XD-AAX-892-B
ISN 56493

Recurrent Cost Study: Progress and Potential in Key Project Areas

Prepared by
Robert Zimmerman,
USAID Washington
Egypt Desk

February 1988

FOR USAID DISTRIBUTION

8

Recurrent Cost Study: Progress and Potential in Key Project Areas

Executive Summary

I. Introduction and Background

II. Methodology

III. Education

A. Previous Experience Suggesting Alternatives for Possible Application in Egypt.

B. Recurrent Operations and Maintenance (O&M) Cost Recovery Approaches now applied or under consideration in Egypt.

C. A Possible New Approach: Autonomy.

IV. Health

A. Previous Experience of Possible Relevance to Egypt.

B. Recurrent O&M Cost Recovery Approaches currently applied or under consideration in Egypt.

V. Agriculture: Irrigation, Research and Extension

A. Previous Experience of Possible Relevance to Egypt.

B. Recurrent O&M Cost Recovery Approaches currently applied or under consideration in Egypt.

1. An Introductory Note: The Debate over Public and Private Benefits.
2. Irrigation.
3. Research and Extension.

Conclusion and Recommendations.

Annex A - Bibliography.

Annex B - Key People.

9

Executive Summary

The preliminary review of previous AID and World Bank experience in recurrent operations and maintenance cost recovery provided a catalogue of ideas and reference points useful in catalysing discussion in USAID and to evaluate mechanisms for recurrent cost recovery already considered or underway in Egypt. The essential findings throughout the AID documentation, so efficiently provided by CDIE/DIU, was that if beneficiaries can influence or control the use of funds to obtain quality services, even the poor in rural and urban areas can and will pay service fees for:

- curative care at health clinics and hospitals;
- text books and maintenance in primary education;
- maintenance of tertiary level irrigation systems that provide efficient, reliable delivery of water.

In carrying out this study, it was essential to keep in mind the special context of Egypt. The "social contract" guaranteed by the Constitution has provided a broad range of public services for free since the 1950's. It has also guaranteed employment for university graduates. Finally, there is also the fundamental political objectives that affect our relationship with Egypt and the GOE's knowledge that $815 million per year is guaranteed.

Essential Findings and Recommendations:

I. Education

Education was the most surprising sector because of the variety of recurrent cost recovery approaches either underway, in active negotiation between USAID and the GOE or recently catalysed and encouraged by this study and its approach. Cost recovery approaches underway or in discussion include:

- community contributions for maintenance of primary schools;
- the sale of advertising on the covers of notebooks, copy books and, if these are successful, textbooks;
- fees for school books, or a book return and reuse program;
- rechanneling of a portion of private tutoring fees now collected by teachers outside of school hours;

- fees for extra activities at schools or permission for donations from parents (the cooperative communities concept);

- performance award fund for teachers whose students pass final exams; and,

- development of private schools without government limitations on fees, tuition or teachers' salaries.

The significant "new" approach was to pursue more actively in Egypt the concept, tried in other countries, of autonomy for district and village level schools. This approach, which was proposed and discussed at length during the USAID group discussion on education, elicit considerable interest and commendation from the Egyptian staff. It's essential feature is the delegation of authority to set and collect certain fees or receive donations and to retain them for O&M uses overseen by parents' or teachers' organizations in district and village level schools. A central fund could be used to provide additional funds/special programs for very poor school districts.

The three most important recommendations for the education sector are:

- USAID should engage the MOE in an effort to lessen or lift restrictive rules that prevent utilization of the cooperative communities approach for raising revenue;

- significantly increase feasibility study for the private schools approach and intensify its discussion with GOE and other Egyptian experts; and,

- undertake further GOE-USAID analysis of the autonomy concept for district and village level schools.

II. Health

Within the past six months a significant opportunity appears to have developed for meaningful action toward the institution of fees for service at Ministry of Health (MOH) clinics and hospitals. The Cost Recovery Programs for Health Project (COSTREP) and the Minister of Health's recent strong determination to immediately upgrade the quality of health services facilities and to charge fees are the genesis of this opportunity. The Minister's commitment comes with a request to expand the project to include service improvements and rehabilitations of selected governmental clinics and hospitals. This component has raised important relevant questions in AID/W which should be quickly and seriously addressed so that advantage can be taken of this unique opportunity to breech the longstanding resistance to any compromise of the social contract and its equity principles.

Other significant initiatives applied or now actively considered in Egypt include:

- the Curative Care Organization (CCO) which currently operates facilities in Cairo and Alexandria and recovers 100% of recurrent O&M costs. The Minister prefers to use this model in the COSTREP project;

- the Suez Canal Area Medical Education and Health Services Development project's successful initiation of fees for service and group practice activities that recover most, and in some cases, all recurrent costs;

- health insurance. The Health Insurance Organization provides a useful model for expansion or replication under the COSTREP Project.

To reiterate, the most important recommendations in the health sector must be:

-- to complete the project paper for the COSTREP Project so that the four cost recovery oriented components can be initiated within the next 12 months;

-- review USAID's experience in the Suez Community Health project with a view to identifying Egyptian initiatives that could benefit from continued AID support. This project's success should be built upon in new ways.

III. Agriculture

The agriculture sector in Egypt presents unique challenges in the search for viable recurrent cost recovery approaches. The still restrictive policy environment that results in a net indirect tax burden, albeit with considerable variation for different crops, complicates efforts to raise additional revenue from farmers. In irrigation, the constitutional, religious and historical support for the right of every farmer to the free use of the waters of the Nile is a major constraint to user fees and even the establishment of autonomous water users associations. For research and extension, the debate over public and private goods, the policy constraints created by sectors outside Agriculture, and the resultant ineffectiveness of research results have all mitigated against early development of viable recurrent cost recovery approaches. Nevertheless, some such approaches are being applied and others are being considered at least within USAID. For example:

12

- the provision within the Irrigation Management Systems project for continued feasibility study of water users organizations and pursuit of legal authority therefore;

- fees for irrigation drainage systems;

- provision of labor for tertiary irrigation canals;

Approaches that might be considered:

- Land tax revenues;

- Rice tax in place of rice price controls

- Provision of research and extension services for fees; and,

- Creation of an endowment by the GOE for recurrent O&M costs in research.

The key recommendations must be to:

- undertake serious study of the feasibility of developing some fee for selected research and extension activities in response to specific farmer and private commercial requests;

- undertake a study of the establishment of a rice tax instead of the more restrictive rice price controls;

- early completion of the studies of water user's associations called for under the IMS project; and,

- upon completion of the cadastral surveys provided for in the IMS project, study of the possibility of raising at least surtax revenues to meet research and extension recurrent costs.

Conclusions:

Clearly, USAID and the Ministries of Education and Health are actively engaged in dialogue for or implementation of programs that include a wide variety of recurrent operations and maintenance costs recovery initiatives. This conclusion also applies for the irrigation program in the Agriculture sector. In these three areas, USAID and its GOE counterpart ministries can be credited for their state of the art intentions. However, intentions often turn out to be mirages in the desert as we try to turn them into viable plans and actions. This has been especially true for our program in Egypt. Thus, one of this report's most useful purposes might well be as a reference point in the future to determine how much of the intent has begun to transform into reality.

Agriculture research and extension recurrent O&M cost recovery initiatives have been far more difficult to develop in the past because of the adverse impact of crop pricing and quota controls on the effectiveness of the research and extension programs. However, even with such caveats the changing policies in the agriculture sector have begun to remove many of the pricing and quota constraints over the past 18 months. New opportunities should be developing for exploration of initiatives in O&M cost recovery.

14

RECURRENT COST STUDY: PROGRESS AND POTENTIAL IN KEY PROJECT AREAS

I. Introduction and Background:

The purpose of this study was to assess current progress, define key issues, and identify specific interventions to reduce the recurrent cost burden of selected USAID-financed programs on the GOE by introducing cost recovery concepts.

In carrying out this study and developing recommendations it was particularly important to keep in mind the realities of the AID program in Egypt. Among these key factors were the following:

(1) Egypt has a 35 year tradition of provision of a broad range of public services, free of charge, to all Egyptians regardless of income level. This has been described as a "social contract" between the government and the people. Added to this, economic reforms which the IMF and donors are pressing the GOE to undertake will raise the cost of many items (e.g. those dependent on electric power or foreign exchange) and will result in some inflation. The GOE's ability and interest to simultaneously introduce cost recovery through fees for service will be limited.

(2) Egypt also has a policy of guaranteeing employment to university graduates. As a result the government bureaucracy and public sector organizations are bloated with inefficient, low paid employees. There is a tendency for government organizations to expand services in an attempt to provide work for existing employees and increase revenues, even when these services would be handled more efficiently by the private sector. Fees, when charged, are often very low and undercut expansion of the private sector in these areas. Thus, there needs to be a distinction drawn as to which services should be left to the private sector and appropriate fees.

(3) USAID does not intend to raise the issue of operation and maintenance or other cost recovery elements to the macroeconomic policy level (except for electricity tariffs). USAID, for the most part, will continue to deal with this issue on a project or sectoral basis.

(4) Even at the project level, there are some policy issues to which cost recovery recommendations will, for the time being, have to take the back seat.

In view of these realities and the ways they affect the different sectors in Egypt, it was necessary to avoid the general assumption that fees for service can be a relatively handy way to respond to recurrent O&M costs in all sectors. There are public benefits and private benefits. If we are to have a rule of thumb, it may be that fees for service to cover recurrent costs can and should be considered and applied where the recipient of the service is also the primary and immediate beneficiary. The limitations of fees for services are especially important in the agriculture sector and certain aspects of education.

The common theme from the literature on previous AID and World Bank experience was that: people even in poor conditions will pay often significant portions of their household income for quality services or to create better living and employment conditions for themselves. The literature is repleat with examples of the poor who pay:

- for curative services in health clinics or drugs at pharmacies;
- for books or improved conditions at the schools their children attend;
- to cover costs for maintaining irrigation systems at the tertiary or farm level.

In both the education and irrigation cases a key requirement appears to be that the people who will benefit be the ones who set fees, collect or oversee the collection of fees and have some control over how those resources are applied in their own schools or irrigation systems.

II. Methodology:

The research process for this study involved five interrelated activities: review of literature available through AID's Development Information Center and the World Bank; interviews with selected AID/W staff, USAID/Cairo USDH, contractors and Egyptian professional staff and Egyptians outside of USAID in both government and private sector; group discussions; limited field visitation during which additional discussion with GOE officials and USAID staff was possible; and, distribution of this report in draft in order to:

- ensure accuracy,
- elicit additional information on approaches presented as currently applied or underway,
- catalyse other new ideas if possible in reaction to those finally organized by this report.

The review of literature and AID/W interviews phase took 3 weeks. Documents that appeared most likely to provide relevant experience were reviewed and many of these were brought to Cairo for the use of concerned project officers. (A Bibliography of these documents is at Annex A).

The findings of the Cairo portion of the study are the primary focus of this report. This study rested on the assumption that creative ideas about and design of approaches to resolve Egypt's recurrent operations and maintenance cost problems could be developed from the experience and talent available in Egypt itself. This assumption was proven valid in the course of the study and will probably hold for all follow-on research and discussion that may be catalyzed by this beginning.

III. Education:

A. Previous experience suggesting alternatives for possible application in Egypt.

The best sources for experience in or discussion of recurrent cost problems and possible solutions proved to be five World Bank publications. These studies addressed experience in Malawi, Pakistan, Mali and Indonesia. In brief summary, approaches for either recovering some recurrent costs or reducing the burden on the national education budget included:

1. Nominal fees for books, special activities and improved facilities in primary schools. A key requirement appeared to be that autonomy and authority for setting any fees and collecting and retaining them for use for specific purposes had to be established at the lowest possible level, i.e. at district or even village school levels where local parents associations and school administrators could participate in controlling and using the resources. Experience shows that even poor people will pay something for improved quality in education that directly affects their children.

2. At secondary and college level, fees for books and tuition. There is usually a more immediate linkage between secondary and college education and employment and income prospects. As a result it is easier to justify and obtain fees and tuition even in public supported systems. Resources thus obtained can help free up more money for improved primary education. Usually, scholarship programs are recommended for poor students who did well academically in primary schools.

3. Private Schools. Governments can reduce the budgetary burden by permitting private schools, especially at secondary and college level. This occurs because private schools take students who would otherwise demand facilities and teachers in the public schools. Government involvement would be limited to establishing and monitoring education standards, national testing requirements and the quality of facilities. It may also be possible to consider limited taxation of profits in private schools as a way to raise resources for use in meeting public primary education costs.

B. Recurrent O&M cost recovery approaches now applied or under consideration in Egypt.

1. Community Contributions for Maintenance of Primary Schools Constructed Under the Basic Education Project:

In response to audit findings that primary schools constructed under the Basic Education Project were not being maintained, USAID proposed and negotiated with the Ministry of Education a program to obtain community contributions for maintenance. This proposal is an innovative approach for covering maintenance costs. The essential elements are as follows:

(1) Prior to construction, ten percent of the construction costs will be collected from communities in the case of replacement or preparatory schools. Matruh, New Valley, Red Sea, North and South Sinai, which are especially poor governorates, will be exempt.

(2) The Ministry of Education will lower the percentage collected from some specific sites or some governorates in general, as appropriate. AID will be notified, of these sites and/or governorates and reasons for an altered percentage given, for concurrence.

Funds collected from communities will, in general, be treated as follows:

(1) Each governorate opens a separate, interest bearing project account to deposit funds.

(2) The bank chosen should be the one which gives the highest interest rate.

(3) Funds will be credited to the account as a "time-deposit" so that the highest interest can be obtained.

(4) Funds collected from each community will be used exclusively to maintain the school of the same community. Preventive maintenance concepts will be applied. USAID is providing guidance through establishment of a physical planning facility.

(5) Initial time deposites will be for 2 years.

(6) At the end of two years and every year thereafter, maintenance requirements will be budgeted against accrued interest. The initial 10% time deposit will be expected to remain in perpetuity, or at least to last for from ten to fifteen years.

(7) Governorates should submit a quarterly report to the MOE and AID on funds collected from communities and their use.

2. Paying for school books or returning them at the end of the school year.

The Ministry of Education is considering the possibility of charging a nominal amount for books. This approach creates an equity problem because poor people may not be able to pay and would be at a disadvantage if forced to attend school without their own books. Establishing a system for exempting the poor from paying for books creates a psychological and political problem when people are forced to publicly document their poverty status.

An alternative thus would be to provide books free but require that they be returned at the end of the year. Those students who did not return books would have to pay for books received for the following year of school but would receive the next year's books free if they returned the one's paid for.

A major problem with this approach is the poor quality of paper and binding now used. The probability is that few books could survive even with careful use through a whole year. Thus, the MOE might have to consider investing more in the initial production of the books in the hope that extending their durability would still be cheaper than printing new books each year.

Peter Newman and Phillip Cohen have just completed a study for USAID of the current situation in text book production. They addressed this problem and concluded that, by running the book production process more efficiently and by introducing changes in the type of paper used, the MOE could improve the quality of text books to allow multiple-year usage without the need for additional capital investments. Other recommendations, including some change in the current policy that guarantees free books for all students, are also under discussion with the Ministry.

3. Se advertising on the covers of notebooks, copy books and te. books:

The Ministry of Education is initiating an experiment in which advertising space is sold on the binder covers for note books and copy books. If this works, it may also be extended to text books. This approach could become an innovative solution to the production of higher quality text books, books that could then be issued on a loan basis over several years as described above. To date, the primary voice in opposition to the ads comes from conservative Islamic circles.

4. Rechannel Part of the Tutoring Fees Collected by Teachers:

Under this concept, currently discussed by leading educators, the MOE would, in effect, legitimize the existing practice of private tutoring by teachers outside regular school hours by requiring that such tutoring be provided in school facilities. The MOE would take a certain percentage of the fees collected by the teachers and apply these resources to recurrent O&M expenses in education.

World Bank estimates place Egyptian expenditures for private tutoring at all levels, primary through university, at 5 billion LE per year. The current education budget is 2.5 billion LE, including the capital budget. The percentage to be taken from the tutoring fees has yet to be determined. If set at 10%, the additional revenue available for education recurrent cost expenses could reach 500 million LE.

This proposal is currently supported by the Ministry of Education but is the subject of heated debate. This approach would probably necessitate firmer action against tutoring outside of the schools. However, since it would remain unlikely that "legalized" tutoring on school premises could meet the demand, parallel efforts might also have to be permitted through other certified organizations such as PVO's or even individuals. These organizations and individuals, however, could also have a portion of their fees allocated back to the MOE budget for recurrent O&M costs.

5. Offer More Activities at Schools and Charge Fees:

Using school cooperatives and similar mechanisms there are instances in which primary schools have considered or even undertaken extra activities in the school program and charged fees which actually helped cover other O&M costs. Cooperative communities in schools can solve the problem of expendable supplies insufficiency. These communities can sell items produced by teachers and children during study of the different practical subjects, pay some incentives to teachers and buy new materials once more and so on.

The majority of headmasters are reluctant to use or implement the idea of cooperative communities because of the very tight (meaningless in some cases) rules and regulations organizing these cooperative communities. An effort should be made to eliminate the obstacles that are holding back these communities from playing a more effective role in financing expendable supplies, incentives for teachers and maintenance of equipment. This idea should be carefully studied. Recommendations should be made to the Minister of Education in an attempt to free these communities from meaningless regulations. A similar idea (the Capital Fund) has been implemented in the Secondary Technical Education area especially in industrial and agricultural schools. The fear of application on a large scale in the basic education stage is that it may change schools more into productive units than educational ones.

6. Permit Donations from Outside Sources:

In some cases parents have offered to donate extra funds to schools for extra activities. Current Ministry policy limits such voluntary donations. Its position is that regularization of this practice would undermine the equity principle in the Egyptian Constitution. Some schools or districts could have a more affluent population and their donations or fees practices could not be matched in other, poorer schools.

There is continuing debate both in government circles and in the general public on this issue. Nevertheless, it remains an option for further consideration by USAID and the MOE. One possible compromise would be to allocate different levels of subsidies to different schools, depending on the level of resources they are able to raise on their own, whether through fees for special activities or other types of donations and fund raising efforts. Alternatively, perhaps a matching grant process could be developed for poorer schools. The funds they receive as a match to resources they raise themselves might utilize a different ratio than for the richer schools.

7. Establish an Incentive or Performance Award Fund for Teachers whose Students Pass Final Exams:

Under this concept, which has not been discussed with the MOE, a small fee could be collected from each class. These funds would be set aside and later awarded to the teacher depending on the performance of students on final exams for general certificates. Presumably, the amount collected from any given student would be returned if that student failed to pass the final test.

A major problem with this approach is that teachers are responsible for grading the final exams and there is already considerable subjectivity in the process. For this option to work well, and perhaps also as part of any effort to rechannel tutoring fees under the eviously discussed option, it would be necessary to ensure g ater objectivity in the testing and grading processes.

8. Permit Development of Private Schools:

Allowing private schools an expanded role in Egypt would reduce some of the burden on the education budget simply because public schools would have to accomodate fewer students. It would save space and even book expenses. The government could, however, set curriculum and facilities standards. It might even be able to collect some tax on profits acquired by private schools.

The Prime Minister is currently reviewing an amendment to the Five Year Plan for reforming the Educational Sector. This includes several new mechanisms for introducing a moderate degree of cost recovery. At higher education level the MOE will establish three technical "colleges". Only one of these will be "governmental", i.e., totally free. The second will be open to Arab students and will charge tuition fees that are high enough to allow the "college" to be financially self-sufficient. It will also be open to Egyptian students that are ready to pay these fees. The third institute will be under the supervision of the MOE but funded by the World Bank and will not offer free tuition. The exact details of its tuition fee policy have not been settled yet.

Thus the MOE is getting around the constitutional prohibition against opening a private university by establishing these semi-private institutes which are allowed under a law established in 1971.

In addition to the above initiatives, the Minister of Education has given his approval to a completely private residential technical institute to be established in the Tenth of Ramadan City. This is run by a board of trustees that have formed a "Society" licensed under the Ministry of Social Affairs but will receive academic supervision from the MOE. The Ministry of Construction and New Communities has granted (rented) a completed school building plus another one under construction plus 1500 apartments at the institute for a nominal rate of 10 P.T. per square meter per annum. The factories in the area have agreed to fully support the education of one variety of students of this institute (those going for a three-year technical degree). Students that will be covered under this arrangement will sign a commitment to work for the supporting factory for four years after graduation at an attractive salary. The Social Nasser Bank has also agreed to give loans for supporting students at the institute and assisting them in opening a workshop or small business upon graduation.

A Supreme Council for coordinating and planning self-financing efforts in Education is being formed. This will be headed by the Prime Minister and will include the governors and ministers of education, information, planning, social affairs, and manpower.

A Special Fund for School Facilities (SFSF) is being established under the control of the Minister of Education. This Minister will be allowed to establish charges for some services by the MOE. The charges will be deposited in the SFSF and used for maintenance and renewal.

The private school option, including even specialized institutes, provokes heated debate in Egypt, primarily because it conflicts with the equity principle. Opponents argue that separate private schools would create greater inequality among the people. Only the poor would attend public schools. The best teachers would teach in the private schools, leaving public schools with the less capable. Finally, the constitution guarantees free education to all the Egyptian people.

Ironically, this debate occurs despite the reality of 5 billion LE spent on private tutoring throughout Egypt at all levels of Education. This practice is itself a form of private education and ensures greater inequality than would establishment of private schools under the general supervision of the Ministry of Education.

In sum, the problem facing the Government of Egypt is that it cannot officially admit that it is unable to provide quality education to all the people and thus cannot meet the equity provisions of the constitution. Nevertheless, the previous delineation of MOE initiatives for setting fees and tuition at "new" institutes as for special education indicates that the GOE is not waiting for resolution of the debate on this issue. Although at a macro-level the GOE is not touching the principle of free education, a variety of piecemeal efforts are seriously being considered to gradually inject cost recovery mechanisms into the system.

C. A Possible New Approach: Autonomy

For education the most promising possibility discussed at length with USAID staff might be providing greater autonomy for district or village level school systems to improve the quality of the education process. In a sense, this option has more political authority implications than does option B.5 above, though the approaches are similar. By decentralizing authority to collect, retain and use various donations, fees or tuition derived resources, the GOE would permit equity to be addressed at the village level. The resources saved from districts or villages able to correct their own problems by collecting fees could be applied to poorer schools if some kind of national formula for educational grants were developed such as the US provides through Department of Education.

This option would also permit private sector contributions, for example, to schools in the new communities to which the government hopes to attract new population. Further study and discussion with the Ministries of Education and Local Development will clarify the feasibility of this option, or, hopefully, other options such discussion may generate.

IV. Health:

A. Previous Experience of Possible Relevance in Egypt:

Perhaps in no other sector are fees for curative service more appropriate than in health. The literature and AID's worldwide experience are repleat with examples of programs to help cover recurrent O&M costs, particularly for services provided through urban and rural health clinics and hospitals. Pre-paid health card systems, HMO's, drug fees and service fees at the time of purchase are increasingly studied and applied throughout the developing world.

USAID/Cairo appears to be already well advised on possible approaches to applying user fees in the health sector. Dr. Carl Stevens has just completed work in connection with the Cost Recovery Programs for Health Project (COSTREP). His recommendations are fully consistent with the experience found in DIU's documentation on user fees in health.

B. Recurrent Cost Recovery Approaches Applied or Under Review in Egypt:

1. Fees for Service at Selected Clinics and Hospitals:

It appears that the Minister of Health has very strong views about cost recovery in health and is an advocate of fees for service at the hospital and clinic levels. The Minister would like the COSTREP Project to include this type of approach. He has proposed to add some clinic and hospital rehabilitation to ensure provision of the higher quality services beneficiaries would be expected to pay for. The Minister's position is that management and physical improvements are prerequisites for establishing fees for service. He also intends to replace clinic and hospital managers who cannot at least cover the costs of operation and maintenance.

People will pay for quality. The literature confirms this. The Egyptian people confirm it. In all of my interviews the explanation offered for the fact that there is less demand for public health services than private care was, "If it is free, it can't be any good". Unfortunately, this belief does not translate into a situation in which all curative care is provided by the private sector. There will always be a need for some curative health care in governmental clinics and hospitals. The GOE's objective must be to improve the quality to the point that at least a major portion of recurrent O&M costs can be covered through service fees. USAID sees an opportunity to assist this process through the COSTREP Project even if some resources are added for rehabilitation of selected facilities.

Apparently, there is opposition in AID/W to expanding the project to include this latter element. I believe this opposition should reconsider the opportunities the USAID-GOE plans would create, not only for improved health care but also in light of the other political benefits we can derive from some flexibility in supporting the Minister.

First, the establishment of fees for service at health clinics around the country would be a significant policy breakthrough in view of the GOE's long reluctance to tamper with the famous "Social Contract". If strong support by the Minister of Health can make fees for service at governmental health clinics work. he will also be establishing a precedent that may facilitate greater commitment in the GOE to seek other fees for services in other sectors, e.g. more rapid increases in water and electricity rates, not to mention public education.

Second, USAID may be able to facilitate its general policy dialogue on the private sector role in health by meeting the GOE half way in the health sector. Support for the proposed program demonstrates our sensitivity to their concerns about equity and at the same time does respond to movement on their part on issues such as fees for service, management reform and cooperation with private sector where they were opposed to such movement in the past.

Third, support for the Minister's ideas on cost recovery at health facilities at this time could help obtain his further support for other initiatives in the health sector, including new ideas that come out of the experience with the Suez Canal Area Medical Education and Health Services Development Project. Increasing his support for family planning initiatives might also become a favorable spin-off from success in early completion of planning for and initiation of the Cost Recovery Programs for Health project.

2. <u>The Suez Canal Area Medical Education and Health Services Development Project</u>.

In this project, USAID and the GOE already have working experience with various types of recurrent cost recovery in several different activities under this project, including clinics and hospitals that are covering significant portions or all of their operating and maintenance costs. Moreover, this experience has created capacities that now offer new opportunities to extend some of the cost recovery approaches to more clinics in the governorates around Suez. USAID should be reviewing this projects successes and the Egyptian initiatives with a view to identifying opportunities for continued involvement with success. Building on success can strengthen momentum toward additional cost recovery approaches in other governorates and medical schools.

3. The Curative Care Organization (CCO):

The CCO currently operates facilities in Cairo and Alexandria and recovers 100% of recurrent O&M costs. In the clinics and hospitals doctors provide services to the general public through a user fee scheme relying on different categories for patients. Doctors also provide private services at these facilities in the afternoon. Part of their personal fees are channeled to the operating budget. The CCO pays bonuses to the staffs of these facilities. All revenues are retained by the organization. The CCO experience is taken into consideration in the proposed COSTREP Project. It is one of the reasons for optimism that fees for service and performance management practices can be extended to other selected facilities in the greater Cairo area.

4. Group Practice:

One of the more successful outcomes of the Suez Canal Area Medical Education and Health project was the development of group practices by the doctors. The income generated by the group practice, which has attracted a large private patient following, enables the practice to be self-sustaining. It also allows for 10% of all net profits to be returned to the Suez Canal Faculty of Medicine where these doctors teach or study. This income is used for support of activities that are not normally included in the school budget, for example, equipment, special studies supplements, fuel requirements and student research stipends. The Suez group practice experience and similar group practice success in Cairo are also drawn upon in the development of the Cost Recovery Health Project.

5. Health Insurance Organizations:

Health insurance already exists in Egypt, but very little is provided by the private sector. Currently, approximately 3 million people are covered by the government funded but autonomous Health Insurance Organization (HIO), which operates primarily in Cairo and Alexandria. The HIO is a prepaid insurance scheme based on wage assessments or premiums contributed by both employees and employers. The Minister of Health appoints the Chairman of the HIO who reports directly to him. The HIO operates 22 hospitals and leases wards in a number of MOH hospitals.

21

Currently only employees are covered, not their dependents. In its review of the COSTREP Project, the PRC in AID/W noted this facet of the HIO and suggested that for the project's Component III expansion of coverage in future capitalized, private, prepaid health delivery systems to include worker's dependents might significantly ease the MOH health care burden and should be included in the project.

The HIO provides health services directly to the beneficiaries through contracted private sector physicians operating in its HIO owned and leased clinics and hospitals. Drugs are provided for the most part through contracts with private pharmacies. The HIO is financially solvent and does provide a useful example from which to develop the health insurance schemes proposed in the COSTREP Project.

Data collection included over seven hours of conversations with seven or eight different private sector doctors who were members of the Egyptian Junior Medical Doctor's Association. They agreed that the development of health insurance schemes, including coverage of dependents was the only way adequate health care could be provided. A second common theme was that expansion of the capacity of the private sector medical care was the only viable option for Egypt. The MOH on its own could never develop and sustain the quality of facilities and services needed to attract enough fee paying clients to cover its operating and maintenance costs. But an expanded, healthy private medical sector, working with the MOH and supported with health insurance and perhaps other prepared schemes, could eventually meet more of the demands of Egypt's population.

The Mission's Cost Recovery Programs for Health Project is clearly drawing on relevant Egyptian experience and is consistent with AID experience in other countries. Every effort should be made to accelerate development of this project, including Component IV for the reasons's outlined earlier in this section.

6. <u>Pre-Paid Health Cards Categorized for Different Health Services</u>:

In a variation on the pre-paid health insurance approach, one proposal discussed at length with members of the Egyptian Junior Medical Doctors Association was a system of pre-paid health-cards with sliding value scales. Under this system, which could be used especially for governmental health clinics in poorer areas, the individual or family pays whatever is possible and receives a color-coded card indicating the level of treatment and drugs available for the amount prepaid. There could be an option to add to the value of the card either for a specific treatment or to upgrade permanently.

Prepaid health cards are used with some success in many poor villages in Thailand. Due to their similarity with pre-paid health insurance such cards could be included in such a program. They could prove expecially useful for unsalaried workers and farmers.

This approach might be considered for inclusion in the COSTREP Project, possibly under Component IV. It could be tested in selected clinic areas. The 1985 report by Meyers and Mongkolsmai provides excellent background on the Thai experience. This report is included in the bibliography of documents made available to HRDC/H.

A Final Note re the Nurse Shortage Problem:

The serious nurse shortage is a major problem area that will continue to adversly affect the capacity of the MOH to provide quality preventive and curative health care. Moreover, this problem will seriously constrain virtually all USAID and MOH efforts to upgrade the quality of public and private curative care and to sustain this capacity through fees for service.

Redressing the nurse shortage will be a long process. Ironically, if the COSTREP Project's private sector oriented components are successful, the demands for more nurses and the higher salaries they will receive will complicate the nurse distribution situation for both the MOH and private doctors. This will undermine much of the initial success which this project may have.

Discussion of the nursing shortage is beyond the scope of this paper. Nevertheless, it is of such importance to the viability of the recurrent O&M cost recovery approaches we plan. USAID should accellerate its efforts to develop PVO based support for enhanced MOH nurse education and training efforts.

V. Agriculture: Irrigation, Research and Extension

A. Previous Experience in the Literature:

AID's Development Information Center was able to provide considerable documentation on experience with recurrent cost recovery approaches that relied on some form of farmers organizations combined with water charges. Virtually nothing was readily available on recurrent cost recovery involving service fees for agriculture, research and extension. Additional time in Washington would have permitted interviews with AID staff and World Bank sources might have yielded some documentation as well as personal experience with recurrent cost recovery in research and extension in other countries. The effort to catalyse ideas for possible new approaches in Egypt yielded only a few tentative suggestions, for reasons apparent in the discussion below.

One case study on Egypt prepared in 1983 by Bowen and Young (See Bibliography) for the AID sponsored Egyptian Water Use Project included observations on the exceptionally high tax burden on field crop producers that has existed for decades and is only beginning to be affected by policy reforms initiated since 1986. This has in the past been a very important reality in Egypt's agricultural sector. Its lingering consequences even as policy reforms are implemented today cannot be ignored in any serious consideration of approaches to recover recurrent O&M cost by relying on additional revenue from the farmers. According to Bowen and Young,

> The most important implication of current (1983) agricultural income and taxation policy for water pricing is that agricultural taxation is already extremely high and more than compensates for the value of government services to the agricultural sector (Cuddihy, 1980, p. iv). A charge for irrigation water, therefore, should be regarded as a replacement tax rather than an additional tax. (Emphasis added).

Conversation with Ministry of Agriculture senior officials provided more recent perspective. For example, the tax burden faced by Egyptian farmers is not uniform. While the agriculture sector as a whole still bears a net tax burden higher than any other sector in Egypt, some segments of the agricultural sector, particularly in horticulture, red meat production, and poultry bear no tax burden at all. Indeed, fertilizer, low corn prices, and other subsidies greatly enhance their profit potential. The most recent reduction of subsidies on imported but not local corn will eliminate the subsidy poultry producers have enjoyed. Low-price, mandatory procurements on 13 crops have been lifted. They still remain for rice, sugar and cotton. Thus, it appears that the tax burden in 1988 and in the future is being significantly reduced. This may make politically feasible some future forms of taxation that would provide resources to address recurrent costs in irrigation, research and extension.

Regarding research, many observers acknowledge that it results in little benefit. If, in fact, research results were beneficial they would pay for themselves. The constraints to effective application of research have included both the pricing and quota policies that reduce incentives for farmers to invest in efforts to increase production, and weaknesses in the decision-making and

priority setting process within the research establishment itself. There are few mechanisms from outside that can influence either the quality of research work or the types of research carried out. A cost recovery approach which enabled farmers to directly influence the research and extension processes and its relevance to their needs could resolve this problem. Such possible approaches will be discussed below.

There is, nevertheless, previous experience with recurrent cost recovery in irrigation that should be considered against the realities of the Egyptian context. In the literature reviewed, the Philippines appeared to have the best examples of effective water users organizations. They are called Irrigation Service Associations (ISA) and are legal entities which:

- borrow money and repay loans;
- cover costs of electricity;
- arrange equitable distribution of water;
- organize labor to build canals; and,
- provide maintenance.

For its part, the government provides capital construction and extension services. The Philippine experience demonstrates three other important factors about water users organizations:

- they must have clear authority and responsibility;
- existing organizations should be used; and,
- they must make substantial contributions to the costs of system development.

Easter reports that, in reviewing the Philippine experience as well as through discussions with other donor agencies, consultants, and government representatives as well as their own analyses, the GAO has come up with its own version of the prerequisites for establishing WUOs. Water user organizations should:

-- be "tailored" to meet the specific needs of the locality; for example, ethnic background, religion, local custom, size, and local organizational structures should be carefully considered;

-- have a strong organizational structure that can establish discipline and ensure equitable water distribution;

-- be convinced of the benefits and advantages of the irrigation system and the importance of operating it efficiently and maintaining it regularly;

-- participate in the system's design and construction to help establish a sense of "ownership";

Easter also quotes Steinberg, Clapp-Wincek and Turner (1983) who noted that:

> "There is a marked difference between organizations whose primary purpose is to distribute water, and those devoted to other ends. To be effective, water-user associations must have virtually compulsory or complete membership, otherwise they cannot accomplish their objectives. This makes them quite different from other local institutions, which generally need to be voluntary to be successful" (p. 73).
>
> "If it is generally agreed that water-user associations in some form are vital to effective irrigation systems, there is a diverse and growing body of opinions that they should be in place before construction or rehabilitation of systems" (p. 75).

Clearly, given Egyptian history and political-social organizational experience, these supposedly, essential requirements from previous experience will create special difficulties as they are initially discussed with GOE officials.

B. <u>Recurrent Cost Recovery Approaches Applied or Considered in US-GOE Project Activities</u>:

1. An Introductory Note: <u>The Debate over Public and Private Benefits</u>

In no other sector is the debate more intense over the differences between public and private benefits and how these should affect our efforts to recover recurrent costs through service or user fees. In all three areas, irrigation, research and extension there is a strong case that the general public, the consumers of agriculture products, benefit at least as much as do farmers. They benefit by lower prices that result from increased production made possible by reliable and widely used irrigation, research and extension. They also benefit from availability of new products developed through research.

But none of the benefits are the farmer's alone as is the case, for example, with the person who gets treatment for a broken arm at a health clinic and may pay a fee for that service. Thus, the arguement has been that consumers should share in paying for the benefits derived from irrigation, research and extension, especially because of the net tax burden in the agriculture sector. As Egypt achieves a more equitable free market policy environment in the agriculture sector, farmers might be taxed in other more direct ways such as increased land taxes, with the revenues allocated directly to the agriculture budget rather than the general government treasury.

In the United S tes government research programs have been funded through xes on the general population, not by farmers alone. However, American farmers often do pay for research undertaken by private research organizations. Even where they may pay for service from a government entity, they do so in a free market economy where the benefits of that research to them personally are not constrained by other government controls on prices.

Those who believe farmers should pay some service fees for agriculture do not dispute the fact that consumers also benefit from the research. Nevertheless, they point to the reality that GOE doesn't have resources to adequately fund research. Projects are not sustainable and stop when project funds run out. Extension agents even lack funds for transportation to the field. Thus, they suggest that perhaps by having the opportunity to pay for specific research or extension services, private sector input suppliers, co-ops, and farmers may be able to provide incentives to ensure that research and extension are directly relevant to their needs. Fees might be charged for specific services, (i.e. soil analysis, tests for animal diseases, esp. in chickens).

2. <u>Irrigation</u>:

a. <u>Water Users Organizations</u>:

As noted above, the literature available in AID's data resource base generally concludes that the most effective approach to recurrent O&M cost recovery is to:

-- support the establishment of water user's associations at the lowest levels;

-- encourage farmer's participation in design and planning for rehabilitation and general O&M implementation; and,

-- allow the water user's associations to participate in the setting and collection of fees for use in O&M of the irrigation system at the testing level and below.

The IMS project paper describes USAID's efforts and objectives regarding recurrent cost recovery and the roles for water user's associations. USAID's plans and objectives appear fully consistent with the experience and recommendations set forth in the literature reviewed from AID, FAO and World Bank resources. The project paper recognizes that one of the next most important steps to be realized is for the GOE to establish a legal basis for water user associations and then to actually allocate power and authority to collect and retain revenues for use at the local level.

Dialogue with the MOI is underway on these issues. A set deadline for ultimate success is impossible at this time. There are major difficulties facing USAID and even those Egyptians who may agree that water user organizations should have legal authority and to be able to raise revenues. Establishing such organizations will be a change in the political process. It will require legislation.

However, the most difficult problem may be the suggestion that fees be set, even if by WUO's, for recurrent O&M costs of irrigation systems. The constitution guarantees every Egyptian's right to God's gift to Egypt: the waters of the Nile. If fees raised for irrigation system O&M are perceived as a fees for water they probably will not work.

It is difficult, therefore, to see this option working in the near future, and then only if the WUO's are legalized and given explicit authority to raise revenues that they retain for their own direct application for tertiary level recurrent O&M costs. The project paper already provides for a program of further research on these issues and subsequent development of approaches for dialogue with the GOE.

b. <u>Fees for Drainage Systems</u>:

Farmers do apparently pay fees for drainage systems. These systems have become an increasingly important aspect of the irrigation system in Egypt since completion of the Aswan High Dam and the subsequent development of water logging and salinization problems as a result of year-round, readily available water.

The World Bank has initiated a loan program that enables farmers to acquire funds on a 30 year pay back basis with 5 years grace. Many of these loans are nearing or more than five years old. Some effort should be undertaken to evaluate the results and mechanisms of this program.

c. Provision of Labor for Tertiary Canals Maintenance:

Some contribution to recovery of recurrent O&M costs in irrigation does occur when farmers provide labor to maintain the canals bringing water directly to their fields. They are, in fact, o icially responsible for such maintenance.

d. Land Tax Revenues:

As the price and crop quota policy reforms in the agriculture sector are implemented, the indirect tax burden will decrease. As they do and as information becomes available from the cadastral surveys to be carried out under the Irrigation Management Systems project, the possibilities for establishing a maintenance surtax on land taxes can be explored.

e. Rice Tax:

Rice is one of the crops that creates special demands on the irrigation system. Rice is also one of the crops still under price controls. It has been suggested within USAID that an opportunity could be created for raising revenue for irrigation O&M by a simultaneous trade off: lift all mandatory delivery of (half of the) rice at a low price but impose a tax on the planting of crops like rice that use especially large volumes of irrigation water. This idea may have merit and certainly warrants further analysis and discussion with MOA officials.

3. Research and Extension:

The development of innovative but feasible approaches for recovering some recurrent O&M costs in research and extension has been difficult within the context of the public vs private good debate. Nevertheless, some ideas have surfaced during the course of the study that should be at least listed and accepted as candidates for further feasibility analysis and dialogue with the Ministry of Agriculture, including staff at the Agriculture Research Centers.

a. Agriculture Research and Extension Centers Provide Specific Services for Fees:

As noted above, there is unused capacity at most of the research facilities in Egypt. The employees at these facilities may well have time available that could be effectively used in response to requests for research services that address specific technical problems faced by input suppliers, farmers, or coops. Input suppliers should be able to commission development of "technology packages" for new seeds they want to introduce. The group concerned may not be able to pay enough of a fee to cover all the costs of the research, but this may not be necessary.

The amounts raised would be extra incentives simply for carrying out immediately relevant research that responds to local problems. Researching and resolving such problems can be an effective training technique for the researchers and certainly will enhance the reputation of the research center's staff.

In this sense, they may be a parallel with the experience in USAID's Suez Community Health Project. In the Suez project, doctors in training in the hospital identified health problems affecting the people who came to public health clinics where many of these doctors also worked. They studied these problems as part of their training program and then developed solutions to carry back to the communities. Through this process, they also were able to develop a group practice and to charge fees for such special services and have even been able to make many clinics profitable. They also developed considerable credibility with the communities they served.

This parallel experience seems to merit further early analysis both for the research centers and extension. Such analysis could be carried out by USAID and GOE project level staff in order to determine if more extensive outside study is warranted.

b. Create an Endowment for Recurrent O&M Costs in Agricultural Research:

The National Agricultural Research Project (NARP) currently provides $22.8 million to support the Agricultural Research Center (ARC) operating expenses. Approximately $20.0 million of these operating expense funds remain unspent. The $22.8 million, as planned, has a short term benefit which is the support of the ARC research operating expenses during the life of the project. Continuation of funding by the GOE to take over AID level of support after the project is doubtful.

It may be possible to use the remaining $20 million in a way that will encourage additional agriculture reform while also ensuring immediate and long term impact on the problem of recurrent costs in agriculture research. The objective would be establishment by the GOE of an endowment fund from which the interest earned would be used to support operating expense activities during and after the project.

The Agriculture Production Credit (APC) project and the 1986 cash transfer with a parallel GOE contribution to the AUC provide precedents for the process proposed in this case. In return for accelerated implementation of specified reforms from among any of those currently under discussion in our agriculture policy dialogue efforts related to the APC or PL 480 programs, we would provide the $20 million as a cash transfer. An additional understanding would be that the GOE provide an equivalent amount in LE to establish an endowment for agriculture research operating funds. GOE funds currently allocated for their contribution to existing O&M activities would be added up front to the initial endowment fund thus enlarging its capital base.

Clearly, this proposal will require additional legal analysis and exploration with the Ministries of Agriculture, Finance and International Cooperation. An assumption that underlies this proposal is that the GOE would be willing to leave such a sum in an interest bearing account even after USAID involvement ended.

However tentative many of these possible initiatives may be at this time, and whatever may have been the policy constraints in the past, changes are occurring in Egyptian agriculture. Price controls and crop quotas have been lifted as indicated above. USAID should be prepared to explore an even wider catalogue of ideas, not only in house, but more importantly with MOA staff, including those at the research centers.

Conclusions and Major Recommendations

Clearly USAID and the Ministries of Education and Health are actively engaged in dialogue for or implementation of programs that include a wide variety of recurrent operations and maintenance costs recovery initiatives. This conclusion also applies for the irrigation program in the Agriculture sector. In these three areas, USAID and its GOE counterpart ministries can be credited for their state of the art intent. Intentions, however, often turn out to be mirages in the desert as one tries to turn them into plans and actions. This has been especially true for our program in Egypt. Thus, one of this report's most useful purposes might well b as a reference point in the future to determine how much of the tent has begun to transform into reality.

Agriculture research and extension recurrent O&M cost recovery initiatives have been far more difficult to develop in the past because of the adverse impact of crop pricing and quota controls on the effectiveness of the research and extension programs. In addition, there has been considerable doubt about the desireability of exploring recurrent cost recovery approaches that rely heavily on farmers resources simply because research and extension can be viewed as public benefits much in the same way as is malaria control. Even with these caveats, however, the changing policies in the agriculture sector have removed many of the pricing and quota constraints over the past 18 months. New opportunities may be developing for new initiatives in O&M cost recovery in agriculture.

The most encouraging approaches now underway or considered in Education are:

- community contributions for maintenance of primary schools built under the Basic Education Project;
- advertising on the covers of text books;
- possible rechanneling of some portions of private tutoring fees.

Priority Recommendations:

1. Significantly increase implementation of feasibility studies of the private school option at least at secondary and university levels and intensify and expand discussion of this issue with Egyptian experts in and outside of the national government;
2. Undertake a feasibility study of the concept for autonomy for district and village level schools; and

3. Initiate discussion with the MOE to encourage lifting of tight rules that restrict development of the cooperative communities concept.

In the Health sector significant planning is well underway in the Cost Recovery Programs for Health (COSTREP) Project on fees for service at public clinics and hospitals and expansion of private sector opportunities. In addition, Egypt already has three viable health care cost recovery programs than can be drawn upon to obtain lessons and ideas for possible application in new programs. These successes are:

- The Curative Care Organizations which operates hospita at 100% recurrent cost recovery;

- The Suez Community Health Project, which includes the successful group practice program and other fees for service activities in Suez clinics and the University hospital.

- The Health Insurance Organization which provides viable HMO like services for over 3.2 million members.

Priority Recommendations:

1. Complete the analyses necessary to permit early negotiation for and implementation of all four components of the COSTREP.

2. Reconsider USAID's experience with the Suez Community Health Project with a view to finding new possibilities for continuing USAID involvement in a successful capacity building effort. This project's success has created new capacities that the Egyptians themselves are now using to extend practices that recover recurrent costs for clinics and the medical school while providing curative care in rural areas. USAID should be trying to identify some of these Egyptian initiatives for possible continued support. Also, USAID should use the funds remaining in the current project to support these efforts and complete residual activities.

3. In view of the adverse impact the serious nursing shortage creates on any cost recovery initiatives, USAID should accelerate its planning to explore with the MOH possible assistance to MOH efforts to increase nurse training programs.

In the Agriculture sector the most encouraging initiative for recurrent cost recovery is the provision in the Irrigation Management Systmes Project to complete feasibility studies on water users organizations, including possible legal authority therefore. There may be other promising possibilities as the policy environment changes for additional revenue raising through land and rice taxes.

Priority Recommendations:

1. Complete as soon as possible (within 12 months) all studies on water user organizations and develop relevant approaches based on this research.

2. Undertake serious study with GOE participation at the project and research and extension center levels of the feasibility of developing some fee for service activities in response to, for example, commodity group or commercial private sector requests.

3. Undertake a feasibility study on the lifting of all price controls on rice and a simultaneous application of a small tax on production as a means of raising revenue for research O&M.

4. Explore within USAID the legal feasibility of indirect support for a GOE endowment for research O&M costs. If legal constraints can be overcome discuss this option further with the Ministries of Agriculture, International Cooperation and Finance.

A final recommendation on future use of this report:

This report is a beginning. Perhaps the most useful next step would be to prepare each of the three sector sections as separate "non-papers". Then these could be used by each sector office as basis for bringing together GOE and other Egyptian experts for brainstorming on this "agenda" of items. In this process certain ideas may be strengthened. Others may be readily seen as non-starters. New ideas could surface. As this happens, the non-paper becomes the focus for a working dialogue. With Egyptian involvement in the redrafting process the paper could even become something they will have created. In this case it also becomes a set of reference points for measurement of progress.

ANNEX A

Selected Bibliography of Documents Provided to USAID for Reference on Recurrent O&M Cost Recovery Approaches

I. Health Sector

- Griffin, Charles C. — User Charges for Health Care in Principle and Practice, Population, Health and Nutrition Department World Bank June 1987.
- Hoare, Geoff and Mills, Anne — Paying For the Health Sector Evaluation and Planning Centre for Health Care, London School of Hygene and Tropical Medicine 1986.
- Lewis, Maureen A. — Cost Recovery in Family Planning, The Urban Institute, University of Chicago 1987.
- Lewis, Mavreen A. and Welch, Peter — The Private Sector and Health Care Delivery in Developing Countries: Definition, Experience and Potential. Reach John Snow Inc. November 1987.
- Myers, Charles Nash, Dow Mangkolsmai, Causine, Naneyanne — Financing Health Services and Medical Care in Thailand USAID, Bangkok Thailand April 1985.
- USAID/Bolivia — Self-Financing Primary Health Care Project Evaluation Summary April 1987.
- AID/Caribbean Regional/LAC — "Regional Pharmaceutical Management Project" Project Paper March 1985.
- USAID/Indonesia — "Health Sector Financing" PID July 1987.
- World Bank, — "Financing Health Services in Developing Countries: An Agenda for Reform" Report # 6563 December 1986.

II. Education

- Birdsall, — "Demand for Primary Schooling in Rural Mali: Should User Charges be Increased?" World Bank January 1987.

- Gimeney, Emmanuel, Tan, Jee-Pang "Educational Development in Pakistan: The Role of User Charges and Private Education" The World Bank December 1985.

- Tan, Jee-Pang, Lee, King Hod and Mingat, Alsin, "User Charges for Education: The Ability and Willingness to Pay in Malawi" World Bank Working Paper # 661 September 1984.

- Meesook, Oey Astra, "Financing and Equity in the Social Sectors in Indonesia: Policy Options" World Bank Working Paper # 703 November 1984.

III. Irrigation

- Atherton, J. "Institutional Mechanisms for the Application of Water Charges" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Bowen, Richard L. & Yonng, Robert A. "Allocative Efficiency and Equity of Alternative Methods of Charging for Irrigation Water: A Case Study in Egypt" Egypt Water Use & Management Project # 37 - March 1983.

- Conard, Walter E. Martin, Edward "Resource Mobilization in Farmer - Managed Irrigation System: Needs and Lesson" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Cruz, Conceprion J. and Gruz, Wilfrido D. "Financing Irrigation Programs in the Philippines" Consultation on Irrigation Water Charges FAO, Rome 1986.

- Duane, Paul "Cost Recovery in Irrigation Projects: Perceptions from World Bank Operations Evaluation" OED Report # 6283 World Bank July 1986.

- Easter, William K (Ed.) Irrigation Investment, Technology, and Management Strategies for Development. Westview Press/Boulder and London 1986. (Includes Chapter on Egypt).

- Easter, William K "Capturing The Economic Surplus Created By Irrigation" University, Minnesota, Department of Agriculture and Applied Economics Staff Paper 1980.

- Easter, William K "Inadequate Management and Declining Infrastructure: The Critical Recurring Cost Problem Facing Irrigation in Asia" University of Minnesota, Department of Agriculture and Applied Economics # ER 87-2 January 1987.

- Essid, Habib "Irrigation Water Charges in the Oases of Southern Tunesia" Consultation on Irrigation Water Charges FAO, Rome 1986.

- Lebanon, Allen and Keller, Jack "Effect of Water Charges on Irrigation System Efficiency" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Levine, Gilbert and Hart, Hensy C. "Mobilizing Local Resources for Irrigation" Report #22 Agriculture Development Council June 1981.

- Parez, A. Olaiza "Irrigation Water Charges in Maxico" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Small, Leslie "Water Charges: A Tool for Improving Irrigation Performance?" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Svendson, Mark "Irrigation System Recurrent Cost Recovery: A Pragmatic Approach" Consultation on Irrigation Water Charges FAO Rome September 1986.

- Upkoff, Norman Getting the Process Right: Improving Irrigation Water Management With Farmer Organization and Participation Cornell University Working Paper 1986.

IV. Other General Reference

- o AID, S&T/RD/IDM — "Decentralization: Finance and Management" Project Paper #936-5446 May 1987.
- o Barbarie, Alain J. — "Evaluating Government R&D: Beyond 'Quality of Research' (Photocopy Source, Unknown).
- o Birdsall, Nancy — Strategy for Analyzing Effects of User Charges in the Social Sectors World Bank January 1987.
- o Tiffin, Mary — "The Dominance of the Internal Rate of ..... as a Planning Criteria and the Treatment of O&M Costs in Feasibility Studies" Consultation on Irrigation Water Charges FAO, Rome 1986.
- o USAID/Tunisia — Rural Potable Water Institutions Project Paper (# 664-0337) March 1986.
- o Wheeler, David and Harris, John — Recurrent Costs and Basic Needs Strategies African Studies Center Boston University June 1980.

Key People Interviewed
Outside of USAID

1. Dr. Ayman Ismail
   President, Egyptian Junior Medical
   Doctors Association
   Medical Consultant of the Ministry of Planning.

2. Dr. Ashraf El Melegi
   Secretary General, Egyptian Private
   Hospital Association
   Director of El Safa Hospital.

3. Dr. Shawki Kamal
   Professor of Surgery, Cairo University
   Secretary General of Egyptian Surgon Society

4. Dr. Magdy Allam
   Secretary General, EJMDA.

5. Dr. Hosni Hafez
   First Undersecretary - MIC National Investment Bank.

6. Dr. Hassan Khedr
   Undersecretary of Agriculture.

7. Dr. Zohair Nooman
   Vice Dean, Suez Faculty of Medicine.

8. Dr. Mohamed Shehata, Suez Faculty of Medicine.

9. Dr. M. Abu Zeid
   Chairman, Water Research Center.

10. Dr. M. Momtaz
    Chairman, Agriculture Research Center.