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STAFF APPRAISAL REPORT

SECOND EDUCATION PROJECT

SYRIAN ARAB REPUBLIC

March 3, 1981

Education and Manpower Development Division
Europe, Middle East and North Africa Region

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CURRENCY EQUIVALENTS

US\$1.00 = Syrian Pounds (LS) 3.925

LS 1.00 = US\$0.255

MEASURES

1 m² = 10.76 sq. feet

1 km² = 0.38 sq. mile

1 hectare (ha.) = 2.47 acres

FISCAL YEAR

January 1 - December 31

SYRIAN ARAB REPUBLIC
STAFF APPRAISAL REPORT
SECOND EDUCATION PROJECT

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SYRIA

BASIC DATA (1978) 1/

Total Population (1977) <u>2/</u>	7.9 million
Current Rate of Population Growth	3.3%
Per Capita GDP (1977) <u>2/</u>	US\$900
Literacy Rate (over 12 years of age)	58%
Primary School Enrollment (Gr 1-6) <u>3/</u>	
As Percentage of Age Group 6-11	88.8%
(Female Percentage)	(73%)
Preparatory School Enrollment (Gr 7-9) <u>3/</u>	
As Percentage of Age Group 12-14	63.2%
(Female Percentage)	(44%)
Secondary School Enrollment (Gr 10-12)	
As Percentage of Age Group 15-17	29.6%
(Female Percentage)	(20%)
Higher Education Enrollment	
As Percentage of Age Group 18-22	12.6%
Central Government Expenditures on Education	12.7% - Recurrent
As Percentage of Total Central Govt. Exps.	7.2% - Capital
	10.3% - Total
Central Government Expenditures on Education	
As Percentage of GDP	4.4%

1/ See Annex 1, Table 1 for comparative education indicators.

2/ World Bank Atlas, 1978.

3/ Gross enrollments, including overaged students.

GLOSSARY

EMDPC:	Educational Materials Development & Production Center
HTI:	Health Technician Institute
IAI:	Intermediate Agricultural Institute
MOE:	Ministry of Education
MOH:	Ministry of Health
MOHE:	Ministry of Higher Education
MOPW:	Ministry of Public Works
SBO:	School Building Organization
SHC:	School Health Center
TTI:	Teacher Training Institute
VTC:	Vocational Training Center

I. THE EDUCATION SECTOR

Economic Background

1.01 The dual thrust of Syria's current (1976-80) development strategies emphasize agricultural development and expansion and modernization of the industrial sector with special emphasis on industries linked to agriculture and other domestic raw materials. Actual implementation of the plan's financial expenditures showed only small increases in total outlays in 1977 and 1978 and fell far below the budgeted allocation. One of the major implementation bottlenecks has been an acute shortage of managerial and skilled technical manpower. The sectoral employment structure has significantly changed since 1970. The agricultural sector, which accounted for 48% of the total employment in 1970, decreased to 34% in 1978 though it still remains the largest employer of labor. Syria has a relatively low unemployment rate (below 5% since 1971), due to the level of industrial growth and also because of the continuing emigration of Syrian manpower to the more lucrative employment opportunities in the Persian Gulf countries. The government has been restricting emigration of certain types of professional and skilled workers to cope with the shortage of skilled manpower and, at the same time, is emphasizing the expansion of vocational/technical education and training. The Syrian labor force is characterized by a relatively low level of education. In 1976, nearly 56% of the employed manpower in the government and public sector were in the category of "primary and below primary level." Of these, nearly 15% were completely "illiterate" and about 28% were just "literate--able to read and write."

Sector Background

1.02 Education plays a significant role in the economic and social development of Syria. Progress in the overall development of the education system has been remarkable, especially over the past decade, as a result of the effort made by the government and the high level of demand for education. Participation of the primary, preparatory, and secondary age groups has increased from 71%, 41% and 21%, respectively, in 1970, to 89%, 63% and 30% in 1979. Female participation rates, as a percentage of total enrollments, at 41%, 44% and 35%, respectively, are among the highest in the Middle East. Enrollments in the secondary technical schools increased 128% between 1970 and 1978 and now represent 13% of total secondary enrollments. At the same time, university enrollments increased from 36,800 in 1970 to 85,000 in 1978 (18% girls), representing 13% of the age group. Government efforts to divert higher education students into technician training programs has resulted in an increase in those enrolled in such programs from 7,700 in 1974 to 20,000 in 1978.

1.03 The Ministry of Education (MOE) and Ministry of Higher Education (MOHE) have the responsibility for formal education and training. The MOE is responsible for primary, preparatory, general and technical education and primary teacher training. The MOHE presides over the Council of Higher Education which includes the rectors of the universities and is responsible for establishing general policy guidelines, ensuring coordination among the

three universities and the Higher Institute of Technology and determining each year the number of students to be admitted to the different faculties at each university. A number of other ministries, in particular Agriculture, Culture, Health, Industry, Labor, Petroleum, Public Works, and Social Affairs, are active in training related to their special fields.

Sector Strategy

1.04 The government's development strategy in education, as outlined in the current (1976-80) Development Plan and which is likely to be pursued in the forthcoming (1981-85) Plan, is directed towards promoting equity, quality and relevance of education, while pursuing a better adaptation of the system to the manpower training needs of the economy. Accordingly, the government's educational strategy emphasizes: (a) universal enrollment of the 6-11 age group by 1986, progressing to a nine-year basic education cycle by 1991; (b) intensification of its literacy campaign to achieve its goal of reaching all of the estimated 42% of its population considered illiterate by 1991; (c) maintenance of current output of primary teachers while increasing the proportion of female teachers and upgrading the level of teacher qualification and training; (d) redressing the imbalance between supply and demand of skilled and semi-skilled manpower by increasing the number of intermediate industrial institutes, increasing the enrollments in secondary technical schools to 25% of secondary enrollments by 1991 and expanding vocational training, while establishing a national entity to coordinate and supervise all aspects of vocational/technical training; (e) meeting the imbalance in the supply of agriculture and health technicians by expanding the enrollment capacity in agriculture and health intermediate institutes while providing the facilities and equipment to improve the quality of the training; (f) stabilizing university enrollments at a targetted 120,000 students by 1986 by limiting the progression of students into general secondary schools and expanding technical education, and increasing the proportion of students in the faculties of science, maths and technology; and (g) providing preventive health and dental services including immunization programs for school children as well as more systematic health and nutrition education for students, teachers and parents.

Issues and Problems

1.05 The commendable progress towards generalizing primary education has been accompanied by measures to address problems of quality. A well-balanced curriculum has recently been introduced. In addition, the development of a regional network of primary teacher training institutes (TTIs), supported under the first project, should ensure that shortages of qualified teachers in disadvantaged areas will be overcome. Furthermore, the virtual absence of educational materials and equipment, essential to the successful implementation of the new curriculum and more relevant teacher training, is being tackled through the establishment of an Educational Materials Development and Production Center (EMDPC). Despite these measures, however, quality will continue to be affected adversely by the unsuitability of the majority of school buildings; over 40% were not built as schools and about half of all primary schools are rented. The deficiencies are most severe in the poorest regions where problems also persist in primary school

participation. Participation in primary education in the four most disadvantaged regions varies from 66% to 77%, against the national average of 89%. The disparities become more marked when differentiated by sex and between rural and urban areas. The government has introduced compulsory primary education in 6 of 14 regions but faces socio-economic as well as financial problems in extending such provision, particularly to girls, in the more remote rural areas. The emphasis placed on increasing the role of women in teaching (67% of all new trainees in 1978 were women) should help in overcoming one major obstacle to the participation of girls in rural areas. Further improvement in quality is dependent, however, on the implementation of a planned major school building program. Because of capital constraints only limited funds have been made available for this purpose and the government is unwilling to accept external financing for school buildings except on soft terms. The construction of 50 primary schools in disadvantaged areas was omitted from the first education project at the request of the government and is now being financed with bilateral assistance.

1.06 As a result of the government's literacy program initiated in 1972, and the increased participation in formal schooling, the adult literacy level has improved from 48% in 1970 to 58% in 1979. Striking disparities exist by region, with 50-70% literacy in the more developed regions and only 25% in some remote rural areas. A recent study under the Unesco cooperative program has identified weaknesses in the current program, in particular, limitations in scope and duration of training, severe shortages of trained instructors and lack of suitable support materials; as a result, wastage has been high. In addition, while a Supreme Literacy Board was established in 1975 to oversee the program, a coordinated effort to solve the problem as a national issue is lacking. Recent progress, however, has been encouraging, with enrollments up from about 12,000 in 1974 to 36,000 in 1978 and wastage down from 64% to 48%. In view of the estimated target group of about 2,000,000 illiterates, more concerted efforts will be necessary if the government target date for the elimination of illiteracy is to be achieved. The above-mentioned study is expected to provide a basis for the future development of the literacy program.

1.07 In secondary education, the problems of unsuitable and rented accommodations--30% of upper secondary school buildings are rented--are compounded by the absence of needed practical spaces. Schools suffer from overcrowding, virtually no science laboratories, libraries or practical working areas and a reduction in hours of instruction to accommodate double shifts. The planned expansion in practical activities at the lower secondary level, for which teachers are being trained with support under the first education project, will have only limited application until such time as workshops and laboratories are provided. Little effective progress has been made towards achieving a better balanced secondary school curriculum. Quality at the secondary level suffers still further from a severe shortage of qualified teachers--only 6% of science teachers and 9% of maths teachers are qualified to teach those subjects. To meet expansion needs, the government has had recourse to a large number of part-time teachers or has employed teachers on overtime. The government has also tried, unsuccessfully, to attract an adequate supply of teachers by various incentive measures, including increased salary, shorter teaching periods and removal of all extracurricular responsibilities from qualified teachers. An additional measure

previously considered but not yet implemented, because of a perceived difficulty in recruiting trainees, was the establishing of a two-year post-secondary intermediate institute to train maths and science teachers and a cadre of teachers specifically for the lower secondary level. In view of the seriousness of the situation, establishment of such an institute should be given further consideration.

1.08 At the higher education level, the government has been concerned at the rapid growth in enrollments. One of the adverse effects has been the expending of an undue proportion of the educational capital budget on higher education (para. 1.13), despite the urgent need for extensive capital investment at the lower levels. At the same time, an inordinate burden has been placed on universities, already constrained by a shortage of suitable teaching facilities and instructional equipment as well as a critical shortage of teachers. The measures being taken by the government to divert students into alternative avenues of education and training should prove helpful over time in restraining university growth. They are unlikely to provide a sufficient brake, however, unless complemented by limits to growth by faculty, in particular for those faculties having limited promise for the employment of their graduates.

1.09 Preliminary results of a study by an ILO expert indicate severe shortages of skilled and semi-skilled workers for the construction and industrial sectors. It has been estimated that a need exists to train 7,000 such workers annually for the construction industry as against the current output of about 1,400 annually. Training is at present given in nine regional centers of the Ministry of Public Works (MOPW), housed temporarily in unsuitable buildings. Quality suffers further from out-of-date training methods and inadequately trained staff. Immediate plans are to expand output to about 2,500 annually by 1983 and to improve the quality of training, with a further expansion to 4,400 annually by 1986. The output of skilled workers for the industrial sector is being increased with support under the first education project and through bilateral assistance programs but will require further expansion when more definite needs are determined under the current study.

1.10 The most serious deficiencies in the training of skilled personnel for the agricultural sector are qualitative rather than quantitative. The proposed increase in the annual output of agricultural technicians from 400 to 600, with support under the present project, should meet the needs for such technicians while also introducing required new specializations and improving the quality of training. It is essential, however, that the intake into degree-level programs be controlled. Apart from the projected oversupply of agronomists, the faculty staffing capability does not exist to provide quality education or to develop a research capability while coping with the pace of expansion in enrollments. Most critically, until such time as the present poor quality and orientation of education and training are appropriately improved, measures to develop an effective planning and management capability in the agricultural sector, as well as to develop an effective extension service, will have limited success. As a corollary, such measures need to include a far greater degree of decentralization of trained staff, requiring

incentives--housing and supplementary allowances--combined with minimum service requirements as a condition of location in the main cities, to ensure adequate staffing, with agronomists and technicians, of regional and field offices.

1.11 The health sector is characterized by a severe shortage of paramedical personnel, technicians and nurses, an uneven distribution of medical facilities, and a curative orientation to health care. The development of a school health service, for which support is proposed under the present project, is clearly a major step in the development of preventive medicine. In addition, the proposed doubling in the output of health technicians to 270 annually in the eastern and central regions would meet almost all of the needs for health technicians in those regions. The health technician institute (HTI) in Damascus is also being developed with bilateral assistance to serve the health technician needs of the southern region. The difficulties of recruitment into nursing, particularly of women, in view of cultural and social attitudes towards nursing, may prove to be a further constraint in meeting staffing needs for nurses in rural areas, and would need to be further addressed by the government.

1.12 There is still a need to improve management efficiency in the civil service and in the public enterprises, even though efforts have been made by the Management and Productivity Center and the Planning Institute for Economic and Social Development. The government has, therefore, decided to establish a Higher Institute for Administrative Sciences under the jurisdiction of the MOHE to provide pre-service and in-service training for the bulk of the civil service staff. The measures being taken to redress what is clearly a critical problem for Syria can only be partially successful, however, unless they form part of a comprehensive politically-backed strategy, to include more effective incentives and career structures, and ministerial support for necessary reforms.

Educational Finance

1.13 Total public education expenditures (recurrent and capital), as a percentage of total government expenditures, varied in range from 8.8% to 10.3% during 1974-78, while education expenditures as a percentage of GDP increased from 3.0% in 1974 to 4.4% in 1978, indicating a modest increase in the allocation of resources to the education sector despite slower growth in GDP. Because of rapid growth in university enrollments, higher education accounted for a very high 67% of the capital budget for education, but a more reasonable 27% of recurrent expenditures. While this skewed capital provision would be expected to reverse itself during the 1980s, future capital allocations by level have not yet been determined. Based on projected enrollment increases, recurrent expenditures are estimated to increase at an annual rate of 9.5% and capital expenditures at an annual rate of 6.0% during 1979-86. On the above basis, total expenditures on education would represent about 5.5% of the projected GDP and 10.1% of the government budget in 1986. The government can be expected to sustain this level of expenditure in view of the high priority attached to education.

Bank Strategy and Lending for Education

1.14 The Bank's support for education in Syria has been consistent with the government's educational objectives and priorities. The first Bank-assisted education project (Loan 1480-SYR approved in FY78 for US\$20 million) was designed to: (a) improve the quality and relevance of education through improved teacher training facilities and the development of practical curricula; (b) contribute to the alleviation of skilled manpower shortages of craftsmen and technicians, improving and diversifying training programs and introducing new specializations required for the development of Syrian industry; and (c) assist institution building through the introduction of school mapping and the establishment of a mechanism to coordinate vocational/technical education and training activities. Implementation of this project is proceeding satisfactorily and is expected to be completed as scheduled.

1.15 The proposed second education project (a Bank loan for US\$15.6 million) would assist the government in meeting shortages of craftsmen for the construction sector and of technicians, with reference to the needs of the agricultural and health sectors, while also providing support in the development of a system of preventive medicine aimed at school children. The project would also provide support in improving the quality of education through arrangements to develop an educational materials production capability.

1.16 Future lending in the education sector will be determined through a dialogue with the government. Such dialogue will focus on determining appropriate Bank assistance in the formal school system at both primary and secondary levels; nonformal education and training; farmer training and the extension service; overcoming critical skill shortages in a variety of sectors; and management and administrative training.

II. THE PROJECT

Introduction

2.01 The proposed project was prepared by the government following a Bank project identification mission in February/March 1979 and a subsequent Bank preparation assistance mission in June/July 1979. The project was appraised by Messrs. M.H. You (economist, mission leader), J. Crosnier (rural development specialist), H. Go (architect), D. Petry (technical educator), B. Gagne (general educator, consultant) and J. Burton (health educator, consultant) in January/February 1980.

Objectives and Scope

2.02 The proposed project, which would assist the government in implementing programs fully consistent with its educational and health sector development strategy (para. 1.04), would have the following main objectives:
(a) expand vocational training to meet the severe shortage of craftsmen for the construction sector as well as to improve opportunities for self-employment;

(b) assist in providing more effective practically-oriented training of agricultural technicians, with particular reference to training for such new specializations as food processing, home economics, and diversified animal and food production and protection; (c) expand health technician education and assist in the program of preventive medicine by providing basic health services for school children, including dental education, nutrition education and training in hygiene; and (d) improve the quality of education through the provision of an educational materials production center to develop simple science and handicrafts materials and curriculum-oriented audiovisual software.

2.03 The project would include the provision of:

(a) construction/extension, equipment and furniture for:

Responsible Ministry and Institution	Grades	No.	Capacity		Estimated Annual Output
			Total	New	
<u>Ministry of Public Works</u>					
Vocational Training Centers	7	2	1,020	620	1,600
<u>Ministry of Higher Education</u>					
Intermediate Agricultural Institutes	13-14	3	1,550	550	600
<u>Ministry of Health</u>					
Health Technician Institutes	13-14	2	600	300	270
<u>Ministry of Education</u>					
School Health Centers	--	55	--	--	--
Educational Materials Development and Production Center	--	1	--	--	--

(b) technical assistance 1/: (i) related to the above project components (190 man-months of specialists' services and 373 man-months of fellowships); (ii) for project management support (24 man-months of fellowships); and (iii) preinvestment study for a Higher Institute for Administrative Science (18 man-months of specialists' services).

1/ The technical assistance component is detailed in Annex 1, Schedule 2.

Vocational Training Centers (VTCs)

2.04 This project item would address skill shortages in the construction industry as well as deficiencies in the quality of training. Two purpose-built and equipped buildings would replace inadequate rented or temporary buildings at two regional training centers, under the MOPW, in Damascus and Aleppo. Overall capacity would be increased from 400 to 1,020 and annual output from full-time courses would amount to about 1,600 (800 from each center), meeting about 23% of estimated needs.

2.05 Full-time training would vary from 5-9 months, depending on the specialization, in the electrical, mechanical and construction trades. Entrance requirements for the full-time training programs would be a minimum age of 18 and completion of primary education; in addition, admission to training would be extended, as a matter of policy, to those attaining basic literacy and numeracy outside the formal education system. Full-time courses would have 42 periods per week of which 30 periods would be devoted to practical training. Curricula for existing specializations needs to be updated and curricula for three new specializations (electrical installation, plumbing and sanitary trades, and heating and air-conditioning) will be prepared and practical training adapted to the modular form with technical assistance (para. 2.07). In addition, each center would provide part-time nonformal late afternoon and evening courses of varying durations for apprenticeship training, skill upgrading and artisans' in-service training related to construction trades.

2.06 About 50 additional teachers will be required--38 for practical subjects and the equivalent of 12 full-time teachers for theoretical subjects. The latter will be recruited from the 750 who graduate annually from the intermediate technical institutes (two years post-secondary) of the MOPW. The practical subject teachers will be recruited from among experienced technical secondary school graduates, those with long practical experience after graduation from a VTC, and intermediate technical institute graduates. No difficulty in instructor recruitment is foreseen as these recruitment sources are adequate and the salary scales and working conditions are quite favorable.

2.07 Ninety-nine man-months of specialists' services (7 experts) would be provided to: (a) introduce three new training specializations (54 man-months); (b) plan and introduce an appropriate modular training system and initiate instructor training programs (20 man-months); (c) update and adapt the existing courses and instructional materials to a modular-based system (12 man-months); (d) improve audiovisual systems (12 man-months); and (e) prepare equipment specifications for international competitive bidding (1 man-month). In addition, 39 man-months of fellowships would be provided to train 13 staff in curriculum development, instructor training and audiovisual aids.

Intermediate Agricultural Institutes (IAIs)

2.08 The primary objective of the proposed project would be to meet the shortage of qualified technicians required by the agricultural extension and research, agro-industries, regional administration, and farmer association

services currently under expansion. The project would provide additional classrooms, workshops, laboratories and related equipment, and technical assistance for improving and expanding training at the three IAIs (grades 13 to 14) of Damascus, Aleppo and Lattakia. The three IAIs placed under the MOHE would have under the planned expansion a combined enrollment of 1,550, of which 30% would be women, mainly in home economics (100%) and food technology (50%), and an annual output of about 600 meeting the estimated annual demand. No difficulty is anticipated in acquiring applicants for the courses as over 2,000 students applied for about 1,000 available places in 1979.

2.09 The program, uniform in all institutes (except for a tobacco specialization in the Lattakia IAI), would include second-year specializations in crop production (250 students), animal production (150), food technology (150) and home economics (150). The introduction of the two latter specializations reflects the growing recognition of the needs in these fields and the participation of women in the extension and agricultural support services. Training would extend over two years of study, with theory (40%), practice (45%), and on-the-job internships (15%). The three institutes would have attached farms of sufficient size to provide the necessary practical field experience for students. The sites and sizes of the farms are satisfactory. In addition to regular programs, in-service training would be provided to former IAI graduates, particularly the assistant engineers employed in agricultural projects, extension services and cooperatives, through short-term ad hoc courses. Each IAI is expected to enroll about 25 trainees in the in-service training program at any given time. Detailed curricula for existing and new specializations, satisfactory to the Bank, have been developed and more detailed equipment lists are being prepared by qualified specialists.

2.10 No difficulty is expected in recruiting the approximately 40 instructors required for each new specialization from among the adequate existing supply of university graduates in agriculture, science and engineering. However, under the proposed technical assistance, 36 man-months of specialist services (6 experts) would be provided to help the initial development of new specializations in food technology and home economics and to improve planning, extension and nutrition. About 36 man-months of short-term fellowships would also be provided to upgrade the pedagogical ability of 12 existing teaching staff, i.e. to use audiovisual aids and liaise theory and practice for each specialization.

Health Technician Institutes (HTIs)

2.11 To assist in meeting the shortage of health technicians in the central and eastern regions of the country and to improve the quality of training, the project would construct, furnish and equip two new HTIs at Homs and Deir-ez-Zor. They would replace two grossly inadequate and ill-equipped temporary buildings. Total enrollments of the two HTIs would be increased from 300 to 600 (50% women) and the anticipated output of 270 would meet almost all of the estimated demand for health technicians in those regions. Capacity would be expanded, if required, at a later date.

2.12 Five specializations would be offered, with students equally distributed in pathology, pharmacology, radiology, physiotherapy and sanitation. The program of studies, extending over two years post-secondary, would include hospital and field work and emphasize practical activities (40-60%) in the above-mentioned subjects. Curricula for the five specializations have been prepared and would be reviewed by experts to be provided under the project. More detailed equipment lists are being prepared and should be available by June 1981 for review by the Bank. Employment for health technicians is guaranteed by obligatory service in the Ministry of Health (MOH) or other ministry, for four years following graduation. The MOH is expected to employ about 65%, the Ministry of Defense 25% and the private sector about 10% of the graduates.

2.13 Approximately 42 instructors and teachers would be required for full operation of the two HTIs. They would be recruited from graduates of HTI courses and from medical and science faculties. The recruitment of full-time qualified senior staff is expected to be difficult in the short term owing to the location, uncompetitive salaries and limited career prospects. In the medium term, as the available supply of doctors increases, this problem is expected to ease. In the early development stage, the HTIs will supplement the limited full-time staff by using qualified local medical doctors and other experienced local health specialists as part-time staff.

2.14 To assist the two HTIs in the detailed development and application of the specializations, upgrading staff quality and improving management, the proposed technical assistance component would provide: (a) 35 man-months for nine experts (5 man-months in five specializations, 18 man-months in water/sanitation training, 6 man-months in curriculum development, and 6 man-months in procurement and management); and (b) 98 man-months of fellowships for 26 senior instructors to study abroad (49 man-months for each HTI).

School Health Centers (SHCs)

2.15 The proposed component has as its basic objective the development of preventive medicine through the provision of: (a) basic health and dental care for school children; and (b) health and nutrition education to students, parents and teachers. Towards achieving these objectives, it would help restructure and expand an ongoing school health program serving about 800,000 children and staffed by 62 physicians, 22 dentists and 110 nurses, under competent leadership provided by the MOE's Director of the School Health Department. At present the program is operating through 160 school health units, in each case using a school classroom without the benefit of health or dental equipment. Under the project, 55 SHCs would be constructed, furnished and equipped, each SHC supervising and assisting 4 to 5 health units and serving between 20,000 to 25,000 children (grades 1 to 12). The 55 SHCs, with approximately 260 health units under them (including the existing 160), would thus reach about 1,230,000 children or about 58% of the country's school children.

2.16 Each SHC would have one or two physicians and one or two nurses; in addition, one dentist would serve two SHCs. Each health unit would have one nurse. In all cases except dentistry, which requires a fully equipped center, the school health staff would carry out the following activities, either in the SHC or in the school health unit: (a) examine regularly children for general health and dental status and record progress; (b) refer defects of sight and hearing to specialists and advise teachers and parents; (c) immunize any children requiring it; (d) inspect school hygiene including food and water and report to the regional education director; and (e) supervise the quality of the school feeding program. In addition, the SHC staff will conduct short courses in health and nutrition in their own local setting for pupils, teachers, and parents. The school health program will be coordinated with the general public health activities of the MOH's regional offices but responsibility for its planning, development and operation rests with the MOE's Department of School Health.

2.17 Locations for the 55 new SHCs have already been selected on the basis of the current and projected enrollment distribution. A list of standardized equipment has been prepared. Temporary accommodation in school premises has been designated and brought into operation from early 1980 onwards (16 SHCs are already in operation), pending construction of the new centers. The government has established an evaluation mechanism in the School Health Department, using key monitoring indicators on the actual health and dental care as well as health and nutrition education given to pupils, teachers and parents, and the results of their annual evaluation will be sent to the Bank for information during the project implementation period and for the two years thereafter. Based on the successful recruitment to date and the specialized training of key staff which has already started, no difficulty is anticipated in staffing the SHCs and health units. To improve the capacity of the SHC staff and the MOE's School Health Department staff, 107 man-months of fellowships for 15 staff in nursing, health education, health planning, nutrition and dentistry, would be provided under the proposed technical assistance. One man-month of specialist services (one expert) would also be provided to assist in the ongoing reorganization and evaluation of the school health programs.

Educational Materials Development and Production Center (EMDPC)

2.18 This project component has been prepared under the first education project on the basis of a feasibility study, undertaken with bilateral assistance. The study identified the need for the Center and recommended the most appropriate project design, including equipment lists. This component would comprise construction, furnishing, equipping and technical assistance. The Center, consisting of two units for projected and non-projected aids, would: (a) design simple apparatus as well as slides and film strips directly related to the syllabus and textbooks recently introduced in the primary schools; (b) produce prototypes of projected and non-projected aids which can realistically and economically be reproduced in quantity; (c) evaluate the quality and effectiveness of the prototypes produced by the Center as well as items commercially available; (d) purchase/assemble raw materials, partly finished goods, components and specialized items from local and foreign sources; (e) distribute finished items or kits and replacements when required

by schools; and (f) provide support services in the form of instruction on the assembly, use and simple maintenance of the aids as well as related hardware supplied to schools. Prototypes of the projected aids or their components would be designed and produced in quantity by the Center subject to the specifications required and cost comparisons with similar items available on the market.

2.19 In the first phase, the Center would concentrate on the development of educational materials which are based on the new curriculum for 100 selected primary schools and 12 primary TTIs in 12 mohafazats, and supply 2,000 kits (approximately 100 items in each kit) of science and mathematics apparatus as well as a range of audiovisual aids. Coverage of the primary level will be expanded following evaluation of the first phase of operation of the Center. As the teaching/learning techniques associated with the use of the materials and aids produced by the Center are a real innovation of vital importance to the educational system, a program to initiate students in the primary TTIs and re-train the primary teaching cadre in the new methodology will be introduced in conjunction with the establishment of the Center. In the subsequent stage, the Center is also expected to play a significant role in improving the quality of preparatory and secondary education by providing supportive materials for new preparatory and secondary curricula being considered.

2.20 The staff required for full operation of the Center would be about 30, including a director, chief of operations for each division (projected and non-projected aids), 2 scientists, a production manager, 10 specialist technicians, a writer, a draftsman, a printer and 11 supporting staff. It is anticipated that about 12 staff would be transferred from the existing Media Department; no difficulty is anticipated in recruitment of the remaining staff. The total technical assistance required is 1 expert for one man-month to prepare the equipment specifications for ICB, 3 experts for three man-months each for non-projected aids, and 1 expert for nine man-months for projected aids to assist in establishing effective production procedures and programs in the initial months and 14 fellowships for a total of 93 man-months of training related to specific areas of specialization in the Center. In view of the importance of close coordination among officials responsible for teacher training, curriculum development and textbook writing, inspectorate, and media, the government proposes to establish a policy committee with representation from the above-mentioned areas to formulate and review on an ongoing basis the activities of the Center.

Technical Assistance

2.21 Project Related Technical Assistance. In view of: (a) the introduction of new vocational training methodology (para. 2.07) and new specializations in agricultural (para. 2.10) and health education (para. 2.14) for which local expertise is not available; and (b) the innovative nature of the SHCs (para. 2.17) and the EMDPC (para. 2.20), 190 man-months of specialists' services and 373 man-months of fellowships have been proposed.

2.22 Project Management Support. To improve project implementation and management capabilities of key implementation staff in the four ministries (MOE, MOH, MOHE and MOPW), 24 man-months of fellowships would be provided. Under the proposed study tour, three key staff (director, engineer/architect, and procurement officer) from each Ministry would visit selected countries for two months each to gain insights into the management of education projects and apply lessons learned elsewhere to the implementation of the project.

2.23 Preinvestment Study. In addition, the proposed technical assistance would include 18 man-months of specialists' services for a preinvestment study related to the proposed Higher Institute of Administrative Sciences (para. 1.12). The main activities of the Institute under the MOHE are expected to include: (a) in-service training of public officials; (b) advanced degree programs in public administration; and (c) research and consultancy services to the public sector. Three international experts (one each from the above areas for six months) working closely with local experts would develop proposals for the training programs and staffing requirements for such an Institute and recommend the most suitable project design by the end of 1982. The proposals would be reviewed by the Bank and the government for possible inclusion in a future project.

2.24 During negotiations, the government requested, and the Bank agreed to be the executing agency for the technical assistance component that will be financed by the UNDP.

III. PROJECT COST, FINANCING, IMPLEMENTATION, AND DISBURSEMENTS

Cost of the Project

3.01 Summary of Project Cost. The total cost of the project is estimated at LS 190.1 million or US\$48.1 million equivalent. The estimated total cost and foreign exchange components by main project items are summarized below:

	LS Million			US\$ Million			% of Baseline Cost
	Local	Foreign	Total	Local	Foreign	Total	
Construction, Equipment and Furniture:							
2 Vocational Training Centers	8.45	12.08	20.53	2.14	3.06	5.20	15.4
3 Intermediate Agricultural Institutes	13.79	24.24	38.03	3.49	6.14	9.63	28.6
2 Health Technician Institutes	14.33	18.22	32.55	3.63	4.61	8.24	24.6
55 School Health Centers	9.14	14.90	24.04	2.31	3.77	6.08	18.0
1 Educational Materials Development and Production Center	2.16	4.84	7.00	0.55	1.22	1.77	5.2
Technical Assistance:							
Fellowships	0.77	3.08	3.85	0.19	0.78	0.97	2.9
Specialists	1.42	5.67	7.09	0.36	1.44	1.80	5.3
Baseline Costs	<u>50.06</u>	<u>83.03</u>	<u>133.09</u>	<u>12.67</u>	<u>21.02</u>	<u>33.69</u>	<u>100.0</u>
Contingencies:							
Unforeseen	4.90	7.86	12.76	1.24	1.99	3.23	9.6
Price Escalation	19.63	24.62	44.25	4.97	6.23	11.20	33.2
Subtotal	<u>24.53</u>	<u>32.48</u>	<u>57.01</u>	<u>6.21</u>	<u>8.22</u>	<u>14.43</u>	<u>42.8</u>
Total Project Cost	<u>74.59</u>	<u>115.51</u>	<u>190.10</u>	<u>18.88</u>	<u>29.24</u>	<u>48.12</u>	

3.02 A breakdown of estimated project costs into local and foreign cost elements by categories of expenditure is summarized as follows:

	LS Million			US\$ Million			% of Baseline Cost
	Local	Foreign	Total	Local	Foreign	Total	
Construction:							
Academic and Communal Facilities	31.58	22.87	54.45	7.99	5.79	13.78	40.9
Boarding	4.61	3.33	7.94	1.17	0.84	2.01	6.0
Staff Housing	3.31	2.40	5.71	0.84	0.61	1.45	4.3
Subtotal	<u>39.50</u>	<u>28.60</u>	<u>68.10</u>	<u>10.00</u>	<u>7.24</u>	<u>17.24</u>	<u>51.2</u>
Furniture	3.63	2.97	6.60	0.92	0.75	1.67	5.0
Equipment	4.74	42.71	47.45	1.20	10.81	12.01	35.6
Subtotal	<u>8.37</u>	<u>45.68</u>	<u>54.05</u>	<u>2.12</u>	<u>11.56</u>	<u>13.68</u>	<u>40.6</u>
Technical Assistance	2.19	8.75	10.94	0.55	2.22	2.77	8.2
Baseline Costs	<u>50.06</u>	<u>83.03</u>	<u>133.09</u>	<u>12.67</u>	<u>21.02</u>	<u>33.69</u>	<u>100.0</u>
Contingencies	<u>24.53</u>	<u>32.48</u>	<u>57.01</u>	<u>6.21</u>	<u>8.22</u>	<u>14.43</u>	<u>42.8</u>
Total Project Cost	<u>74.59</u>	<u>115.51</u>	<u>190.10</u>	<u>18.88</u>	<u>29.24</u>	<u>48.12</u>	

3.03 Basis of Cost Estimates. Estimated civil works costs for the proposed project are based on unit prices derived from current contracts and cost analyses of similar institutions currently being constructed under the first education project. Furniture and equipment costs are based on current CIF prices and are adjusted upward to include local transportation and installation. In line with recent experience, the estimate of technical assistance costs is based upon: (a) average costs per man-month of about US\$8,470 for experts (consisting of fees and per diem allowances) and about US\$2,200 for fellowships, of which 80% would be foreign costs; and (b) average travel costs to and from home office or study base abroad of about US\$1,100 per individual. Baseline cost estimates have been adjusted to reflect the prices at negotiations (February 1981). Project institutions are exempt from import duties and taxes.

3.04 Contingency Allowance. The project cost includes a contingency allowance for unforeseen physical additions equal to 10% of the estimated cost of civil works, furniture and equipment, and 5% of the estimated cost of technical assistance. The project cost also includes price escalation contingencies calculated for the period beginning at negotiations (February 1981) and in accordance with an agreed schedule of implementation (Annex 1, Schedule 1). Annual rates of price increase for various categories of expenditure are indicated in Annex 1, Table 2. Prices are expected to increase during the project implementation period by a total of 30.8% for civil works, 34.8% for

furniture, 34.2% for equipment, 18.5% for technical assistance specialists and 16.9% for fellowships. Accordingly, aggregated price increases are estimated at about 30.3% of baseline cost plus physical contingencies. Total contingencies are estimated to be about 42.8% of the baseline cost.

3.05 Foreign Exchange Component. The estimated foreign exchange component is US\$29.2 million equivalent or about 60.8% of the total project cost. The calculations of the foreign exchange component are based on the assumption that: (a) all civil works and furniture contracts will be awarded to local firms; and (b) all equipment will be imported. The resulting foreign exchange content of each category of expenditure is as follows: (a) civil works, 42%; (b) furniture, 45%; (c) equipment, 90%; and (d) technical assistance, 80%.

Project Financing

3.06 The proposed loan of US\$15.6 million would finance the foreign exchange costs of equipment, equivalent to 32.4% of the total cost and 53.3% of the total estimated foreign exchange cost of the project. The government is currently negotiating with the UNDP to include the technical assistance component amounting to US\$2.7 million, or 9.2% of the estimated foreign exchange component in the UNDP country program. The government wishes to meet the costs of civil works and furniture from its own resources. Accordingly, the local costs of equipment and technical assistance and the total costs for civil works and furniture, amounting to US\$29.8 million, would be financed by the government. The proposed financing plan is summarized below:

	<u>Government</u>		<u>IBRD</u>		<u>UNDP</u>		<u>Total</u>
	<u>US\$</u> <u>Million</u>	<u>% of</u> <u>Financing</u>	<u>US\$</u> <u>Million</u>	<u>% of</u> <u>Financing</u>	<u>US\$</u> <u>Million</u>	<u>% of</u> <u>Financing</u>	<u>US\$</u> <u>Million</u>
Construction	17.24	100.0	0.0	0.0	0.0	0.0	17.24
Furniture	1.67	100.0	0.0	0.0	0.0	0.0	1.67
Equipment	1.20	10.0	10.81	90.0	0.0	0.0	12.01
Technical Assistance	<u>0.55</u>	20.0	<u>0.0</u>	0.0	<u>2.22</u>	80.0	<u>2.77</u>
Baseline Cost	<u>20.66</u>	61.3	<u>10.81</u>	32.1	<u>2.22</u>	6.6	<u>33.69</u>
Contingencies:							
Physical	2.04	63.2	1.08	33.4	0.11	3.4	3.23
Price Increase	<u>7.13</u>	63.7	<u>3.70</u>	33.0	<u>0.37</u>	3.3	<u>11.20</u>
Subtotal	<u>9.17</u>	63.6	<u>4.78</u>	33.1	<u>0.48</u>	3.3	<u>14.43</u>
Total Project Cost	<u>29.83</u>	62.0	<u>15.59</u>	32.4	<u>2.70</u>	5.6	<u>48.12</u>

Recurrent Expenditure

3.07 When fully operational in 1986, the project institutions are estimated to require LS 41.6 million annually in recurrent costs, corresponding to about 0.2% of the projected public recurrent expenditures on education at that time. However, as many of the institutions in the project replace existing ones, the marginal recurrent costs would be about LS 15.4 million or 0.1% of the total 1986 recurrent costs.

Implementation

3.08 The construction, furnishing and equipping of all schools and the technical assistance component are scheduled to be completed by June 30, 1986 (Annex 1, Schedule 1). In order to allow sufficient time for submission of the final withdrawal applications, the Closing Date would be December 31, 1986.

3.09 Administration. The MOE components would be implemented through an existing project implementation team, which has been effective in implementing its components under the first education project, working with the central and local offices of the School Building Organization (SBO). The MOPW, MOH, and MOHE have designated existing key staff (a director, an architect/engineer, a procurement specialist, and an accountant) to be responsible for implementation of their project components.

3.10 Civil Works. The central and local building directorates of the MOPW have the responsibility for the supervision of the physical aspects of the MOPW project components. It is adequately staffed for the purpose. Designs have been completed and construction is now underway. The university engineering departments which are well staffed and experienced in consulting would design and supervise the physical aspects of the project components of the MOHE and the MOH. The SBO of the MOE, as in the first project, would have the responsibility for the architectural services for the MOE project components. Standard construction drawings for the SHCs have already been prepared. Preliminary drawings for the IAIs, HTIs, and EMDPC, based on educational and architectural working papers already agreed with the Bank, would be submitted to the Bank for review and approval by June 1981.

3.11 Sites. A suitable site for each new project institution has been acquired and existing institutions have sufficient land to allow for their expansion. The SHCs will be built adjacent to existing schools with adequate space on their sites to accommodate the proposed Centers. All sites have public utilities (water, electricity and sewerage) readily available. The cost of land acquisition would be borne by the government and is not included in the project cost.

3.12 Equipment List. Equipment lists have been prepared for the VTCs, EMDPC, and one of the IAIs. More detailed lists for the other components are being prepared and are expected to be completed by June 1981. Short-term specialists' services would be provided for the preparation of equipment specifications and bid documents for ICB for the VTCs, HTIs, and EMDPC components under the proposed technical assistance.

Procurement

3.13 Civil works and furniture would be procured by the government through the local construction and furniture manufacturing industries which have the necessary capabilities. To ensure that agreed design standards are met and to coordinate procurement of all project elements, the government provided the following assurances during negotiations: (a) design development drawings, including laboratory and workshop equipment and furniture layouts, and furniture lists would be acceptable to the Bank; and (b) arrangements for construction would proceed in accordance with an agreed implementation schedule under which civil works contracts for the respective project institutions would have been awarded prior to commencement of bidding for equipment for that institution.

3.14 Detailed lists and specifications of equipment, to be financed under the loan, would be presented to the Bank for review and approval prior to procurement. Equipment (amounting to US\$17.4 million including contingencies) would be grouped to the extent possible in large packages to permit bulk procurement. Contracts for equipment in excess of US\$100,000 would be awarded on the basis of ICB. Small items or groups of items estimated to cost less than the above figure, or items of a specialized nature for which ICB would not be practical and items which must be compatible with other equipment procured under ICB, would be procured under normal government procedures which are satisfactory to the Bank and would include, to the extent possible, quotations from at least three manufacturers or suppliers; these items would not exceed an aggregate total of US\$3.0 million or about 17% of estimated costs including contingency allowances. In ICB comparisons, local manufacturers of equipment would be allowed a margin of preference equal to the existing rate of customs duties applicable to competing imports or 15% of the CIF price, whichever is lower. Draft tender and contract documents for equipment, would, on completion, be forwarded for Bank review and approval; Bank approval of tender evaluation documents would be required prior to the award of all contracts for equipment under ICB. Bank reimbursement of all other contracts would be contingent upon Bank approval of tender evaluation documents subsequent to contract awards.

Disbursements

3.15 Disbursements (Annex 1, Schedule 3) would be on the basis of:

- (a) 100% of foreign expenditures for directly imported equipment and of local expenditures ex-factory for locally manufactured items; and
- (b) 85% of expenditures of imported items procured locally.

These percentages would be adjusted if required to assure continued financing from the available loan funds of expenditures for each sub-category for the entire period of implementation.

IV. BENEFITS, RISKS, AND CRITICAL ACTIVITIES

Benefits

4.01 The proposed project would make a valuable contribution towards expanding and upgrading the quality of training for the construction industry. The VTCs being supported under the project would meet 23% of estimated annual needs for craftsmen for the construction sector. Opportunities for such training would be extended to those attaining basic literacy and numeracy outside the formal system. For the agricultural sector, technician training would be expanded to introduce two new specializations, which would increase the role of women in the extension and agricultural support services and meet the need for trained personnel in those specializations. The quality of health care for the less well-off would be expected to show major improvement with the availability of the necessary output of trained technicians for health care centers and hospitals in the regions. At the same time, preventive medicine would receive a major impetus through the extensive coverage of the school health service. Finally, the EMDPC would be expected to play an important role in improving the quality of education by providing supportive material for the new curricula, initially at the primary level and subsequently at the preparatory and secondary levels.

Risks

4.02 Fundamental to the successful implementation of the project is:
(a) the need to appoint the key implementation staff at an early date, and
(b) a government commitment that funds will be allocated and other measures taken to complete the civil works and furniture procurement in accordance with an agreed implementation schedule. The key implementation staff were appointed prior to negotiations while assurances on the latter were given during negotiations.

Critical Activities and Key Implementation Dates

4.03 The critical activities in project implementation and the expected completion dates are indicated in the following table. Such dates are achievable with the proposed project management arrangements and support, and would serve as a basis for project implementing and monitoring.

List of Critical Activities

	MOH	MOHE	MOE		MOPW
			SHCs	EMDPC	
<u>Civil Works</u>					
Site Surveys	-	-	Oct 81	Jun 81	-
Completion					
Preliminary Drawings	Jun 81	Jun 81	-	Jun 81	-
Completion Design					
Development Drawings	Mar 82	Mar 82	-	Dec 81	-
Completion Construction					
Drawings and Bid Documents	Oct 82	Dec 82	Mar 82	Jun 82	-
Commencement					
Construction	Apr 83	Mar 83	Apr 82	Oct 82	Under construction
Completion					
Construction	Apr 86	Mar 85	Oct 83	Dec 83	Jul 82
<u>Equipment/Furniture</u>					
Completion					
Preliminary Lists	Jun 81	Jun 81	Jun 81	Jun 80	Jun 80
Completion of Final					
Lists and Bid Documents	Sep 83	Mar 82	Mar 82	Mar 82	Dec 81
Bid Announcements	Jan 84	Oct 82	Apr 82	Sep 82	Jan 82
Completion of Installa- tion of Major Equipment/ Furniture	Jun 86	Jun 85	Dec 83	Mar 83	Jun 83
<u>Technical Assistance</u>					
Commencement	Sep 82	Jan 82	Jan 82	Jan 82	Jan 82
Completion	Dec 85	Jan 84	Jul 83	Jul 84	Sep 83

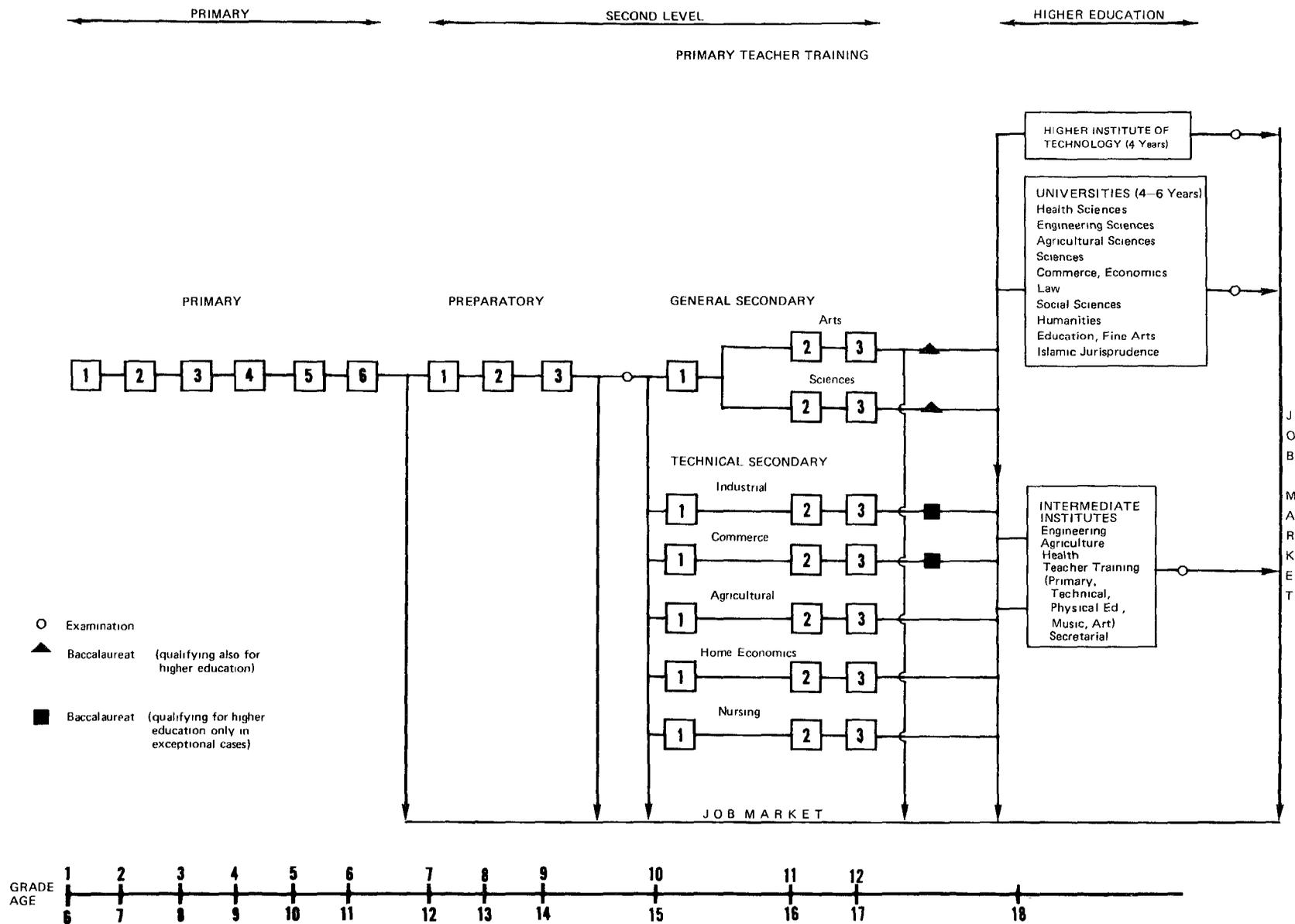
V. AGREEMENTS REACHED AND RECOMMENDATION

- 5.01 During negotiations, the government provided assurances that:
- (a) design development drawings, including laboratory and workshop equipment and furniture layouts and lists, would be acceptable to the Bank; and

- (b) arrangements for construction would proceed in accordance with an agreed implementation schedule under which civil works contracts for the respective project institutions would have been awarded prior to commencement of bidding for equipment for that institution (para. 3.13).

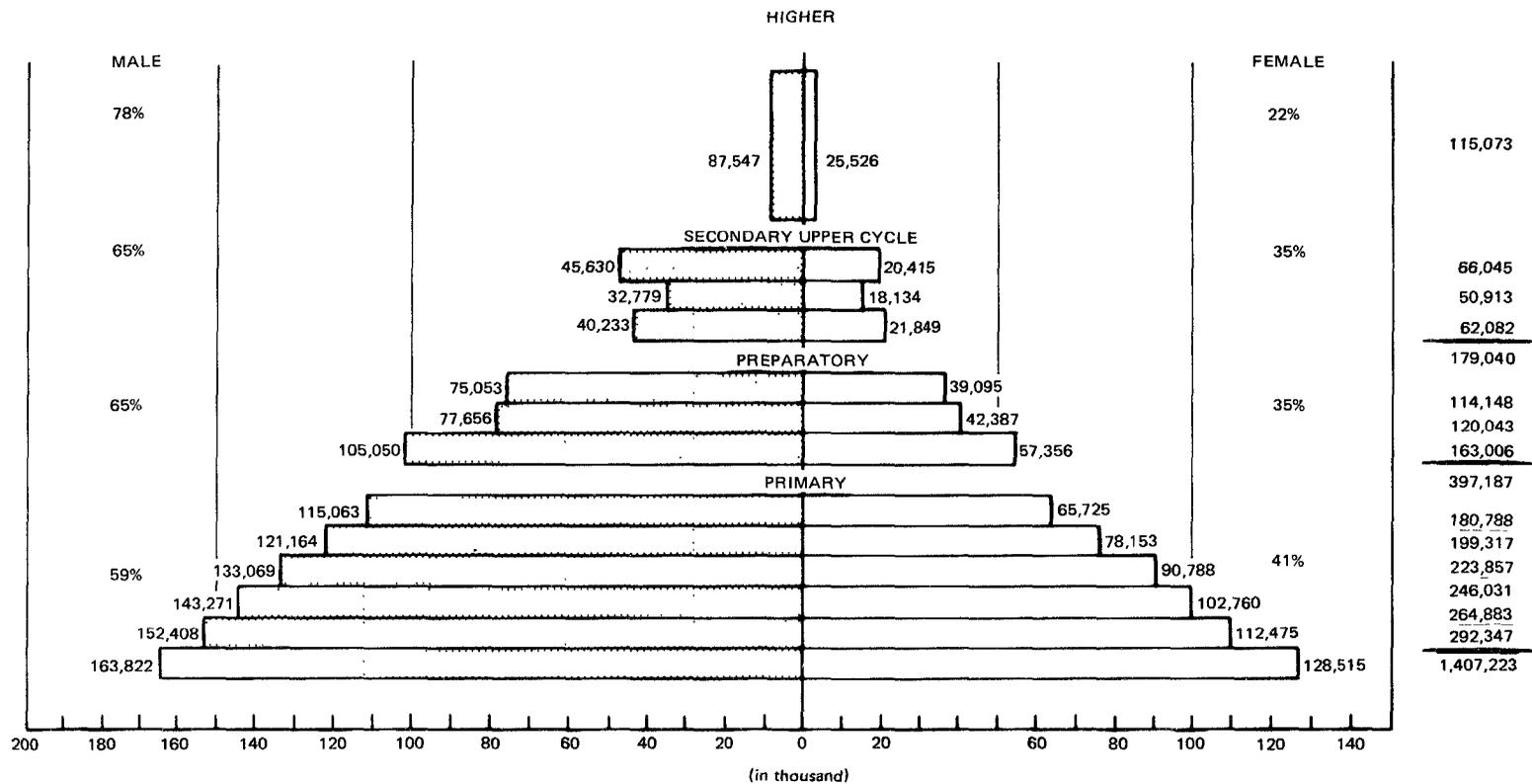
5.02 The project constitutes a suitable basis for a Bank loan of US\$15.6 million equivalent to the Syrian Arab Republic for a term of 17 years, including a grace period of 4 years.

SYRIA STRUCTURE OF THE EDUCATION SYSTEM, 1979-80



Note: The AGE-GRADE relationship applies if students enter school at the regular admission age (6) and move normally through the system.

**SYRIAN ARAB REPUBLIC
EDUCATION PYRAMID 1978-79**



COMPARATIVE EDUCATION INDICATORS (CONTD)

Annex 1
Table 1
Page 2 of 2

MARCH 3, 1981

	GNP	% GNP	% TOTAL	% OF PUBLIC	EDUCATION	LITER-	PR	COMPLE-	PR	AV, PR	PR	SEC	SEC	SEC	HIGHER
	: CAPITA	: DEVOTED	: PUBLIC	: EDUCATION	: LITER-	: PR	: COMPLE-	: PR	: AV, PR	: PR	: SEC	: SEC	: SEC	: HIGHER	
	: AT	: TO EDU.	: EXP.	: RECURRENT	: ACY	: ENROLL	: TION	: DENTS	: SALARY	: IN	: IDN RATE	: ENROLL	: DENTS	: ENROLL	
	: MARKET	: (PUBLIC	: DEVOTED	: EXP	: ALLOCATED	: RATE	: RATIO	: RATE	: FUR	: PER	: RELATION	: FROM	: PRI	: RATIO	
	: POP.	: PRICES	: EXP.	: TO	: TO	: (% OF	: NET	: PRI	: SCH	: TEACH	: TO GNP/	: TO SEC.	: NET	: TEACH	
	: MILLS	: (US\$)	: ONLY	: EDU.	: PRI.	: SEC.	: HI.	: ADULTS	: (%)	: CYCLE	: (%)	: ER	: CAPITA	: (%)	
	: (1)	: (2)	: (3)	: (4)	: (5)	: (6)	: (7)	: (8)	: (9)	: (10)	: (11)	: (12)	: (13)	: (14)	

ASIA AND OCEANIA

AFGHANISTAN	77M	14.3	180G	1.8	11.6	47	19	15	12	29X	69	57	3.0L	62	8X	17	1.00
BANGLADESH	73	80.46	90G	1.2	20.2	44Y	22Y	21Y	23D	56X	...	48D	...	...	23XD	28	...
INDIA	75	620.46	140G	2.6VY	...	...	...	...	298	65XY	...	43A	...	...	29XY	20AY	2.34EY
INDONESIA	78	136.0	360	2.4	9.1	26G	32G	15G	62	42	48	72	3.0	70	19	17	2.00
IRAN	73	33.6G	2,000G	3.3	12.6	50M	108	128	50	77	74A	32	5.0M	80A	24	32	4.32CY
IRAQ	75	11.5G	1,390G	6.7C	16.3DR	...	...	...	26C	93XY	...	22	...	...	35XY	26C	8.47Y
JORDAN	77	2.3	997	4.5K	7.1K	25P	50R	3R	70	97X	81	32	2.0	91	68	22	10.60
KOREA	78	37.0	1,242	2.8	17.5	35	29	36	93	102X	94	49	2.9	91	60	45	18.00
LEBANON	72	3.2G	1,070G	3.5	18.0	39	40	10	68	86	65	19	2.0	63	26U	25	23.00
MALAYSIA	76	12.6	860	6.7	26.0	42	34	15	60C	95	93	32	3.7	78	48	28	3.00
NEPAL	80	13.3	110M	2.4	8.8	27	18	38	19F	77	30	36K	2.3G	...	16	28K	...
OMAN	72	0.8F	2,300F	1.7N	3.8	96	-	-	20	24X	99	27F	7.0	...	0.4X	9	...
PAKISTAN	75	71.3G	180G	1.8K	7.5K	45	25	18	21	47X	50	39	2.0	...	17X	18	6.00
PAPUA N.G.	75	2.8G	450G	5.6	16.1	38	16	24	32	57Z	73P	31	11.0	90	12X?	24	0.90?
PHILIPPINES	74	43.2G	420G	2.5	14.9	73	15	12	67	104X	...	34	15.0	...	46X	...	21.00
SINGAPORE	74	2.3G	2,580G	2.7Y	9.2Y	39Y	39Y	17Y	75A	109XY	72A	31Y	...	99A	44XY	24	7.68Y
SYRIA	78	7.9H	900	4.4	10.3	39	25	26	58	89X	80	35	2.0	68	45X	21	12.60
THAILAND	77	44.1	410	4.0V	20.0	55	30	15	84F	83	30	35	5.0U	70	28	25	3.00
TURKEY	73	40.9G	1,010G	5.6CY	20.0CY	...	...	...	...	85Y	...	34Y	...	...	24Y	27DY	5.83Y
YEMEN	73	5.4G	300G	0.5	4.0	45P	21P	23P	10	15X	18	36	5.0	75	2X	19	0.058Y
YEMEN R.D.R.	76	1.7	280	6.6	...	57	28	8	20	89X	48	30	5.0	94	21X	24	0.10

SUMMARY FOR DEVELOPING COUNTRIES:

NUMBER OF COUNTRIES:	99	93	91	90	88	92	100	78	99	74	82	98	96	86
RANGE:	(0.5-12.0)	(3.8-36.0)	(20-96)	(6-72)	(3-50)	(5-99)	(13-133X)	(13-99)	(16-69)	(1.5-25.0)	(8-100)	(4-97)	(8-45)	(.01-41.0)
QUARTILES: UPPER 1	5.8	21.2	49	35	22	87	98	91	42	6	91	48	25	11.0
MEDIAN:	4.2	16.0	42	26	18	57	88	65	34	4	68	24	22	3.4
LOWER 1	3.0	12.4	34	21	13	25	56	33	29	2	41	11	18	1.0

SYMBOLS... DATA UNAVAILABLE
 - MAGNITUDE NIL OR NEGLIGIBLE
 ? QUESTIONABLE
 * INCLUDES PART-TIME STUDENTS
 ** COMBINED WITH PRIMARY
 *** UNDER REVIEW

A=1970 OR BEFORE
 B=1971
 C=1972
 D=1973
 E=1974
 F=1975
 G=1976
 H=1977
 K=1978

RECURRENT PRICES
 N=GNP
 P=INCLUDING FOREIGN AID
 Q=CENTRAL GOVT. ONLY
 R=MINISTRY OF EDUCATION (MSE) ONLY
 S=STATE AND STATE GOVT. ONLY
 T=EXCLUDING CENTRAL GOVT.
 U=PUBLIC ONLY
 V=INCLUDING PRIVATE EXPENDITURE
 X=INCLUDING OVERAGED STUDENTS
 Y=UNESCO SOURCES

SOURCES:
 COLUMNS 1 AND 2 WORLD BANK ATLAS OR IBRD MISSIONS
 3 TO 14 IBRD MISSIONS AND/OR UNESCO STATISTICAL YEARBOOK

COMPARATIVE EDUCATION DATA ARE USEFUL IN THE EVALUATION OF VARIOUS EDUCATION SYSTEMS AND ANALYSIS OF RELATIVE STAGES OF EDUCATIONAL DEVELOPMENT BETWEEN VARIOUS COUNTRIES. HOWEVER, ON THE BASIS OF THE PRESENT DATA, CROSS-NATIONAL COMPARISON SHOULD BE APPROACHED WITH GREAT CAUTION. DATA PRESENTED IN THE ABOVE TABLE HAVE BEEN COLLECTED LARGELY BY THE BANK MISSIONS FROM GOVERNMENT SOURCES; THE REMAINDER ARE STAFF ESTIMATES OR DATA FROM UNESCO. EFFORTS HAVE BEEN MADE TO STANDARDIZE DEFINITIONS AND WITHIN LIMITS, TO CHECK THE ACCURACY OF THE DATA. NEVERTHELESS, SUCH DATA ARE STILL IMPERFECT IN SEVERAL RESPECTS AND THE BANK IS WORKING TO IMPROVE THEM PROGRESSIVELY ON THE OCCASION OF ITS OPERATIONAL WORK. IN THE USE OF THESE DATA, THE FOLLOWING QUALIFICATIONS SHOULD BE BORNE IN MIND:

- (1) "EDUCATION" AS DEFINED IN THE TABLE INCLUDES ALL EDUCATION AND TRAINING, FORMAL AND NON-FORMAL;
- (2) "PRIMARY EDUCATION" REFERS TO EDUCATION AT THE FIRST LEVEL AND "SECONDARY" EDUCATION REFERS TO ALL EDUCATION AT THE SECONDARY LEVEL REGARDLESS OF TYPE (E.G. GENERAL, TECHNICAL, AGRICULTURAL);
- (3) "LITERACY RATES" (COL. 6) ARE OFTEN OBTAINED FROM COUNTRY CENSUSES. IN MANY COUNTRIES THEY ARE ONLY APPROXIMATIONS AND IT IS DOUBTFUL THAT ANY UNIFORM DEFINITION OF "LITERATE" HAS BEEN FOLLOWED CONSISTENTLY;
- (4) "PUBLIC EXPENDITURE IN EDUCATION" (COLS. 3, 4 AND 5) REFER TO ALL CAPITAL AND RECURRENT EXPENDITURES DEVOTED TO EDUCATION BY PUBLIC AND QUASI-PUBLIC AGENCIES;
- (5) "ENROLLMENT RATIOS" (COLS. 7, 12 AND 14) REFER TO SCHOOL YEAR AND MEAN THE PERCENTAGE OF ELIGIBLE CHILDREN ENROLLED FULL-TIME IN THE APPROPRIATE SCHOOL, PUBLIC AND PRIVATE BY LEVEL. THEY ARE OFTEN SUBJECT TO A WIDE MARGIN OF ERROR IN THE DEVELOPING COUNTRIES OWING TO VARIATION IN THE ACCURACY OF BASIC DATA (I.E. AGE-SPECIFIC POPULATION AND ENROLLMENTS). ENROLLMENT FIGURES FREQUENTLY ARE HIGHER THAN THE NUMBER OF STUDENTS ACTUALLY IN SCHOOL, OVERAGED STUDENTS WHOSE INCLUSION IS INDICATED BY FOOTNOTES ALSO CAN INFLATE THE RATIOS.

SYRIAN ARAB REPUBLIC
SECOND EDUCATION PROJECT
Contingency Allowances

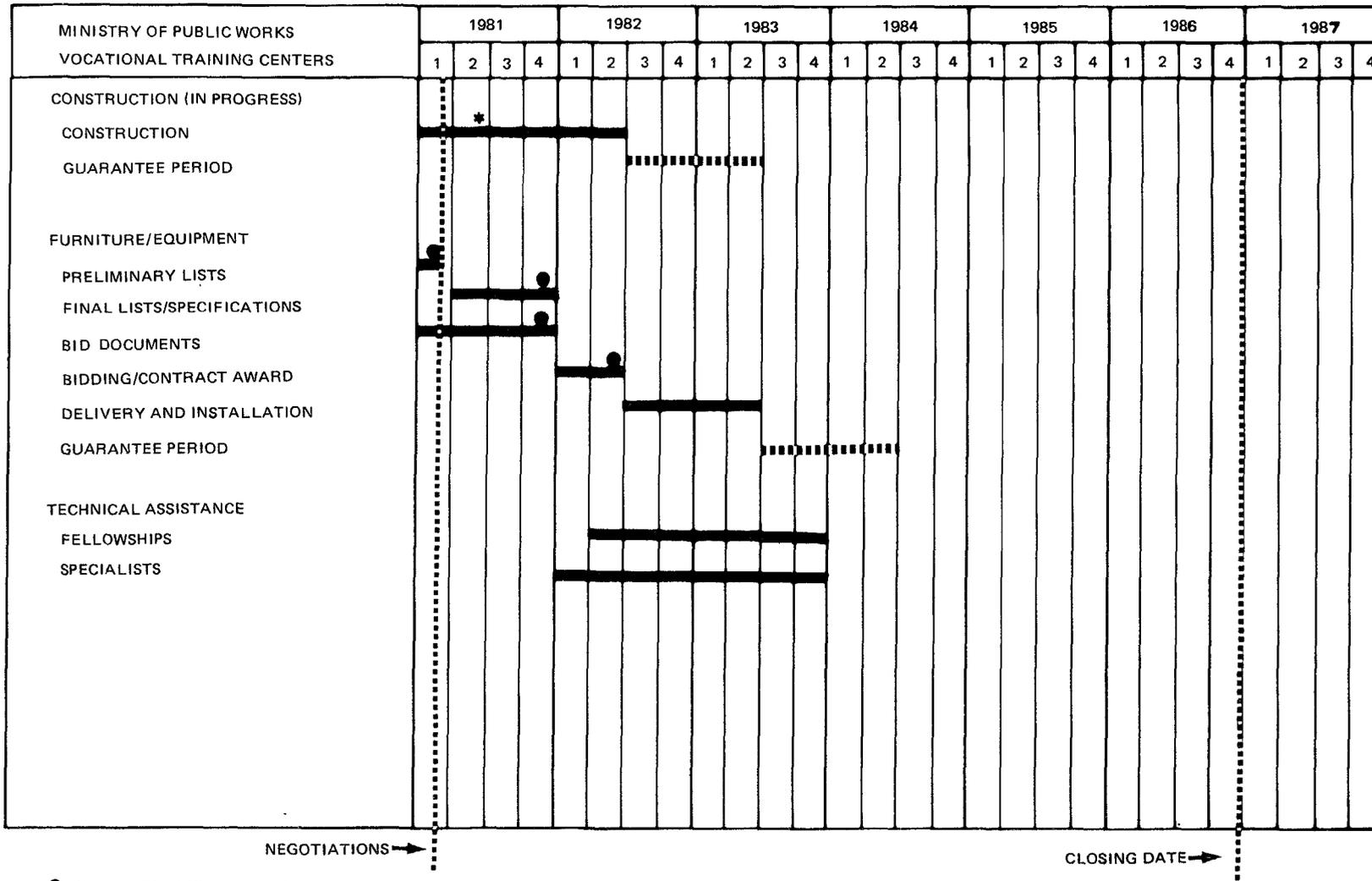
	<u>Civil Works</u>		<u>Furniture</u>		<u>Equipment</u>		<u>Technical Assistance</u>				<u>Total Project Costs</u>		
	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Fellowships</u>		<u>Experts</u>		<u>Local</u>	<u>Foreign</u>	<u>Total</u>
Contingencies (as % of project cost)													
Physical	10.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0			
Price increase 1/	35.8	23.9	37.8	31.1	37.8	31.1	24.4	15.0	26.7	16.5			
Project Cost (without contingencies):													
Millions LS	39.50	28.60	3.63	2.97	4.74	42.71	0.77	3.08	1.42	5.67	50.06	83.03	133.09
Millions US\$	10.00	7.24	0.92	0.75	1.20	10.81	0.19	0.78	0.36	1.44	12.67	21.02	33.69
% of Foreign Exchange		42.0		45.0		90.0		80.0		80.0			62.4
Contingencies (amounts):													
Physical													
Millions LS	3.95	2.86	0.36	0.29	0.48	4.27	0.04	0.15	0.07	0.29	4.90	7.86	12.76
Millions US\$	1.00	0.73	0.09	0.07	0.12	1.08	0.01	0.04	0.02	0.07	1.24	1.99	3.23
Price increase													
Millions LS	15.55	7.52	1.51	1.02	1.97	14.61	0.20	0.49	0.40	0.98	19.63	24.62	44.25
Millions US\$	3.94	1.90	0.38	0.26	0.50	3.70	0.05	0.12	0.10	0.25	4.97	6.23	11.20
Subtotal													
Millions LS	19.50	10.38	1.87	1.31	2.45	18.88	0.24	0.64	0.47	1.27	24.53	32.48	57.01
Millions US\$	4.94	2.63	0.47	0.33	0.62	4.78	0.06	0.16	0.12	0.32	6.21	8.22	14.43
% of Foreign Exchange		34.7		41.2		88.5		73.1		73.0			57.0
Total Project Cost (including contingencies):													
Millions LS	59.00	38.98	5.50	4.28	7.19	61.59	1.01	3.72	1.89	6.94	74.59	115.51	190.10
Millions US\$	14.94	9.87	1.39	1.08	1.82	15.59	0.25	0.94	0.48	1.76	18.88	29.24	48.12
% of Foreign Exchange		39.8		43.8		89.5		78.7		78.6			60.8

1/ Price increase computed on basis of: (a) separate annual increase rates for local and foreign exchange costs;
(b) project completion June 1986 or 5 years from Loan signing;
(c) estimated progress of work per year;
(d) baseline cost plus physical contingency;
(e) following yearly percentages:

	<u>1981</u>		<u>1982</u>		<u>1983-86</u>	
	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>	<u>Local</u>	<u>Foreign</u>
Civil works	14.0	9.0	14.0	8.5	8.0	7.5
Furniture and equipment	14.0	12.0	14.0	10.0	8.0	8.0
Technical assistance	14.0	9.0	14.0	8.0	8.0	7.0

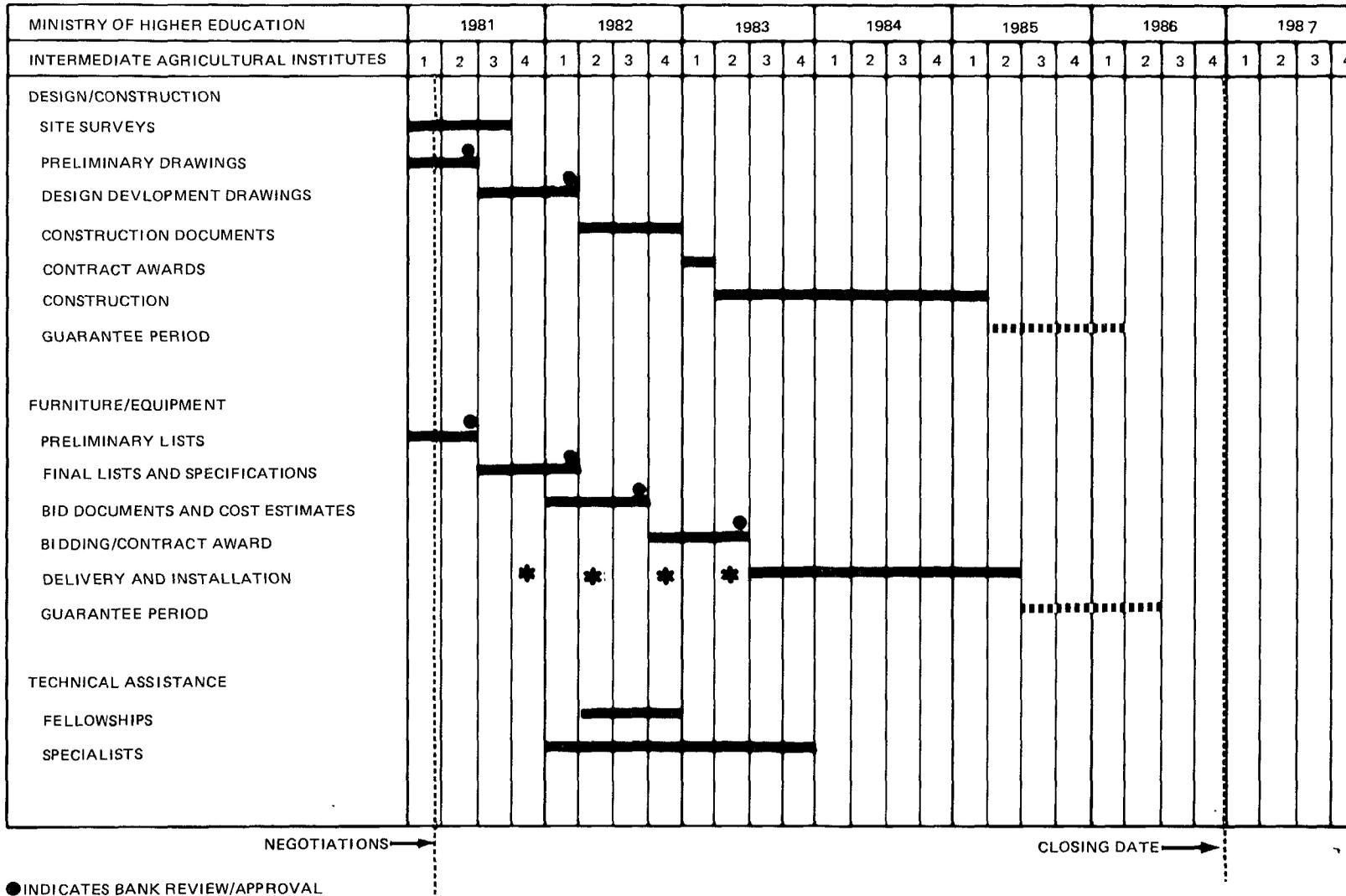
Total contingencies as % of project cost without contingencies = 42.8%

**SYRIA: SECOND EDUCATION PROJECT
Implementation Schedule**



- INDICATES BANK REVIEW/APPROVAL
- * DAMASCUS VTC IS SCHEDULED FOR COMPLETION BY MID 1981

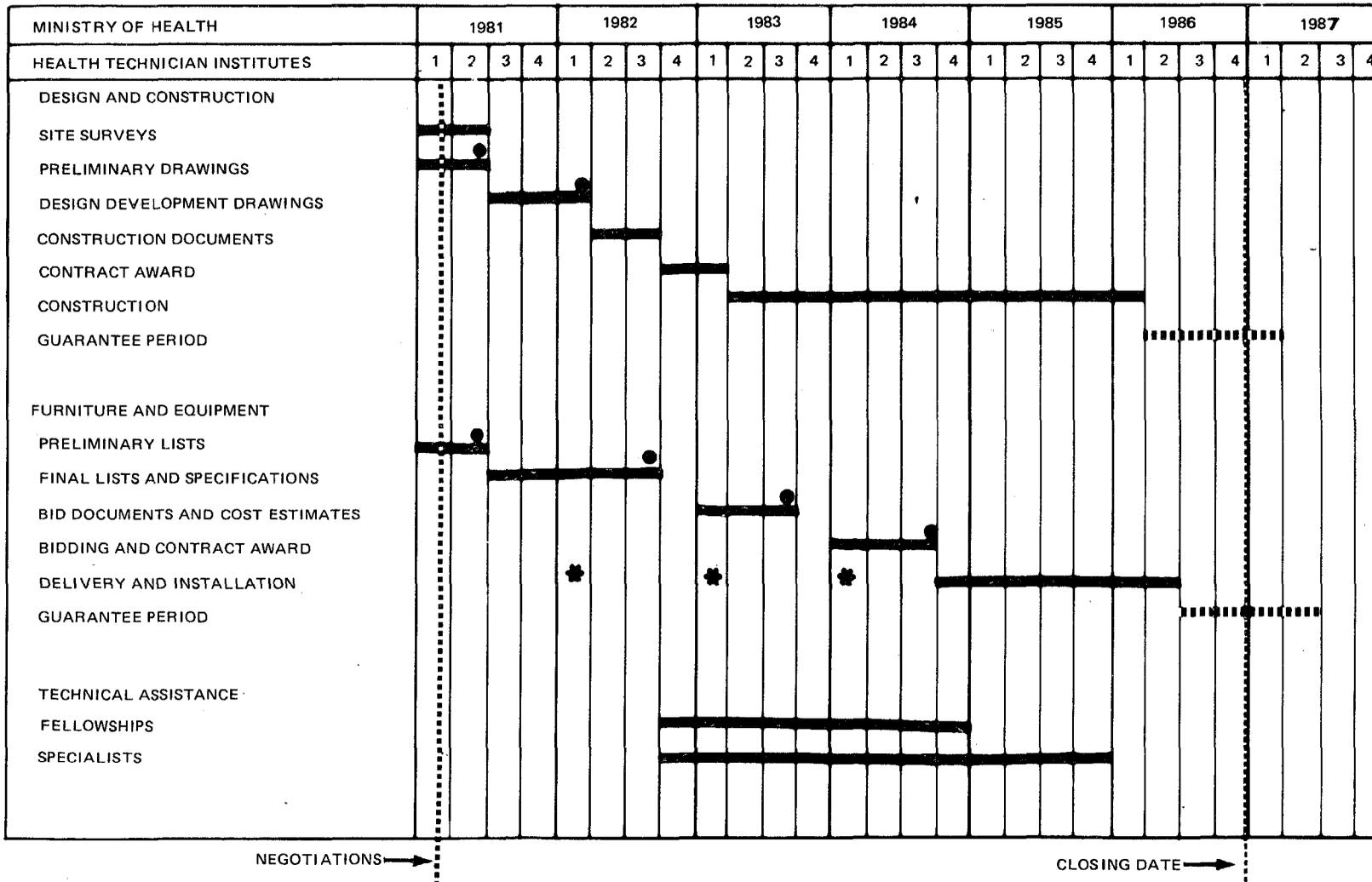
SYRIA: SECOND EDUCATION PROJECT
Implementation Schedule



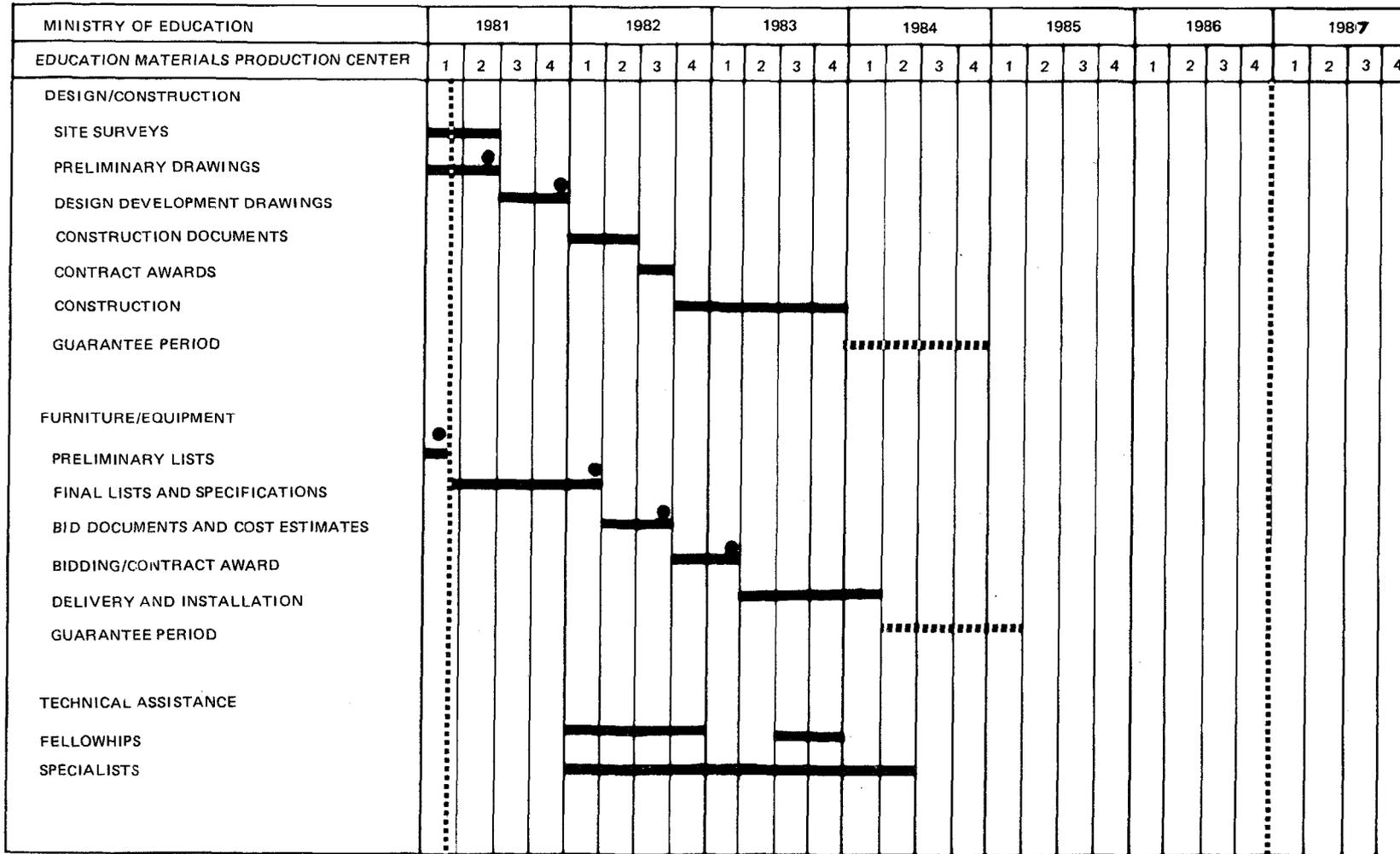
● INDICATES BANK REVIEW/APPROVAL

* SOME EQUIPMENT (E.G. TRANSPORTATION, AUDIO-VISUAL, LIBRARY) WILL BE PROCURED EARLIER, AS THEY DO NOT DEPEND ON COMPLETION OF NEW BUILDINGS. World Bank - 21866

**SYRIA: SECOND EDUCATION PROJECT
Implementation Schedule**



**SYRIA: SECOND EDUCATION PROJECT
Implementation Schedule**



NEGOTIATIONS →

CLOSING DATE →

● INDICATES BANK REVIEW/APPROVAL

World Bank - 21869

SYRIA II

Technical Assistance Requirements

	<u>Experts</u>			<u>Fellowships</u>		
	No.	Duration Months Per Man	Total Man/Months	No.	Duration Months Per Man	Total Man/Months
<u>MOPW - Vocational Training Centers</u>						
Instructor Training Specialist (team leader)	1	20	20			
Curriculum Development Specialist	1	12	12			
Audio-Visual Aids Specialist	1	12	12			
Workshop Instruction:						
Electrical Installation	1	18	18			
Plumbing and Sewerage	1	18	18			
Heating and Ventilation	1	18	18			
Equipment/Procurement	1	1	1			
Instructor Training				10	3	30
Curriculum Development				1	3	3
Audio-Visual Aids				1	3	3
Vocational Training Methods				1	3	3
MOPW Total	7		99	13		39
<u>MOHE - Intermediate Agricultural Institutes</u>						
Agricultural Educator	1	24	24			
Food Technologists:						
Dairy	1	2	2			
Fruits and Vegetables	1	2	2			
Home Economist	1	3	3			
Extensionist	1	3	3			
Nutritionist	1	2	2			
Department of Plant Products				3	3	9
Department of Animal Products				3	3	9
Department of Food Processing				3	3	9
Department of Home Economics				3	3	9
IAI Subtotal	6		36	12		36
<u>MOHE - Higher Institute for Administrative Sciences</u>						
Preinvestment Study	3	6	18			
MOHE Total	9		54	12		36
<u>MOH - Health Training Institutes</u>						
Equipment/Procurement/ Maintenance	1	6	6			
Subject Curriculum:						
Pathology	1	1	1			
Pharmacology	1	1	1			
Hygiene	1	1	1			
Midwifery	1	1	1			
Radiology	1	1	1			
Curriculum Development	1	6	6			
Sanitation Training	1	6	6			
Water Usage Computing System	1	12	12			
Educational Management				2	3	6
Directors Observation				2	3	6
Deans (Education Management)				2	3	6
Tutors				10	4	40
Laboratory Chiefs				10	4	40
MOH Total	9		35	26		98

SYRIA II

Technical Assistance Requirements

	<u>Experts</u>			<u>Fellowships</u>		
	No.	Duration Months Per Man	Total Man/Months	No.	Duration Months Per Man	Total Man/Months
<u>MOE - School Health Centers</u>						
School Health Programs	1	1	1			
M.D., Public Health				1	3	3
M.D., School Nutrition				1	3	3
M.D., Pediatrics				1	3	3
M.D., Communicable Diseases				1	3	3
Dentists, Public Health and Pedodontics				3	9	27
Nurses, Public Health				4	9	36
MOE Officers, Health Planning				2	4	8
Health Educators	-		-	2	12	24
SHC Subtotal	<u>1</u>		<u>1</u>	<u>15</u>		<u>107</u>
<u>MOE - Educational Materials Development and Production Center</u>						
Non-Projected Aids:						
Industrial Production	1	3	3			
Scientific Equipment	1	3	3			
Mechanics Design	1	3	3			
Equipment/Procurement	1	1	1			
Production Stages				8	2-18	75
Projected Aids:						
Programming and Management	1	9	9			
Head of Production				1	6	6
Technical				1	3	3
Storage and Dispatch				1	3	3
Audiovisual Production				1	2	2
A.V. Teacher Education				1	2	2
Evaluation Technics	-		-	1	2	2
EMDPC Subtotal	<u>5</u>		<u>19</u>	<u>14</u>		<u>93</u>
MOE Total	<u>6</u>		<u>20</u>	<u>29</u>		<u>200</u>
Project Management Support				<u>12</u>	2	<u>24</u>
PMS Subtotal	-		-	<u>12</u>		<u>24</u>
PROJECT TOTAL	<u>31</u>		<u>208</u>	<u>92</u>		<u>397</u>

SYRIA II

Estimated Schedule of Disbursements

(in US\$ Millions)

Calendar Year	Fiscal Year and Semester	Disbursement		Accumulated Disbursements		Undisbursed Balance	
		Amount	%	Amount	%	Amount	%
----- 1981 -----							
1/1 - 1981	1st						
	2nd	0.0	0.0	0.0	0.0	15.6	100.0
----- 1982 -----							
1/1 - 1982	1st	0.0	0.0	0.0	0.0	15.6	100.0
	2nd	0.5	3.2	0.5	3.2	15.1	96.8
----- 1983 -----							
1/1 - 1983	1st	1.0	6.4	1.5	9.6	14.1	90.4
	2nd	2.2	14.1	3.7	23.7	11.9	76.3
----- 1984 -----							
1/1 - 1984	1st	1.9	12.2	5.6	35.9	10.0	64.1
	2nd	3.0	19.2	8.6	55.1	7.0	44.9
----- 1985 -----							
1/1 - 1985	1st	1.4	9.0	10.0	64.1	5.6	35.9
	2nd	2.3	14.7	12.3	78.8	3.3	21.2
----- 1986 -----							
1/1 - 1986	1st	1.6	10.3	13.9	89.1	1.7	10.9
	2nd	1.0	6.4	14.9	95.5	0.7	4.5
----- 1987 -----							
	1st	0.7	4.5	15.6	100.0	0.0	0.0

Closing Date: Dec. 31, 1986

RELATED DOCUMENTS AND DATA
AVAILABLE IN PROJECT FILE

A. Reports and Studies Relating to Education

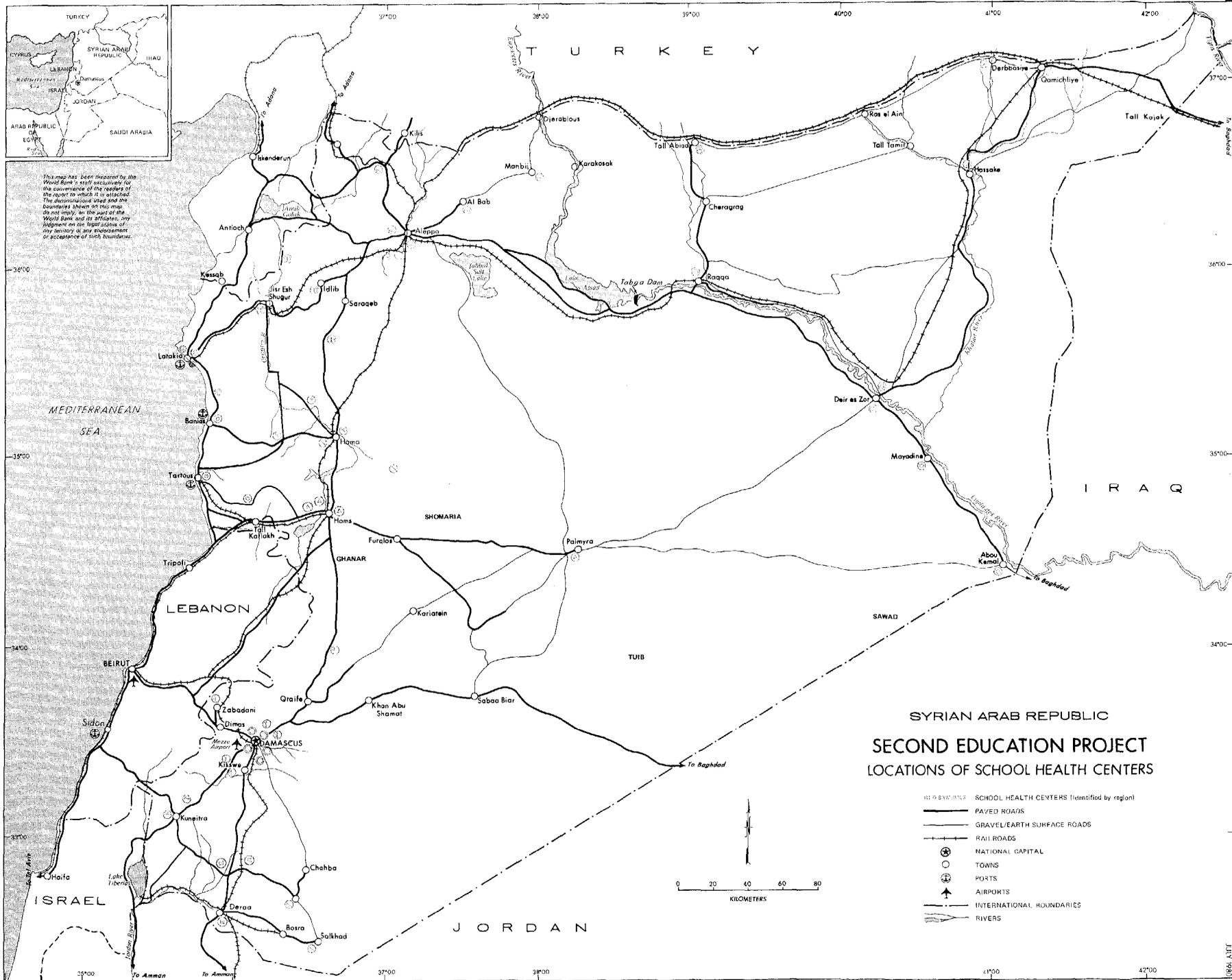
1. Fourth Five Year Economic and Social Development Plan of the Syrian Arab Republic, 1976-80.
2. Identification and Analysis of Major Manpower Problems of Syria by Dr. M. M. Mehta for the Directorate of Manpower, State Planning Commission, November 1978.
3. Estimates and Projects of the Labor Force, Employment, Manpower and Educational Requirements of Development Planning for the Fifth and Subsequent Plan Periods (1975-2000), Part I, Dr. Mehta, June 1979.
4. Educational Statistical Yearbook, Ministry of Education, 1978/79.
5. Health Statistics, 1978.
6. Health Manpower and Health Services, USAID, 1976.
7. Education Sector Memorandum Update, EMPED, The World Bank, March 2, 1979.

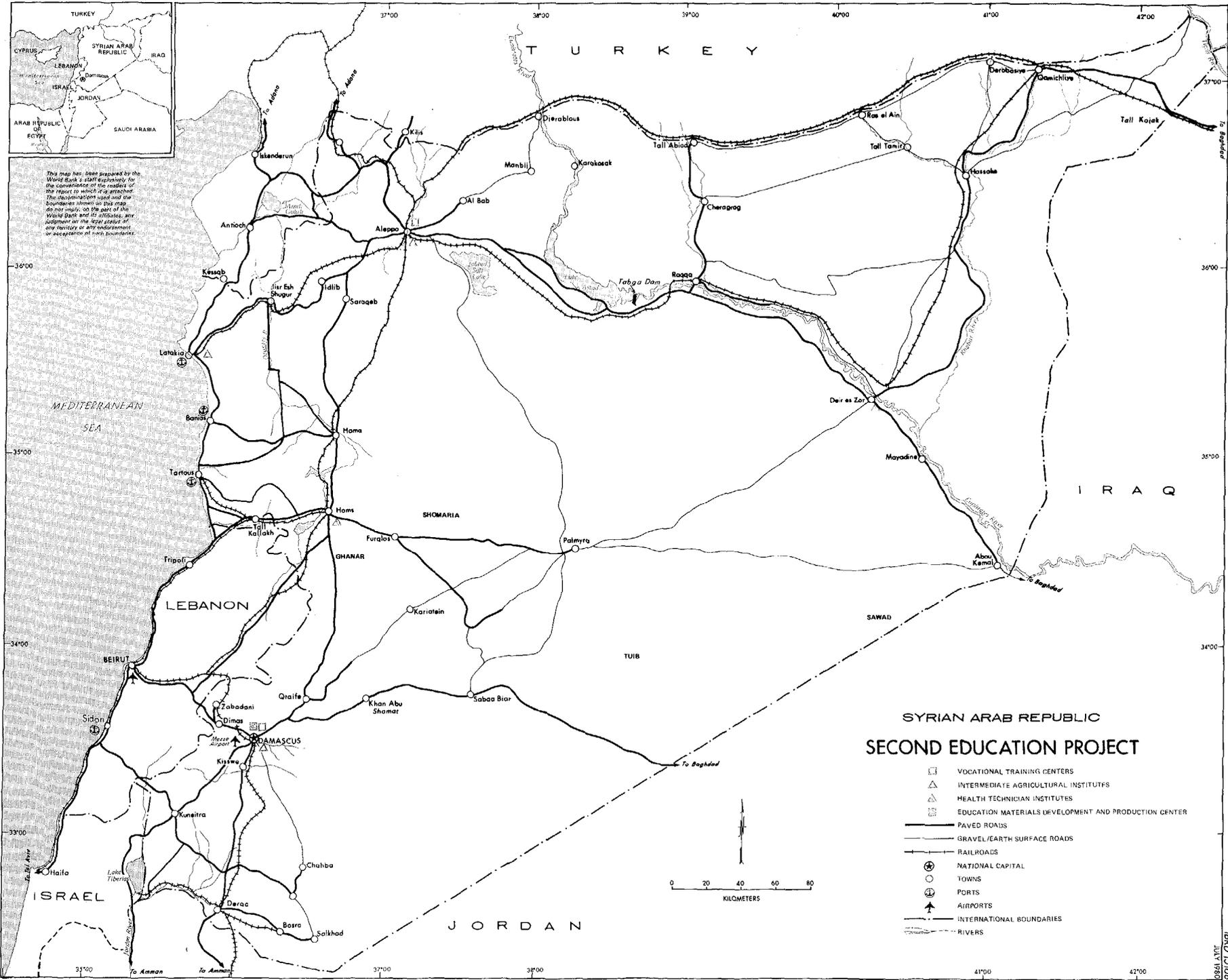
B. Reports and Studies Relating to the Project

1. Feasibility Reports on the Establishment of an Educational Materials Development and Production Center, UKODM, Parts I-III, Aug. 1978, Nov. 1978 and Jan. 1980, respectively.
2. Draft project law for creation of a National Entity for Technical Education and Vocational Training.
3. Project Brief Update for the Second Education Project in Syria, EMPED, The World Bank, August 15, 1979.
4. Staff Appraisal Reports for the Second Education Project (White Cover dated May 19, 1980, and Yellow Cover dated June 12, 1980).

C. Selected Working Papers of the Project

1. Volume I - Educational and Architectural Worksheets.
2. Volume II - Vocational Training, Agricultural Education and Health Education.





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SYRIAN ARAB REPUBLIC SECOND EDUCATION PROJECT

-  VOCATIONAL TRAINING CENTERS
-  INTERMEDIATE AGRICULTURAL INSTITUTES
-  HEALTH TECHNICIAN INSTITUTES
-  EDUCATION MATERIALS DEVELOPMENT AND PRODUCTION CENTER
-  PAVED ROADS
-  GRAVEL/EARTH SURFACE ROADS
-  RAILROADS
-  NATIONAL CAPITAL
-  TOWNS
-  PORTS
-  AIRPORTS
-  INTERNATIONAL BOUNDARIES
-  RIVERS

