# EGYPT: THE BASIC VILLAGE SERVICES PROGRAM

## ANNUAL EVALUATION

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PREFACE

This annual evaluation of the Basic Village Services program was conducted jointly by USAID and USDA personnel. Representatives from ORDEV/Cairo, USAID/Cairo, and Chemonics/Cairo also participated in site visits. Additionally, AID contracted with the American University, Cairo (AUC) to perform several village-level case studies in conjunction with this evaluation. The AUC team was comprised of: Dr. Richard Huntington, Dr. Asaad Nadim, Dr. Richard Lobban and Ms. Soha Abdel Koder.

Dr. George Gardner, USAID/NE/TECH/Washington, served as team leader. Ms. Elizabeth Berry, USDA/FAS/EC/Washington was the other writing member of the evaluation team. The opinions expressed in this report are solely those of the authors.

The evaluation team began work in Cairo on February 7. Field visits and interviews in eight governorates were conducted during February 9 - February 25. Analysis and write-up was completed in Cairo by March 3.

Two members of the Chemonics staff, Dr. Tharwat Saleh and Mr. Philip Cheney, accompanied the team on their field visits and provided tremendous support. They focused on the environmental issues associated with BVS, and also provided the team with useful data and logistical support.

Mr. Magdi Sidarous of USAID/DRPS/LAD provided invaluable assistance. His field work and translation of data greatly contributed to this team effort. Thanks is also extended to the ORDEV officials who accompanied the evaluation team on field trips.

Dr. Gardner, Ms. Berry and Mr. Sidarous also participated in the second annual BVS evaluation, which was conducted in February and March of 1981.

# I. INTRODUCTION

## A. History of BVS

The Basic Village Services Program was initiated on March 20, 1979 as a PL 480 Title III agreement. This Title III program, valued at $75 million over a five year period, was supplemented by a $70 million AID grant in August 1980, bringing the total U.S. commitment to $145 million. At the time of this writing, a supplemental amendment for $75 million was being reviewed by AID/Washington.

In brief, the program promotes governmental decentralization and local capacity-building as means of supporting rural development. This is consistent with GOE policy. More specifically, popularly elected village councils are to be utilized as the principal institutions for identifying local needs, and planning and implementing projects on the basis of those needs. The projects funded through the BVS program must be public projects, accessible to almost all people residing within the territory of the public unit that owns or supplies such services. In actuality, BVS has a dual emphasis: to promote decentralization and to upgrade Egypt's rural infrastructure.

The Organization for Reconstruction and Development of the Egyptian Village (ORDEV) has been charged with the program's administration at the central government level. The Inter-Agency Committee (IAC) for Basic Village Services is responsible for formulating BVS planning and implementation procedures. The IAC is chaired by a representative of ORDEV and includes representatives from the Ministries of Local Government, Finance, Planning, Economy and Agriculture.

Initially, BVS was implemented in three governorates--Fayoum, Sharkia and Sohag. Six governorates were added in 1981--Baheira, Giza, Minya, Minufiya, Qaliubiya and Qena. If the above-mentioned proposed amendment is approved, an additional 11 governorates would be added, thereby including virtually all the rural governorates in Egypt.

More background information on BVS is detailed in the second annual evaluation, "Egypt: The Basic Village Services Project" (March 1981).

## B. Purpose of the Evaluation

The Basic Village Services (BVS) Program is jointly funded by PL 480, Title III ("Food for Development") and the Agency for International Development (AID) grant. Under Title III

legislation, an annual evaluation is required in order to authorize shipment of each respective year's tranche of PL 480 commodities. The purpose of this evaluation, which has been jointly conducted by AID and the U.S. Department of Agriculture (USDA), is to fulfill the legislative mandate for FY 1982. Additionally, this evaluation may be utilized in the management of BVS, which is scheduled to continue through 1985.

This is the third annual evaluation of BVS; the first and second were held in February 1980 and March 1981. The first evaluation focussed on administrative procedures, while the second emphasized the program's physical outputs. The thrust of this evaluation is twofold: (1) to identify issues and problems associated with BVS in order to encourage their resolution, and (2) to evaluate progress in the fulfillment of the program's stated goal and purpose, which is:

> "To reinforce and strengthen local government in Egypt so that it more effectively supports agricultural and rural development", and "To improve and expand a continuing capacity in local units to plan, organize, finance, implement and maintain locally chosen infrastructure projects."

C. Methodology of the Evaluation

This evaluation was designed to be complementary to the evaluation conducted in March 1981, while providing a detailed review of the six new governorates which joined the program in 1981.

Last year, the evaluators focused on the process of project implementation at the governorate and village level. This year we decided to focus on the intermediate district ("markaz") level to study both the outputs and the process of decentralization.

A sample of markazes was selected from each of the six new governorates. Every effort was made to balance the sample by selecting several markazes which appeared to have made significant progress, plus several markazes which appeared to be experiencing implementation delays. Data on project implementation used for the selection of markazes to be inspected were provided by ORDEV/Cairo and Chemonics.

However, the BVS project involves both physical outputs (e.g. roads and water systems) and process (i.e. decentralization). Furthermore, the process of project selection, implementation and maintenance is supposed to begin at the village council level. For

this reason, it was decided to conduct a small number of village case studies of BVS projects to illustrate the typical grassroots level process. Therefore, a team of Arabic-speaking researchers from the Social Research Center of the American University in Cairo was contracted to conduct case studies in each of the six new governorates.

At the governorate and markaz level, standardized structured interviews were conducted with officials. In addition, some project records were examined and some project sites (e.g. pump houses) were visited. Arabic-speaking team members participated in every interview to minimize misunderstanding. A list of the markaz and projects studied is seen in Table 1.

At the village level, teams of Arabic-speaking social researchers conducted interviews with popular council members, village council members, villagers and other officials. A summary of their findings is incorporated into the analytical section of this report. (See "A View from the Villages: Summary of the Case Studies Conducted by AUC".) The individual case studies are seen as Appendix 2.

In addition to intensive review of the six new governorates, spot checks of selected projects were made in two of the three original (1980) governorates--Sharkia and Fayoum. The project sites selected were previously studied in the March 1981 evaluation.

Thus, the combined evaluation team observed the BVS program at the project site, village local unit, markaz and governorate level in eight of the nine governorates currently participating in BVS. Sohag governorate was excluded from this review.

Table 1

BVS Evaluation 1982:
Sites Visited

| Governorate | Markaz | Village/Project |
|---|---|---|
| 1. Minufiya | Shibin El Kom | Shobra Bas |
| | Minuf | Munshat Sultan |
| | | Singirg |
| | Ashmun | |
| | Bagour | |
| 2. Giza | El Saf | |
| | Embaba/Osiem | |
| | Abu El Nomros | |
| 3. Qaliubiya | Benha | |
| | Toukh | |
| | Qalube | Belaks |
| | | Kom Ashken |
| | | Mit Halfa |
| 4. Baheira | Kom Hamada | |
| | Rashid | |
| | Damanhour | |
| | Kafr El Dawwar | |
| 5. Minya | Abu Karkas | |
| | Dair Mawas | |
| | Samalout | |
| | Maghagha | |
| 6. Qena | Qift | |
| | Qous | |
| | Luxor | |
| 7. Sharkia* | Zagazig | El Alougy |
| | | Bordien |
| | Belbeis | Ghietah |
| 8. Fayoum* | Ebshaway | Kahk |

Notes: *The team made follow-up visits to projects which were studied in the BVS evaluation of March 1981.

In the six governorates reviewed this year, 21 markaz of the total of 52 markaz were visited and analyzed (40%).

## II. GOVERNORATE REVIEWS

### A. Baheira Governorate

Baheira compiled an impressive record during 1981, its first year of participation in BVS. From both vantage points--the decentralization process and project completion--this delta governorate appears to receive very high marks.

Four of the markazes were reviewed on site: Damanhour, Kom Hamadah, Kafr El Dawar, and Rashid. With the exception of a couple of road projects delayed by weather, all 103 BVS projects--water, roads and drainage--are in some stage of implementation in Baheira. About half of the water projects are complete and functioning. See Table 2 for more detail.

Most project implementation and record keeping appears to occur at the village level. Technical specifications and tenders for contracts are primarily done at the markaz level. In several cases (e.g. Rashid markaz) both labor and additional money were contributed at the village level.

A technique used in Kom Hamadah to insure local participation is worthy of mention. Two signatures from the executive side are normally required on all checks drawn on the village account. For BVS funds, the markaz requires that each check also be signed by two popular council members (four signatures total).

For 1982, the markazes in Baheira will again emphasize roads and water. However, Kafr el Dawar markaz plans to propose other projects such as slaughter houses, ferry boats, and a cold storage plant.

Overall, Baheira appears to have achieved the best first year performance among all BVS governorates.

### B. Giza Governorate

In Giza, the degree of project implementation varies considerably from markaz to markaz. In Badrashin markaz, all five water projects have been completed--some apparently ahead of schedule. Other markazes (e.g. Embaba and El Saf) have had their water projects delayed by Segwart* and have not yet completed any water projects. However, most of the water projects (14 in Embaba, 9 in El Saf) are in some stage of implementation.

The disbursement of BVS funds occurred somewhat differently in Giza. The governorate issued the money to the markazes where it is apparently maintained in the name of the appropriate village

* Refer to Section III C, "Project Delays Due to Pipe Shortages"

Table 2
BVS Projects in Baheira Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| 1. Damanhour | 4 | 2 | 75.70 | 5 | 0 | 21.71 | - | - | - | 9 | 2 | 37.10 |
| 2. Rashid | 2 | 2 | 95.84 | 2 | 1 | 87.64 | 2 | 0 | 91.81 | 6 | 3 | 91.42 |
| 3. Wadi El Natron | 1 | 0 | 58.95 | - | - | - | - | - | - | 1 | 0 | 58.95 |
| 4. Kafr El Dawar | 2 | 0 | 87.61 | 6 | 2 | 36.38 | - | - | - | 8 | 2 | 44.37 |
| 5. El Mahmoudiya | 4 | 1 | 80.86 | - | - | - | 2 | 0 | 91.79 | 6 | 1 | 92.55 |
| 6. El Rahmania | 3 | 3 | 96.34 | 3 | 2 | 84.29 | - | - | - | 6 | 5 | 88.99 |
| 7. Etai El Baroud | 4 | 0 | 99.86 | 7 | 3 | 41.34 | 1 | 1 | 100.00 | 12 | 4 | 55.80 |
| 8. Shobra-Kheit | 4 | 1 | 77.99 | 4 | - | 10.98 | - | - | - | 8 | 1 | 42.84 |
| 9. El Delengat | 3 | 2 | 81.98 | 1 | 1 | 42.13 | - | - | - | 4 | 3 | 76.98 |
| 10. Abu Hommos | 3 | 2 | 79.62 | 7 | 0 | 17.74 | - | - | - | 10 | 2 | 76.98 |
| 11. Abu El Matamir | 2 | 0 | 29.86 | 2 | 0 | 27.58 | - | - | - | 4 | - | 29.00 |
| 12. Edco | - | - | - | 2 | 2 | 96.93 | 1 | 0 | 96.67 | 3 | 2 | 96.94 |
| 13. Hosh Essa | 2 | 1 | 102.68 | 1 | 0 | 59.17 | - | - | - | 3 | 1 | 70.70 |
| 14. Kom Hamada | 10 | 6 | 93.65 | 11 | 5 | 77.90 | 2 | 0 | 47.84 | 23 | 11 | 74.70 |
| Totals | 44 | 20 | | 51 | 16 | | 8 | 1 | | 103 | 37 | 56.55 |

Notes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

councils. We were told that the reason for this procedure is that villages do not have accounting units. However, we were told by ORDEV that the 1982 money will be transferred directly from the GOE central bank to the villages.

Overall, the project completion picture for Giza is not very impressive. This slowness is probably due to the fact that three markazes received their BVS money in March 1981, but the others did not receive funds until September 1981 due to a delayed USAID disbursement. See Table 3 for details on markaz level project completion in Giza.

In terms of decentralization, no governorate level procurement for water projects was done in Giza. Markaz technicians worked up most project specifications, and all bidding for contractors was apparently done at the markaz level. In short, the first year of BVS in Giza was a relatively decentralized process.

All markazes have apparently received notification (formally or verbally) of the broader project categories for 1982 funding. El Saf markaz, for example, will propose the construction of slaughter-houses and public markets. El Nomros markaz will propose BVS funding for canal linings and ferry boats in addition to roads and water projects.

C. Minufiya Governorate

Minufiya has not implemented BVS projects as rapidly as some of the other delta governorates. At the governorate, officials cite the relatively late (May 1981) arrival of the BVS funds as a factor which caused their projects to get off to a slow start. However, they expect to have all 1981 projects completed by May 1982.

Decentralization has not been achieved in the first year to the same extent as in Baheira. All road (12) and sanitary drainage (14) projects in the governorate were awarded to a single firm (Nile Construction Company) because there was apparently little contractor interest when bids were sought at the local level for individual projects.

The decentralization process fared far better in the water projects (60 total) with about 15 different contractors being used. Bids and contracts were let at the markaz level. Water project completion has been slow thus far (2 of 60 completed as of December 31), however, due largely to delays in the receipt of Segwart pipe. We were told that to date only 80 kilometers of the 170 kilometers ordered have been received. All of the water projects are in some stage of implementation.

Table 3

BVS Projects in Giza Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| 1. Abu El Nomros | 3 | 0 | 36.7 | 1 | 0 | 0 | - | - | - | 4 | 0 | 19.20 |
| 2. El Ayat | 7 | 0 | 21.1 | 3 | 0 | 0 | - | - | - | 10 | 0 | 19.66 |
| 3. El Badrashin | 5 | 5 | 101.6 | 1 | 1 | 100 | - | - | - | 6 | 6 | 101.50 |
| 4. Imbaba | 14 | 0 | 11.2 | 10 | 0 | 0 | - | - | - | 24 | 0 | 10.18 |
| 5. El Saf | 9 | 0 | 32.2 | 7 | 0 | 0 | - | - | - | 16 | 0 | 15.00 |
| Total | 38 | 5 | 27.81 | 22 | 1 | 4 | - | - | - | 60 | 6 | 12.05 |

Notes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

The markazes of El Bagour, Ashmoon and Shebin el Koom were reviewed on site, and several individual projects in Menouf markaz were inspected. See Table 4 for details on project completion status in all markazes.

The governorate has formed a technical committee to visit all of the markazes and explain the potential categories for BVS projects in 1982. They are still awaiting final word from ORDEV/Cairo defining just which types of projects can be funded. Some requests for small bridges, for example, have already been received.

In summary, it appears that much of the decision making and procurement was conducted at the governorate level (i.e., the ordering of 124 diesel and 95 electric motors). Such centralized procurement can achieve efficiencies, however, and probably makes sense in the context of the first year of a new program such as BVS.

D. Minya Governorate

In terms of decentralization process, Minya is also near the top of the list for 1981. The project completion rate is not as high as that of Baheira, perhaps because so many water projects are being delayed by the Segwart problem. However, all 57 water projects are in some phase of implementation. See Table 5 for details.

Four markazes were reviewed on site: Maghagha, Abou Korkas, Dair Mois, and Samalout. For road projects, a shortage of bids from contractors has delayed many projects. It appears that many road projects in several markazes are being done, in turn, by one contractor who was the successful bidder in the several markazes.

In Abou Korkas, all eight water projects are delayed by Segwart. In Dair Mois, about three of five are awaiting Segwart pipe; and in Samalout, at least five of the eight water projects have not yet been started because they involve only [illegible], and Segwart is again the problem.

In Dair Mois, local contributions occurred in a road project, where village funds were used to move utility poles to permit widening of the road.

In terms of decentralization, much implementation and record keeping seems to occur at the village level. In most cases, the respective markaz assisted with technical specifications and procurement.

The 1982 project lists will again emphasize roads and water projects. It appears that funds will again be allocated on the basis of relative population size. At least one markaz (Maghagha) will request the use of BVS funds to purchase ferry boats.

E. Qaliubiya Governorate

Project completion in Qaliubiya is moving relatively slowly. The governorate has apparently been hampered severely by the Segwart pipe problem. All pipe was centrally ordered from Segwart by the

Table 4

BVS Projects in Minufiya Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| El Bagour | 9 | 1 | 82.8 | 1 | 0 | 0 | 1 | 0 | 0 | 11 | 1 | 75.84 |
| Ashmoon | 13 | 1 | 90.8 | 5 | 0 | 0 | 3 | 1 | 28.6 | 21 | 2 | 82.90 |
| Menouf | 4 | 0 | 98.6 | 2 | 0 | 0 | 1 | 0 | 0 | 7 | 0 | 79.35 |
| Berket El Sabaa | 6 | 0 | 74.24 | - | - | - | - | - | - | 6 | 0 | 74.24 |
| El Shohada | 6 | 0 | 82.44 | - | - | - | - | - | - | 6 | 0 | 82.44 |
| Shebin El Kom | 7 | 0 | 57.88 | 2 | 0 | 0 | 2 | 0 | 0 | 11 | 0 | 46.62 |
| Quesna | 7 | 0 | 102.92 | 2 | 0 | 50.44 | 3 | 0 | 0 | 12 | 0 | 85.53 |
| Tala | 8 | 0 | 66.61 | - | - | - | 4 | 0 | 0 | 12 | 0 | 57.20 |
| Total | 60 | 2 | 82.06 | 12 | 0 | 14.27 | 14 | 1 | 4.49 | 86 | 3 | 72.49 |

otes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

Table 5

BVS Projects in Minya Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| 1. El Edwa | 4 | 0 | 7.2 | 1 | 1 | 100 | | | | 5 | 1 | |
| 2. Maghagha | 6 | 2 | 93.6 | 6 | 4 | 98 | | | | 12 | 6 | |
| 3. Beni Mazar | 6 | 0 | 18.7 | 5 | 0 | 31.3 | | | | 11 | 0 | |
| 4. Matai | 5 | 0 | 12.1 | 5 | 1 | 88.4 | | | | 10 | 1 | |
| 5. Samalout | 8 | 0 | 5.7 | 7 | 0 | 63.9 | | | | 15 | 0 | |
| 6. El Minya | 7 | 0 | 53.3 | 7 | 0 | 20.4 | | | | 14 | 0 | |
| 7. Abu Korkas | 8 | 0 | 19.5 | 8 | 4 | 103.3 | 1 | 0 | | 17 | 4 | |
| 8. Malawy | 8 | 0 | 20.0 | 8 | 0 | 17.7 | | | | 16 | 0 | |
| 9. Dair Mois | 5 | 0 | 0.6 | 5 | 1 | 62.2 | 1 | 0 | | 11 | 1 | |
| Totals: | 57 | 2 | | 52 | 11 | | 2 | | | 111 | 13 | |

Notes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

governorate. Although the pipe was ordered in March 1981, only about 30% has arrived to date. Furthermore, two price increases have been passed along by Segwart since the original contract was signed.

Three markazes were reviewed on site: Banha, Toukh and Qalube. In Toukh markaz, all 23 water projects are in some stage of implementation--but none is yet complete. Again, Segwart is cited as the main reason for lack of completed water projects. In contrast, all five road projects (totalling 21.5 kilometers) have been completed, and are being paved "with governorate funds".

In Qalube markaz, where supervision of contractor implementation is done at the village and markaz level, nine of the 12 pumps required for 16 water projects have been installed. However, none of the projects is complete--and once again Segwart is cited as the main cause of delay.

The planning for 1982 projects in Qaliubiya is not complete at this time. Last year, money was allocated according to the relative population of a given unit. This year, the governorate would like to be more discriminating (basing allocation on relative needs) but officials admit that it will be difficult to change the 1981 precedent. The 1982 Qaliubiya project list was submitted to ORDEV/Cairo. However, notification of IAC guidelines on broader BVS project categories reached the governorate after the list was completed. Thus, the governorate-wide project selection process will be repeated with proposals coming in for more varied project types.

See Table 6 for details on project implementation at the markaz level.

F. Qena Governorate

BVS implementation in Qena for 1981 is not encouraging from the standpoint of either decentralization or project completion. The governorate Directory of Planning was visited; this is the entity most directly involved in Qena's BVS program. Additionally, three markazes were reviewed on site: Qift, Qous, and Luxor.

Of the 258 BVS projects originally planned in Qena, only three have been completed. To date, 17 wells have been drilled, three road projects have been completed, 18 road projects are under construction, and canal cleaning projects are underway. See Table 7 for more detail.

Table 6

BVS Projects in Qaliubiya Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| . Banha | 37 | 0 | 47 | | | | | | | | | |
| . Tookh | 49 | 0 | 62 | | | | | | | | | |
| . Qaliub | 25 | 0 | 57 | | | | | | | | | |
| . El Khanka | 16 | 0 | 77 | | | | | | | | | |
| . Kafr Shokr | 21 | 0 | 58 | | | | | | | | | |
| . Shebin El Kanater | 36 | 0 | 50 | | | | | | | | | |
| . El Kanater El Khaireia | 21 | 0 | 68 | | | | | | | | | |
| Total | 205 | 0 | 59 | | | | | | | | | |

Notes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

Table 7

BVS Projects in Qena Governorate, 1981

| MARKAZ | Water | | | Roads | | | Other | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. | No. Planned | No. Completed | % Exp. |
| 1. Abou Tishet | 19 | - | | 8 | 1 | 39 | 12 | | | 39 | 1 | |
| 2. Farshout | 7 | - | | 1 | - | 0 | 3 | | | 11 | | |
| 3. Naga Hammadi | 22 | - | | 1 | - | 54.54 | 6 | | | 29 | | |
| 4. Deshna | 15 | - | | 1 | - | 6.25 | 3 | | | 19 | | |
| 5. Qena | 23 | - | | 2 | - | 19.60 | 6 | | | 31 | | |
| 6. Qift | 8 | - | | 2 | 2 | 74.45 | | | | 10 | 2 | |
| 7. Qous | 20 | - | | 1 | - | 0 | 4 | | | 25 | | |
| 8. Nakado | 7 | - | | 2 | - | 0 | 2 | | | 11 | | |
| 9. Luxor | 20 | - | | - | - | - | 19 | | | 39 | | |
| 10. Armant | 6 | - | | - | - | - | 2 | | | 8 | | |
| 11. Esna | 8 | - | | 3 | - | 24 | 25 | | | 36 | | |
| Total | 155 | 0 | 72.6 | 21 | 3 | 34.18 | 82 | 47 | 59 | 258 | 3 | 60.67 |

Notes: Derived from data collected by Chemonics from ORDEV/Cairo and the governorates as of December 31, 1981. In the markazes visited during the evaluation, information was updated whenever possible. The column "% Exp." represents the percentage of BVS funds expended.

Completion of water projects is being impeded by several factors. Delivery of pipe and electric units has been slow, and Segwar has raised its pipe prices twice. Partly as a result of price increases, governorate planners are now projecting that their 1981 allocation will not be sufficient to buy 15 diesel pumps originally planned for, to fund installation of 106 electric pumps just received, or to pay contractors to lay water pipes.

As stated, Qena's road projects are under construction. We have been told that the governorate will spend L.E. 361,000 in 1981 and L.E. 510,000 in 1982 to pave the BVS roads. However, the Egyptian Gazette reported that "The U.S. Agency for International Development (AID), has allocated the sum of L.E. one million to finance a project for paving the collateral roads in Qena Governorate." (Friday, February 26, 1982, page 2.)

Virtually all 1981 project implementation and record keeping appears to be occurring at the governorate level. However, due to cost overruns, the markazes will probably be requested to mobilize voluntary labor to dig ditches for the water pipes. (Although it is unclear whether such local contribution can be successfully mobilized and coordinated in Qena.) Other than this call for "self-help" the markaz chiefs seemed to have had minimal involvement in 1981 BVS implementation. For example, none of the three chiefs interviewed knew the status of canal cleaning in his respective markaz.

For 1982, the governorate contacted the villages directly to ask for project requests. It is expected that the markaz accounting units will keep the financial records for 1982 projects. Thus, an attempt at decentralization is being made in Qena. Two slaughter houses have already been planned and designed for the next year.

Overall, Qena's progress in project implementation is slow and being complicated by cost overruns. Some attempt is being made at decentralization, although this too is slow.

## III. FINDINGS, ISSUES, AND IMPLICATIONS FOR USAID AND USDA

### A. Overview

In the broadest sense, we believe that BVS is accomplishing its purpose of supporting decentralization and local capacity-building. Officials at the markaz and village levels, in most cases, are actively involved in project planning and implementation. The project has evoked local enthusiasm and participation, at times to the extent of stimulating local resource and labor contributions. Further, it should be noted that the governorates with the highest project completion rates - Baheira and Fayoum - also are the most decentralized. Conversely, the governorate with the lowest completion rate--Qena--is the most centralized.

It should also be noted that, so far, the most critical problems associated with BVS implementation (i.e. pipe procurement, communications from Cairo) are occurring at the higher levels, while markaz and village level implementation appear to be proceeding relatively smoothly. This evidence strengthens the argument that the decentralization concept is appropriate in Egypt.

In short, the program is working, even with its problems. It is also evident that the assumptions upon which the program is based (i.e. that decentralizing government will promote rural development) are basically correct.

### B. Appropriateness of Various Project Types in BVS Implementation

A variety of project types are eligible for BVS funding. Generally, projects funded through BVS must be public projects, accessible to almost all residents in the unit that owns or supplies the services. Initially, roads and water projects (i.e., potable water, drainage, canal cleaning, sewage) were emphasized almost exclusively. The 1982 implementation guidelines allow for additional project types, such as slaughterhouses, public toilets, village markets, food storage facilities and "covered bus stops" (to protect produce).

The BVS program has two major emphases: (a) to expand the capacity of local units in planning, implementing and maintaining locally chosen projects; and (b) to upgrade infrastructure in rural Egypt. These two objectives, at times, conflict with each other with respect to the appropriateness of various project types.

Infrastructure projects, particularly water projects, inherently require area-wide planning often crossing the boundaries of local units and even markazes. Further, design and

implementation of such projects tend to call for technical expertise often not available at the village or markaz level. Thus, the objective that BVS projects be locally planned, designed and implemented sometimes is unrealistic, particularly in the case of sophisticated infrastructure projects. This has several implications:

(A) Some of the above-mentioned project types eligible for BVS funding in 1982 appear to be more appropriate with regard to the decentralization objective than are complex infrastructure projects. Projects such as slaughterhouses, markets, food storage facilities and latrines can be locally planned (in contrast to water systems, which require higher level planning). Similarly, these project types are better suited for local design and implementation, diminishing the need to depend on governorate-level technicians and contractors.

(B) In cases where villagers continue to choose complex infrastructure projects, area-wide planning is often necessary, as is technical support from the markaz or governorate. Higher level involvement would probably be well advised in such cases in order to ensure technically sound project design and implementation, and economically and environmentally sound area-wide planning. For example, a number of independently conceived water projects may affect the water table level of a large area, therefore necessitating area-wide environmental planning.

It should be noted that a high proportion of projects will probably continue to be water and road projects because there is a great demand by villagers for these basic services. Also, if a markaz has allocated funding for water projects in, say, 60% of the villages one year, it may be politically compelled to cover the remaining 40% the following year.

A number of project types eligible for 1982 funding are attractive not only from the decentralization standpoint, but also their selection would probably improve the overall BVS project completion rate. As we have seen in the Segwart pipe case, reliance on one supplier may drastically delay the completion of projects. On the other hand, some of the 1982 project types could be constructed with locally available materials, thereby diminishing the probability of supply bottlenecks.

Another frequently cited source of delay is reliance on one contractor. If a markaz hires a single contractor to undertake a number of road projects, project completion becomes a function of the contractor's timetable. We conclude that if markazes and local

units diversity their project portfolios, including some less sophisticated project types, the overall BVS project completion rate could be expedited.

Finally, the projects eligible for 1982 tend to have lower average costs than the projects currently being implemented. This is positive from the standpoint of making BVS projects available in more villages and increasing the program's visibility.

C. Project Delays Due to Pipe Shortages

The scarcity of pipe for potable water and drainage projects has emerged as the greatest impediment to the successful fulfillment of BVS project objectives. During the past year the problem has become critical. An estimated 400 projects in at least seven governorates are currently awaiting the receipt of asbestos cement pipe and/or pipe couplings from Segwart, the public sector supplier.

This problem was predicted in 1979 by a consultant who did much of the field work associated with the development of the BVS program. Furthermore, the evaluation conducted in March 1981 confirmed the reality of pipe shortages throughout Sharkia governorate. It appears that the efforts exerted by USAID and ORDEV to resolve the problem during the past year have not been effective. With the addition of six new governorates in 1981, the pipe shortages cited last year in Sharkia and Sohag persisted and have now become widespread, and are undermining the genuine efforts to implement water projects at all levels--village, markaz and governorate.

The evaluation team compiled a partial list of water projects awaiting Segwart pipe for completion. In many cases, the projects have not even been started because many projects involve only the laying of pipe to extend existing water networks to peripheral hamlets. An overview of the magnitude of the pipe shortage problem is seen in Table 8.

In every case observed, the pattern is virtually the same: a markaz (or village, or governorate) prepaid to Segwart the full purchase amount for a given quantity of pipe--apparently standard Egyptian business practice. In some cases, a delivery deadline was specified; in other cases, no delivery date was mentioned. In some cases, no pipe has been received at all; other units received only partial shipments. Some units received their pipe, but not the couplings and gaskets necessary for installation. The "bottom line" is the same in all of these cases--potable water is not flowing to village recipients!

Table 8

BVS Water Projects Planned for 1981 Implementation Currently Delayed by Pipe Shortages

(28 markaz in 6 governorates visited by evaluation team only)

| | PROJECTS | | |
|---|---|---|---|
| Governorate | Planned | Completed | % |
| Minufiya | 30 | 6 | 20 |
| Giza | 26 | 0 | 0 |
| Qaliubiya | 59 | 0 | 0 |
| Minya | 27 | 4 | 15 |
| Baheira | 19 | 14 | 74 |
| Qena * | 121 | 0 | 0 |
| Total | 282 | 24 | 8% |

Note: Based on this sample of 28 markaz, it is estimated that perhaps 400 water projects in the 9 BVS governorates are currently delayed due to pipe and/or coupling shortages.

* The Qena total represents all markazes.

For example, consider the following cases:

(A) The Gheitah village unit in Belbeis markaz of Sharkia paid a total of L.E. 146,350 to Segwart in payments dated February 13, February 19 and April 9, 1980 for 33 kilometers of pipe. The project consists of extending water to 15 villages for the first time. To date (nearly two years later), only 11.8 kilometers have been received. (One village recently acquired 3 kilometers of gaskets and coupling from a private sector source with their own funds.) Furthermore, an estimated 5% to 10% of the pipe received has already broken-- apparently during unloading and storage.

(B) In Sharkia governorate, overall about 90% of the Segwart pipe ordered for 1980 projects has apparently been received, but no gaskets and couplings have been received. For the 1981 projects, about 40% of the pipe has been received--but again, no gaskets and couplings were delivered.

(C) In Qaliubiya, Segwart is again the main cause of delay in water project implementation. For example, in Banha markaz (20 projects, 0 completed), Toukh markaz (23 projects, 0 completed), and Qalube markaz (16 projects, 0 completed) virtually all implementation delays are attributed to Segwart.

(D) In Minya governorate, Segwart is again the major impediment. In Maghagha markaz (6 projects, 4 completed), pipe deliveries delayed all projects. In Abu Karkas markaz (8 projects, 0 completed), Dair Mowas markaz (5 projects, 0 completed), and Samalout markaz (8 projects, 0 completed) all projects are currently awaiting pipe from Segwart. Abu Karkas paid Segwart L.E. 78,900 on August 18, 1981 and has received only 4% of the 20 kilometers ordered. Furthermore, a price increase of L.E. 15,700 (about 20%) was paid on December 28.

The question of price increases on Segwart pipe--months after prepayment of the quoted cost--is disturbing. Some project units indicated that they paid the additional amount demanded by Segwart out of current BVS funds. Others, such as the Qena governorate, reduced the scope of their planned projects and accepted a reduced quantity of pipe (185 kilometers instead of 210 kilometers) rather than pay two requested price increases. Other markaz officials indicated that they will pay the price increases from forthcoming (1982) BVS funds.

In fact, Segwart has now notified ORDEV (September 1981) that the general conditions of all pipe sales to BVS projects will be based on "preliminary" prices subject to "increase of prices of raw

materials, wages and local production and the imported pipe cost". Such open-ended pricing tactics will further impede completion of projects because pipe costs typically represent 40% of the total cost of a BVS water project.

Other disturbing aspects of the Segwart problem include the requirement that local units provide their own transportation on specific dates and on very short notice. For example, Maghagha markaz in Minya was notified by Segwart on July 13, 1981 that they must send their own trucks to the Alexandria port (402 kilometers distance) and have the pipe off-loaded directly from ships to their trucks on specified dates. Failure to do so, the letter stated, would allow Segwart to "consider that you have voided your possession rights to the commodities" (imported pipe). Such logistical planning may be beyond the capability of local units in distant Upper Egypt. Baheira, on the other hand, is near Alexandria and has successfully adjusted to this Segwart policy.

ORDEV/Cairo has tried (largely unsuccessfully) since at least September of 1980 to prod Segwart into speeding up delivery of pipe to BVS projects. The evaluation team examined correspondence from ORDEV/Cairo to Segwart and to the Ministry of Housing, Construction and Land Reclamation dated September 1980, December 1980, June 1981 and February 1982. One of the replies from Segwart (July 1, 1981) assured ORDEV/Cairo that in addition to "delivering the pipe available as soon as we receive the payments (from BVS projects), the company is ready to cover the needs from all governorates either from local or imported production". The evidence available does not, however, confirm Segwart's ability to meet BVS-generated demand--especially considering that eleven new governorates will be added to BVS in 1982!

Chemonics sought an alternative solution to the Segwart delivery problem in August 1981 by recommending to USAID that Chemonics be used as procurement agent to directly import asbestos cement pipe. This recommendation was apparently rejected by USAID.

During this sequence of events, the pipe shortage problem has grown to become the dominant obstacle to the successful completion of at least several hundred BVS projects. Decisive action must be taken immediately by USAID.

D. Electrical Connections for Water Pumps

Many of the potable water projects funded by BVS involve the electrification of new or existing pump systems. During the March 1981 evaluation a problem involving electrical hookups was observed in Sharkia governorate. A number of completed water

projects were awaiting only electrical connections (usually requiring the installation of transformers) and were, therefore, not pumping water. We were told that the projects were budgeted to include the normal cost for an electrical hookup, but that the National Power Authority is now demanding a much higher sum (about L.E. 12,000) for the task.

In Qena, a similar pattern has emerged this year. The Power Authority is apparently demanding about L.E. 11,000 for electrical hookups. Qena governorate has just received a shipment of 106 electrical pumps which indicates the potential magnitude of the problem. As pipe lines and pumps are installed and projects are completed, water will not flow from these 106 systems until the electricity is supplied.

A word of caution must be raised because this problem has the potential to become more widespread. Many BVS water projects also involve diesel standby engines to provide water during brief power blackouts, but other systems (such as those being implemented in Qena) are totally electric.

USAID has recently started an investigation of the average unit cost for installation of transformers and electrical connections. The completion of this task should indicate whether or not BVS projects are being charged excessive hookup fees by the Power Authority.

E. Communications

Visits to markaz and governorate offices clearly indicate that these units often have not been fully informed of USAID and IAC policy guidelines and procedures in a timely manner. For example, there are a variety of new project options eligible for 1982 funding; yet in a number of the governorates we visited (i.e., Baheira, Giza) officials were unaware of these options. They had already chosen projects under the assumption that they only had a choice of three or four project types. Those that had been informed of the new project types had received the information only after they had already completed the project selection process and, therefore, had to begin the process again. Qaliubiya, for example, received this information from ORDEV in February 1982. In these cases, the lapse in communication seemed to be in ORDEV's communication with governorate officials.

In at least one governorate, Giza, officials attributed delay in project implementation to confusion about project approval and funding procedures. In short, it is imperative that ORDEV keep governorate officials fully informed of program procedures, policy

guidelines and other matters relevant to BVS implementation and that this be done in a timely manner. Additionally, Chemonics and the AID project office should support communication from ORDEV to the field by assuring that governorate officials have a functional knowledge of BVS procedures.

The monitoring of implementation progress in the approximately 1,400 BVS construction projects is a demanding task. Most project-specific data are provided to ORDEV/Cairo by their representatives in each of the governorates. These representatives must constantly collect and update information from their respective markazes.

ORDEV/Cairo is required to submit quarterly status reports to USAID. Each individual project is designated as completed, underway or not yet started. The problem we observed apparently stems from lack of a common definition of just what constitutes a "completed" project.

For example, the Toukh markaz of Qaliubiya was reported (as of December 31, 1981) as having 11 of 23 water projects "completed". Discussions with markaz officials revealed that none of the 23 projects is totally complete (i.e., none has water running yet). The confusion seems to be due to the tendency of some governorates to report projects as "complete" when all funding has been expended--regardless of the actual physical status (e.g. is the water running? is the electricity connected?) of the project.

Although Chemonics can provide ORDEV/Cairo with valuable assistance in the area of project monitoring, they cannot realistically be expected to visit all 1,400 projects. Nor can ORDEV/Cairo be expected to visit each site. Rather, very close coordination between ORDEV/Cairo and Chemonics is needed to maximize their joint monitoring effectiveness. More reliable and more timely information can only be acquired, it appears, with more emphasis on coordinated visits to the various markazes.

Another communications issue is that governorate and markaz officials have received faulty information with respect to BVS, and consequently, have misconstrued AID policy. For example, markaz officials are still citing I. Asmon, a consultant, who has not been officially associated with the project for two years. Reliable information, passed through ORDEV, Chemonics and the project office should offset any misconceptions about BVS. Other parties should be discouraged from espousing BVS policy or procedural guidelines in the field.

Finally, governorate officials should be given an overview of the portfolio of AID projects for which they are eligible and an explanation of how BVS fits into the broader assistance package.

## F. The Role of Chemonics

The technical assistance contractor for BVS is the International Consulting Division of Chemonics, Inc. They were selected by USAID and ORDEV and work under the general direction of the BVS project officer.

Chemonics has had problems staffing their Cairo office. This is especially true with the staff positions designated as American. Three long term positions have yet to be filled, one engineer was removed and the chief of party is being replaced effective March 15. It should be noted that a number of the Egyptian and American positions are filled by highly qualified and motivated professionals. However, one critical element--overall leadership and its inherent qualities of management and coordination--appears to be lacking.

During the past six months, Chemonics appears to have focused too much energy on data collection as an end in itself. Chemonics has not been completely successful in articulating its role in BVS to the Egyptians. USAID has given Chemonics wide latitude in the technical assistance area, and Chemonics appears to have failed to capitalize on this latitude. The factors which Chemonics cites as having hampered its performance are typical of virtually all international operations and should not be major barriers to an experienced firm such as Chemonics. These factors include procurement of staff housing, import and registration of vehicles, hiring of clerical staff, international mail, etc.

In the future, Chemonics must regroup and shift its efforts to delivering useable technical assistance. This will probably require more sustained field work, and fewer scattered and brief single visits to so many project sites. The key must be on finding replicable solutions to generalized problems. A closer working relationship with ORDEV at all levels must be fostered and training programs must be developed and delivered.

It should be stressed that Chemonics is in Egypt to respond to the field needs of the Inter-Agency Committee. Governorates should have direct access to the assistance of Chemonics without having to go through ORDEV/Cairo.

## G. Eligibility for BVS

The BVS program is clearly oriented toward the rural sector. The guidelines have been written in such a way as to exclude towns and cities. This has had several ramifications and implications, the foremost being the problem that it is politically difficult to

provide services to villagers that are unavailable to urban dwellers. We were told by the markaz chief in Ashmun markaz in Qaliubiya that the markaz cannot provide certain services to rural areas because towns in the markaz lack that service.

It should be noted by AID that towns such as those which house the markaz seem to be "falling through the cracks" with regard to assistance. They neither qualify for BVS nor Neighborhood Urban Services (NUS). This may present future problems such as the problem of political jealousies mentioned above. As discussed in the section on communications, it would be helpful to inform governorates of the overall AID assistance portfolio available in their areas. This should facilitate comprehensive planning.

A closely related problem with regard to eligibility is that we found that several villages (i.e., in Damanhour markaz in Baheira) have been declared ineligible for water projects because their systems are linked with city water systems. Governorate and markaz officials have inferred that if the city is ineligible, then connected towns must also be ineligible. It is recommended that such situations be resolved by AID on a case-by-case basis.

H. Construction of Elevated Water Tanks

At many markazes in several governorates, the evaluators were repeatedly asked why BVS funds could not be used to construct elevated water tanks. Most markaz officials are under the impression that they cannot build water tanks with BVS money, even though elevated tanks are an integral component of most rural potable water systems. Although USAID maintains that water tank construction is permissible under current BVS policy, the general perception at the markaz level is the opposite.

The construction of additional tanks is the most logical next step in many areas. As BVS funds are spent to add more users to the margins of existing systems (by the extension of pipe lines only in many projects), greater demand results in less water pressure for the entire system. Although the initial cost of reinforced concrete tanks is relatively high--usually estimated at L.E. 80,000 to L.E. 100,000 per unit--there are several compelling reasons to permit their construction where needed:

(a) Economies of scale would result from the continued extension and networking of existing water systems, thus necessitating more water tanks.

(b) Water pipes under continuous pressure (from elevated tanks) deliver cleaner and healthier water to villagers. Systems without elevated tanks, thus not under constant pressure, often

produce "back suction" (when the pumps are not running) which results in organic and inorganic pollution being drawn into the pipe lines.

(c) Markaz officials cite low-pressure water systems as a major factor which discourages multi-storied housing construction. In rural areas, new housing thus results in horizontal expansion and inevitably the reduction of the agricultural land base. Water tank construction--high pressure systems--encourages vertical housing expansion.

(d) The use of elevated tanks results in reduced operating time for diesel engines (or electric motors) and pumps. Markaz officials claim that lower maintenance is thus required. Also, water is available even when the electrical supply is interrupted.

(e) Finally, elevated water tanks constructed of reinforced concrete in rural Egypt are a classic example of appropriate technology. They are simple in design, durable (most date from the early 1950's), easy to maintain and are constructed of readily available materials.

In summary, if current BVS policy does indeed permit the construction of elevated water tanks, this information should be communicated to all markazes and governorates.

I. On Paving Rural Roads

In several governorates, markaz and governorate officials repeatedly emphasized the necessity of paving rural roads in the Egyptian environment. In fact, in Qena and Qaliubiya governorates all roads constructed with BVS funds are being paved "with additional governorate funds" anyhow.

Vehicular traffic on rural roads in Egypt is both frequent and heavy. Farm produce trucks, supply trucks and busses are generally grossly overloaded and therefore damage gravel roads. Furthermore, wind erosion and rainstorms--especially in the delta--constantly damage non-asphalted rural roads. Officials contend that newly constructed gravel roads last only one or two years unless they are soon asphalted.

Virtually all BVS road projects observed are short (i.e. 2 to 10 kilometers) farm-to-market or connector roads. None could be described as a real highway. Furthermore, some of the basic raw materials required (sand and gravel) for asphalting are abundant

native materials. The case made by local officials to pave BVS roads, thus protecting the investment and reducing maintenance costs, is very strong.

J. Purchase of Equipment for BVS Implementation

BVS guidelines allow for the purchase of certain types of equipment, such as motors and pumps, as well as small equipment (i.e., shovels and tools). Purchase of larger equipment, such as road graders and tank trucks (to pump sewage) is not permitted with BVS funds. In a number of governorates (i.e., Minufiya, Qaliubiya) officials mentioned the inability to purchase larger equipment as a constraint to project implementation.

There are several reasons for encouraging governorates, markazes and local units to purchase equipment, including:

(A) Projects could be implemented by the villages and markazes, themselves, thus diminishing reliance on contractors. This would probably result in cost reductions and improved project completion rates.

(B) Allowing villages and markazes to purchase equipment is consistent with the BVS objective of local capacity-building. This would allow these units to continue building infrastructure projects after BVS no longer provides budgetary support.

(C) Equipment purchased could be utilized to maintain BVS projects, as well as other infrastructure projects.

We understand that USAID's Development Support Fund (DSF) allows for the purchase of larger equipment. However, administration of this fund should be better coordinated with BVS administration, in order to increase its utility to the lower levels of Egyptian government.

K. Maintenance Plan

Under the AID project agreement, the GOE is required to provide the equivalent of 10% of project construction costs (approximately $6 million) for maintenance of these projects. As was noted in last year's evaluation, maintenance of rural infrastructure requires more than merely setting up a fund. Tools and equipment, trained technicians, regularly scheduled inspection for routine maintenance and training in preventive maintenance by operators are required. Although development of maintenance plans was recommended one year

ago, to date, [illegible]ch plans have not been articulated at the governorate level. This must be accomplished in the near future if the established [illegible]tenance funds are to be taken seriously.

It is recommended that a plan be developed by Chemonics for the use of the established funds. Chemonics should then present the maintenance plan to governorate officials.

L. Budgetary Impact of BVS on the Markaz and GOE Funding Implications

In focusing on the markaz level, we found that BVS is having a significant positive impact on the markaz budget. We asked a number of markaz chiefs what their budgets would have been for road and water projects without BVS. We were told in Toukh markaz in Qaliubiya that BVS increased their budget for water and road projects by approximately 400 percent. This response was about average, with most markaz chiefs reporting 300 to 400 percent increases in their budgets for such projects. It appears that the markazes are capable of handling these budget increases. In short, BVS is having a significant impact in rural Egypt. This impact is not only fiscal, but is directly translated into strengthening rural infrastructure.

One potential issue regarding BVS budgetary impact is that we have noted a few cases where GOE funding to an administrative unit has been reduced ostensibly because that unit was receiving BVS funds. Abu El [illegible]s markaz in Giza normally receives L.E. 30,000 for water and road projects. For 1980-81 the BVS allocation was L.E. 230,000 (approximately 760% of the 1980-81 markaz budget for water and roads). However, the 1981-82 markaz budget was reduced by one third to L.[illegible]0,000. In Qena we were told by governorate officials that before BVS their annual allocation for water and road projects ranged from L.E. 100,000 to L.E. 200,000 per year, but after they received BVS funds, the Minister of Planning cut out their budget entirely.

GOE funding allocations to administrative units should not be diminished as a result of BVS. BVS is intended to serve as augmentation to allocations, not as a replacement. It is not clear to what extent this is an issue. Hopefully, the Inspector General's audit will further explore this subject.

M. Policy Guidelines for Residual Funds, Cost Overruns and Interest Accounts

There are several aspects of BVS administration which have not been adequately articulated in the form of policy guidelines; or the existing policy guidelines have not been effectively communicated to

governorate officials. More specifically, policy guidelines for residual funds, cost overruns and interest accrual must be articulated and communicated to the governorates.

With regard to residual funds the following questions should be addressed: What is the reallocation process for residual funds? May residual funds be carried over to the following year? May residual funds be utilized for maintenance or equipment purchases? It is recommended that IAC policy for utilization of residual funds allow for flexibility at the governorate, markaz and village levels, minimizing the need for additional bureaucratic procedures and encouraging the reallocation process to take place in a decentralized manner.

Policy guidelines are also needed with respect to cost overruns. A serious cost overrun problem is developing in Qena, which cannot fund installation of their 106 electric pumps because they are running out of BVS funds (ostensibly as a result of price increases). Can Qena draw against next year's BVS allocation in order to complete this year's projects? We suggest that BVS be viewed as a three year income stream and that both residual funding and cost overruns be permitted to be carried forward. Again, IAC policy on this issue must be elucidated and communicated.

Interest may be accruing at a few levels in the BVS program. Strong policy guidelines are needed in this area because interest accrual tends to promote "sitting on" capital. The most blatant problem with respect to interest accrual is the Segwart pipe problem. At the governorate, markaz and village levels, interest accrual is disallowed with U.S. funds, but allowed with GOE maintenance funds. This should be made clear at all levels and IAC should issue guidelines for expenditure of interest accrued under the GOE maintenance fund.

## N. Incentive Payments

In accordance with the Foreign Assistance Act, the BVS Program disallows incentive payments using U.S. funds. However, such payments are a key element in implementing projects in Egypt. As the AUC study points out, "The inability to pay extra salary incentives for extra work under BVS often limits the ability to get tasks completed in the most efficient way". The fact that incentive payments using U.S. funds are not allowed under BVS has apparently in some cases forced local officials to use alternative methods of providing incentives.

In Giza governorate the lack of an incentive system for BVS was viewed as an impediment to project completion. Officials told us that non-BVS projects that incorporated incentive payments were

receiving higher priority than BVS projects. Further, people were initially enthusiastic about BVS and put a lot of work into the program, but their enthusiasm and work diminished when they realized that no incentive payments would be forthcoming.

The GOE is currently in the process of establishing a special account, valued at L.E. 85 million, which will serve a variety of purposes including allowing for incentive payments under BVS. Apparently high level administrators would be the most likely to receive incentives under the GOE plan. It is recommended that technicians, village and markaz officials, and others immediately involved in project implementation be eligible for incentive payments under the GOE special account for BVS incentives. This would promote decentralization and expedite project completion.

O. Financial Status

As noted, U.S. money flows to BVS through two channels: P.L. 480 Title III and the AID grant. These channels are separate in Cairo; then the monies usually become comingled in the field (at the governorate, markaz or village level). AID monies are disbursed through ORDEV to the governorates and subsequently, to the villages. Title III generated monies flow from the Ministry of Supply account in the National Bank of Egypt to the Ministry of Finance account in the Central Bank of Egypt, to the governorates, and then to the village accounts. The Ministry of Local Government coordinates with ORDEV in disbursing Title III funds. It is hoped that the Inspector General audit currently being conducted will describe how the funds are disbursed once they leave Cairo.

Several issues have arisen with respect to the financial management of BVS. Some of these issues have been persisting since 1980 and call for immediate resolution. They are as follows:

(A) The most blatant problem regarding financial management of this program, particularly the Title III portion, is one of reporting. The second amendment to the Title III Agreement was signed June 28, 1981, and purchase authorizations for $15.0 million in wheat issued shortly thereafter. As of March 1, 1982 the responsible U.S. officials in Cairo did not know when and if currencies generated by sale of wheat had been deposited into the Central Bank account. (This evaluation prompted investigation of this issue, which revealed that the 1981 currencies have not yet been deposited into the Central Bank. However, the AID Controller is taking action to assure that this is accomplished as soon as possible.)

The GOE should issue quarterly reports to the AID Controller, apprising him of the financial status of the program, including both disbursements to governorate and/or village accounts and

deposits into the Central Bank account. The Controller should verify these reports and transmit them to the AID project office as well as the Commodity Credit Corporation (CCC) of the U.S. Department of Agriculture, Washington. This reporting process is not occurring and consequently, months after commodity shipments, the status of the generated currencies is unknown. The CCC must be notified that an amount equivalent to CCC value of the commodities shipped has been used for agreed upon activities in order for the loan to be "forgiven". Thus, it is imperative that GOE officials issue quarterly reports to the AID Controller, so he, in turn, may notify the CCC.

(B) Due to the fact that the financial reporting under BVS is not occurring properly, the GOE was unnecessarily billed by and paid the CCC the first interest payment on June 6, 1980 of $279,997.61. Apparently GOE also paid CCC 5 percent of the value of the 1981 Title III agreement. Again, this hard currency payment is not required by CCC, and should not have been made. The GOE has requested that these payments be reimbursed or applied to other Title I indebtedness.

In order to compensate for these unnecessary cash payments to the CCC, the monies were taken from the proceeds from the sale of Title III commodities by the GOE. This should not have happened, as it is intended that the full amount generated by commodity sales be utilized for BVS projects. Therefore, CCC should somehow restore these unnecessary payments to the GOE, so that they may be disbursed for BVS projects.

(C) A banking charge of $27,775 was deducted from the Title III account. If such banking charges are required, they should be covered by the GOE, rather than be deducted from project funds. The AID Controller notified the Central Bank of this issue in December 1981, but had received no reply as of March 1, 1982.

P. . Disbursement of BVS Funds

Within a given governorate, the markazes visited often displayed quite disparate patterns of project implementation. In Giza, for example, Badrashein markaz apparently received their money early in the year and has successfully implemented all of their projects. In contrast, Embaba markaz has not done as well. Their 14 water projects have been hampered by the pipe shortage and none has yet been completed. Embaba's performance on road projects is also lagging with none of their 10 projects complete. In fact, we were told that no contracts have yet been signed for road projects.

The Secretary General of Giza, aware of the varying degree of 1981 implementation, asked if the 1982 money could be disbursed only to those markazes which successfully implemented their 1981 projects. Such a disbursement pattern would then require five disbursements in Giza rather than one. Overall, there are a total of 80 markazes in the nine governorates--and potential for multiple disbursements in each governorate exists.

Instead of multiple disbursements at the markaz level, however, consideration could be given to a regular quarterly disbursement pattern. Such a policy would easily allow discrimination at the governorate level based on overall implementation performance.

Perhaps better yet, each governorate could schedule its markazes to receive their 1982 money in an early (or later) quarter based on the given markaz implementation performance in 1981. Either way, some discrimination and greater focusing of BVS impact would be possible.

Q. Local Contributions vs. Contractors

In some governorates, villagers have been mobilized to contribute labor and sometimes resources to BVS projects (i.e., Fayoum, Baheira). Other governorates have relied solely on contractors. Still another variation is hiring local labor at "below market" wages--a partial contribution. There appear to be a few tradeoffs among these options.

Several officials have stated that they prefer to hire contractors rather than volunteer laborers because the latter do not produce high quality work. However, local contribution usually involves tasks requiring little skill, such as digging ditches. For this type of task, there is no reason why villagers could not perform effectively if they are provided with good supervision. Further, local involvement in project building is more likely to result in local identification with the projects, increasing likelihood that they will be adequately maintained.

Fayoum and Baheira, which both utilize local contributions, have the highest rate of project completion. A number of officials we interviewed have attributed delays to contractor performance, especially when the contractor is working on a number of projects simultaneously. Utilization of local labor may well expedite project completion.

In sum, local labor contributions would appear to be desirable from the standpoint of cost savings, expediting project completion

and local identification with the project. Local contributions, particularly for projects that do not require great skill, should be encouraged. However, adequate supervision is necessary.

R. Water Resources, Water Quality and Pipe Composition

Ground water has been utilized as the main source of water for BVS projects. It is preferred because it is:

(a) free of suspended solids and needs no special treatment (such as sedimentation, flacculation and filteration) for removing suspended solids;

(b) free of bacteria, when deep enough and isolated from pollution sources; hence needs no disinfectant treatment.

On the other hand, ground water resources may have some negative effects as ground water also tends to have the following properties: (a) it contains a high content of dissolved salts, particularly hardness-forming salts; (b) it contains a high heavy metal content; and (c) it contains a high concentration of free carbon dioxide. (This is technically termed "aggressiveness".)

The quality of water in BVS systems in some governorates seems to be poor. Some complaints regarding water quality, (i.e., high degree of hardness and high content of manganese and iron) have been received in Giza, Minya, Baheira and other governorates.

Aggressive ground water causes high corrosion damage to asbestos-cement pipes, thus increasing asbestos fiber counts in drinking water. Locally made asbestos pipe is of poor quality relative to the pipe that has been imported. The interior surfaces of the locally made pipe show severe delamination in many cases. When such delamination occurs in conjunction with water aggressiveness, corrosion of the pipes will be considerable.

If ground water is to continue to be utilized in BVS systems, the following measures must be considered:

(A) Ground water should be treated to minimize hardness, iron and manganese contents.

(B) Ground water should be disinfected regularly as there exist signs of pollution of ground water resources in many areas.

(C) Asbestos-cement pipe should be replaced by lead-free PVC pipe, as the latter is resistant to water aggressiveness.

## S. Sewage Disposal and Garbage

Facilities for sanitary disposal of sewage wastes are severely limited in most villages. Attention should be directed to the sewage disposal issue as it has great impact on both human health and water table level.

Demand for solid waste disposal is continually growing as population pressures increase. This problem could be addressed, in part, by BVS projects for converting human wastes and garbage to fertilizer. Such projects have been undertaken in Fayoum and are planned in Giza.

## T. Training and Technical Assistance

To date, little training or technical assistance has been provided in support of BVS. ORDEV has been charged with the training function, but we have not found much evidence of ORDEV-sponsored training oriented toward BVS. (Although we did find that ORDEV has funded governorate training programs in Minufiya and Giza.)

Additionally, Chemonics has sponsored a course which trained 20 pump operators. Technical assistance by Chemonics is also just getting underway. Chemonics staff appears to be well qualified to render such support and should become much more active in this area.

There is a strong perceived need for training and technical assistance at all levels. (This contrasts with last year's evaluation, during which most local officials said they did not desire training or technical assistance.) Areas in which training is desired include: accounting and financial management at all levels, technical training (i.e., for engineers, pump operators, plumbers, agricultural engineers), training for village laborers, training for administrative officials and maintenance training.

Technical assistance is desired in the following areas: water quality (i.e., techniques to eliminate mineral deposits), sewage systems/sanitary drainage, and in projects converting human wastes and garbage to fertilizer.

It is recommended that training and technical assistance be made available locally, particularly at the markaz level, so that trainees do not have to lose time and money in travel. Officials in Toukh markaz in Qaliubiya said that, although they desired training, no funds were available for them to send trainees to Cairo.

Chemonics should take the lead with regard to training activities, as ORDEV has scarce resources and, to date, has not been active in providing BVS-related training.

U. Is Three Years of BVS Funding in Each Governorate Adequate?

The BVS program provides financial support to each participating governorate for a three year period. Is this an adequate time period for achievement of the program's objectives of decentralization and local capacity-building?

BVS has been designed to empower local government units to plan, design, implement and maintain locally chosen infrastructure projects. There is great diversity among the nine BVS governorates with respect to managerial and technical capabilities. Obviously, this diversity existed before BVS implementation. In the governorates with the stronger capabilities (i.e., Baheira, Minya, Fayoum), BVS is enhancing pre-existing strengths. Capabilities are being developed at the markaz and village levels while infrastructure projects are being completed. In these cases, a three-year funding period should be adequate for fulfilling the program's objectives. In fact, one year of BVS has made a significant difference in Fayoum, Baheira and Minya.

On the other hand, some governorates have little experience or capability in project planning and implementation at the village and markaz levels. In these cases, the governorates tend to plan and implement the projects, themselves, ostensibly because the villages are unable to do so. Qena is an extreme example. It is possible that BVS will reinforce centralization in Qena and perhaps Sohag. Based on this year's findings, three years of BVS is unlikely to produce a decentralized system in Qena. Lengthening the project time would not ensure success, but would increase the probability of success.

Three years will probably make a difference in terms of decentralization and capacity building in Qaliubiya, Sharkia, Minufiya and Giza. While these governorates might not become adept at planning and implementing projects locally, BVS will hopefully serve as a catalyst in moving them in that direction. Also, while the local units may not acquire sophisticated technical and managerial skills, such skills are being cultivated at the markaz level which, in our estimation, is a major accomplishment.

## IV. A VIEW FROM THE VILLAGES: SUMMARY OF THE CASE STUDIES CONDUCTED BY AUC

### Introduction

The BVS program of providing basic infrastructural improvement at the village level is largely successful in moving towards its twin goals of enhancing the decentralization process and improving the lives of villagers. This does not mean that technical projects are all on schedule, or that new processes of decision-making and implementation are uniformly and smoothly in place. However, as outside observers, we (two Egyptians and two Americans) are impressed with the fact that basically the program works. Many projects are completed or moving toward completion; many village and markaz officials and technicians are working together to find new ways of accomplishing tasks; and many villagers feel that they are directly receiving valued services. This overall success of the BVS program is the most important conclusion resulting from our evaluation and we wish the reader to keep this in mind throughout the following discussion.

Over and over again village people would comment that this was the first time in twenty years that their large irrigation canal had been cleaned, or that their water system had received a major extension. Village leaders expressed over and over their pleasure and pride at being, for the first time, brought into the "international development" process. Governorate officials often commented on how the decentralization aspect of BVS made it possible for them to implement many projects with their limited resources.

The six governorates that we visited are Qaliubiya, Giza, Baheira, Fayoum, Minya and Qena. With the exception of Fayoum, all of them are new to the BVS program during the last year. As one would expect, some governorates are having more success at this early stage than others.

Baheira, Fayoum and Minya governorates are all very successful and active. The governorate authorities are committed to making the decentralization of responsibility work and they have set up effective and often creative frameworks for maximal village level participation. These three governorates also all stress the role of the markaz in providing the major share of direct support of implementation.

Giza and Qaliubiya have moved a bit more slowly and more cautiously. The main organizational link in Qaliubiya is between the village leaders and the governorate offices. The markaz level is effectively by-passed. However, the governorate officials in Benha are very supportive of village leaders and they encourage them to play a major role in the planning. In Giza also the degree of involvement and knowledge of the project on the part of the village leaders is impressive. They receive technical support from the markaz.

Qena is the most problematical governorate we visited, with many aspects of its program yet to be worked out. Its road and canal cleaning programs are moving forward, but its water program is mired in a host of technical and bureaucratic impediments. Responsibility for the BVS program is largely retained jealously by the officials in the governorate capital.

Issues Raised by Egyptian Officials

Certain critical issues were raised over and over again by the officials whom we interviewed both at the villages and in the markaz and governorate offices. These issues are: (a) incentives; (b) back-up support (i.e., equipment purchase); (c) the role of the American contractor; and (d) the problem of water pipes.

The issue of incentives is a delicate one for which there seems to be no obvious solution within the framework of BVS. However, it was raised so often and so strongly that it deserves a place in this report. The inability to pay extra salary incentives for extra work under BVS often limits the ability to get tasks completed in the most efficient way. Specific examples provide the best insight. In Qena, at the time of the unloading of the water pipes, some of the staff literally worked around the clock, thus saving the project from having to pay large amounts of extra fees that a more gradual unloading would have entailed. Overtime payment or even smaller bonuses would cost much less than the fees for delayed unloading. This time the governorate employees did it for free, but they will not do it again. Often there are tasks which the village, markaz or governorate could have its own people do as overtime work, but instead they must turn it over to a contractor whose profit greatly exceeds the would-be incentives for, say, the markaz engineer. Officials are not suggesting that the U.S. project should start paying the salaries of Egyptian civil servants, but rather that there be some leeway in BVS to partially compensate people for the many increased efforts required by such an ambitious program.

In the most successful governorates, officials are truely concerned to get the most benefit from the available funds, and they genuinely wish to cut down the unit costs on the projects below the level of the contractors. To do this they need some flexibility regarding incentives for the people who actually do the direct supervision and labor. Perhaps there could be some sort of small set-aside amount similar to the maintenance fund that could be used for incentives under certain specified situations.

Officials expressed concern with a range of issues pertaining to the problem of backup support for village-based activities. One problem they stressed is their inability under BVS to purchase equipment. This sometimes forces them to rent at greater cost a needed item, which they could purchase more economically. Another aspect of the problem relates to supervision. Whether the projects are constructed by private contractors or through the labor contributions of villagers, technical monitoring and supervision is essential. Most governorates just do not have enough people and vehicles to supervise adequately the many projects. The markaz seems to be the appropriate and most effective level for technical assistance to the villages regarding construction, finance and maintenance, and yet markaz towns seem to be a neglected segment in current Egyptian development programs. Many people suggested that it would be appropriate and useful to have some program of strengthening a small technical support and maintenance center in each markaz. In this context, many officials at the village level requested that training programs be held in the markaz towns and not only at the governorate capital. A markaz center might also include the purchase of some of the equipment necessary to keep BVS projects functioning and to continue the necessary technical support of village initiative beyond the life of the BVS project.

Officials at different government levels expressed puzzlement over the role of the American contractor, Chemonics. In one instance, Fayoum, people were sharply critical and resentful that this company should be using up funds that might otherwise go to the villages. In most instances, it was a case of people just not seeing what role the contractor is filling or should be filling within the overall context of BVS. Generally their experience of the contractor is someone who comes to them requesting information, but not contributing to the program. This problem is probably not specific to BVS, but part of a general confusion and/or resentment among Egyptian officials over the role of American development contractors. Nonetheless, these comments suggest that a higher profile on the part of the contractor, including a clearer

communication to the governorates and markaz of what assistance they do and do not provide (and to whom), would ease relations considerably.

Finally, everyone is complaining about pipes: the lack of pipes, the poor quality of Egyptian pipes, the technical complexities of the imported pipes, the delays, etc. Many would like to see the American contractor (who is sometimes credited with helping to overcome the shortage) take an even more active role in getting the pipes directly to the governorates.

Decentralization and Regional Variation

An important general question is to what extent the BVS program is contributing to a permanent improvement of the capacity of rural local units to recognize, prioritize and solve local public problems. The question cannot be resolved on the basis of the present evaluation, but a comparison of the differential success and failures among governorates suggests that this general purpose is being accomplished in those regions which already have cadres of relatively experienced and sophisticated people. This is especially true in Fayoum and Baheira where the village and markaz officials are already experienced in many ways with dealing with the mobilization of labor, organization of cooperatives and public and private loan proects. In these instances, BVS builds upon and reinforces a pre-existing strength.

The distant governorates of Upper Egypt, however, have more difficulty in taking advantage of the BVS program as it is constituted. As is so often the case wih development programs, the more developed sectors appear to benefit more than the very areas that most need help. This project may be reinforcing the existing imbalance between the modernization of Upper and Lower Egypt. In Qena the BVS goal of supporting local initiative may be backfiring. So far every aspect of the BVS program there seems to have strengthened the hand of each level of government vis-a-vis the level immediately below. The village head now has unprecedented power over his fellow villages. (He decides who gets the limited services installed where.) The officials at the governorate housing department have unprecedented power over the village head. (They can make his project a success or failure by supplying or not supplying needed support.) And so it goes. So far, it appears that hierarchy is being reinforced in the name of decentralization and local initiative

Decentralization is a process and not all regions of the country are at the same point along the way. Any policy, however laudable, has its limits of applicability. Perhaps in some critical sense, Qena is the limit for BVS. Qena faces a larger task than Baheira, but with far less resources to accomplish it. The meaning of decentralization in one place can be different than in another, and the strengthening of the governorate level in Qena may be a positive step toward decentralization, but many of the restrictions of the current policy (designed to strengthen lower levels) do not necessarily speak to the most pressing needs in this region.

Case Study Evaluation: Method and Recommendations

For this evaluation, four social scientists from the Social Research Center of the American University in Cairo visited one village in each of six governorates. The governorates and villages were selected by the AID evaluation team in consultation with the American contractor, Chemonics. With a sample so small there is no suggestion that these villages are entirely representative of all Egyptian villages or of the total BVS experience. These village case studies are merely illustrative of the processes of BVS at the village level, in the villages studied.

We investigated each of the chosen villages and its relation to the wider BVS program for two full days. In short visits such as this there is a limit to what one can learn about such things as the process of local decision-making or what the villagers in their heart of hearts really would wish to see as a new basic service. To determine the loci of various aspects of decision-making, we had to rely on the leaders' descriptions of the process of BVS in their village. The main indicator we used to check this was the extent of their knowledge of the details of the program. Especially regarding the elected village officials who might be involved in name only, the extent to which they could discuss with familiarity the details, problems, alternative solutions, and nuances of the program served to signal the degree of their actual involvement. As for the villagers, it was also their knowledge or lack thereof about the BVS program that served as best indicators of their involvement.

## V. RECOMMENDATIONS

1. It is recommended that markazes and villages be encouraged by the IAC to diversify their BVS project portfolios, emphasizing projects than can be planned and implemented on the village level utilizing locally available materials. This would promote local involvement and decentralization, while improving the project completion rate. (See "Appropriateness of Various Project Types in BVS Implementation")

2. For complex infrastructure projects, area-wide planning is recommended to ensure economic and environmental soundness. Competent technical support is also necessary to ensure adequate design and implementation of BVS projects. (See "Appropriateness of Various Project Types in BVS Implementation")

3. USAID should conduct a thorough investigation of the entire Segwart pipe problem including: (a) prepayment of entire purchase price; (b) continuing price increases; (c) quality of domestic asbestos cement pipe; and (d) transportation of pipe to project sites. (See "Project Delays Due to Pipe Shortage" and "Policy Guidelines for Residual Funds, Cost Overruns and Interest Accrual")

4. USAID should delay funding of all 1982 water projects until the investigation of the Segwart pipe situation has been completed and this problem has been resolved. (See "Project Delays Due to Pipe Shortage")

5. If the Segwart pipe problem cannot be resolved within 60 days, USAID should consider the option of direct importation of pipe. Although such direct action would not fall within the spirit of decentralization, the Segwart situation (one central supplier for hundreds of local projects) also constitutes a centralized approach. (See "Project Delays Due to Pipe Shortage")

6. USAID should immediately investigate the problem of BVS projects being charged apparently excessive fees for connection of pump motors to the power network. (See "Electrical Connections for Water Pumps")

7. It is imperative that ORDEV keep governorate officials fully informed of program procedures, policy guidelines and other matters relevant to BVS implementation and that this be done in a timely manner. (See "Communication")

8. Governorate officials should be given an overview of the portfolio of AID projects for which they are eligible and an explanation of how BVS fits into the broader assistance package.

This could be done by Chemonics. (See "Communication" and "Eligibility for BVS")

9. ORDEV/Cairo should develop a standardized format for reporting project implementation progress (both financial and physical progress) at the markaz and village local unit level. Chemonics staff should then be used, together with ORDEV staff, to conduct mobile (on site) workshops in the use of the standard format. (See "Communications" and "The Role of Chemonics")

10. It is recommended that AID consider initiating a program, similar to BVS, for intermediate-sized cities which are ineligible for BVS and NUS. (See "Eligibility for BVS") .

11. It is recommended that issues that arise with regard to eligibility for BVS funding be resolved by USAID on a case-by-case basis. (See "Eligibility for BVS")

12. The Inter-Agency Committee should transmit guidelines to the governorates which clearly allow the construction of elevated water tanks with BVS funds in cases where their construction will increase the effectiveness of existing (including recently enlarged) rural water systems. (See "Construction of Elevated Water Tanks")

13. USAID should consider allowing the use of BVS funds to pave rural connector roads when such roads are constructed or improved with BVS funds. (See "On Paving Rural Roads")

14. It is recommended that both ORDEV/Cairo and USAID insure that BVS administration is coordinated with Development Support Fund (DSF) administration in order to allow equipment purchases in support of BVS implementation. (See "Purchase of Equipment for BVS Implementation")

15. It is recommended that Chemonics develop a plan for the use of established maintenance fund and present this plan to governorate officials. (See "Maintenance Plan")

16. Policy guidelines for residual funds, cost overruns and interest accrual must be articulated by IAC and communicated to the governorates by ORDEV.

(A) It is recommended that IAC policy for utilization of residual funds allow for flexibility at the governorate, markaz and village levels, minimizing the need for additional bureaucratic procedures and encouraging the reallocation process to take place in a decentralized manner.

(B) It is recommended that BVS be viewed as a three-year income stream and that both residual funds and cost overruns be permitted to be carried forward. (See "Policy Guidelines for Residual Funds, Cost Overruns and Interest Accrual")

17. It is recommended that technicians, village and markaz officials and other immediately involved in project implementation be eligible for incentive payments under the GOE special account for BVS incentives. (See "Incentive Payments")

18. It is imperative that the GOE issue quarterly reports to the AID Controller apprising him of the financial status of the program, including both deposits to the Central Bank account and disbursements to the governorate and/or village accounts. (See "Financial Status")

19. USAID should consider a policy to permit quarterly disbursement of BVS funds, perhaps at the markaz level. (See "Disbursement of BVS Funds")

20. If ground water is to continue to be utilized in BVS systems, the following measures must be considered by the IAC and USAID:

(A) Ground water should be treated to minimize hardness, iron and manganese contents.

(B) Ground water should be disinfected regularly.

(C) Asbestos-cement pipe should be replaced by lead-free PVC pipe.

Chemonics should provide technical assistance in this area. (See "Water Resources, Water Quality and Pipe Composition")

21. Chemonics should provide technical assistance in the area of sewage disposal. BVS projects for converting human wastes and garbage to fertilizer should be encouraged. (See "Sewage Disposal and Garbage")

22. It is recommended that governorate and markaz, officials encountering specific problems (i.e., mobilizing village labor contributions) be put in contact with governorate and markaz officials who have successfully dealt with similar problems.

23. It is recommended that Chemonics implement all training and technical assistance locally, particularly at the markaz level, rather than in Cairo. (See "Training and Technical Assistance")

24. It is recommended that Chemonics take the lead in provision of training and technical assistance, and greatly increase its activities in both areas. (See "Training and Technical Assistance" and "Role of Chemonics")

Appendix 1

Background on Evaluation Team Members

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His international development experience dates from 1966. He has taught and conducted research at several U.S. land grant universities.

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