CLASSIFICATION

PROJECT EVALUATION SUMMARY (PES) — PART I

Report Control Symbol U-447

1. PROJECT TITLE	2. PROJECT NUMBER	3. MISSION/AID/W OFFICE
POULTRY IMPROVEMENT	263-0060	USAID/Cairo

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) 83-13

☐ REGULAR EVALUATION ☐ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING	7. PERIOD COVERED BY EVALUATION
A. First PRO-AG or Equivalent FY 77	B. Final Obligation Expected FY 81	C. Final Input Delivery FY 83	A. Total $ 5 million B. U.S. $ 5 million	From (month/yr.) September, 1978 To (month/yr.) September, 1983 Date of Evaluation Review October, 1983

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
Project terminated; no project-specific actions necessary. However, the Mission should bear the lessons learned and recommendations in mind for future activities in this area:		

Lessons Learned:

1) Funds within the project budget should be clearly earmarked by purpose and entity.

2) Projects that are significantly behind schedule deserve particularly close monitoring by both the USAID and the host government implementing agency.

3) The decision to cancel any one component of a project should be based on an appreciation of its connection to overall project success.

4) The link between research inputs and project outputs should be made explicitly in a project's design.

5) Expatriate contractors should be conscious of the appropriateness of the technology they recommend and encouraged to explore locally developed technologies.

6) Training should be designed to contribute directly to the project purpose.

7) Project activities planned for implementation at the village level require adequate time.

8) As soon as significant problems in a project's implementation become apparent, the implementing agencies should move quickly to evaluate, audit and/or review the project.

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A. ☐ Continue Project Without Change
- B. ☐ Change Project Design and/or ☐ Change Implementation Plan
- C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Arnold Radi, AGR/A
Raymond Fort, AD/AGR
Richard Fraenkel, DPPE/PAAD RF
Norman Sweet, AD/DPPE NS

12. Mission/AID/W Office Director Approval

Signature: M.P.W. Stone

Typed Name: M.P.W. Stone, Director

Date: 1-18-84

AID 1330-15 (3-78)

XD-AAQ-603-A
ISN 37914

EVALUATION REPORT

POULTRY IMPROVEMENT PROJECT
(263-0060)

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October 5, 1983

EVALUATION REPORT

POULTRY IMPROVEMENT PROJECT (263-0060)

CKGROUND TO PROJECT AND EVALUATION

Project Background

In response to the Government of Egypt's request for assistance to improve its poultry production sector, USAID in June-July 1976 contracted Experience Incorporated to assess the status of the Egyptian poultry industry and recommend technical assistance USAID might provide. To further specify the assistance, an AID/Washington team was sent to Cairo in October-November, 1976, and in cooperation with the Egyptian Ministry of Agriculture, USAID and private poultry sector representatives, prepared the Project Identification Document (PID) which was approved on January 21, 1977. In the MOA's formal request for assistance, dated April 14, 1977, the following were identified as areas that would benefit from USAID technical assistance: (1) improvements in technology to the General Egyptian Poultry Company (GPC), (2) upgrading breeding and hatchery programs of the MOA to support increased availability of improved breeds of chicks to the village flocks, (3) determining the best manner of increasing the availability of poultry vaccines and other pharmaceuticals, (4) determining a program to be followed at the village level for increasing production of the village flocks.

The Poultry Improvement Project (263-0060) was authorized by USAID on May 9, 1977 in the amount of $5,032,741 for the three year life of the project. The Project Grant Agreement was signed with the Government of Egypt on August 27, 1977. The grant was divided into two separate

parts: (1) $2,571,520 for technical assistance in conducting studies and implementing a training program, and (2) $2,461,221 for three breeding/hatching facilities, equipment, and associated commodities. The project was intended to provide inputs that would contribute to Egypt's national production goals through the design of a program to increase productivity in the poultry sector.

The Project was implemented via a contract between the Egyptian Ministry of Agriculture and Mathtech, Inc. of the USA. The date of contract signature was July 20, 1978 and startup took place on September 10, 1978. The contract with Mathtech, Inc. provided a total of 264 person months of "technical assistance" and short-term "training" visits in the USA for 70 Egyptian participants and was completed in September, 1980. The first chicks and equipment for the improvement of breeding/hatching farms did not, however, arrive until late 1981 and the installation of equipment still remains to be completed. The equipment should be installed and operational by mid-1984.

An amendment to the Poultry Improvement Project (263-0060) was authorized by USAID on June 21, 1981 in the amount of $8,000,000 for the life of the amendment (two years). The Grant Agreement for the amendment was signed with the Government of Egypt on September 8, 1981. The proposed activities followed from the sectoral analysis conducted by the technical assistance team during the original project. The amendment was designed to provide three additional improved breeding/hatching farms, commodities and technical assistance to establish a disease control program in six governorates, and a poultry vaccine/pharmaceutical market demand study.

During the Spring 1983 Portfolio Review between USAID and the MIIC,

the project was moved from Category C to D due to ongoing implementation problems, primarily construction. Coordination of procurement, site preparation, and building erection activities was poor on the first three units and difficulties in procurement had delayed the three amendment units. A decision was made to cancel the second procurement package and to deobligate the remaining funds.

B. Evaluation Background and Methodology

Article 5 (Special Covenants) of the Project Grant Agreement provided in Section 5.1 for an evaluation program which would include:

-- evaluation of progress toward attainment of the objectives of the Project;

-- identification and evaluation of problems which inhibit such attainment;

-- assessment of how such information could be used to help overcome such problems, and

-- evaluation, to the degree feasible, of the overall development impact of the project.

A mid-term evaluation was completed in January, 1980 and is included as Annex D of the present evaluation. However, the 1980 evaluation was not accepted by the Mission because it was not considered "objective".

On September 21, 1983 the team for the present evaluation assembled in Cairo to complete work on a final Project Evaluation. The team was composed of:

- John P. Bishop, USAID/S&T/AGR (team leader)
- Nemat T. Shafik, USAID/DPPE/PAAD
- Adly El Sayed, USAID/AGR/PS

The methodology used by the team involved: (a) a survey of the literature including project files, pre-project studies, publications, and research done by various sources on the poultry sector in Egypt, (b) interviews with individuals at USAID, the MOA, the Department of Veterinary Science, the Animal Production Research Institute, and small and large scale private sector poultry producers, (c) visits to the project sites of Fayoum and Sakha, independent producers, a private sector poultry cooperative, and a poultry facility funded by another donor. A general outline of the team's schedule and list of people and organizations consulted is included as Annex A. The team completed its draft report on October 5, 1983.

II. External Factors

Substantial changes occurred in the poultry sector over the life of the project. At the time of the project's design, village flocks still supplied 80% of poultry meat and 97% of table eggs to the Egyptian market. Later developments generated a very different production pattern: by 1978 the village flock was responsible for only 50.1% of total poultry meat and 90.6% of table egg production (Mathtech Data Manual, April 18, 1980). This shift reflects the rapid growth of private medium and large scale producers largely due to GOE policies providing subsidized feed and chicks to licensed entrepreneurs.

Yet because demand for poultry products remains high, the increased medium and large scale production has not forced small farmers out of the market. In a study conducted by Cairo University*, women reported they experienced no difficulties in marketing their poultry products. Recent data reveals a steady growth (60% in eggs and 54% in meat) in average per capita consumption of poultry products in Egypt from 1974 to 1982 (see Poultry International, July 1983). Predictions for 1985 show a continuation of the trend. Despite its diminished share of the total market, the village flock remains a viable production unit, primarily due to its low feed and labor input costs. The importance of poultry as a source of income for women and protein for the household is reflected by the high percentage of families who continue to raise chickens (97.1% according to the study by Cairo University).

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*Cairo University, Faculty of Agriculture, Department of Agricultural Economics and Extension, A Socio-Economic Study of Poultry in Egypt conducted at the request of the Royal Netherlands Embassy in Cairo, 1980.

The project design correctly assumed that income elasticity for poultry products was significantly above one and demand was perceived to be "unlimited". Consequently, the changes in the economic context of poultry production did not conflict with the project's goals of assisting small producers. Small producers particularly stood to benefit from the productivity enhancing activities of the project that would enable them to take advantage of the growing demand for poultry products and maintain their share of the market. In addition, the possibility that the GOE might change its policy of subsidizing poultry inputs, especially feed, would probably result in renewed reliance on the village flock as the primary source of poultry products. Therefore, the changes in the poultry sector actually made the project's goals even more relevant to the Egyptian context.

III. Inputs

The first phase of the Project was primarily exploratory in nature with five of the six tasks consisting of studies on the poultry sector in Egypt. These were completed by the contractor, Mathtech, and are listed in Annex B of this evaluation. Mathtech was also responsible for implementing a program for 70 trainees. The breeding/hatchery farm expansion was intended to increase the availability of improved breeding stock through the importation of chicks, equipment and buildings for three poultry research and production centers under the auspices of the Institute of Animal Production of the Agricultural Research Center.

A three year delay by the contractor in submitting the specifications for buildings and equipment set the project's construction component significantly behind schedule. The 1980 Project Evaluation stated that the primary delays resulted from "a necessary reevaluation of the alternatives, and problems with the sites previously selected by the MOA". Changes in the specifications requested by the MOA caused another delay of approximately one year. Due to these and various other administrative delays on all sides, the first delivery of chicks and equipment did not arrive until late 1981 and installation of the new buildings remains incomplete.

The Project Amendment inputs concentrated on limited portions of the programmatic recommendations made after the first phase. The findings of the technical assistance team's studies indicated that the original project strategy of introducing improved breeds was ineffective if not coupled with a disease control program. Consequently, the Project Amendment inputs consisted of a disease control program and vaccine/pharmaceutical market demand study along with the three additional breeding/hatching farm expansions. The disease control program was to be implemented at three levels (government farms,

intermediate growers, and village producers) by the Department of Veterinary Science under the management of the Animal Production Research Institute. The breakdown of budgets between these two entities was not clear in the Project design.

Only one of the three inputs of the Project Amendment was fully implemented. The vaccine/pharmaceutical market demand study was conducted by Experience Inc. and revealed the existence of a new firm, Medical Union Veterinary Company, that may meet the need for domestically produced vaccines. The delays in procurement and construction of the original breeding/hatching sites resulted in cancellation of the three additional farm expansions in the amendment. Nevertheless, $449,732 was spent on vehicles in excess of the $130,000 budgeted in the project amendment. The implementation of a disease control program at the village level, an important precondition to distributing improved breeds, was neglected. The implementation of the disease control program was scheduled to begin in August 1981.

The almost two year delay in an USAID direct contract for technical assistance and commodities resulted in a decision by the USAID Agriculture Office that the disease control program should be canceled due to the insufficient time remaining. Instead, another study was conducted by Experience Inc. on the needs for poultry disease control in Egyptian villages and a small amount of vaccines were purchased for use at the government breeding/hatching farms.

II. Inputs

Tasks

U.S. Share ($ and Eq.)

	Appropriation	Expenditure	Remaining	% of Appropriation Expended
Phase I				
1. Poultry Sector Survey	265,683	265,683	-	100%
2. Breeding/Hatchery Farm Expansion*	2,515,500	2,480,396	35,104	99%
3. Genetic/Hatchery Improvement Analysis	284,233	284,233	-	100%
4. Poultry Company Consultancy	437,700	437,700	-	100%
5. Pharmaceutical Study	395,684	395,684	-	100%
6. Village Flock Analysis	201,550	201,550	-	100%
Contingency & Inflation	932,391	462,577**	469,814	50%
Phase I Subtotal	5,032,741	4,527,823	504,918	90%
Phase II- Amendment				
7. Vaccine/Pharmaceutical Market Demand Study	95,000	21,885	73,115	23%
8. Breeding/Hatching Farms	3,685,000	449,732***	3,235,268	12%
9. Disease Control Program	2,715,000	69,478	2,645,522	3%
Contingency & Inflation	1,505,000	-	1,505,000	0%
Phase II Subtotal	8,000,000	541,094	7,458,905	7%
Project Input Total	13,032,741	5,068,917****	7,963,823	39%

Footnotes

* Although money was appropriated for breeding/hatchery farm expansion in the first phase of the project, the commodities were not procured until the second phase.

** This figure reflects excess expenditure for the five studies and training program conducted by the contractor, Mathtech.

*** The three additional breeding/hatching farms were cancelled due to delays in implementation of the first three units. The only expenditure was for 19 vehicles at a total cost approximately three times that appropriated.

**** Minor discrepancies between these total figures and those in the Project Financial Report, Sept. 31, 1983 reflect pending transactions such as a recently cancelled training program and delayed billing for the Experience, Inc. contract.

IV. Outputs

A. Phase I

There were six principal tasks to be completed in the Poultry Improvement Project during Phase I. Five of the six tasks involved technical assistance and training and were contracted to Mathtech, Inc. A list of the reports produced by Mathtech is included as Annex B of the present evaluation. Mathtech provided a total of 264 person months of technical assistance (which was divided among 3 full-time non-technical management positions and 29 different short-term technical consultants) and short-term training visits in the USA for 70 Egyptian participants. According to the Project Paper, the training component of Mathtech's technical assistance contract was to consist of 120 months of applied technology training for MOA poultry specialists and 70 months of management training for MOA and General Poultry Company (GPC) managers. However, Mathtech's training output was only oriented toward management level personnel and consisted primarily of observation tours to U.S. universities and commercial poultry production facilities. This appears to have been a decision on the part of the contractor to concentrate on management training. There is no evidence that USAID opposed this decision.

The sixth task to be completed during Phase I of the Project involved hatchery expansion facilities, equipment and associated commodities. As explained in the mid-term evaluation, this task was not completed during Phase I of the Project. The first chicks and equipment for the improvement of breeding/hatching farms did not, in fact, arrive until late 1981 due to delays at various stages of implementation. These included delays on the part of the contractor in providing the specifications for the facilities, USAID in monitoring and the MOA in site preparation. The pre-fabricated breeding hatcheries are expected to be installed and fully operational by mid-1984.

Using existing facilities at the Fayoum, Inchas and Sakha Centers, the Ministry of Agriculture has managed to receive and multiply approximately 60,000 imported chicks. At present, there are breeding flocks of White

Leghorns and Rhode Island Reds at Fayoum, Rhode Island Reds and New Hampshire Reds at Inchas, and White Leghorns and Rhode Island Reds at Sakha. When the new installations are completed, plans are to maintain 15,000 breeders and produce for distribution 2 million chicks yearly at each facility.

B. Phase II

There were three principal outputs to be completed in the Poultry Improvement Project during Phase II (1) three additional breeding/hatching farm expansions, (2) a disease control program, and (3) a vaccine/pharmaceutical market demand study. The first output was to be a replication of the earlier project activities at three new sites. As stated earlier, the funds for this task were deobligated due to delays in the installation of the buildings/equipment on the first three breeding/hatching farms.

The other project tasks focused on overcoming the poultry disease control problem, the major constraint to small-scale village flock production. The disease control program was to be implemented at the government breeding/hatching farms, intermediate growers, and village flock producers. Thus, the expansion of the Ministry of Agriculture's capability to provide improved strains of chicks was to be coupled with the provision of more effective poultry veterinary services and increased availability of vaccines and pharmaceuticals at the village flock level. As stated in the Project Amendment, "without such attention the efforts to extend improved breeds will have only short-run impact as disease would quickly re-enter the village flock-native hatchery-village flock cycle.".

Unfortunatly, the disease control program was only partially implemented at the government breeding/hatching farms through the Animal Production Research Institute. Almost one year was lost due to delays in securing a USAID direct contractor for technical assistance and commodities. The funds for the village level program were never provided to the Department of Veterinary Sciences for implementation through their Village Veterinary Centers and remained under the control of the Animal Production Research Institute. Although the Department of Veterinary Sciences was to play a major role in project implementation, the administration of the project was solely in the hands of the Animal Production Research Institute. The time frame for the disease control program also seems to have been insufficient. One year did not allow for the difficulties encountered in implementing village level

programs on a relatively large scale (6 governorates). The only activity completed under this task was a one month study by Experience Inc. completed in May 1983 which "recommended" a disease control program for the government breeding/hatching farms and the importation of $45,000 worth of drugs for these same farms. Over $2.5 million to import drugs and equipment and over $150,000 for technical assistance to implement a disease control program by the Ministry of Agriculture's Veterinary Science Department at the village level was never utilized.

The third and only Project Amendment output fully completed was a vaccine/pharmaceutical market demand study to determine whether local demand was sufficient to support domestic production of drugs. A one month study was completed in June, 1983 by Experience Inc. which indicated that the need for a new vaccine and pharmaceutical plant in Egypt was going to be fulfilled by the new Medical Union Veterinary Company (MUVCO). The Egyptian Government has granted MUVCO a permit and has sold them 130 acres of land. MUVCO has $4 million in capital and a $4 million loan.

Overall, in spite of the fact that over 5 years of project time has been completed, over 5 million dollars of project funds have been spent, over 50 short-term consultants have produced over 50 reports, and over 70 Egyptians have spent an average of 6 weeks in the U.S. on observation tours, no single field program has yet been fully implemented in the project. Eventually, the three original breeding/hatching farms will be assembled and distributing improved breeds with a greater production capacity. While the additional farm expansions would have increased the capacity at three government farms, they were basically replications and not essential to insuring the achievement of the original project purpose and goal. Rather, it was the neglect of the disease control program that has seriously undermined the project's effectiveness. In the long run, the imported breeds introduced by the project stand little chance of positive impact without the provision of effective disease control and nutritionally balanced feed.

V. Purpose:

The Project purpose as stated in the Project Paper and Amendment was to develop programs that will assist Egypt to meet her long term goal of increasing poultry meat and egg production with particular emphasis on small producers. The project was designed primarily to plan for and build a modest amount of infrastructure to support future poultry production efforts. Much of the project's output consisted of studies on various aspects of the poultry sector (see Annex B). An assumption was made that these studies would lead to production programs in Egypt. Some of the programmatic recommendations of the Mathtech studies were to be implemented through the USAID Project Amendment. However, the potential impact of the research findings would have more effectively achieved the project purpose had there been an "extension-like" component whereby officials in the MOA, General Poultry Company, and private entrepreneurs could have participated in discussing the Mathtech recommendations. The project design failed to explicitly link the research conducted under the auspices of the project with those individuals and institutions involved in planning and implementing programs in the poultry sector.

The infrastructure provided, although not yet operational, will provide a larger capacity to produce breeding stock at the three government centers. However, the program of introducing imported breeds from the U.S. recommended by Mathtech was probably not the most effective means to achieve the desired end of increased poultry production, especially for small producers. In order to take advantage of the higher productivity of imported birds, farmers must use balanced feed and practice disease control. A pre-project study conducted by Experience Inc. in 1976 reported that efforts to introduce imported breeds have been unsuccessful since the 1950s. Only medium and large scale producers have the facilities to benefit from the improved imported breeds. While disease control could be instituted for small producers through the Village

Veterinary Centers, the use of balanced feed would eliminate precisely that factor that makes village production competitive - its low feed input costs.

Evidence compiled in the course of the evaluation seems to support this conclusion. The staff of the breeding/hatching centers reported that the majority of small farmers preferred local varieties because of their disease resistance. Farmers who had received project birds were disappointed at the high losses they experienced.

Although Mathtech fulfilled its quantitative training obligation (70 participants), the content of the training program differed from that outlined in the project paper. Mathtech neglected the 120 training months of applied technology and focused on management training. While management training is important, the achievement of the project purpose would seem to call for training of a more technical nature and specifically oriented toward the Egyptian context.

The project as designed could have contributed to the stated project purpose of developing programs to increase small-scale production, although it may not have been the most cost-effective way to achieve that purpose. In the opinion of the team, a more effective strategy for improving village flock production might have combined disease control with efforts to distribute improved local varieties of poultry. The major flaw of the project design was the conflict between the stated goal and purpose of assisting small farmers and the proposed inputs and outputs geared toward larger producers. More importantly, implementation of the project, specifically the neglect of disease control, served to insure that any long term benefits of introducing improved breeds to producers of all sizes would be minimal.

VI. Goal

The Project goal was to assist Egypt to increase poultry meat and egg production. The original project was exploratory in nature and the link between project activities and the goal was more indirect. The Project Amendment formulated a more direct link between the project inputs and outputs and the goal of increasing production. The combination of improved breeds and disease control through the Village Veterinary Centers focused the project's activities on improving small-scale production. The goal was based on the assumption that the programs implemented during the life of the project would have an impact on national production.

The project's technical assistance program could have contributed to the achievement of the project goal if it had been more closely linked to production activities. Had the studies conducted been used in decision-making beyond USAID and had training been more technical, the project could have positively affected poultry production in Egypt.

The potential effect of the breeding/hatching farm expansions, particularly on small producers, has been significantly diminished due to the neglect of a disease control program (see Section V. Purpose). The imported breeds introduced by the project may be useful for scientific experimentation at the government farms and distribution to medium and large-scale producers who use balanced feed and practice disease control. Production increases may be achieved through these channels rather than the original intention of improving village flock yields.

VII. Beneficiaries

Small-scale village flock producers were to benefit through the increased availability of improved chicks and an improved disease control program. Although women were identified as the "primary beneficiary group" by the Project Paper, there is no evidence that women experienced any gains as a result of the project. This is directly related to the project's neglect of small scale producers, since women constitute the bulk of village flock owners.

The recent changes in the poultry sector (see Section II: External Factors) have not significantly affected women's activities. Poultry production remains an important market activity for village housewives. Some domestic production, particularly meat, seems to be increasingly utilized for domestic consumption. As discussed earlier, the changes in the poultry sector did not conflict with the project's purpose and goal of benefiting small producers.

The failure to implement an improved disease control program at the village level has seriously hampered the overall benefit of the project. Phase I of the Project determined that village level poultry production accounted for the majority of eggs and poultry meat produced in Egypt and that disease was the major constraint to village production. Phase II of the Project was designed to implement a disease control program at the village level that would complement the increased availability of improved chicks from the activities of Phase I. In fact, without an improved disease control program at the village level, the benefits realized from improved breeding stock are not sustainable. For the village flock producer, disease is a first-order constraint and breeding is a second-order constraint. Improved breeds are more susceptible to disease, and small-scale village flock producers can not utilize them without an improved disease control program because of the great risk involved. An example of an improved disease control program is given in Annex C.

Consumers may be the only beneficiary group identified in the Project Paper to be positively affected by the Project's outputs. If the imported birds are successfully distributed to larger producers, consumers will benefit from an increased supply of poultry products.

The unplanned beneficiaries of the Project are the scientists at the expanded breeding/hatching farms who will be able to experiement with improved imported breeds with new facilities and medium and large-scale producers who receive birds from the three project farms. While the larger producers may contribute to increased production, none of these beneficiary groups coincide with those identified by the Project Paper.

VIII. Unplanned Effects

The Project's activities may have oriented the GOE breeding/hatching centers toward imported breeds and larger scale production at the expense of their local breeding programs. For example, at the Sakha Center, the local breeding programs for Baladi, Fayoumi, and Dokki 4 have been eliminated as a result of the arrival of the Project's poultry. This is despite the fact that local breeds are in greater demand than imported varieties. The Project has provided expanded facilities for high technology academic research of little relevance to village production. This may have detrimental effects on the supply of improved local breeds to farmers.

Some productivity increase may be experienced as a result of the Project's poultry being distributed to medium and large-scale producers. The magnitude of this effect will depend upon the extent of distribution and the performance of Project birds in forthcoming trials.

IX. Lessons Learned and Recommendations

A. Lessons Learned

1. Funds that were to be spent on implementing the disease control program at the village level were not well ear-marked in the project design. The total amount to be spent on disease control at three different levels (government farms, intermediate growers, and village producers) by two different entities (Animal Production Research Institute and the Department of Veterinary Science) was given. However, the breakdown as to how much was to be spent at each level and by each entity was not specified in the Project Amendment. The result was that the Department of Veterinary Science was left out of Project activities. Consequently the disease control program was only partially implemented as far as the government farms and never reached the village producer. In the future, funds should be clearly earmarked in the Project design.

2. The fact that the Project had an extremely low percent of implementation and activities were completed with exceptionally long delays indicates that the project lacked adequate monitoring and backstop support. In the future, closer monitoring should be provided by USAID and the GOE, particularly to projects that are significantly behind schedule.

3. The decision to cancel a component of a project should be based on an appreciation of its connection to overall project success. A project should be analyzed as an integrated whole, not as a series of unrelated tasks or simply a "commodity drop". In this case, the cancellation of the disease control program resulted in significantly diminishing the positive impact of introducing new breeds.

4. The link between research inputs and project outputs should be made explicitly in the project design. The studies conducted by Mathtech were intended to benefit the Egyptian poultry sector, not just to facilitate the design of a USAID Project Amendment. Had the application and possible means of implementation of Project research been described, Project impact could have been greatly enhanced.

5. Expatriate contractors should be conscious of the appropriateness of the technology they recommend and encouraged to explore locally developed technologies. The question of appropriate technology also raises issues concerning the use of local contractors and increased USAID and GOE responsibility for technical decisions.

6. Training should be designed to contribute directly to the project purpose. Although there is certainly a place for management training in the poultry sector, some emphasis on technical training would have generated results more in keeping with the production-oriented purpose of the project. Closer monitoring of the content of training programs at the design and implementation stages could have allieviated this problem.

7. Project activities planned for implementation at the village level (e.g., village disease control program) need more time. The veterinary extension activities in the Project Amendment were only scheduled for 12 months, which is not enough time to implement and monitor village extension efforts on a relatively large scale.

8. An evaluation program, as agreed upon by both parties in the Grant Agreement, was not established. The Project should have been evaluated and/or audited as soon as it became evident that there were significant problems in implementation. The evaluation conducted in 1980, which was not accepted by USAID, should have been followed by an in-depth review of project activities.

B. Recommendations

1. If USAID funds are still to be used for training, these funds should be earmarked for the Extension Veterinary Services, and such training should be in-country. The training would then be targeted at the major constraint facing village flock production. One should note that out of 70 Egyptians who received training in Phase I of the Project, only 4 were in animal health.

2. Funds and supervision should be provided for the installation of the breeding/hatchery buildings and equipment. This is to insure that such equipment, in fact, becomes fully operational.

3. In the future, projects in "category C" or "D" should be considered for an evaluation. Although the usefulness of an evaluation may differ according to the nature of the project, in this case an evaluation during Phase II could have salvaged such elements as the disease control program and an effective training effort.

4. Despite the results of this project, poultry remains a promising sector for future USAID funding. Village flock production is cost-effective, technologically and culturally appropriate, and supportive of USAID goals of promoting the private sector, minimizing reliance on subsidized inputs, improving the status of women, and increasing the income of the poor. Consequently, further activities in small-scale poultry production should be encourged, taking into consideration the lessons learned from this project.

ANNEX A. TEAM SCHEDULE

Sept. 21	Team was assembled and held meetings with recently-appointed Project Officer, John Swanson and Evaluation Officer, Emily Baldwin.
Sept. 22	Meeting with GOE/MOA Project Director, Dr. Fahmy El Husseiny Abdel Salam and his staff at the Animal Production Research Institute.
Sept. 25	Meetings at Animal Production Research Institute. Visit Poultry Diagnostic Lab with Kamal Abbasy, Head of the Poultry Vetrinary Department. Interviews with Abdel Fattah Darweesh, Hassan Abbdallah, and Mohamed Abdel Ezzeem from the Poultry Nutrition Department.
Sept. 26	Visit Fayoum Breeding/Hatching Center and meet with staff, accompanied by Abdel Fattah Darweesh, Poultry Nutritionist and Dr. Kamal Abbasy, Poultry Vetrinarian of the Animal Production Research Institute.
	Visit Takamol Project, a Dutch-funded poultry activity in Fayoum, accompanied by the Project Consultant, Dr. Mohammad El Hossary.
	Visit native hatchery in Fayoum.
	Meet with the Director of the Fayoum Poultry Cooperative Society, Mr. Abdel Fattah.
Sept. 28	Visit Sakha Breeding/Hatching Center accompanied by Mohammad Sharaf and Ghobrial Zaky of the Poultry Vetrinary Department and Dr. Ferial Hassan, Animal

	Physiologist.
	Meeting with the Director of the Center, Yehya Abd Al Gileel.
	Visit Poultry Vetrinary Center and meet with staff.
	Informal interviews with women at Poultry Vetrinary Center and at nearby villages.
Oct. 2	Meeting with past GOE/MOA Project Directors, Mahmoud Kheireldin and Ibrahim Fouad.
Oct. 5	Draft report completed and USAID debriefing.

ANNEX B. LIST OF REORTS

I. Mathtech, Inc. Reports:

Preliminary Interim Report	Dec. 12, 1978
Preliminary Organizational Structure of the MOA	Dec. 15, 1978
Breeder Results	Jan. 1979
First Consolidated Comprehensive Poultry Production Report	Jan. 3, 1979
Junior Level Training Program	Jan. 27, 1979
First Interim Report	Feb. 5, 1979
Poultry Vaccine Specifications	Feb. 1979
Comprehensive Poultry Industry Requirements	March-April 1979
Cost Benefit Analysis-Poultry Sector Programs	March 4, 1979
Hatchery Improvement And Expansion	April 17, 1979
Comprehensive Preliminary Sector Project Budget Forecast-National Poultry Plan	April 4, 1979
Commodity Specifications-Vehicles	April 1979
Comparative Results of Open Vs. Closed Housing	May 1979
Poultry Sector Organization And Flow Chart	May 1979
Poultry Health Situation in Egypt	May 9, 1979
Revised Organizational Structure of the MOA	May 1979
Animal/Poultry Health and Vaccine Production	June 19, 1979
Background Paper-Project Expedite	June-July 1979
Feed Situation in Egypt	July 1979
Commodity Specifications-Buildings And Equipment	July 12, 1979
National Poultry Health Improvement Program	July 1979
Training Program-Analysis To Date	August 1979
Special Report And Revisions, Management Training Program	Sept. 6, 1979
Price Elasticity Studies-Egyptian Consumer Market	Sept. 1979

Second Interim Report (2 Volumes)	Nov. 9, 1979
Project Evaluation Report	Dec. 18, 1979
The Corn Situation-I	Feb. 1980
The Place And Need of Poultry in Egypt	March 1980
Profiles for Breed Teses-GPC, Ordev, AHRI	March-April, 1980
Feed Optimization in Egypt	March 14, 1980
Design And Rationale-Arochic; Poultry Sector Econometric Model	March 1980
Market Stabilization And Management Program	March 1980
Production. The Private Sector And Village Flocks	March 1980
U.S. Industrial Interest in Egyptian Poultry Sector	March 25, 1980
Revised Commodity Specifications-Vehicles	April 1980
Data Manual	April 1980
Compendium of Reports (2 Volumes)	April 24, 1980
Project Briefing Manual	April 24, 1980
Special Report for Peoples Assemply	April 1980
Revised Commodity Specifications-Buildings And Equipment	May 1980
Summary of Poultry Improvement Pojrect	May 1980
Background Paper: Project Vilpro/Expedite	May 1980
Hatchery Expansion	May 29, 1980
Comprehensive Preliminary Recommendations	May 30, 1980
The Place of Poultry in Egypt	June 1980
The Egyptian Poultry Industry	July 1980
The Corn Situation-II	July 1980
Special Project Summary	August 7, 1980
Final Report (2 volumes)	Sept. 1980

II. Experience Inc. Reports:

Expanding Poultry Production in Egypt	August 1976
A Post-Hatching Poultry Disease Control Program for Egypt	May 1983
Vaccine/Pharmaceutical Market Demand Study	June 1983

ANNEX C. IMPROVED DISEASE CONTROL PROGRAM FOR VILLAGE FLOCK PRODUCTION

Village flocks that have been vaccinated and treated against common infections and parasites usually remain healthy. The greatest emphasis should be on disease prevention, as it seldom pays to cure sick birds. Prevention practices should be routinely given every three months against the following common diseases:

-- Newcastle disease: is highly infectious and probably causes more losses than any other poultry disease in the tropics. When the Newcastle virus strikes, it spreads rapidly throughout the flock and mortality can reach 100%. First signs are usually respiratory problems such as gasping, coughing, sneezing, and hoarse chirping. A greenish diarrhea may also be present. No treatment is known.

The disease can be prevented only by vaccination. The new freeze dried vaccines are very stable, inexpensive, and should be commonly available in one-hundred-dose vials. Once purchased, the freeze dried vaccine can remain effective without refrigeration* for one week if kept away from sunlight (this is an extraordinarily stable vaccine -- as most other vaccines known require continuous refrigeration). The vaccine can be easily administered via the ocular route using an eye dropper. All birds (large and small) in a flock should be vaccinated at three month intervals.

-- Internal Parasites: especially roundworms and tapeworms, are very common in village production systems. Internal parasites cause

*Once mixed with liquid, however, the vaccine should be used the same day.

reduced growth, lower egg production, and increased susceptability to other diseases. Village flocks with heavy parasite infestations have more disease outbreaks and suffer more severe attacks than dewormed flocks.

The most widely used product for treatment of both roundworms and tapeworms is a three-way combination of piperazine, phenothiazine, and butynorate which is commonly available in tablet form for individual oral administration (1 tablet for adult birds, 1/2 tablet for chicks). The entire flock should be dewormed every three months and this can easily be done at the same time as the vaccination against Newcastle disease.

External Parasites: especially lice, are also very common in village flocks. Because lice cause constant and severe irritation of the skin, heavily infested chickens are extremely restless and do not eat or sleep normally. This causes poor weight gains and lowered egg production.

A 5% malathion dust applied by means of a shaker (jar with perforated top) directly to each bird is the most cost-effective way to control lice in small flocks (one pound treats approximately 150 chickens). The treatment should be repeated at three month intervals and this can easily be done at the same time as vaccination and deworming. Brooding hens and their nests should also be dusted at the beginning of the incubation period. The 5% malathion dust can be easily prepared by mixing one-part 25% malathion powder (agricultural grade) with four-parts ashes from the cookstove.

- Chronic Respiratory Disease: is a common infection of the upper and

lower respiratory tract and is characterized by tracheal rales,* coughing, and nasal discharge. The clinical manifestations are usually slow to develop and the disease has a long course. Spread is also slow within the flock and mortality is significant only if there are complicating infections. Weight gain and egg laying, however, are adversely affected. The mycoplasma organism which causes this disease is often spread to remote rural areas through chicks from infected hatcheries.

Tylosin is the most effective antibiotic for the control of chronic respiratory disease. A single oral dose of 35 mgm of tylosin per bird (same dose regardless of size) eliminates most signs and production loss from the disease. The entire flock should be treated every three months and this can be easily done at the same time as vaccination and deworming. Tylosin powder can be purchased in four gram envelopes and can be easily administered using a water solution that has a concentration of 35 mgm tylosin per medicine dropper (roughly four grams in two cups of water), so that one medicine dropper full is the dose given to each bird.

Summary of Disease Control Program: The above disease control program reduces the risk of death loss. Furthermore, the increases in weight gain and egg production more than pay for the small cost of the control program. No disease control program can prevent all diseases. The strategy of the above program is to use widely available cost-effective control measures to prevent losses from four common diseases. With such a disease control program, the village flock will then be in general improved health and better able to withstand most other disease problems without major losses.

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*An abnormal rattling or bubbling sound accompanying breathing.

Annex D

CLASSIFICAT

PROJECT EVALUATION SUMMARY (PES) — PART I

DCCO File Final Copy

Report Symbol U-447

1. PROJECT TITLE	2. PROJECT NUMBER	3. MISSION/AID/W OFFICE
Poultry Improvement Project	263-0060	Egypt

4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY)

☒ REGULAR EVALUATION ☐ SPECIAL EVALUATION

5. KEY PROJECT IMPLEMENTATION DATES

A. First PRO-AG or Equivalent FY 76

B. Final Obligation Expected FY 79

C. Final Input Delivery FY 81

6. ESTIMATED PROJECT FUNDING

A. Total $ 6,299,006

B. U.S. $ 5,032,741

7. PERIOD COVERED BY EVALUATION

From (month/yr.) September 1978

To (month/yr.) October 1979

Date of Evaluation Review January 15, 1980

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues, cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, ProAg, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
No AID action required. Services of present contractor will not be extended and it is planned that all contractor implemented study and training activities will be completed by end of two year contract termination date, September, 1980. AID financed commodity input task will be completed with advice of hatchery-breeding farm commodity supplier, with construction by MOA within three year LOP. USAID will effect minor changes in implementation plan to reflect revised implementation plan.	George Armstrong	--

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

- ☐ Project Paper
- ☐ Financial Plan
- ☐ Logical Framework
- ☐ Project Agreement
- ☐ Implementation Plan e.g., CPI Network
- ☐ PIO/T
- ☐ PIO/C
- ☐ PIO/P
- ☐ Other (Specify)
- ☐ Other (Specify)

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. ☐ Continue Project Without Change

B. ☐ Minor Change Project Design and/or

☒ Change Implementation Plan by USAID

C. ☐ Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

George Armstrong, Project Officer
Dr. Gene Miller, Alternate Project Officer
Dr. Mahmoud A. Kheireldin, Project Director
Mr. John F. Bond, Project Technical Manager
Mr. J.C. Huttar, Assistant Project Technical Manager

12. Mission/AID/W Office Director Approval

Signature

Typed Name

Date

AID 1330-15 (3-78)

PROJECT EVALUATION SUMMARY (PES) – PART II

The following topics are to be covered in a brief narrative statement (averaging about 200 words or half a page per item) and attached to the printed PES facesheet. Each topic should have an underlined heading. If a topic is not pertinent to a particular evaluation, list the topic and state: "Not pertinent at this time". The Summary (Item 13) should always be included, and should not exceed 200 words.

13. SUMMARY - Summarize the current project situation, mentioning progress in relation to design, prospects of achieving the purpose and goal, major problems encountered, etc.

14. EVALUATION METHODOLOGY - What was the reason for the evaluation, e.g., clarify project design, measure progress, verify program/project hypotheses, improve implementation, assess a pilot phase, prepare budget, etc? Where appropriate, refer to the Evaluation Plan in the Project Paper. Describe the methods used for this evaluation, including the study design, scope, cost, techniques of data collection, analysis and data sources. Identify agencies and key individuals (host, other donor, public, AID) participating and contributing.

15. EXTERNAL FACTORS - Identify and discuss major changes in project setting, including socio-economic conditions and host government priorities, which have an impact on the project. Examine continuing validity of assumptions.

16. INPUTS - Are there any problems with commodities, technical services, training or other inputs as to quality, quantity, timeliness, etc? Any changes needed in the type or amount of inputs to produce outputs?

17. OUTPUTS - Measure actual progress against projected output targets in current project design or implementation plan. Use tabular format if desired. Comment on significant management experiences. If outputs are not on target, discuss causes (e.g., problems with inputs, implementation assumptions). Are any changes needed in the outputs to achieve purpose?

18. PURPOSE - Quote approved project purpose. Cite progress toward each End of Project Status (EOPS) condition. When can achievement be expected? Is the set of EOPS conditions still considered a good description of what will exist when the purpose is achieved? Discuss the causes of any shortfalls in terms of the causal linkage between outputs and purpose or external factors.

19. GOAL/SUBGOAL - Quote approved goal, and subgoal, where relevant, to which the project contributes. Describe status by citing evidence available to date from specified indicators, and by mentioning the progress of other contributory projects. To what extent can progress toward goal/subgoal be attributed to purpose achievement, to other projects, to other causal factors? If progress is less than satisfactory, explore the reasons, e.g., purpose inadequate for hypothesized impact, new external factors affect purpose-subgoal/goal linkage.

20. BENEFICIARIES - Identify the direct and indirect beneficiaries of this project in terms of criteria in Sec. 102(d) of the FAA (e.g., a. increase small-farm, labor-intensive agricultural productivity; b. reduce infant mortality; c. control population growth; d. promote greater equality in income; e. reduce rates of unemployment and underemployment). Summarize data on the nature of benefits and the identity and number of those benefitting, even if some aspects were reported in preceding questions on output, purpose, or subgoal/goal. For AID/W projects, assess likelihood that results of projects will be used in LDC's.

21. UNPLANNED EFFECTS - Has the project had any unexpected results or impact, such as changes in social structure, environment, health, technical or economic situation? Are these effects advantageous or not? Do they require any change in project design or execution?

22. LESSONS LEARNED - What advice can you give a colleague about development strategy, e.g., how to tackle a similar development problem or to manage a similar project in another country? What can be suggested for follow-on in this country? Similarly, do you have any suggestions about evaluation methodology?

23. SPECIAL COMMENTS OR REMARKS - Include any significant policy or program management implications. Also list titles of attachments and number of pages.

UNITED STATES GOVERNMENT

memorandum

DATE: December 26, 1983

REPLY TO ATTN OF: Raymond E. Fort, AD/AGR

SUBJECT: Poultry Evaluation

TO: Ms. Emily Baldwin, DPPE/PAAD

I have carefully reviewed the Poultry Evaluation still another time as well as my comments of 12/8/83. I exercise my option not to accept the evaluation.

I would like to approve the evaluation because of the effort that has gone into it and the need to harmonize USAID interoffice cooperation as much as possible, but I simply cannot. There are three major areas that are either factually wrong or unacceptable to me.

1. Lessons learned: I find this section presumptuous and without real meaning. Simply, who has learned all these lessons? The assumptions are that neither my present staff nor my predecessor's staff knew these basic facts of development. I maintain that these assumptions are incorrect. Prior to the project we knew that budgets should be earmarked, projects behind schedule should be carefully monitored, the cancellation of a component of a project should be based on an appreciation of its connection to the overall project success--and so on through the list of eight points. (Had the page been longer would there have been more lessons learned?) My position is that these are merely statements, correct and unassailable within themselves, but not lessons learned because of this project.

2. Unplanned effects: I cannot believe that the project "may have oriented the GOE breeding/hatchery centers toward improved breeds and larger scale production at the expense of their local breeding program." (Page 19) That orientation existed long before the project. And, I interpret the report to make this point itself. I maintain this statement to be factually incorrect.

3. Quality of analysis: I cannot construct or understand the relationship between the inputs and the outputs. They are unclear and of mixed quality. There should be a simple and direct relationship between inputs and outputs in an evaluation: what went in against what came out. Then some comparison could be made as to what was expected to have been outputs when the project was designed. In this evaluation the inputs are not clearly stated nor their direct relationship to outputs clearly traced. Some outputs are mixed in with the input section, e.g., "the vaccine/pharmaceutical market demand study was conducted by Experience Inc. and revealed the existence of a new firm," etc. Page 8 tabulates the inputs but there is no corresponding section of the outputs.

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114

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Although I still believe the evaluation is too subjective and biased toward the expertise of the evaluation team, my opinion could also be criticized for being too subjective; therefore, I let that pass. I also want to be clear that I do not reject the evaluation because of its negative conclusions. I reject it because I do not think it is an acceptable evaluation of an admittedly difficult project to evaluate.

The simple thing would be to let the evaluation pass, but to do so would be to reconfirm the negative aspects of the evaluation, which pointed out that USAID AGR did not pay attention to substandard performance and irrelevant digressions during the project's implementation.

January 17, 1984

AD/DPPE, NSweet

Poultry Evaluation

AD/ACR, RFort

The Agriculture Office's refusal to accept the evaluation of the Poultry Improvement Project outlines three major areas of concern. The following is an attempt to address the issues raised.

1. Lessons Learned - It is true that the lessons learned listed in the evaluation are "correct and unassailable." Budgets should be earmarked, projects behind schedule should be carefully monitored, technology should be appropriate, etc. What is disturbing is that, despite the fact that these statements seem obvious, we do not seem to have learned these unassailable lessons. The rationale behind articulating these "facts of development" is that, hopefully, if they are repeated frequently enough, these same mistakes will not reoccur indefinitely.

2. Unplanned Effects - Admittedly, the GOE breeding/hatching centers were oriented toward imported breeds since the 1950's. The fact is that the Project reinforced an inappropriate orientation. Before the Project, the breeding/hatching farm in Fayoum had a local breeding program. During the project, the local breeding program was discontinued in order to house the imported varieties provided by USAID. That seems like a rather clear cause and effect relationship. Perhaps the greatest tragedy is that the imported varieties were already found to be unsuccessful at the village level in a pre-project study conducted by Experience, Inc. in 1976. Despite this finding, project management proceeded to import varieties that would not address the needs of the target population.

3. Quality of Analysis - The Project inputs are listed on page eight. The relationship between project inputs and outputs is detailed in the Project Paper. In order to keep the evaluation a manageable length, the team decided to assume that readers of the evaluation had read the Project Paper and/or had some familiarity with the Project's activities. Consequently, the analysis explicitly linking Project inputs to expected outputs (pages 22-40 of the Project Paper and pages 3-9 of the Project Amendment) was not repeated in the evaluation. However, these relationships were discussed in the course of the evaluation.

For clarification, the relationship between Project inputs and outputs is summarized below:

a. Studies - The five major studies conducted by Mathtech and the one performed by Experience, Inc. were intended to provide information that could be used as a basis for future decision-making in the poultry sector.

b. Breeding/Hatching Farm Improvement - The six farms that were to be improved under the Project were to provide improved varieties of chicks to village flock producers.

c. Disease Control Program - The program was to address the disease constraint to increased village flock production.

The alleged bias of the evaluation team, probably in reference to the analysis of the disease control program, is unsubstantiated. The project had many problem areas. Research conducted under the Project was not disseminated and had little impact on decision making in the poultry sector. The training component did not address technical issues, but rather focused on short term observation tours for management level officials. The three year delay in issuing the specifications for the farms set the construction component significantly behind schedule. These issues were all discussed in the evaluation. Nevertheless, it was the neglect of the disease control program that most seriously undermined overall Project success. The distribution of improved varieties and the provision of disease control were the project's only field activities and consequently, held the greatest potential to assist small farmers.

The Project evaluation does reflect negatively on USAID management as well as on the contractor and the MOA. That does not seem like an adequate basis on which to reject it. The purpose of this evaluation is not to dwell on past mistakes and point accusatory fingers. Rather, the evaluation is a tool for learning lessons that will provide guidance to future programming efforts.

cc: AGR, ARadi
DPPE/PAAD, EBaldwin
NShafik

DPPE/PAAD:NShafik:mf:1/17/84

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POULTRY EVALUATION COMMENTS

General Comments:

For an evaluation, I find the report much too subjective. There is no real description of methodology which, if used by other independent, objective evaluators, would come to approximately the same conclusions. Anyone can criticize projects, especially one with as many design and implementation flaws as this one. But ease of finding fault is no substitute for the intellectual rigor required in a useful evaluation.

I agree with many of the conclusions and would be the first to admit that the project did not contribute as much to Egypt's poultry development at the village level as desired. It would be nice to know why. But I am surprised and disappointed by (1) unclear cause and effect relationships, and (2) inconsistent statements. Examples:

a) The report states on page 19, "The project's activities may have oriented the GOE breeding/hatchery centers toward improved breeds and larger scale production at the expense of their local breeding program." In the context of this report the above conclusion seems to be an effect, not the cause. The report earlier states that improved breeds have been imported since the mid-1950s. If the text of the report is correct then I really doubt that the project oriented the GOE breeding and hatching activities toward improved breeds and large-scale production; that orientation was already firmly established before the project.

b) Page 6, Inputs, states that the first phase of the project was largely exploratory in nature "with 5 of the 6 tasks consisting of studies. The sixth task was construction. Yet page 16 states the implied negative conclusion that despite five years and $5 million "no single field program has been fully implemented in the project." Even Phase II was weak on field programs.

An unfortunate design flaw, according to the evaluation was that the project didn't have much of a "field program" to implement. If this is true, then the statement "not a single field program has been fully implemented" may be true but it is misleading.

c) The sections on Lessons Learned and Recommendations are better than earlier, but I still don't find the Lessons Learned section very useful. I doubt they are lessons learned. They are pious statements, for the most part correct and unassailable, like motherhood and the flag.

d) I am not sure what purposes the annexes are to serve. They are such a mixed bag. For example, why Annex C? Or if Annex C, why not a similar treatment of other project components such as construction, training, and chick importation, etc.? The evaluators' bias for a disease control program is obvious in the text, but there are other equally important considerations. Why include the first evaluation, especially when it differs so much from the present evaluation? For example, the initial project evaluation report states, "The project is essentially on schedule and has achieved its goals to date on a much broader scale than originally planned." (Annex D) Yet the implication of the current evaluation is that the first phase didn't accomplish much (see pages 13-16). If the first evaluation is to be useful, its relationship to the present evaluation should be made clear.

Specific Comments:

1. Page I.3: Evaluation Background and Methodology. There is no methodology described. The report should either describe the methodology used or delete the word from the title of Section B.

2. Page II.4: What is the rationale for "External Factors"? The conclusion of this section is that "changes in the poultry sector actually made the project's goals more relevant to the Egyptian context." There must be many additional factors which would lead to the same conclusion, such as increased population, greater buying power, etc. I just don't see this section's relevance to the evaluation. In any case, the factors described are not external to the poultry sector but a part of it.

3. Page II.7: The word "nevertheless" is, in my opinion, overused. It damns with faint praise. For example, in the second paragraph, what is the point being made about vehicles? Too many? Is there a relationship between construction and vehicles? If so, it should be stated. If not, the linkage word "nevertheless" should be removed. Usually, in project implementation there is something ahead. If the vehicles had been delayed and came late, this would have been criticized.

4. Page 10.A: Phase 1, last paragraph should acknowledge that the 60,000 chicks received and multiplied are from an order of 60,000 chicks. There was a 100 percent survival rate within the 4 percent margin of shipped chicks. Given the tone of the report, had the 60,000 been the remainder from, say 100,000, I am sure that point would have been noted. One could expect to have read, "Nearly one-half of the chicks failed to survive." The fact that 60,000 day-old chicks were successfully imported during the winter months is not credited.

5. Page 14.V: The statement in paragraph 1, "The project was designed primarily to plan for and build a modest amount of infrastructure to support future poultry production efforts," seems to contradict the last paragraph on page 13. If the purpose and design are stated correctly, then why is the "overall" summary so negative?

6. Page 19: Unplanned Effects: I cannot accept this conclusion without more proof than the statement contained herein. There are no back-up data. The faulty cause/effect relationship has been noted in paragraph (b) under General Comments.

AD/AGR:REFort:kgk:12/8/83

POULTRY IMPROVEMENT PROJECT
263-0060

INITIAL PROJECT EVALUATION REPORT

13. SUMMARY

This is the first coordinated, multi-partner evaluation of this project involving the Agency for International Development (AID), the Ministry of Agriculture (MOA), and MATHTECH. In addition to this evaluation the Contractor completed two (2) extensive in-house evaluations leading up to the submission of the major six (6) and twelve (12) month project reports and recommendations. These were entitled First Interim Report and Second Interim Report, and were used as part of the base information for this evaluation.

The Second Interim Report for the Poultry Improvement Project contains the findings of the project team, the status of the project and major problems which prevent poultry production from reaching desired levels, and recommended solutions for those problems area.

The project is essentially on schedule and has achieved its goals to date on a much broader scale than originally planned. Many of the problems specified in the original Project Paper have already been identified and solutions developed. Supplemental action will be required to implement some of the conclusions and to complete the remaining elements of the Egyptian Poultry Improvement Project as outlined in the Project Paper. The project is within budget, and the remaining original Project Paper tasks will be completed within the allocated funds. However, certain line items have exceeded original estimated costs and will require adjustment. Identified supplemental and expanded tasks, if carried out, will require additional funds.

The Village Flock Team has completed an in-depth review of village poultry production in Upper, Middle, and Lower Egypt, and has developed a series of recommendations. The Poultry Health Team has identified primary constraints and possible solutions to the poultry disease situation, which has had a major impact on the productivity of the Poultry Sector.

A review of the breeding programs of the Ministry of Agriculture has been made, and proposals for a breed evaluation program presented to the MOA. The General Poultry Company (GPC) has been examined thoroughly, and problem areas identified.

A number of specific recommendations in the areas of broiler breeder management, feed and nutrition, production and poultry processing were submitted to GPC.

The initial phase of the Sector Analysis has been completed; and major recommendations, which the team believes will stabilize the economic factors associated with poultry production and distribution in Egypt, were developed. The effectiveness of the Sector Analysis, combined with use of the Econometric Model, will depend upon improved participation and help from the MOA. This is vital not only to the validity of the information produced, but also to its continued use after project completion.

The training task is slightly behind schedule due, in part, to English language qualification deficiencies, which necessitated remedial training for Egyptian trainees prior to departure for the United States. This task was also delayed after implementation began by problems arising between the subcontractor, University of Florida (U of F), the prime contractor, and the MOA in regard to the kind of training required. Relevant to this, the Project Paper specified and the MOA requested that the trainees be given "on-the-job (OJT)" or practical "hands-on" work programs. Shortly after the US training programs began, it became apparent that the subcontractor's interpretation of OJT was not the same as that of the prime contractor and the MOA. Discussions between the concerned parties resulted in a revised training program that still did not meet requirements. Subsequently, with USAID approval, the IOF subcontract was terminated with responsibility for training transferred to the prime contractor for direct programming with various commercial and training institutions, including the University of Georgia.

The new revised training program, based on the US Commercial Poultry Industry rather than being university based, should provide a better training compared to that being given before. Also, the new programs will be directed to providing a basis to helping to solve problems in the Egyptian Poultry Industry. Although, the training is behind schedule it appears that it can be completed by the end of the prime contracts termination in September, 1980.

The hatchery-breeding farm expansion program will not be completed by the technical assistance contracts completion date in September, 1980. This is due to a number of problems, administrative, etc. which have delayed progress on this task. Primary delays resulted from a necessary reevaluation of the alternatives, and problems with the sites previously selected by the MOA. Final arrangements for use of one of the sites (Fayoum) were not completed until November, 1979. The implementation schedule for the AID financed commodity input task

now shows that the hatchery-breeding farm improvements will be undertaken with the advice of the commodity supplier, and with the construction completed by the MOA within the three year LOP specified in the Project Paper.

RECOMMENDATIONS:

a. The project should be continued. The project budget should be adjusted to allow transfer of funds to other line item categories within the existing budget. The remaining project activity, as currently authorized, should be devoted to completing the Training, and Econometric tasks, and as much time as is needed to assist in finalizing arrangements and preparation of documentation for hatchery expansion; to developing and refining the necessary background and support data for the new and supplemental poultry related projects identified as a result of this project, and to providing whatever further consultancies may be possible within the balance of the budget.

b. Consideration should be given to increasing the number of training participants to include more personnel from ORDEV, Agrarian Reform, Extension Veterinary Services, and from the Governorate organizations already active, or to be involved, in poultry production.

c. The Poultry Health Plan should be given highest priority, with special emphasis on the needs of the native hatcheries and the village flocks. The native hatcheries and village flocks provide approximately 50% of all poultry products in Egypt, have a major impact on the rural, mainly poor, population, and significantly effect both public and private commercial producers. Therefore, emphasis should be directed toward supplying the native hatcheries and village flocks with the technical services necessary to overcome the deficiencies of their current systems and toward providing the appropriate allocation, availability, and delivery of needed supplies; including disease-free chicks, balanced feed rations, and vaccines. Technical assistance should be expanded to ensure development, implementation, and coordination of existing resources in order to bring the disease problem under control at the earliest problem time. This would result in an almost immediate increase in production and villager income within existing resources.

d. The completion and formalization of a comprehensive National Poultry Plan is of highest priority. This plan should address all impacting sectors of the economy, including those not currently under the control of the Ministry of Agriculture. The plan should provide realistic, multi-year objectives for such activities as the practical

allocation of resources, supplies, and materials to all sectors, including the GPC, Veterinary Services, villages, and the private sector.

The plan should also address the allocation of resources used by sectors other than poultry, such as feedstuffs, vaccines, and pharmaceuticals. It is imperative that a National Poultry Plan be implemented at the earliest possible time, in order to prevent ineffective allocation or waste of Egypt's limited resources.

e. A coordinated program should be developed to stabilize the poultry economy of the country, particularly with regard to the marketplace. A steadier, more disciplined release of poultry products to the primary consumer markets is required to ensure the private sector and village flock producers a reasonable return on their poultry production. In the past, it appeared that the uneven release of poultry products to the markets has resulted in wide price fluctuations. These price reductions have had a negative impact on private and village producers. A coordinated program would include sufficient slaughterhouse and refrigerated storage capacity for GPC to withhold delivery or broilers and eggs to the market until the market is able to absorb the supply. This program would also provide private and village flock producers with similar opportunities for controlled release of poultry products, thus, tending to ensure a fair return on investment.

f. There exists an urgent need for simple, but highly functional, poultry health diagnostic laboratories. The diagnostic laboratories available to village producers, native hatcheries the private sector, and to Governorate programs should be developed and implemented. Technical assistance should be supplied to the Veterinary and Extension Services to optimize available vaccines and other existing resoruces.

g. A program for feedstuff optimization should be developed, with emphasis on support to the private sector, including villages, MOA farms, native hatcheries, and governorate programs. However, the same opportunity for use should be made available to public sector programs as well, including cooperatives, extension villages, and the GPC. The feedstuff optimization program would include an urgently needed in-country feed analysis laboratory, an improved imported feed inspection program, computerized feed formulation, feed equipment repair and upgrading, improved tracking of domestic and imported feed and feed ingredients; and elimination of duties and tariffs on imported feed, feed ingredients and concentrates, and vaccines. This program could also be extended into other sectors requiring

feed, such as livestock, dairy, and fish farming. Technical assistance should be supplied for coordinated implementation of this feedstuff optimization program.

h. A breed testing program should be implemented within the MOA farms and expanded into field tests in the native hatcheries and villages to compare locally available "adapted" breeds with improved foreign strains. This will more accurately identify the most productive, viable breeds for the private sector and villages. Technical assistance may be required for effective implementation. It is also suggested that each MOA farm be limited to the improvement of only one breed. The team recommendation for the broiler testing facilities to compare different foreign stocks is encouraged. There is also a need to determine whether the poor performance achieved in duck production is nutritional or strain related. It is recommended that the GPC consider importation of different strains of ducks to be tested under the Egyptian conditions. It is also suggested that nutritional feeding trials be set up to test various feed formulations. For turkeys, it is recommended that changes in nutrition programs to eliminate egg feeding and to eliminate the full feeding of breeds should be tried. Improvement in housing, ventilation and heat protection should, also, receive considerable attention.

i. A special program for technical assistance to the GPC should be developed and implemented as soon as possible. Although GPC's overall national influence is planned to diminish somewhat in the years ahead, its activities are still a major factor in self-produced poultry product and the national economy. Also, the lower the production efficiency of this group (which supplies approximately one-third of national poultry production), the less the amount of funding available for the government's rural support elements such as Extension, ORDEV, and Agrarian Reform. Also, GPC is designated to provide necessary technical support for the growth of the private sector and governorate programs. Therefore, the more efficiently GPC operates, the more beneficial the impact will be on the private and village sectors.

j. The balance of MOA farms not scheduled for expansion as a part of the Poultry Improvement Project 0060 should be improved at the earliest possible time. This will optimize their existing capabilities to produce appropriate types of disease-free hatching eggs for native hatcheries and/or baby chicks for the villages. The current capacity could be more than doubled by a "balancing" of their equipment and a coordination of their activities. This program will

most likely require expanded technical assistance to provide the support, services and coordination necessary for successful implementation.

k. A model-farm national poultry training center should be established for in-country training (in Arabic) for various poultry sector on-line personnel. The center would provide training in feed mill and breeder farm operations, layer and broiler production, poultry health basics, and all pertinent aspects of poultry husbandry. This would supplement the expanded management development program noted previously. The center should include a central library for relevant research papers and materials, and poultry science publications, of which there is currently a significant void in Egypt.

l. A controlled, limited improvement program for the Abbasia vaccine production unit should be immediately implemented, and the program leading to a possible joint venture for development of new vaccine and/or pharmaceutical plant(s) should be pursued. This would allow subsequent replacement of Abbasia with entirely new facilities, while at the same time upgrading the product quality levels, as much as possible, in the interim.

m. A series of in-country management seminars should be developed and implemented in conjunction with U.S. management and poultry organizations, such as the Southeastern Poultry and Egg Association and the American Management Association.

n. GOE support for the Hatchery Expansion Program should be accelerated.

o. Activity on the definition and modelling of the Poultry Sector should be supplemented through expanded technical assistance to the MOA Agricultural Economic and Statistics Unit. This would include the development and implementation of the Egyptian econometric model as relevant to the Poultry Sector. The current system, with its limited capabilities to provide sufficient, viable, and comprehensive data to the GOE's decision makers regarding the allocation of limited resources, has severely affected support to the private and village sectors.

p. An in-country poultry trade association should be formed to provide opportunities for professional growth and facilitate the exchange of practical and technological information.

q. Special programs should be conducted to train veterinarians in vaccine preparation techniques, and in SPF farm practices in order to provide trained personnel to work efficiently and effectively in these fields.

PROBLEMS:

The logistical and administrative problems in establishing and operating the field office were significant. However, these problems did not significantly hamper the technical work or the output of the consultants.

Communications were a major problem. For example, a telephone was not installed in the field office until February of 1979, although the contract specified it would be in place by October 1, 1978. The telex, crucial for coordination of work with the project office in the United States, was not connected until May, 1979, rather than the contract specified date of October 1, 1978.

A 30-day minimum stay by consultants became a requirement after the contract was in force, although the contract had specified lesser periods. This requirement was effected by the MOA with USAID approval, in the interest of efficiency and effectiveness, after a re-assessment of the contractor's travel schedule and plans revealed that some consultants were being programmed to perform as few as four days service in Egypt.

Difficulties in the training program included English language deficiencies and trainee health and attitude problems. In addition, the need for more practical training than that available solely through US university sources necessitated a major change in the training program and staffing.

Another problem was the fact that other governmental organizations involved in poultry production such as ORDEV and Agrarian Reform were not originally included in the development of the Project Paper. It has not always been easy to obtain their necessary cooperation and help, since they feel that the project does not adequately address their needs. This was particularly evident in their reluctance to provide counterparts for the consultants and data on their organizations. and production.

The uncoordinated and disorganized development of the poultry industry in general added to the difficulties in developing reliable data and practical programs which addressed the targeted objectives of the project.

Major decisions which significantly impact the poultry industry are made in an uncoordinated manner, not only by the different departments of the Ministry of Agriculture, but also by other Ministries such as Supply, Economy, Planning, and Local Government. This has complicated project implementation, and has been overcome only by determination, patience, and additional project activities. It is anticipated that the new National Council will help the coordination process.

Transportation was a major problem, which was overcome only through the use of locally contracted sources at significantly higher rates. The interpretation of "source and origin" clauses delayed acquision of project vehicles. These were eventually purchased through private sources in the United States by the Contractor, and then shipped on US vessels which arrived in Egypt five months after the project began, following completion of major consultancy efforts. The two (2) authorized project vehicles were and are not sufficient for project activities, especially when a number of consultants are on site. Availability of vehicles and drivers from the host country (MOA) continue to be extremely limited.

This project was the first major agriculture Technical Assistance "Host Country" contract in Egypt. Previous rules, regulations, and procedures often required modification and new interpretation, frequently resulting in significant delays and inefficiencies. US and Egyptian agreements concerning custom fees and duties are still creating problems, and materials costing approximately $2,500 are still in Egyptian customs lockers after eight months of discussions.

14. EVALUATION METHODOLOGY:

The purpose of the project evaluation was to determine the status of the project, its accomplishments to date, areas needing special attention, and courses for future action. The evaluation was conducted by three (3) teams: four (4) persons representing the MOA, four (4) from USAID, and three (3) from MATHTECH. Each person was given the Project Paper, the First and Second Interim Reports, the Contract Work Statement, and all special project reports. Outlines using the Project Evaluation Summary, Part II, were also provided. An orientation meeting was held for MOA and MATHTECH personnel to familiarize them with the evaluation approach. Each individual evaluator and evaluation team worked independently before meeting together to discuss the results of the overall evaluation effort.

15. EXTERNAL FACTORS:

The tremendous expansion of the poultry industry and the proliferation of poultry projects, both governmental and private, were not envisioned or addressed in the original Project Paper. For example, there are now several governmental agencies in the chicken production business, including GPC, ORDEV, and Agrarian Reform. Also, President Sadat's governmental decentralization program had accelerated and most of the twenty-five Governorates are now developing poultry projects. Unfortuantely, most Governorates do not yet have the necessary qualified technical assistance. This is also a problem in GPC, ORDEV, and Agrarian Reform.

Private commercial poultry production was insignificant in 1977 when the Project Paper was written, but has since expanded quite rapidly. Private companies are expected to produce as much poultry meat and eggs in 1980 as the GPC had produced in 1976. Unfortunately, because of unstable market and distribution conditions, approximately 50% of the available private sector poultry production capacity is not used.

16. INPUTS:

Problems relating to inputs existed during the early stages of the project. Areas of difficulty included the provision of host country counterparts for project consultants, communications, and transportation. Deficiencies in support logistics (such as office space, telephones, telex, and copy machine) were also deterrents to developing outputs efficiently. These problems have been largely overcome, although difficulties still exist with customs fees and counterpart assignments, particularly concerning the data a sectoral analysis tasks.

17. OUTPUTS

Although the Project Paper was published in May of 1977, the contract was not signed until August, 1978. Actually, the Project Paper was developed out of studies conducted in 1976 and 1977. The contractor used the team approach in scheduling activities in the six (6) tasks. Nine (9) teams of specialists were used to comprehensively examine the tasks outlined in the Project Paper. The first team members arrived in Egypt in October, 1978, and all tasks had been addressed by Febraury, 1979. The poultry specialists which comprised the nine teams are of national and international fame and include experts in all primary areas of poultry operations.

A major difficulty existed not only in identifying central sources, but also in finding any accurate data on the Egyptian Poultry Sector. This, together with the inability of the MOA to provide qualified counterpart personnel for data collection and analysis and to conduct the field studies noted in the Project Paper, caused delay in development of the Econometric Model. This has been largely overcome by an increased effort on the part of the contract team. As a result, a great deal of information has now been assembled, and the first-ever comprehensive Egyptian Poultry Sector production reports have been produced. In furtherance of the economic sector assessment task, it is important to point out that the project may still have a need to procure some additional services and inputs from Dr. Osman El Kholy, a professor of the Economics Dept.of the Menufia Faculty of Agriculture, and also for the use of the facilities of the central computer of Cairo University.

In recognition of this possible need, it is suggested that project funds obtained from line item adjustments be allocated to cover these costs.

Training in the United States initially posed some problems; problems which have now been resolved. There were some delays encountered in sending participants to the United States due to inadequate proficiency in the English language. Many have now completed supplemental English language training, and this has largely eliminated the problem, even though the number of eligible, qualified trainees available remains an issue. By the end of 1979, twenty-eight trainees had completed their US training programs and returned to Egypt to work in their sponsoring organizations.

Difficulties also existed with the type of curriculum provided by the University of Florida, the training subcontractor. The original curriculum, as developed from the RFP and contract, was not totally suitable for the level and type of participants involved. Attempts to have the University of Florida change the curriculum to one more appropriate to the participants' needs were unsuccessful; therefore, the subcontract was cancelled.

In the summer of 1979, the training program was directly assumed by the prime contractor, utilizing the facilities of the University of Georgia, the Southeastern Poultry and Egg Association (the primary training source for the US Poultry Industry), and private companies in the North Georgia area. Participants returning recently to Egypt from the United States have expressed satisfaction with the training now being provided. The curriculum has been modified to best adapt to the individual needs of the participants, and focuses on solutions to actual poultry sector problems identified in this project.

Administrative problems and factors involved in the site selection of the MOA breeder/hatchery farms at Fayoum, Sakha, and Inshas delayed the expansion of the three (3) farms. The situation has recently been resolved, and the equipment for the three farms will be tendered shortly. The equipying of these farms will be of a significantly less mechanized nature than originally outlined in the Project Paper, while other needed equipemnt not previously identified has been included.

A major, and previously unspecified, constraint to poultry production was identified in the area of poultry health, particularly in the utilization of available vaccines and pharmaceuticals. Corrective programs have been recommended, with some activity already initiated. Those United States vaccine and pharmaceutical companies who would be willing, under appropriate conditions, to joint venture new production facilities in Egypt have been identified. Serious limitations of the present MOA production facilities were identified, and possible corrective measures and alternative solutions have been recommended. Upgraded specifications for vaccines and pharmaceuticals to be purchased by the MOA and GPC were developed, including some seriously needed items not previously used.

Major problems in the poultry sector, and the impact of the village flockand rural producers on that poultry sector, were identified and recommendations submitted. Some of these are now being addressed through the recent redirection of MOA efforts through the Governorate programs. However, additional technical assistance will be required if such programs are to be successful.

Problems stemming from the inconsistencies of supply and demand, which have had a major negative impact on market prices and the profitability of private sector production, were identified and recommendations submitted. An inter-ministry committee for key agricultural projects including poultry, feed, and vaccines, is being formed by the MOA as a result of the recommendations presented in the first major project report submitted in March, 1979. This committee is to include the Ministries of Economy, Planning, and Local Government, as well as key MOA officials.

GPC modified their organizational structure from a technical services and operational management orientation as a result of recommendations submitted in March and April of 1979. Assistance was provided to GPC regarding excessively low breeder productivity problems, and corrective programs were recommended. Assistance was also provided regarding major equipment problems at the huge N. Tahir brioler production complex, leading to its conversion from a breeder to a broiler production unit.

The design of the Econometric Model of the Poultry Sector represented the first tangible outline of the entire national sector, including those factors by which it is impacted or creates major impacts of its own.

In summary, the accomplishments to date represent a much broader scope than those outlined in the Project Paper. Overall, the project has been successful in helping the Egyptian Poultry Industry move toward its goals of increased poultry meat and egg production. It appears that poultry production is now expanding at a rate sufficient to achieve the governmental targets for 1980. These goals can easily be surpassed if the measures recommended herein are implemented.

18 & 19. PURPOSE AND GOALS OF PROJECT:

A. The purpose of the Poultry Improvement Project is to help Egypt meet its long-term goal of significantly expanding its production of poultry meat and eggs in a disciplined, coordinated, resource-effective manner.

Specifically, the project is aimed at developing programs and inputs which will enable Egypt to accomplish the above stated goal through the following six (6) tasks, as specified in the Project Paper.

i. Complete a poultry sector analysis in order to assess the poultry industry's needs, and determine effective resource allocation to accomplish Egypt's ambitious goals. In addition, to provide general consultancies and training in the United States to improve the skills of Egyptian poultry management in utilizing such analyses.

ii. Expand three (3) breeding/hatching farms at Fayoum, Sakha, and Inshas, This expansion is intended to increase the availability of disease-free, higher quality chicks to rural producers.

iii. Make recommendations to the MOA for a national breed and hatchery program to benefit rural and private sector poultrymen.

iv. Provide consultancy to GPC, and develop recommendation to improve the efficiency of the management of the company.

v. Analyze the Egyptian vaccine and pharmaceutical industry to identify possible constraints to poultry production, and to develop a national plan for increasing the availability of these important items.

vi. Examine the village flock sector to determine its impact on the national poultry sector, and suggest ways of increasing identified, essential services to this sector.

(See 17. OUTPUTS for progress towards achievement of project purpose and progress and attainments towards accomplishing project goals and subgoals)

20. BENEFICIARIES:

Direct beneficiaries of this project include a number of agencies of the Ministry of Agriculture such as GPC, APRI, AHRI, Veterinary and Extension Services, the offices of the First Undersecretary, and the Minister of Agirculture. These agencies have benefitted through direct consultancies and upgrading of their current programs, organizations and/or activities.

Indirect beneficiaries of the project include the Egyptian consumer, the private sector and village flock producers, and allied industries. The average Egyptian today consumes only 11 grams of animal protein daily, compared to the United Nations Food and Agricultural Organization's minimum standard of 33 grams and the United States consumption of over 55 grams of animal protein daily. More poultry product is available today than when the project started, and this amount should continue to increase if the identified problems are controlled and the resources are effectively utilized. Private and village flock producers will benefit through increased availability of disease-free chicks, improved feed formulations, and expanded poultry health programs.

21. UNPLANNED EFFECTS:

As this industry continues to grow and evolve at a rapid rate, many of the assumptions which were valid when the Project Paper was written are no longer true. As a result, the project teams have had to conduct many additional activities in order to identify and then monitor, the poultry sector. (The insufficient staffing, capabilities, and systems of the MOA Agricultural and Statistical Department tend to compound this problem.) The teams' data activities have provided a large bank of information of significant value, not only to those directly involved in poultry production, but to allied industries such as feed and vaccines, as well. If properly utilized, this data should also be of importance not only to the MOA, but to the Ministeries of Economy, Planning, and other Egyptian Government agencies as well.

The proliferation of governorate, private, and other poultry projects has greatly increased the need for a National Poultry Plan to help coordinate the rapid expansion of the industry and to make the most efficient use of Egypt's limited resources. These factors make implementation of a Poultry Health Program more important than ever, if achievement and maintenance of national goals is to result.

These recent changes mean that future poultry projects are likely to be quite different from the type of project this was originally intended to be from the Project Paper. Future projects will likely involve a greater emphasis on well defined, specific, hard objective goals.

22. LESSONS LEARNED:

The first and most important lesson learned is that, in a developing country such as Egypt, projects involving data collection can only be implemented if nothing is taken for granted. and double checked, and information should always be acquired from as many sources as possible, Then, the data should be purged and qualified through source visits by experienced personnel.

The resident administrative team should arrive on site at least one to two months before the consulting team. Consultants should not arrive until all major operational problems have been resolved. The logistics of establishing offices, communications, transportation,and housing require far more time than they would in the United States. Once the major administrative and logistical systems are working, the consultants can arrive and immediately begin their work without hindrance.

When a project is to encompass an entire economic or production sector, the allied or supportive industries should be included in the planning. In the case of this project, areas such as marketing, feed supply, nutrition, and processing have a significant and important impact on the entire poultry sector. However, none of these were involved or included in the original Project Paper.

Similarly, other ministries which impact on the poultry sector (including the Ministries of Economy, Supply, Local Government and Finance) should have been consulted during the planning stages of the project. A host country project council or an advisory committee in which all such ministries actively participate, should be formed at project startup and meet on a regular basis throughout the life of the project. Team management should at least be ad hoc, if not permanent, members of such a council.

23. SPECIAL COMMENTS OR REMARKS:

Problems relating to inter-ministry relationships which affect project performance and results should be addressed in a policy statement to the host country government prior to project implementation. The lack of an appropriate agreement before the fact inhibits development of the most effective project efforts and dilutes the results almost in direct proportion to the level of inter-ministrial relationships. An appropriate statement of policy and commitment from the host country government, if contained in the AID Letter of Agreement with the host country, would be invaluable in overcoming such problems.

AID direct-hires and team members are afforded privileges and support not available to host country contract team members, even though there is little or no difference in actual project circumstances other than the name of the type of contract involved. This creates undue hardship on the latter group of Americans serving abroad, and inhibits project performance and utilization of the best specialists available for work on AID funded projects.

Although the US Government is providing enormous sums of money for capital development and technical assistance, it has been apparent to team personnel that the general population of Egypt is not aware of the extent to which such assistance is being provided. In contrast, when most other countries provide any assistance, regardless of how meager it may be, that country undertakes extensive efforts to ensure that the population is fully aware of such assistance. It is believed that improvement of such type of effort on the part of the US agencies involved would result in improved cooperation and performance by Egyptians on US funded projects.

As this project developed, the need for skilled Egyptian input beyond routine counterpart participation became apparent. Under the Egyptian system of operation, participation beyond routine involvement requires the payment of supplemental income to this type of "counterpart". However, when such very limited funds are controlled by the host country and not the contractor responsible for project performance, essential needs are not fulfilled. And current policy precludes the payment for such participation directly from project funds, thereby creating a major constraint to achieving effective project results. A change or easing of restrictions, or the inclusion of a budget category for such purposes, would significantly improve project results.

ATTACHMENTS:

Attachment I

ROJECT PAPER	MATHTECH PROPOSAL	% COMPLETED	ACTUAL EFFORTS/WORK BY MATHTECH PROJECT TEAMS
SECTOR ANALYSIS/ASSESSMENT	• DEVELOPMENT OF DATA BASE -- ECONOMETRIC/LINEAR PROGRAM MODEL	(80)	DEVELOPMENT OF DATA BASE -- ECONOMETRIC MODEL
	• SECTOR ANALYSIS	(80)	SECTOR ANALYSIS
		(80)	-- TOTAL SYSTEM INFRASTRUCTURE
		(80)	-- POULTRY SECTOR ECONOMICS
		(80)	-- IMPACTS ON NATIONAL RESOURCES
HATCHERY EXPANSION (3 HATCHERIES)* (FAYOUM, SAKHA, INSHASS)	• DEVELOPMENT OF SPECS	(65)	• DEVELOPMENT OF SPECS
	• COORDINATION OF BID SPEC CONFORMANCE		
	• COORDINATION OF U.S. EFFORTS	(10)	• COORDINATION OF U.S. EFFORTS
BREED & HATCHERY IMPROVEMENT	• BREED EVALUATION & ASSESSMENT	(100)	• BREED ASSESSMENT
	• HATCHERY ASSESSMENT	(100)	• HATCHERY ASSESSMENT
		(100)	• ALTERNATE PLANS FOR IMPROVEMENTS.
		(20)	• BREED PERFORMANCE TEST PROGRAMS
NATIONAL PLAN FOR POULTRY VACCINES & PHARMACEUTICALS	• EGYPTIAN MANUFACTURE & SUPPLY OF POULTRY VACCINES & PHARMACEUTICALS	(100)	• ASSESSMENT OF LOCAL MANUFACTURING FACILITIES & PRODUCTS
	IMPORTATION & EXPORTATION OF POULTRY VACCINES & PHARMACEUTICALS	(100)	• ASSESSMENT OF REQUIRED SUPPLY
		(100)	• ASSESSMENT OF IMPORTED SUPPLY QUANTITIES AND CATEGORIES
		(100)	• IMPACT ASSESSMENT OF VACCINE & PHARMACEUTICAL SITUATION ON PRESENT POULTRY HEALTH
		(100)	• UTILIZATION
		(100)	• DISTRIBUTION OF VACCINES & PHARMACEU
		(100)	• U.S. COMPANY INTERESTS
		(100)	• POULTRY HEALTH PLAN
		(100)	• REQUIRED IMPACT PROGRAMS TO IMPROVE MORTALITY/PRODUCTION OF EGGS & POULTRY MEAT

* Hatchery construction will be done by MOA using AID supplied commodities under short term advisory service of prime commodity supplier during third-year of project. Commodity procurement of vehicles, chicks, feed, etc. to be procured through IFB in project year three to coordinate with hatchery expansion completion.