

Country Development Strategy Statement

FY 1986

EGYPT

ANNEX F
EDUCATION AND TRAINING



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Egypt FY 1986 CDSS Annex

EDUCATION AND TRAINING

The USAID's education and training program is based on two development objectives common to both the Five-Year Development Plan of the GOE and AID assistance strategy: increasing equity as a contribution to political stability, regional peace, and security; and enhancing the employment and productivity of the labor force. The GOE's main educational goals are related to these development objectives. The goals are: (a) improving the quality of technical education and training and their relevance to the labor force; (b) introduction of manpower planning; (c) increasing access to basic education from 83 percent to 96 percent of the age group; and (d) making university education more relevant while holding down enrollments and restoring its quality to former international standards. There is a marked disparity between the GOE's statements of intent as noted in the Five-Year Plan and its capacity to mount and sustain programs that will lead to reaching the prescribed goals. A host of policy and fiscal constraints conspire to thwart GJE programs as well as possible AID interventions.

SCOPE OF THE EDUCATIONAL SYSTEM

As early as 1923, the Egyptian constitution called for free, universal, and compulsory primary education. Although that political goal has been articulated for both boys and girls, progress toward the achievement of the goal was difficult and limited. As a result, 55 percent of all Egyptian adults are illiterate. In 1981, Egypt enacted a basic education law that combined the 6-year primary education system with the 3-year preparatory stage making a 9-year free and compulsory system. The basic education system is seen as the major program for eradicating illiteracy among Egyptians, and provisions are being made to enroll many more rural girls in it. In the fall of 1981/82, 84 percent of the country's 6-year olds were enrolled in the first year of school. By 1986/87 and annually thereafter, it is planned to enroll 96 percent of 6-year olds. The system will grow from some 6.1 million in 1981/82 to 8.2 million in 1986/87. The quality of education received is largely unknown and may vary greatly from school to school because of widely varying capacities in the teacher force.

Currently, about 50 percent of secondary school students are in technical programs provided by the Ministry of Education (MOE): either the 3-year secondary cycle or the 5-year technical cycle. It is intended to raise the proportion of secondary students in commercial, industrial, and agricultural technical schools to 70 percent by 1986/87, in part in the hope of reducing the flow of students into the universities. The enrollment in secondary technical education will go from 0.7 million in 1981/82 to 1.0 million in 1986/87, a 43 percent increase in the number of students enrolled. The training received by the graduates of these schools, in general, is considered by employers to be qualitatively inadequate to meet the immediate demands of the workplace.

While there has been considerable expansion within the formal education system there also has been rapid development of training, particularly in technical/vocational areas. In 1982 there were some 550 technical/vocational training centers sponsored by 12 ministries, several GOE authorities and a host of private sector companies, yielding some 50,000 "graduates" per year.

There is much evidence, from within and without Egypt, that client-based technical/vocational programs are substantially more relevant and more cost effective than efforts within the formal education system, particularly in industrial and agricultural education programs. This assessment does not, however, place a value on the role played by the formal secondary technical system in meeting the social demand for schooling, a role not played by the out-of-school training.

During the Nasser period, university attendance was made free. Since then university enrollment expanded more than 80-fold. The 12 Egyptian universities now enroll around 550,000 students. The plan is to expand this number to 600,000 by 1986/87. Each year over 100,000 new students enter the university and around 90,000 receive degrees. The quality of the universities has fallen markedly because their recurrent budget is insufficient for maintaining excellence in either instruction or research.

In summary, at all levels of formal education there has been massive expansion resulting in high enrollment ratios relative to countries at similar levels of economic development. While there is a natural and growing social demand for access to primary education occasioned by a rapidly expanding and shifting population, expansion at secondary and higher levels of the formal system are occasioned primarily by long standing GOE policies (guaranteed public sector employment, free education, and reduced time in the military) that prompt students to continue their education to levels, and in subject fields, largely unrelated to any employment demands dictated by economic growth. As enrollments have risen, per capita budgetary support for education has fallen. Today the GOE's expenditure (capital and recurrent) on education as a percentage of total government expenditure is the lowest in the world with but one exception, Afghanistan.

Furthermore, the social pressure to accommodate increasingly larger numbers of students at the university level has resulted in a disproportionate share of limited educational funds being allocated to higher education. The university system receives some 23 percent of the education budget, but accommodates only 6 percent of the formal system enrollments.

QUALITY AND EFFECTIVENESS OF EDUCATION AND TRAINING

The quantitative expansion of the systems (both formal and out-of-school) has been obtained largely at the expense of quality. While the GOE is aware of the dilemma, much of its effort is thwarted because of lack of funds and lack of coordination between segments of the system, and because the GOE has been politically unable to alter the policies that drive most students into education levels and/or subject fields that are irrelevant to the developmental aspirations of the country. What the GOE intends to do to improve education over the next five years, and the predictable problems to be encountered, suggest likely shortfalls in meeting desired program objectives:

- The attempt to make the basic education curriculum more relevant through the introduction of pre-vocational curriculum materials to supplement the traditional general curriculum may prove to be only marginally useful. Teachers are not likely to be trained in their use

nor will the recurrent budget of the MOE permit the on-going acquisition of equipment, much less the payment of appropriate salaries;

- The attempt to up-grade all basic education teachers to the BA level, while admirable in intent, is likely to result in those obtaining the BA either demanding a higher salary or transfer into the secondary schools. Neither action can be accommodated under current personnel and budgetary limits.

- The attempt to improve secondary level vocational and technical education through curriculum reform and limited additions of equipment will produce little change in the productivity of the labor force, should the programs not be terminal in nature. Students will try to use them as means for gaining the benefits of a university education. Recurrent funds are insufficient to equip the secondary technical schools properly or to pay teachers a wage that will prompt them to remain in education (although there are plans afoot to alter the pre-service and in-service education of the teachers at these levels.) Nor are there any manpower studies to guide investments among the several subject fields.

- The attempt to improve vocational training efforts is frustrated by the lack of coordination among those offering programs, absence of comparability of standards, and a general GOE policy commitment to further technical/vocational education in the formal system when there is very little evidence from any developing country that such attempts have been fruitful.

- The attempt to hold the line on high quality education at the university level is frustrated by lack of national policies directed toward maximization of existing plant and staff. Each university seeks to be comprehensive in its offerings, instead of making use of economies of scale and establishing regional centers of excellence in instruction and research. Consequently, money goes for capital investment in buildings that currently are being used at about 28

percent of installed capacity. Because capital costs remain high and there are no useful efforts to introduce policies that would permit economies of scale, there are few or no funds for books, laboratories or staff salaries (currently a professor is paid a basic salary of about L.E. 180 per month.)

USAID STRATEGY

While the USAID education and development objectives are commensurate with those of the GOE, the GOE's ability to bring about desirable changes in the several levels of the education system and to make all of them more relevant to both social and economic objectives is constrained by policies that are inimical to education's playing a productive role in the future of Egypt:

- enrollment policies at middle and higher education levels;
- the absence of manpower planning, which precludes any determination of demand for education that is related to employment and economic needs;
- the absence of education planning, which precludes the rationalization of investments in education; and
- a lack of coordination among training institutions that precludes any kind of comparability in standards or a rationalization of investments in support of agreed standards.

USAID efforts are limited to trying to help the GOE to develop planning and coordination and, in the short run, to providing ad hoc assistance where it can be demonstrated that a USAID investment will make a positive, desirable difference. Likely USAID assistance programs are described below for the several levels and types of education.

In basic education, there is clear evidence of the GOE's willingness and capacity to provide capital assistance for the construction of school buildings. USAID accepts the GOE's policy to provide equity of educational access and will continue to provide capital assistance for buildings in order

to bring disadvantaged rural areas up to the current national average for attendance (82 percent of the age group in 1980.) While recognizing that basic education schools built with AID resources are tangible and highly visible evidence of gains to Egypt from association with the United States, future USAID program efforts will be dedicated to increasing the quality of educational opportunity within the basic education system. Emphasis will be given to assisting the Ministry of Education to develop educational planning in order: (1) to optimize the use of current facilities and staff; (2) to rationalize future investments in in-service and pre-service instruction of staff; and (3) to reform curricula, including testing and the provision of relevant instructional materials.

Investments in both education and training suffer markedly from the absence of any comprehensive manpower analysis. The USAID would like to assist the GOE in the establishment of more comprehensive manpower data and analyses for the purpose of rationalizing investments in education and training. The development of manpower analysis should focus on identification of existing human capital in order for the GOE to maximize its use (an objective of the Five Year Plan) and employment forecasting for the intermediate and long range future of Egypt. This effort is a needed corollary to the educational planning emphasis noted above inasmuch as such work is required to determine the demand for education and training in other than social terms.

The USAID is under considerable pressure from the GOE to provide extensive support to technical training at the secondary level. Pending the development of more rational manpower planning, the USAID would prefer to limit its assistance in technical education and vocational training to the following: strengthening existing vocational training programs (large and small scale), particularly those in which other sector offices have an interest; the provision of commodity support for education and training programs where it can be determined that such investments are likely to make a difference in the coverage and/or quality of such programs; and support of GOE efforts to encourage the formation and use of vocational/technical coordination

mechanisms for the purpose of rationalizing testing, curricula reform, instruction, and the use of training materials. The USAID is discussing possible areas of cooperation with other donors who have also been approached by the GOE for assistance to secondary technical education.

The USAID's efforts in university level education will be dedicated largely to holding an internationally acceptable line on quality research and instruction in key development related disciplines (e.g., veterinary medicine, agriculture, bio-medical research, engineering). These efforts would attempt to aggregate existing Egyptian expertise in indicated areas and relate it to centers of excellence (consortia) in the U.S.

The USAID will consider supporting key faculties in a few selected universities provided that they will be permitted sufficient autonomy to operate successfully. The center established under the Cairo University/MIT Project (263-0061) has the support of leading Egyptian academics and educators and can serve as a model. While training will be provided through existing programs (e.g., Peace Fellows) and specific commodity requirements will be met where there is evidence that such inputs will make a difference (currently such evidence is lacking), the USAID sees little point in providing support to ad hoc requests from the university community because there is little evidence that assistance given on an ad hoc basis will make a significant positive difference in the light of the GOE's current policies for higher education.

The USAID would like to expand its efforts in English language instruction by spreading access to English language programs to outlying areas of Egypt such as Assiut. Currently English language instruction is given only in Cairo and Alexandria. The effort will be aimed at enhancing instruction and research programs in the sciences and in engineering in all universities. Most of these programs are conducted in English.

The USAID intends to group its participant training and related programs under a development training project.

PROJECT CONCEPTS

Basic Education II

Construction of new schools. GOE has decided to improve its literacy rate not over the short-term with adult literacy campaigns, but over the long-term with the creation of a Basic Education Program. Since 1981 the USAID has built schools on a matching basis with the GOE in the ten governorates with the lowest enrollment rate. Over the period 1986-1990, the USAID proposes to expand its construction program in order to increase the enrollment rate of 6-year-olds to 95%, helping achieve the target of the National Plan. This construction program will continue in the current ten governorates (especially preparatory schools, that is 7-9 grades), and it will expand to cover the remaining sixteen governorates.

Replacement of Old Schools. Since 1981, USAID funded commodities have been distributed to nearly 100% of public basic education schools. However, many of the schools that receive these instructional materials--including tools, sewing machines, science kits--are dilapidated buildings built for other purposes than classrooms and rented to the Ministry. These buildings are small, poorly lit, and contain minimal or no storage space for materials. In some cases, rooms have been condemned. Replacement of a modest number of such schools in each governorate will not necessarily provide classrooms for new pupils, but will reduce safety hazards and furnish new improved facilities to protect the investment made in AID funded instructional materials.

School Construction and Equipment for Handicapped Children. Mentally retarded, deaf, mute, and blind children in Egypt have to date received very few opportunities for learning and training. The GOE is currently preparing a proposal for external financing of construction (including dormitories) and equipment for handicapped children's schools.

Model Schools. As part of the effort to raise the quality of basic education, we propose identifying some 50 "model schools", one or more in each Governorate. These schools will receive special attention from University Schools of Education, the Teacher Training schools, and the Ministry so that the staff will be particularly well trained, the equipment especially well utilized. Visits to model schools will constitute a part of the in-service teacher training program.

Teacher Training. The first year results of the Basic Education evaluation have revealed that the USAID funded commodities have not been well utilized by teachers. The in-service teacher training currently run by GOE for this purpose is inadequate, both in duration (3-4 days), and in content. AID will train teachers in teacher training schools and help GOE organize seminars for teachers from Basic Education schools and from non Basic Education schools to which AID funded kits have been distributed.

Instructional Materials. The quality of and the accessibility to instructional materials will be improved in the following ways:

- Prevocational learning packages will be procured as in the past in such fields as science, carpentry, electricity, sewing, etc. but this time including additions, deletions, and modifications suggested by the first project evaluation results. New fields may include music, physical education, and libraries.
- Instructional materials (including imported paper) printed for 8 million pupils.
- Instructional materials, including textbooks, for teacher training colleges.
- Training opportunities (in printing and in equipment maintenance) for personnel from the Education Ministry's Printing Office.

- Strengthening of the Ministry of Education's Printing Office through technical assistance and commodity procurement.

Housing for Teachers. One of the reasons why Egyptian teachers prefer urban employment is the inadequate housing conditions currently available in a rural teaching assignment. In each Governorate (especially remote areas) simple but long-lasting dwellings will be built to attract teachers to rural areas.

Recurrent Costs. The USAID will provide direct budget support to the Ministry of Education to help cover recurrent costs, both of supplies, and of operation and maintenance (O & M).

An illustrative annual budget for Basic Education II is shown below:

Category	(\$ million)
1. Construction of new schools	12
2. Replacement of old schools	10
3. School construction & equipment for handicapped children	4
4. Model Schools	5
5. Teacher Training	10
6. Instructional Materials	10
7. Housing for Teachers	10
8. Recurrent Costs Budget Support to MOE:	
Supplies	15
O & M	15
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Technical Education and Vocational Training

Inadequate staff, equipment, curricula, and training are massive, visible problems that need to be addressed to improve the quality and quantity of technical school graduates. A major underlying deficiency, however, is the irrelevance of the 3-year secondary technical programs to the needs of employers. This arises from the lack of manpower plans and

education plans; the former to identify the numbers and kinds of skills needed and the latter to effectively structure the secondary technical programs to meet these needs.

Lacking a comprehensive national manpower plan, the educational planning effort for technical education and vocational training would be directed toward determining the needs of employers on a regional or local basis. This information could be aggregated for national needs and/or used at the local level to ensure the relevancy of programs developed. This suggests, also, that the assistance effort might concentrate on model schools or districts.

The program of assistance, however, should not stop with the formal 3-year system. Upgrading the physical plant and equipment and the quality of instruction provides the opportunity to reach a much larger, and perhaps more relevant population, than secondary school students. The facilities should be opened fulltime, year-round to school drop outs to attain employable skills, adults who wish to upgrade skills, and to employers who want their employees to obtain specialized skills. The basic thrust of this effort, as with the formal system, is toward making the programs user-oriented.

We will continue assistance to vocational training programs that have demonstrated, or have potential, relevancy to the work place. We envision a capability to respond quickly to ad hoc requests that meet the relevancy criteria, as well as to identify long range institutional building programs.

Another important issue is the coordination of technical/vocational education/training among the 12 Ministries and other agencies providing these services. The Mission anticipates supporting the development of a National Resource Center that will provide information on jobs and their skill requirements, skill standards and testing, curricula development and literature, instructional materials, training equipment, and instructor qualifications. Such a Center could serve the training institutions employers, and perhaps, the Middle East as a whole.

Funding requirements for this activity are projected at \$800 million for a system including 1,000,000 secondary school students, and non formal training for several million workers. The USAID contribution would be a minimum of \$100 million over a 4-year period.

Higher Education

The Five Year Plan states that the GOE intends to expand enrollments in higher education by a little more than 10% over the five year period. There is no evidence that the GOE is willing or able to reverse any of the policies which drive students into university education (and out of more desirable alternatives), nor is there any evidence that the GOE will be able to afford recurrent budgets commensurate with assuring quality. In summary, the current situation has probably been best described by the ILO (1980): "...guaranteed employment for graduates has created strong pressures on university authorities for increased intake which now runs way above the capacities of the universities with disastrous consequences for educational quality; low quality education forces graduates to depend upon guaranteed government employment; increasing government employment leads to an increase in the upper layers of the bureaucracy which, to justify its own existence and create advancement possibilities for itself, request ever increasing numbers of new graduates."

Given current policies, there is reason to believe that inputs into such things as equipment, libraries and staff development will have little or no impact on higher education. There is not enough money to equip all the labs in all the faculties in all the universities, nor is there likely to be funds to buy, for example, chemicals or to maintain laboratory equipment. There are no library systems nor is there any evidence that the GOE is willing to commit funds for their creation, use or maintenance. Wage differentials conspire to drive the well trained out of higher education.

USAID higher education strategy should be geared to maintaining high quality in key higher education faculties (instruction/research); e.g., medicine, agriculture, economic/business administration, engineering. We should consider commitments to several university faculties provided they could be established along the following lines:

- They would be linked to appropriate university consortia in the U.S.
- The university faculties selected for assistance would be permitted to operate outside the usual policy encumbrances which impact negatively on quality in higher education. The Development Research and Technological Planning Center (DRTPC) may be a model for this type of institution.
- They would allow for a fixed number of places for other students from the Arab world (i.e., they would be expected to have a regional impact and would, consequently, further Egypt's foreign policy objectives).
- Current USAID programs such as the University Linkages Project and the Peace Fellows would be concentrated on these faculties to the extent feasible.
- These key faculties could be used by the USAID to focus university related projects of other USAID operating divisions (e.g., in agriculture and in health).
- There would be two phases. The first phase would be to strengthen key faculties in Egypt. The second phase would be to link them to faculties in other Egyptian universities.

Funding for four key faculties is projected at \$140 million, including construction, equipment, supplies. Unit cost would be \$35 million and start ups could be phased, one per year for four years.

Development Training

Project resources will be dedicated to providing training, technical assistance and commodities to assist the GOE to develop its capacity to conduct long-term manpower training with particular emphasis given to specific skill group training and institutional requirements. Project activities will be directed towards assisting the GOE in making more effective use of its trained human capital. In FY 1984 and FY 1985, the project will be largely focused on assisting the GOE to: (1) identify an organizational/institutional place for these activities; (2) develop a basic manpower training model; (3) implement its use through the provision of required training and commodities; and (4) study the work of other appropriate nations that successfully employ methods for the planned development and utilization of human capital. The project will also make provision for an expanded English language program. It is expected that this project will cover the costs of all USAID/Egypt non-project training in FY 1985, i.e. when project 0026, Technology Transfer and Manpower Development, terminates its activities.

Development training supports both the productivity and technology transfer strategies of the USAID. It encompasses assisting the GOE to develop methodologies through which effective planning can have an impact on the character of the workforce principally through rational use of training, including: skills upgrading and introduction of new competencies; practical training under the Peace Fellowships; and in-country training.

Facility with the English language is a key to communication with the outside world and to technology transfer. The rapid expansion of the education system in Egypt also brought about a serious decline in the quality of English language teaching and usage. English is a compulsory subject in the schools of Egypt and the language of instruction in medicine, engineering and science at university level.

Through a series of English language activities the cluster will prepare Egyptians to undergo training in the U.S., as well as to access literature and information in English in connection with their work and daily activities. The short-range need to prepare Egyptians for study in the U.S. will be met by providing intensive, in-country English learning opportunities; and longer-term objectives will also be addressed by upgrading the formation of future English teachers destined to serve throughout the school system, and by making English training accessible on a continuing educational basis throughout cities in the rural governorates. This English Language activity will require \$40 million over the 4-year planning period.

Funding of the overall Development Training project is projected to be \$115 million over the period FY 1986 through FY 1989.

BUDGET REQUIREMENTS

If resources were available, an optimal program for education and training and a policy constrained program would require USAID budget allocations as follows (in millions of dollars per year):

<u>Program</u>	<u>Optimal</u>	<u>Policy constrained</u>
Basic education	100	60
Technical education and vocational training	100	10
University level education	35	15
Development Training	<u>25</u>	<u>10</u>
Total education and training	260	95