3	16651.1	18876.7	18855.1	20927.0	22592.2	24092.2	27034.8	37292.0	6.0	11.2	10.9	7.2	6.2	100.0
4. Imports	1945.2	3946.0	4455.3	5625.8	6994.1	9929.8	8672.6	9093.4	10630.7	12968.4	11.7	21.0	41.9	1.7	4.1	47.4
5. Exports	-2991.3	-4765.9	-5122.6	-4121.8	-4629.2	-4969.3	-4779.2	-4843.8	-5679.7	-8592.9	6.9	-1.0	7.3	3.4	8.7	-23.7
6. Exports, TT adjusted	-1592.8	-3008.8	-4160.2	-4290.0	-4629.2	-4969.3	-5067.9	-5066.6	-5984.2	-8968.8	9.5	15.4	7.3	4.8	8.4	-23.7
7. Resource gap, TT adjusted	352.4	937.2	295.1	1335.8	2364.9	4960.5	3604.6	4026.8	4646.5	3979.6	-	-	-	-	-	23.7
8. Total consumption	9238.4	12156.2	15000.2	15910.6	15099.0	19715.3	19506.0	21196.8	24628.8	32780.9	4.0	12.8	25.4	5.7	5.9	94.2
9. Private consumption	7515.4	9182.2	11468.3	11601.6	10955.0	14492.3	13930.0	15229.5	17796.2	23551.9	2.9	13.1	30.5	5.1	4.7	69.3
10. Government consumption	1723.0	2974.0	3531.9	4309.0	4144.0	5223.0	5575.9	5967.3	6832.6	9229.0	8.1	11.7	32.2	6.9	6.1	24.9
11. Gross fixed investment	1151.5	3037.3	2489.0	3307.9	5686.0	6297.0	6691.0	6922.1	7652.5	8090.7	14.8	23.0	10.7	5.9	5.7	30.0
12. Change in stocks	499.0	1574.0	-543.0	994.0	435.0	-125.0	-	-	-	-	17.8	-14.6	-	-	-	-0.5
13. Domestic savings, TT adj	1298.1	3675.0	1650.9	2965.1	3756.1	1211.7	3086.5	2895.3	3006.0	4511.1	16.1	5.4	-309.9	25.5	8.5	5.7
14. National savings, TT adj (incl. NCT)	1549.0	4441.9	4355.0	4730.8	6403.2	2849.3	5292.6	4937.5	4675.6	5573.2	16.3	0.4	-224.7	13.2	3.6	13.6
15. GNP	12012.3	18111.3	17962.4	18477.6	19046.6	20971.0	22243.5	23815.7	27177.0	36466.2	6.0	6.6	6.6	6.7	6.0	100.2
16. GDP (\$ million current prices)	1243.3	2358.4	2541.4	4197.3	5261.3	6323.3	7413.2	8568.2	11443.1	22710.8	9.6	36.0	20.1	15.8	14.6	-
17. GNP (\$ million current prices)	1253.3	2416.8	2587.6	4214.3	5308.7	6336.0	7391.0	8542.5	11374.4	22392.8	9.8	35.0	19.3	15.7	14.5	-
B. SECTOR OUTPUT (Share of GDP at constant prices)																
1. Agriculture	27.0	20.8	14.7	18.6	17.3	18.3	17.9	17.6	16.9	14.7	2.2	1.8	5.0	3.0	3.0	
2. Industry	23.7	31.9	31.5	33.2	34.2	36.4	37.1	37.8	42.2	49.4	10.7	10.8	9.0	10.0	9.0	
of which mining	0.2	11.4	11.4	12.8	16.0	15.0	14.2	13.6	12.0	9.7	87.0	21.0	-0.5	1.0	1.0	
3. Other services	49.3	47.3	53.8	48.0	48.5	45.3	45.0	44.6	40.9	35.9	5.5	9.1	4.2	3.0	3.5	
C. PRICES																
1. Export price index	21.6	31.5	41.6	98.5	100.0	105.9	115.4	122.6	143.0	198.6						
2. Import price index	40.7	58.0	58.9	93.2	100.0	101.0	103.8	117.3	135.7	190.3						
3. Terms of trade index	53.1	54.3	70.6	105.7	100.0	104.8	106.0	104.6	105.4	104.4						
4. GDP deflator	39.8	51.2	55.1	83.5	100.0	117.8	129.6	140.0	163.3	227.6						
5. Exchange rate (SL per US\$)		3.820	3.820	3.722	3.700	3.900	3.950	3.950	3.950	3.950						
D. SELECTED INDICATORS																
	1965-72	1972-75	1975-76	1976-80	1980-85	E. LABOR FORCE (Thousand)					1965	1970	1975			
1. ICOR	3.1	2.8	4.2	4.4	4.3	1. Agriculture (%)					51	51				
2. Import elasticity ^{1/}	1.37	1.44	3.8	0.3	0.6	2. Industry (%)					21	20				
3. Average national saving rate	17.4	24.7	23.1	20.6	17.4	3. Services (%)					28	29				
4. Marginal national saving rate	50.4	44.9	-180.6	30.2	11.4	4. Total employment					1321	1471	1750			
5. Imports/GDY	24.0	28.8	42.5	38.2	36.7	5. Unemployment rate (%)					6.4	4.8				
6. Gross Fixed Invest./GDP	14.3	19.2	30.1	29.7	25.5	6. Total labor force					1424	1571	1839			
7. Resource gap/GDY	6.0	6.8	18.3	16.9	13.2											
F. CENTRAL GOVERNMENT FINANCES (Percent of GDP at current prices)																
	1966	1972	1973	1974	1975	1976	Est. 1977									
1. Current revenues	17.8	21.5	27.6	27.5	33.8	27.5	23.0									
1.1 Tax revenue	10.7	10.8	11.1	9.6	14.4	11.2	10.9									
2. Current expenditures	15.1	19.3	23.1	20.5	26.5	24.4	22.9									
2.1 Defense expenditures	6.6	8.8	15.3	10.8	16.0	14.7	14.0									
3. Government savings	2.7	2.3	4.5	7.0	7.3	3.1	0.1									
4. Public investment	7.5	10.4	11.3	15.2	23.1	21.1	20.7									

^{1/} The 1965-72 and 1972-75 import elasticities were derived from the constant National Accounts series in 1963 prices to make historical and projected import elasticities comparable.

SYRIA: BALANCE OF PAYMENTS AND EXTERNAL ASSISTANCE
(Millions of US dollars; current prices)

	Actual		1974	1975	1976	Estimate	Projected					
	1972	1973				1977	1978	1979	1981	1985	1985	1990
A. SUMMARY OF BALANCE OF PAYMENTS												
1. Exports, incl. NFS	481.4	600.8	1061.4	1251.1	1346.9	1490.4	1605.5	1882.6	2814.0	3538.1	4612.1	8538.6
2. Imports, incl. NFS	499.1	687.0	1408.7	1890.5	2668.5	2550.5	2881.6	3380.9	4393.5	5431.7	6658.5	11317.3
3. Resource balance	-117.7	-86.2	-347.4	-639.4	-1221.6	-1060.1	-1276.0	-1508.3	-1579.5	-1893.6	-2046.4	-2778.7
4. Net factor services	58.5	46.3	17.1	51.7	11.3	-16.6	-19.4	-35.9	-102.0	-169.7	-259.1	-487.8
a. Net interest payments or which interest on public M and LT loans	-9.6	-5.1	-45.1	-3.3	-39.2	-74.7	-86.2	-112.5	-203.7	-304.1	-436.9	-845.4
b. Net investment income	-6.8	-8.5	-10.4	-16.9	-31.9	-47.7	-68.1	-98.5	-186.9	-289.2	-425.1	-846.7
c. Workers' remittances (net)	-	-	-	-	-	-	-	-	-	-	-	-
d. Other (net)	68.1	51.4	62.2	55.0	50.5	58.1	66.8	76.9	101.7	134.4	177.8	357.6
5. Current transfers (net)	-	-	-	-	-	-	-	-	-	-	-	-
a. Public	58.0	370.6	424.8	663.7	410.7	620.3	620.3	620.3	645.6	696.2	721.5	721.5
b. Private	49.2	363.1	415.9	653.1	400.2	569.6	569.6	569.6	569.6	569.6	569.6	569.6
6. Current account balance	8.3	7.5	8.9	10.	10.5	50.6	50.6	50.6	76.0	126.6	151.9	151.9
7. Private direct investment (net) Public M and LT Loans	-1.3	330.7	94.6	76.0	-799.6	-456.4	-675.1	-923.6	-1035.8	-1367.1	-1584.0	-2545.0
8. Disbursements	-	-	-	-	-	20.0	21.6	23.2	26.6	30.4	34.9	48.9
9. Amortization	76.5	88.5	133.7	262.3	656.9	738.2	868.6	989.1	1349.9	1814.2	2213.2	4025.4
10. Net disbursements	-35.3	-38.2	-61.5	-86.9	-96.9	-123.2	-134.7	-160.2	-324.7	-452.0	-624.5	-1442.1
Other M and LT Loans	41.2	50.3	72.2	175.4	560.0	614.9	733.9	828.8	1025.2	1362.0	1588.8	2583.0
11. Disbursements	-	-	-	-	-	18.0	31.4	33.9	38.8	44.5	50.9	71.4
12. Amortization	-	-	-	-	-	-	-	-4.3	-13.9	-24.9	-37.5	-52.8
13. Net Disbursements	-	-	-	-	-	18.0	31.4	29.6	24.9	19.6	13.4	18.6
14. Short-term capital (net)	17.0	-27.0	17.0	18.3	25.6	-	-	-	-	-	-	-
15. Net use of IMF resources	6.5	6.5	-	-	-	-	-	-	-	-	-	-
16. Capital n.e.i.	-56.1	-39.5	-25.0	-33.9	-139.0	-	-	-	-	-	-	-
17. Change in net reserves (--increase)	-7.2	-314.5	-158.7	-236.0	352.9	-196.5	-111.8	42.0	-41.0	-45.1	-53.0	-105.2
18. Level of net reserves (amount)	-54.6	259.9	418.6	398.0	15.2	211.7	323.5	281.4	364.6	450.8	552.7	839.3
19. - month's imports	-	4.5	3.6	2.4	0.1	1.0	1.3	1.0	1.0	1.0	1.0	1.0
B. GRANT AND LOAN COMMITMENTS												
1. Official grants	49.2	363.1	415.9	653.1	400.1	569.6	-	-	-	-	-	-
2. Total public M + LT loans	119.1	138.3	494.8	844.6	1028.8	720.5	-	-	-	-	-	-
a. IBRD	-	-	88.0	80.6	-	78.5	-	-	-	-	-	-
b. IDA	13.8	15.0	10.0	-	-	-	-	-	-	-	-	-
c. Other multilateral	-	-	-	-	-	13.0	-	-	-	-	-	-
d. Governments	70.0	33.9	299.7	718.6	668.5	525.2	-	-	-	-	-	-
of which:	-	-	-	-	-	-	-	-	-	-	-	-
- Centrally planned economies	66.6	33.4	233.2	330.7	156.4	162.1	-	-	-	-	-	-
- OECD	-	-	51.8	94.2	-	108.1	-	-	-	-	-	-
- OPEC	2.9	-	12.8	289.7	-	255.1	-	-	-	-	-	-
e. Suppliers' credits	35.3	89.3	68.0	45.5	37.9	96.9	-	-	-	-	-	-
f. Commercial banks	-	-	29.2	-	-	-	-	-	-	-	-	-
g. Commitments n.e.i.	-	-	-	-	241.9	6.9	-	-	-	-	-	-
3. Other M LT Loans (where available)	-	-	-	-	-	30.0	-	-	-	-	-	-
C. MEMO ITEMS												
1. Grant element of total commitments (%)	38.7	28.6	34.9	40.4	79.7	63.7	-	-	-	-	-	-
2. Average interest (%)	3.0	4.0	4.3	2.7	5.0	4.2	-	-	-	-	-	-
3. Average maturity (years)	15.1	13.1	18.7	16.3	10.0	16.7	-	-	-	-	-	-

SYRIA: EXTERNAL DEBT/ CREDITWORTHINESS

	Actual					Estimate	
	1970	1972	1973	1974	1975	1976	1977
A. MEDIUM AND LONG TERM DEBT (DISBURSED ONLY) (in million US dollars)							
1. Total debt outstanding (DOD; end of period)		335.3	411.2	501.8	655.2	1215.2	1776.6
2. Including undisbursed		521.0	652.9	1109.7	1836.8	2768.7	3233.1
3. Public debt service		42.0	46.7	71.9	103.8	128.8	169.9
1. of which interest		6.7	8.5	10.4	16.9	31.9	46.7
4. Other M + LT debt service					0.0	0.0	0.0
5. Total debt service					103.8	128.8	170.0
B. DEBT BURDEN							
1. Debt service ratio ^{1/}		8.7	7.7	6.7	8.3	9.6	12.1
2. Debt service ratio ^{2/}		7.6	7.1	6.3	7.9	9.2	11.6
3. Debt service/GDP		1.7	1.8	1.7	2.0	2.0	2.3
C. TERMS							
1. Interest on Total DOD/Total DOD		2.9	2.9	3.1	2.6	2.6	2.6
2. Total debt service/Total DOD		18.1	15.9	21.5	15.8	10.6	9.4
D. DEPENDENCY RATIOS FOR M + LT DEBT							
1. Gross disbursements /imports (incl. NFS)		12.7	12.8	9.5	13.9	25.6	31.3
2. Net transfer/ Imports (incl. NFS)					8.4	20.2	24.2
3. Net transfer/ Gross disbursements					60.4	80.4	77.3
E. EXPOSURE							
1. IBRD disb./Gross total disb.		-	-	-	1.4	3.2	5.5
2. Bank Group Disb./Gross total disb.		-	-	-	1.9	4.7	6.2
3. IBRD DOD/Total DOD		-	-	-	0.5	2.0	3.5
4. Bank Group DOD/Total DOD		-	-	-	2.0	3.6	4.9
5. IBRD Debt service/Total debt service		-	-	-	0.7	0.9	2.1
6. Bank Group Debt Service/total debt service		-	-	-	0.9	1.2	2.2
F. EXTERNAL DEBT (DISBURSED ONLY) (in million US dollars)							
		OUTSTANDING DEC. 31, 1976					
		AMOUNT	PERCENT				
1. IBRD		24.4	2.0				
2. Bank Group		43.5	3.5				
3. Other multilateral		0.0	-				
4. Governments		782.6	64.4				
1. of which centrally planned economies		457.0	37.6				
5. Suppliers		117.6	9.6				
6. Financial institutions		29.6	2.4				
7. Bonds		0.0	-				
8. Public debt NEI		241.9	19.9				
9. Total public M + LT Debt		1215.2	100.0				
10. Other M + LT Debt		-	-				
11. Total Public Debt (incl. undisbursed)		2768.7	227.8				
12. Total M + LT Debt (incl. undisbursed)		2768.7	227.8				
G. DEBT PROFILE							
1. Total debt service 1977-81/Total DOD End of 1977 = 1.25							

^{1/} excluding workers remittances (total debt service)
^{2/} including workers remittances (Public debt service only)

STATUS OF BANK GROUP OPERATIONS IN SYRIAA. Statements of Bank Loans and IDA Credits
(As of February 24, 1978)

<u>Number</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	<u>US\$ Million</u>		
				<u>Bank</u>	<u>IDA</u>	<u>Undis-</u> <u>bursed</u>
46	1963	Syrian Arab Republic	Highways		8.5	-
298	1972	Syrian Arab Republic	Highways		13.8	12.9
401	1973	Syrian Arab Republic	Water Supply		15.0	4.3
469	1974	Syrian Arab Republic	Irrigation		10.0	0.0
975	1974	Syrian Arab Republic	Irrigation	63.0		59.3
986	1974	Etablissement Public d'Electricite	Electricity	25.0		0.0
986-1	1975	Etablissement Public d'Electricite	Electricity	8.6		7.3
1144	1975	Etablissement Public d'Electricite	Electricity	72.0		38.5
1241	1976	Syrian Arab Republic	Water Supply	35.0		22.1
1261	1976	Etablissement Public des Telecommunications	Telecommuni- cations	28.0		27.3
1311 /1	1977	Syrian Arab Republic	Livestock	5.0		5.0
1312T /1	1977	Syrian Arab Republic	Livestock	12.5		12.5
1458 /1	1977	Syrian Arab Republic	Water Supply	50.0		50.0
1480	1977	Syrian Arab Republic	Education	20.0		20.0
TOTAL				319.1	47.3	259.2
of which has been repaid				0	.4	
Total now outstanding				319.1	46.9	
Amount sold				1.0	0	
of which has been repaid				0	0	
Total now held by Bank and IDA /2				318.1	46.9	
Total undisbursed				242.0	17.2	259.2

B. Statements of IFC Investments: None

/1 Not yet effective.

/2 Prior to exchange adjustments.

C. Project in Execution 1/

Credit 298 - Second Highway Project; US\$13.8 million Credit of April 17, 1972; Date of Effectiveness: February 2, 1973; Closing Date: June 30, 1978

Project implementation started in 1975 after an initial delay due to the unfavorable political situation in the region. In July 1975, after several contracts had been awarded, the Government decided to upgrade the project roads to four-lane standards. Economic studies indicated the upgrading to be economically justified. The Association agreed to the upgraded roads after reviewing final cost estimates, based on detailed engineering. Government has called bids for the additional works on the Homs-Tartous road and is presently negotiating addenda to the contracts with the contractors for the construction of the Damascus-Lebanese border road. Agreement for financing of construction of the Damascus-Jordanian border road has been reached between the Government and USAID. This section will, therefore, be deleted from the project. The Government has requested to reallocate IDA funds for the construction of the Damascus-Lebanese border road and Tall Kalakh section of Homs Tartous road, to four-lane standards. The rest of the works will be financed by the Saudi and Kuwait Funds. Amendment to credit agreement is being prepared.

Credit 401 - Damascus Water Supply Project; US\$15 million Credit of June 22, 1973; Date of Effectiveness: February 20, 1974; Closing Date: December 31, 1978

Initial delays in project implementation of about two years were caused by the unfavorable political situation in the region. A revision of the project description was required as a result of considerable cost overruns and was approved by the Board on May 28, 1975. This permitted work to proceed on an urgent phase of distribution. Work is now proceeding in accordance with the contract schedule with about 50 percent of the works completed to date. No further delays are anticipated. Consultants have begun the pollution control studies for Damascus, Homs and Hama.

Credit 469/Loan 975 - Balikh Irrigation Project; US\$10 million Credit and US\$63 million Loan of April 10, 1974; Date of Effectiveness: September 12, 1974; Closing Date: June 30, 1982

After initial delays during the procurement stage, progress on the works being implemented by Syrian Government organizations for the development

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.

of the first 10,000 ha has been slow due to technical and managerial difficulties. The Bank agreed with the Ministry of Euphrates request to continue financing the full foreign exchange component of the four contracts so far awarded for the development of the 10,000 ha, provided that the Government will have recruited consultants for supervision of construction of ongoing works and for the review of design of hydraulic structures in gypsiferous soils by February 28, 1978 as stipulated in the Loan Agreement. The Government has decided to postpone implementation of the remaining part of the project until completion of the ongoing revision of the overall Balikh Basin development. The financing plan for the whole project will be submitted after completion of this study. Settlement in the Balikh area is still under study by the Government.

Consultants have completed the feasibility studies for a drainage/irrigation project for rehabilitation of salt-affected lands in the Lower Euphrates area; tender documents for drainage works on the right bank are expected to be completed by September 1978.

Loan 986 - Mehardeh Power Project; US\$25 million Loan of May 23, 1974 and Supplementary Loan of US\$8.6 million of June 4, 1975; Dates of Effectiveness: January 30, 1975 and January 19, 1976; Closing Date: June 30, 1979

The project consists of the first 150-MW unit of new steam-electric power station at Mehardeh; eight 230-kV substations, consultant services and training. The project is co-financed by a US\$33 million loan from Kuwait Fund, including a second portion of US\$15 million to cover the considerable cost overruns. Although main contracts were awarded about five months late and a further delay of about two months was caused due to a temporary lack of cement, physical progress is satisfactory and the final delay is expected to be minimal. Institutional progress is expected to remain slow due to lack of experienced personnel and the time required to train intermediate executive staff.

Loan 1144 - Second Mehardeh Power Project; US\$72 million Loan of July 18, 1975; Date of Effectiveness: January 19, 1976; Closing Date: June 30, 1980

The project comprises a second 150-MW steam generating unit at Mehardeh, construction of six and extension of two 230-kV substations, a new office building, organization and accounting studies and training. Construction of the power plant is progressing satisfactorily although a delay of about two months occurred due to a temporary lack of cement; the final delay is expected to be minimal. Construction of the new head office building has been delayed by about one year because the Government is reconsidering its size. Institutional progress is expected to remain slow due to lack of experienced personnel and the time required to train intermediate executive staff.

Loan 1241 - Second Damascus Water Supply Project; US\$35 million Loan of June 9, 1976; Date of Effectiveness: January 31, 1977; Closing Date: December 31, 1980

The project, which is co-financed by the Arab Fund and USAID, provides for the supply components of Damascus' water system and for training. Work is proceeding on schedule on the contract for the tunnel, underground cutoff and supply reservoir, which are financed by the Bank. A close coordination of the works financed by the various donors under this project and of the works financed under the first project will be required to permit the timely link-up of the various components of the supply and distribution system and to minimize expected delays in implementation of the project components financed by other donors.

Loan 1261 - Telecommunications Project, US\$28 million Loan of June 9, 1976; Date of Effectiveness: March 15, 1977; Closing Date: June 30, 1979

The project consists of the most urgent works of the telecommunications investment program for the period 1976-78, including the installation of telephone connections, trunk exchanges and teleprinters; and expansion of long distance and international facilities; and a training center. Procurement is well underway on a number of contracts.

Loans 1311/1312T - First Livestock Development Project; US\$5 million Loan and US\$12.5 million Third Window Loan of July 22, 1976; Date of Effectiveness: ; Closing Date: December 31, 1982

This loan has not yet become effective due to delays in the selection and appointment of consultants. Even though agreement in principle has been reached with the Syrian Government regarding the recruitment of consultants, a fifth postponement of the effective date was recently approved in order to allow for the completion of the selection procedure and for mobilization of necessary personnel. The project provides for a strengthening of the organizational framework for feed policies and animal health services as well as credit to sheep farmers and cooperatives.

Loan 1458 - Aleppo Water Supply Project; US\$50 million Loan of June 30, 1977; Date of Effectiveness: ; Closing Date: December 31, 1982

The project consists of constructing a 75 Km transmission line and associated pumping facilities from Lake Assad to Aleppo, treatment plant expansion and extension and improvements to existing trunk distribution system. Engineering services for improvements of the sewer systems in Aleppo and Latakia and technical assistance to the State Planning Office and public construction enterprises. Loan effectiveness has so far been postponed due to delay in selecting and appointing consultants and in implementing tariff increases, which have now been introduced. Effectiveness is expected in the near future.

Loan 1480 - First Education Project; US\$20 million Loan of September 14, 1977;
Date of Effectiveness: February 9, 1978; Closing Date: December 31, 1982

The project provides for the construction, furnishing and equipping of five primary teacher training colleges, an intermediate teacher training institute, three intermediate technical institutes and two vocational training complexes. The project also provides for the preparation of curricula for the technical institutes, the establishment of suitable mechanism for coordinating vocational training and technical education, the development of craft programs and the provision for 33 man-years of fellowships and overseas training. Project implementation is proceeding satisfactorily.

SUPPLEMENTARY PROJECT DATA SHEET

Section I - Timetable of Key Events

- | | |
|---|--|
| (a) Time taken to prepare project: | One year (March, 1976-April, 1977) |
| (b) Agency which prepared project: | Consultants (SOFRELEC-France) for Etablissement Public d'Electricite (EPE) |
| (c) Date of first presentation to the Bank: | December 1976 |
| (d) Date of departure of Appraisal Mission: | May 1977 |
| (e) Date of completion of negotiations: | February 1978 |
| (f) Planned date of effectiveness: | September 1978 |

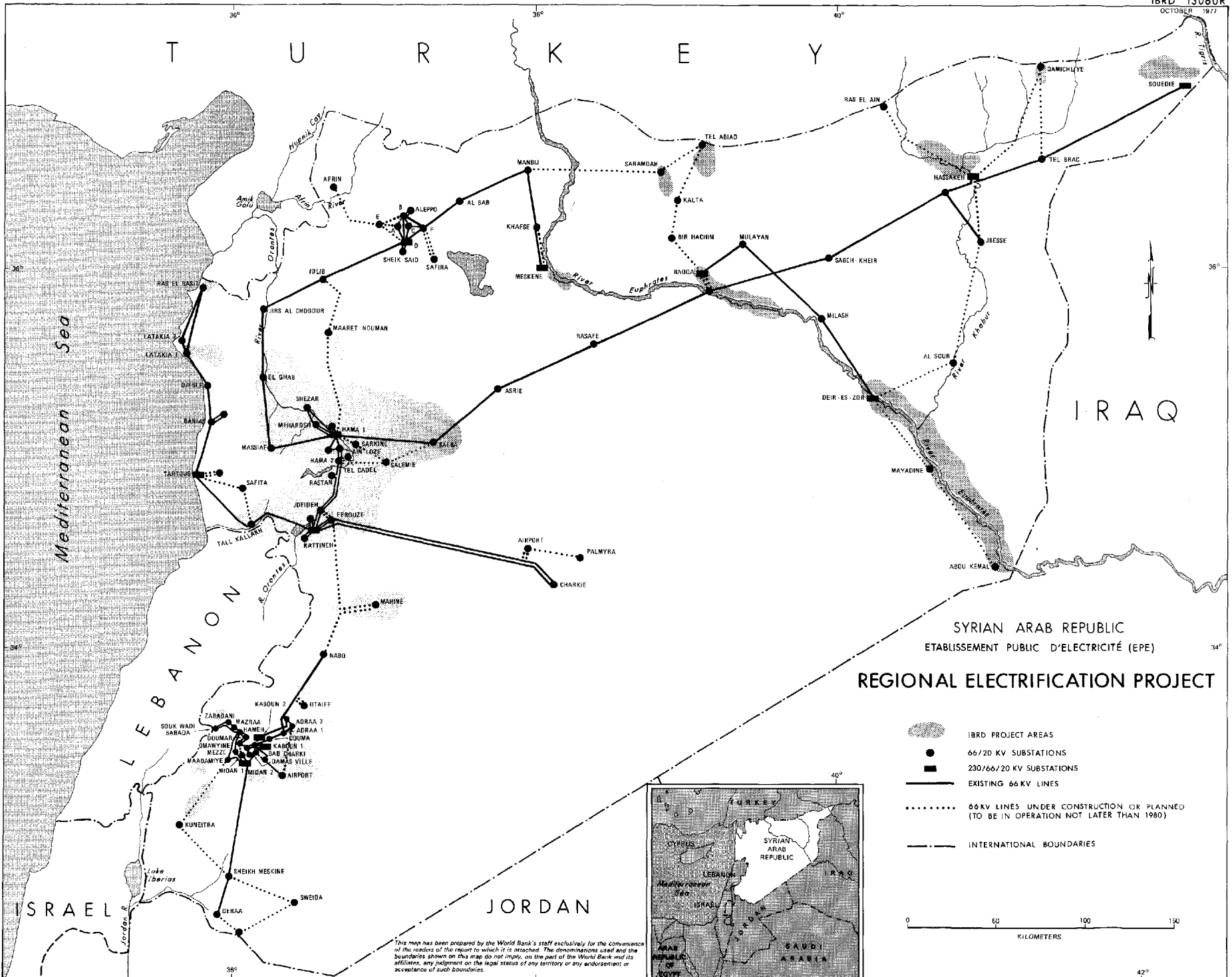
Section II - Special Bank Implementation Actions

Bank provided terms of reference for consulting services for engineering design and project management. Other actions to ensure satisfactory project implementation such as instituting adequate tariffs, training of EPE staff, and improving EPE's Management structure are part of the proposed project (paras. 30, 33, 34, 36).

Section III - Special Conditions

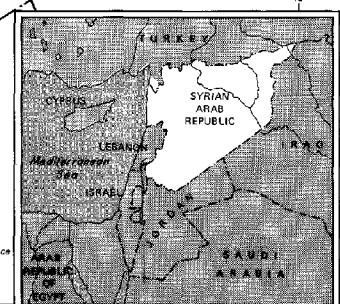
- (a) The Government and EPE to staff adequately the Project Unit within the Rural Electrification Department. A project Director was appointed prior to negotiations for the proposed loan (para. 30).
- (b) Government to set satisfactory timetable for implementing the recommendations of the Management consultants affecting EPE's organizational structure no later than December 31, 1978 (para. 33).
- (c) EPE to appoint project consultants (para. 29).
- (d) EPE to monitor implementation of the National Rural Electrification Plan (para. 30).
- (e) EPE to review detailed construction schedules and critical path schedules prepared by the consultants to facilitate project implementation. EPE to report periodically to the Bank on progress of project implementation (para. 30).

- (f) Project unit to coordinate the on-going transmission and expansion program to synchronize the construction of the 66 kV lines and 66/20 kV substation needed to supply the project (para. 30).
- (g) EPE to submit a plan for reducing its accounts receivable from over 150 days' billings and maintaining them at no more than 90 days' billings (para. 37).
- (h) EPE to engage consultants to revalue its assets employing methodology acceptable to the Bank and to start implementing the utility accounting system developed by Arthur Young & Co. Management Consultants by June 30, 1978 (para. 38).
- (i) EPE to review its insurance practices and submit results to the Bank (para. 40).



SYRIAN ARAB REPUBLIC
ETABLISSEMENT PUBLIC D'ELECTRICITE (EPE)
REGIONAL ELECTRIFICATION PROJECT

- IBRD PROJECT AREAS
- 66/20 KV SUBSTATIONS
- 230/66/20 KV SUBSTATIONS
- EXISTING 66 KV LINES
- 66 KV LINES UNDER CONSTRUCTION OR PLANNED (TO BE IN OPERATION NOT LATER THAN 1980)
- INTERNATIONAL BOUNDARIES



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