LOCAL DEVELOPMENT II — PROVINCIAL

مشروع التنمية المحلية

LD II-P

FINANCED BY U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

LD II-P Subproject Field Visitation System

Kafr El Sheikh

Funded Under

USAID Contract No.: 263-0182-C-00-8041-00
Project No.: 263-0182

May 1992
M&E4-05 (E)

Chemonics / 8 El Fawakeh Street / Mohandiseen, Cairo / Tel.: 3602545, 3482247 / Fax: 3608472 / Telex: 93037

٨ شارع الفواكه / مهندسين . القاهرة / تليفون : ٣٤٨٢٢٤٧ . ٣٦٠٢٥٤٥ / فاكس : ٣٦٠٨٤٧٢ / تلكس : ٩٣٠٣٧

2000 M St., N.W. / Washington, D.C. 20036 / Tel.: (202) 466-5340 / Fax: (202) 331-8202 / Telex: 1440361 CHNC UT

LD II-P Subproject Field Visitation System

Kafr El Sheikh

May 1992
M&E4-05 (E)

Table of Contents

List of Tables and Figures

INTRODUCTION

Background

The Local Development II - Provincial (LD II-P) Project has assisted the design and implementation of over 16,000 local infrastructure development projects in Egypt.[1] An important aspect of the LD II-P project is monitoring the status of subprojects during their implementation and subsequent operation. To accomplish the monitoring function, a number of monitoring subsystems have been developed, including the following contractor-based systems:

- The Sector Subproject Monitoring System, which supports sector-specific monitoring by the various sections of the LD II-P project (Potable Water, Roads, Wastewater, Environment, Buildings, Equipment, and Other)
- The National Monitoring System, for monitoring a national probability sample of all LD II-P subprojects

and the following governorate-based systems:

- The LD II-P Subproject Data base Management System, generally referred to as the Quarterly Progress Report (QPR) system
- The LD II-P Cash Management System
- The LD II-P Governorate Subproject Field Visitation System

A summary of the characteristics and objectives of these systems is presented in Table 1.

The development of the Governorate Subproject Field Visitation System was one of the tasks of the LD II-P Monitoring and Evaluation (M&E) Section. The goal was to develop a subproject monitoring system that could be used by governorate personnel to assist in the management of LD II-P subprojects after the project's completion.

The initial objective was to develop a pilot system in one or two governorates. The results of the pilot test would then be used to make a decision concerning the feasibility and desirability of replicating the system in additional governorates.

---

[1] These local infrastructure projects are referred to as subprojects throughout this report.

Table 1

Characteristics and Objectives of LD II-P Monitoring Systems

SYSTEM CHARACTERISTICS AND OBJECTIVES	GOVERNORATE-BASED SYSTEMS			CONTRACTOR-BASED SYSTEMS	
	LD II-P Subproject Monitoring System	LD II-P Cash Management System	Subproject Field Visitation System	Sector Subproject Monitoring System	Stratified National Sample of Subprojects
1. COMPLIANCE: with guidelines, policies, procedures, and current professional/technical norms and standards.	Secondary design objective	Primary design objective	Primary design objective	Secondary design objective	Primary design objective
2. OVERSIGHT: of budgets and expenditures.	Primary design objective	Primary design objective			
3. PROBLEM RESOLUTION: timely delivery of project inputs.			Secondary design objective	Primary design objective	Secondary design objective
4. SERVICE DELIVERY: beneficiaries have improved access and receive satisfactory service.			Secondary design objective		

FB.lo
File Disk MAR 92 OF\MONISYS WO1
Date 20 Apr 92, Revised 28-May-92

Kafr El Sheikh Pilot

This report describes the objectives, design, and products of the Kafr El Sheikh Subproject Field Visitation System, which was implemented as a pilot test by the M&E Section. Because the ultimate goal is to replicate the system in other governorates, the report also includes a description of system development activities including:

- Training in monitoring concepts and procedures
- Instrumentation development
- Development of computer software for entry and processing of collected data
- Training in data collection
- Training in quality control of data collection
- Training in data analysis and presentation

The goal of the Kafr El Sheikh pilot project was to develop and install systems that could be used by governorates to monitor LD II-P and other local development projects without the need for continuing support from outside sources. This goal is especially important in light of the recent USAID decision to set up a Government of Egypt-(GOE-) managed, block-grant system for future local development.

Development and testing of the instrumentation, processes, and logistical functions of the Kafr El Sheikh system demonstrated the feasibility of the concept of a governorate-based subproject monitoring system. The system developed for Kafr El Sheikh could be replicated in other governorates that desire similar systems and are willing to commit a modest level of resources to system development and operation.

SYSTEM OBJECTIVES

The major objectives and criteria of the pilot Governorate Subproject Field Visitation System were to:

- Identify the implementation and operational status of LD II-P subprojects
- Identify implementation or operational problems and appropriate follow-up actions
- Implement a continuing monitoring function, rather than a one-time survey

- Utilize a reasonable level of personnel and computer resources so that the cost to develop and operate the system would be acceptable to the governorate
- Use approximately two person years of LD II-P effort during the pilot test for one-time activities such as concept development, system design, instrumentation and software development, and testing and system documentation oriented toward replication of the completed system in other governorates[2]
- Be easy to sustain and operate by the governorate without continued outside technical assistance support

SYSTEM DESIGN CONCEPT

The design concept for the governorate subproject field visitation system was developed through a series of meetings involving Chemonics, USAID, and Kafr El Sheikh governorate staff. Figure 1 provides a schematic view of the system design, which is further explained below.

Step 1: Collect subproject data on quarterly basis for subprojects under implementation and annually from completed subprojects.

Personnel from the markaz rural development office collect data on subprojects through field visits and a review of existing subproject files. A schedule is developed for the subprojects to be visited during the quarter and the files for those subprojects are assembled. Data from the files are entered onto a data collection form; the remaining data are collected and recorded.

Easy-to-use instrumentation. The important design feature of this step is that the instrument—the data collection forms—be easy to use. Forms must be highly quantitative, easily completed by generalists, and easy to extract information from for simple statistical analyses such as descriptive statistics, frequency distributions, and cross tabulations.

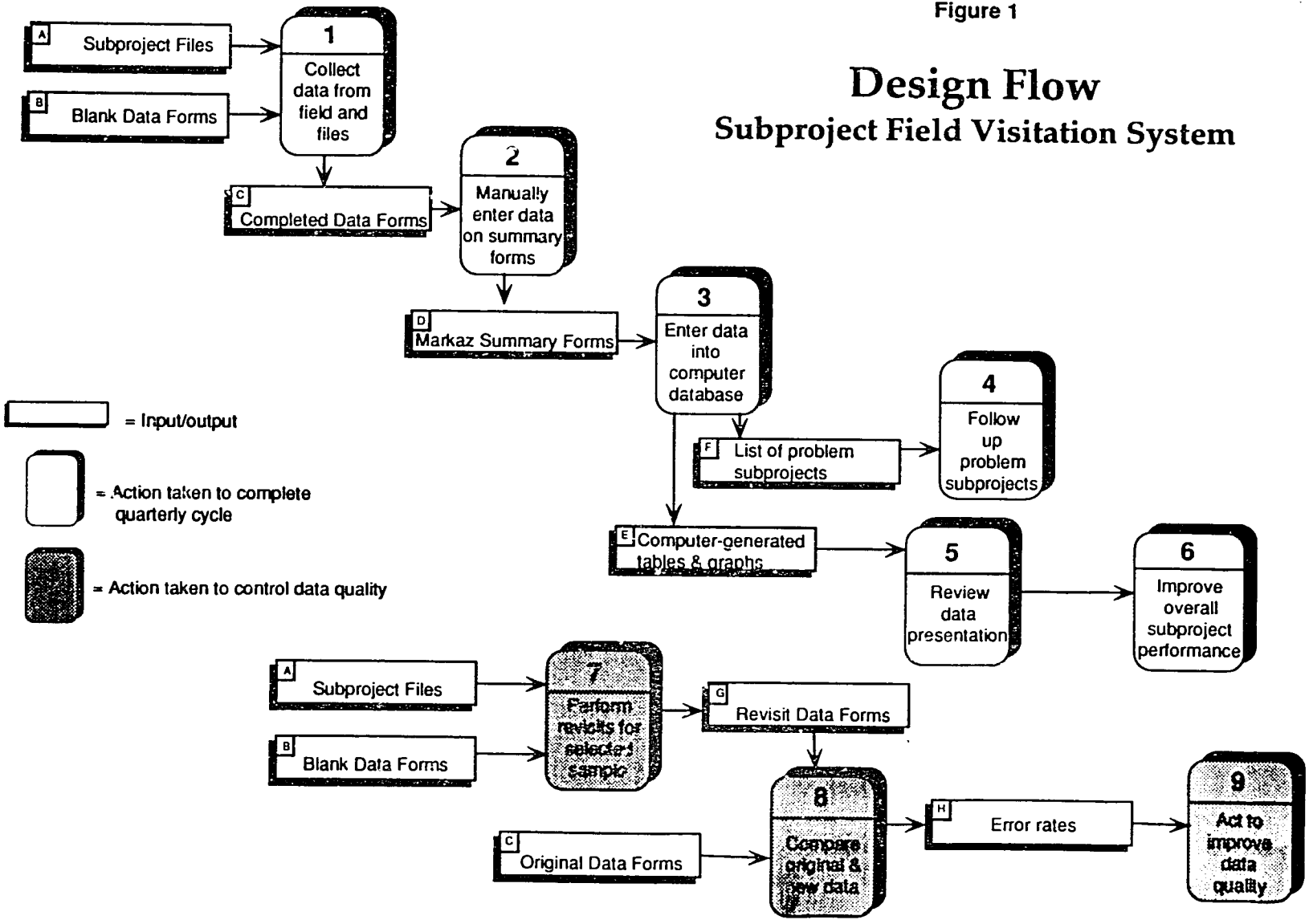
Complete enumeration of all subprojects. During system concept discussions it became clear that Kafr El Sheikh officials favored a system that would include visits to all 1,042 LD II-P subprojects in the governorate rather than a selected sample of subprojects. With the available personnel resources it appeared feasible to visit each

---

[2] The level of effort for replication (adaptation and implementation) of the system in other governorates should be much less (approximately one person-month per governorate).

Figure 1

Design Flow
Subproject Field Visitation System



uncompleted subproject once each quarter and each completed subproject once a year.

Step 2: **Manually enter data on markaz summary forms.**

Once the data forms are complete for the quarterly sample of subprojects, data are manually entered on markaz summary forms. Markaz summary statistics are computed manually from the summary form (important because some governorates may not have computer resources available at the markaz level) and the summary form is forwarded to the governorate rural development office.

Step 3: **Enter data into automated data base.**

Data from the markaz summary forms are entered into an automated data base, which then computes governorate- and markaz-level statistics. The system produces printed tables and graphics with these statistics, and prepares a listing of problem subprojects.

Simple data analysis software. Advanced statistical analysis software (such as the SPSS program) is to be used during the system development phase to enable advisors to examine a wide variety of analyses and presentations. For the final system, however, a standard data base management system such as dBASE III+ will be used to produce data summaries. Arabic versions of dBASE III+ (for data entry and simple processing) and QuattroPro (for presentation graphics) are widely available in Egypt, and governorate personnel have been trained in the use of these applications.

While SPSS can perform sophisticated analyses rapidly, it is not available in an Arabized version, and governorate personnel have not had any training in its use. Provision of training in the use of SPSS would substantially increase the cost of replicating the system, and use of English-only software would significantly reduce the acceptability of the system to governorates.

Use of coded data. Data collection forms allow the inclusion of comments; however, only quantitative coded data will be entered into the automated data base. A flag will be used to indicate whether additional comments were included on the original data collection form.

Step 4: **Follow-up problem subprojects**

The system is designed to produce two basic types of information: summary information about the population of all LD II-P subprojects, and specific information about

problem subprojects. The summary information will be helpful in identifying system-wide problems. Listings of specific subprojects with problems in implementation, operation, or service delivery will facilitate the timely application of corrective follow-up actions addressing these problems.

Step 5: **Review data presentations.**

Governorate personnel analyze the data presentations to identify problems of systemic nature and forward the analyses to the appropriate markaz.

Step 6: **Act to improve overall subproject performance.**

Where systemic problems are noted, an investigation should be made to determine the causes of the problems, and a plan for corrective action developed and implemented.

Step 7: **Perform revisits for selected sample.**

Periodically, staff of the governorate rural development office perform a quality control review of collected data. A sample of subprojects that were visited in the past quarter is revisited and data are recollected.

Step 8: **Compare original and new data.**

Data on original and revisit forms are compared and error rates are determined using a computer program. An investigation is made to determine the source of any errors.

Step 9: **Act to improve data quality.**

Corrective action is taken to improve the accuracy of data collection and recording.

SYSTEM DEVELOPMENT ACTIVITIES

Activities conducted during the development of the subproject field visitation system for Kafr El Sheikh governorate included:

- Instrumentation Development
- Site Selection
- System Development Meetings
- Training Workshops

- Data Collection
- Software Development
- Data Processing and Analysis
- Quality Control

Each of these major activities is described below.

Instrumentation Development

Instrumentation refers to the data collection and summary forms and the instructions on how to use them. Work began on the development of the data collection form, called the Subproject Status Assessment Form (SSAF), during the summer of 1991. A systems engineering approach was used that considered the issues to be addressed by the questionnaire, the level of expertise of the data collectors, and the amount of effort required to complete the form. Basically, an instrument was desired that could be used by a non-specialist to quickly identify the completion, operation, and service delivery status of subprojects, briefly describe the reasons for unsatisfactory performance, and recommend follow-up action.

A draft version of the form was tested during August 1991 in the survey of LD II-P subprojects in Sharqiya Governorate.[3] Based on this pilot test, revisions were made to the draft SSAF to simplify the form.

The SSAF used in Sharqiya was in English. The revised version of this form is currently being used as the data collection form for the national probability sample of LD II-P subprojects used in the National Monitoring System. It is also used to record the results of all subproject contacts or field visits by Chemonics staff to LD II-P subprojects. Each month, data from the SSAFs are used to prepare a tabular summary of all subproject contacts or field visits for inclusion in the monthly progress report to USAID.

For the Kafr El Sheikh pilot test, the SSAF was translated into Arabic and additional questions were added to identify the location and condition of subproject records. An English translation of the Arabic SSAF used in the Kafr El Sheikh monitoring system is presented in Appendix A.

Design considerations for both versions of the SSAF (the version used for the national probability sample and field trip

---

[3] The results of this study were published in the LD II-P document M&E4-04, *Analysis of Survey of Nonoperational Subprojects.*

reporting and the version used in Kafr El Sheikh) centered on:

- Measuring the implementation and operational status of subprojects
- Measuring the level of performance (of implementation for uncompleted subprojects and of service delivery for completed subprojects)
- Assessing additional subproject financial needs
- Describing problems and identifying necessary follow-up actions for problem subprojects

Figure 2 depicts the logical flow of the SSAF in identifying the implementation and operational status of subprojects.

In addition to the questions relating to implementation, operation, and service delivery status, the SSAF used in Kafr El Sheikh included questions pertaining to some areas of particular interest to Kafr El Sheikh officials.[4] These areas included:

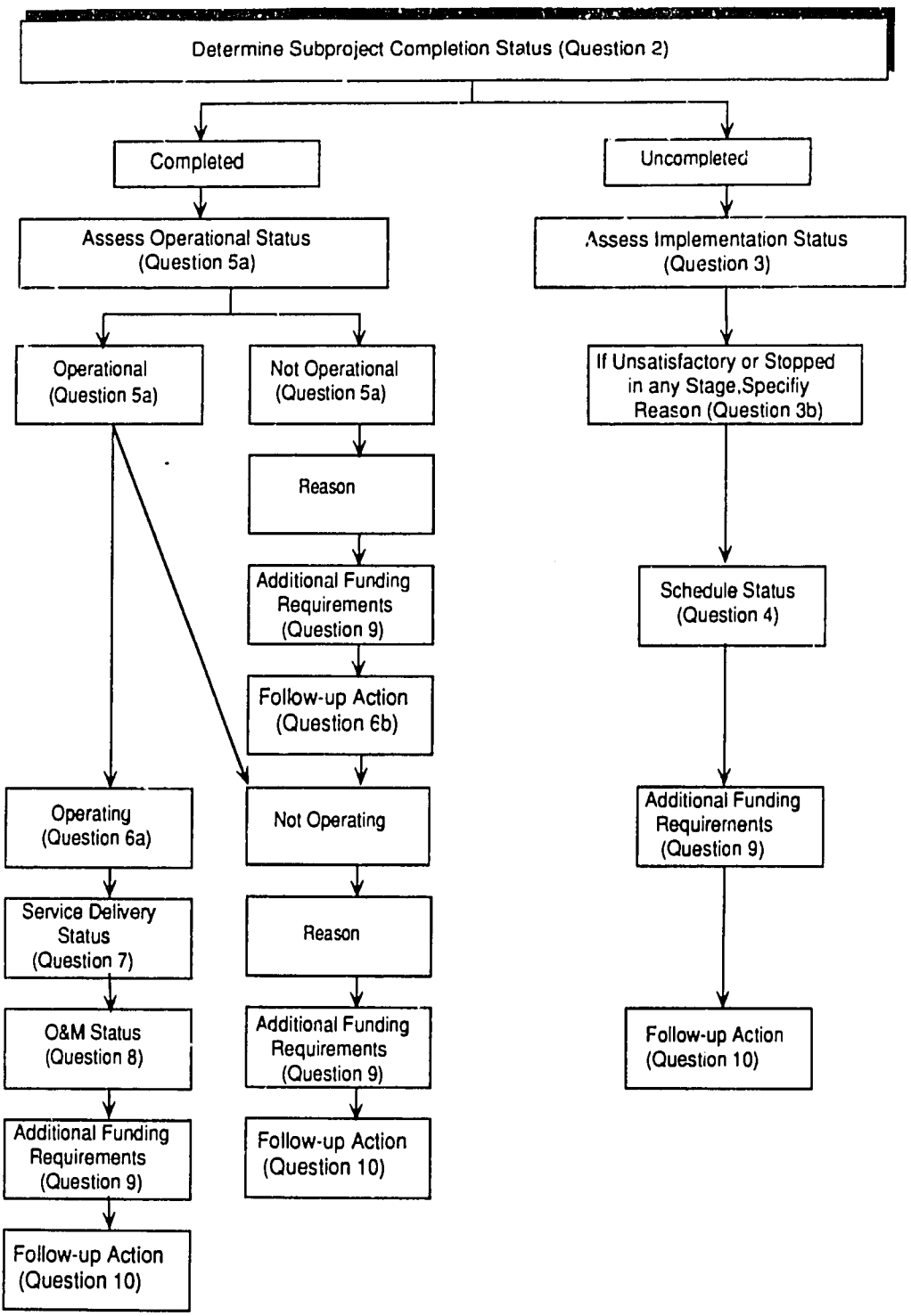
- Verification of data in the QPR System
- Assessment of the completeness of the subproject file and identification of where various file components were kept (that is, at the governorate, markaz, or village level)
- Data on the number of subproject contractors and suppliers and identification of the prime contractor and supplier
- Data identifying other subprojects to which the subproject is functionally linked to form a complete working system.

Kafr El Sheikh requested these data to facilitate understanding of the state of the subproject records, and of the relationship of subprojects to complete physical systems.

---

[4] The SSAF used by Chemonics for field trip reporting and the National Monitoring System do not include these additional questions.

Figure 2. Logical Flow of Subproject Status Assessment Form (SSAF)



Site Selection

After the Sharqiya pilot test of the SSAF, the next step was to identify a governorate interested in developing a complete governorate-level subproject field visitation system. Kafr El Sheikh Governorate was chosen as the pilot test site because:

- Chemonics LD II-P staff had made few field trips and provided little technical assistance to the governorate
- The governor was in full support of participation
- The governorate had an established mechanism for subproject monitoring
- Subproject plan files appeared to be in good order (an important consideration in completing the SSAF)

A detailed proposal was prepared by Chemonics and submitted to the Kafr El Sheikh governor outlining the responsibilities of both parties in implementing the pilot test. The secretary general approved of the proposal and it was signed by the governor on November 1991. A copy of the proposal is presented in Appendix B.

Figure 3 presents the proposed schedule for the system development effort. Data collection required a significantly longer time than originally planned, primarily because the assembly of subproject records required more time than anticipated. Also, severe weather and Ramadan hampered visits to subprojects and delayed the schedule somewhat. Additional technical assistance was provided in quality control and monitoring of the data collection, and it was necessary to extend the schedule beyond the originally scheduled four-month period.

System Development Meetings

Three field visits were made to Kafr El Sheikh to prepare for training and data collection. These trips are summarized below.

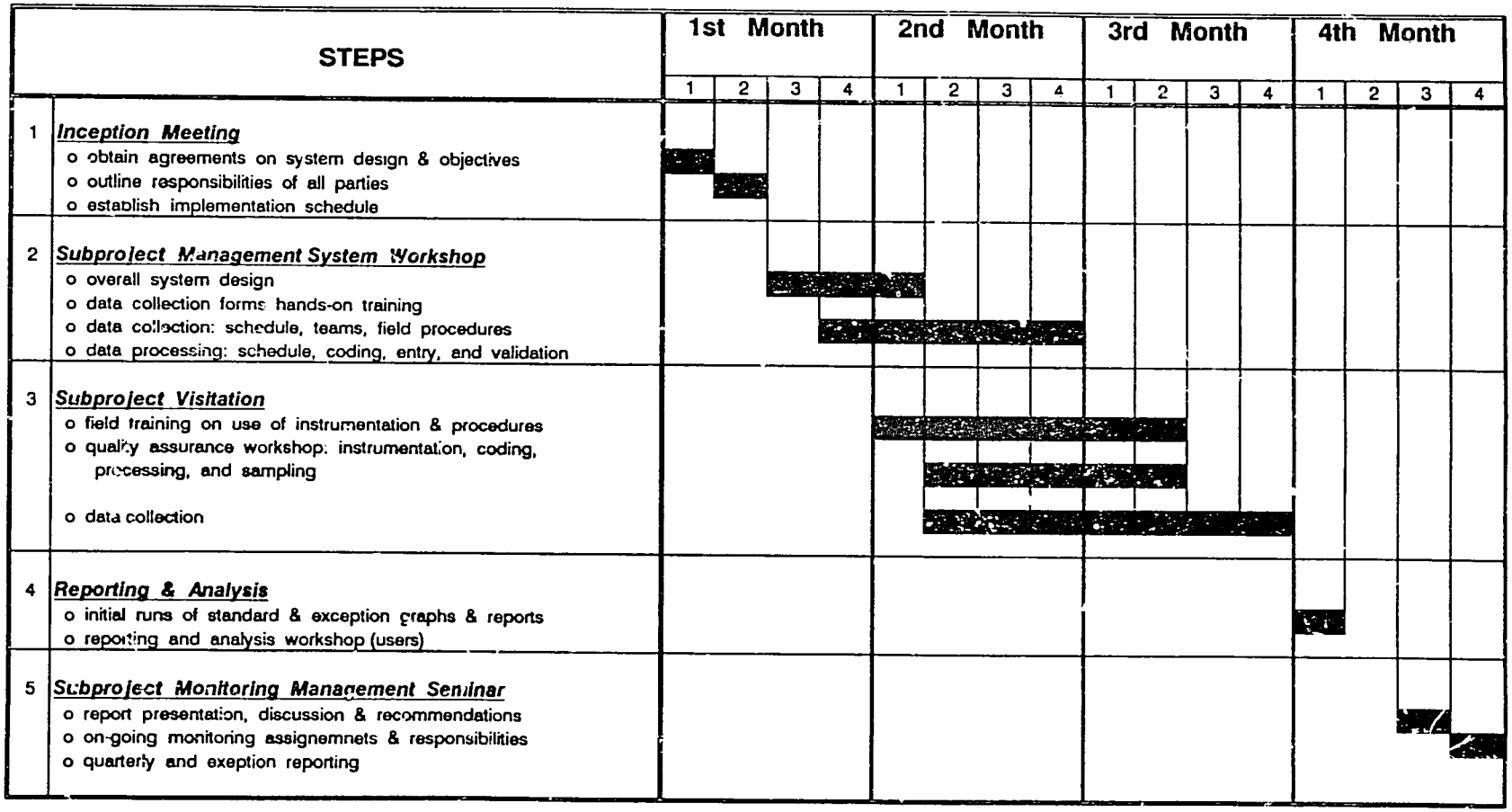
Field Trip No.1 5-6 November 1991

Purpose: To collect information from governorate officials to assist in the design of the field visitation system.

Results: The subproject files at Kafr El Sheikh appeared to contain all information required to identify subprojects and complete the draft Subproject Status Assessment Form. Modifications to the form were made to differentiate completed subprojects from those under development.

Figure 3

Proposed Schedule for System Implementation



Field Trip No.2 25-27 November 1991

Purpose: To obtain approval for initiating the field visitation system at Kafr El Sheikh.

Results: A proposal was prepared by the M&E staff outlining what was required from the governorate and the Chemonics advisors. The village development director was given responsibility for coordinating the effort since his current responsibilities include providing any information requested by the governorate staff. The secretary general approved of the proposal and it was signed by the governor on 27 November 1991.

Field Trip No.3 1-4 December 1991

Purpose: To continue discussions with markaz chiefs in the development of a governorate-level subproject monitoring system. Emphasis was placed on defining information needs to follow-up on subprojects and to coordinate logistics for future workshops.

Results: To prepare for initiating the field visitation system, the team:

- Finalized the questionnaire
- Developed field procedures for collecting data
- Developed a data base system for entry, storage, and retrieval
- Developed a training course for governorate and markaz personnel to collect data on subprojects
- Developed a training course for governorate personnel to enter and process data

Training Workshops

The strategy for introducing the field visitation system at the pilot site consisted of sponsoring two sets of workshops, one for basic introductory concepts and the other to offer "how to" instruction in conducting the data collection effort. Some of the same material was presented at both sessions because of different participants.

The training sessions are summarized in Figures 4 and 5. As shown in Figure 5, the practical training workshop dealt with three major areas: logistical planning, sample design, and data collection. Coverage of data collection is provided in

Figure 4
Introductory Workshop Summary

No. of sessions: 2 three-day workshops **Location:** Alexandria
Dates: 1-3 February and 4-6 February 1992

Participants: 46 persons total, including:

- Follow-up persons involved in LD II-P subproject monitoring
- Governorate rural development directors
- Governorate LD II-P follow-up committee
- Markaz rural development managers
- Markaz follow-up persons

1-3 Feb.		4-6 Feb.	
Governorate	7	Governorate	7
Markez		Markez	
Kafr El Sheikh	4	Qellien	4
Desouk	4	Biala	4
Baltteem	2	Sidi Salem	3
Fowah	3	Motoubass	2
ElHamool	2	El Reiadh	3
TOTAL	22	TOTAL	24

Objectives: The workshop was intended to:

- Provide a monitoring and evaluation framework for project management
- Introduce a methodology for a field visitation system, including concepts, tools, definitions, and instruments
- Train participants to collect, analyze, and present data
- Assist managers in developing a monthly field visit schedule
- Enhance skills for identifying "systematic" problems in subproject implementation and operation
- Encourage working relations between the governorate computer department and the markaz rural development departments
- Guide participants in completing the SSAF
- Advise non-technical personnel on how to review technical problems

By stressing a team approach, trainers fostered an appreciation for the exchange of ideas and the application of new concepts and methodologies. Participants became more aware of the value of information in decision-making, the need to identify problems accurately, and the use of monitoring procedures.

Exercises:

- Advantages and disadvantages of current follow-up reporting system (QPR)
- Implementation and operating problems
- Role definitions of different activities at village, markaz and governorate
- Sources of information and data collection guidelines

Handouts:

- Field Visitation System
- Field Visitation: Theory and Application
- Monitoring Procedures Manual
- Monitoring Procedures Manual Annex
- Problem Identification
- Planning Guidelines
- Sector Planning Guidelines (water, roads, wastewater, buildings)

Figure 5
Practical Training Workshop

No. of sessions: 3 three-day workshops
Dates: 8-10 Feb., 11-13 Feb., 17-19 Feb.
Location: Kafr El Sheikh training center, Diwan Am
Participants: 46 persons total, including:

- Markaz and village chiefs
- Follow-up persons responsible for LD II-P subproject monitoring
- Governorate rural development directors
- Governorate LD II-P follow-up committee members
- Markaz rural development managers
- Markaz follow-up persons

8-10 Feb.		11-13 Feb.		17-19 Feb.	
Governorate	8	Governorate	9	Governorate	8
Markaz		Markaz		Markaz	
Kafr El Sheikh	15	Desouk	16	Sidi Salem	10
El Hamool	5	Balteem	5	El Reiadh	6
Biala	9	Motoubass	7	Fowah	6
TOTAL	37	TOTAL	37	Qellien	10
				TOTAL	40

Objectives:

To provide participants with hands-on experience in:

- Logistical planning
- Development of sample design for subproject selection (for training sample)
- Data collection

Additional training was provided to:

- Guide participants in selecting the appropriate format to collect and report LD II-P subproject information
- Enhance participants' skills in identifying systemic problems during the implementation or operational phase
- Develop a supportive relationship between the computer department and the markaz rural development departments for generating monthly and quarterly reports.
- Review definitions of key terms used in the SSAF, focusing on QPR information, subproject classification, and service delivery status

Exercises:

- Prepare subproject field visit schedule
- Complete SSAF data form for selected subprojects

Handouts:

- Subproject Field Visitation Status Assessment Form
- Definitions
- Codes

Data Collection:

Data were collected for a stratified sample of 104 subprojects by:

- Obtaining copies of original documents to complete subproject files.
- Collecting basic data about contractors and suppliers (requested by governorate)
- Using three teams to visit the 104 training-sample subprojects
- Showing participants how to collect, analyze, interpret and present data
- Guiding participants in completing the SSAF through supervising the data collection effort at selected villages

Figure 5; logistical planning and sample design are discussed below.

Logistical planning

Training on logistical planning had a dual purpose. First, because most of the training participants were at the managerial level, it was hoped that discussions would help obtain management support for the data collection effort. This was needed to assist with system implementation, to provide the needed decrees, and to establish procedures at the governorate, markaz, and village levels.

The second objective was to prepare subproject field visit schedules for each markaz. One follow-up person was assigned to each subproject to be visited. This person was then supervised by members of the governorate follow-up team and/or the Chemonics M&E team.

Sample Design

Since Kafr El Sheikh officials wanted to visit ***all*** their LD II-P subprojects, there was no need to use a probability sample or teach participants how to design one. However, as part of the practical training, participants were required to complete the SSAF data collection form for selected subprojects. To assure a wide range of variation in the training data, a stratified sample design was used in which a fixed proportion of subprojects was selected from each markaz, sector, and planning year.

Although a probability sample was not necessary to achieve the objectives of the training in data collection, advisors wanted the data collected during training to be somewhat representative of the population of all subprojects, so that the analysis examples produced from the training data would be reasonably accurate (to minimize the chance for misuse of the data). The sample design used for the training was expected to produce reasonable estimates of subproject characteristics, since it was highly stratified and a proportional sample was selected from each stratum.

Apart from the constraint that a fixed-proportion (10 percent) sample be selected from each stratum, no additional constraints were imposed on the training sample. The sample of subprojects was selected during the formal training sessions. With the high degree of stratification, the sample data was expected to provide rough estimates of the total population characteristics, in addition to assuring a wide diversity of subprojects for the training. Furthermore, since the sample was representative in the sense that the same proportion of subprojects was selected from each stratum, reasonable estimates could be obtained using simple (unweighted) means, without the need for any weighting procedures.

In summary, the representative sample used for the training assured a wide diversity of subprojects for the training, and the analysis examples produced from the training data were expected to be of reasonable accuracy. Since probability sampling was not used within each design stratum, no estimates of precision could be produced for the training sample data. However, because the final system was to be based on a complete census of all subprojects, there was no need to demonstrate the estimation of precision (standard deviations, confidence intervals) from the sample data, and so this limitation was of no practical significance.

Table 2 identifies the sample of subprojects (104) visited by the participants during the three-day workshops. The sample listing was prepared by Chemonics using data in the LD II-P subproject data base management system (the QPR system). Ten percent of the subprojects in each sector, plan year, and markaz category were selected for the training sample.

In addition to the formal training workshops, meetings were conducted by Chemonics advisors to discuss data analysis, data interpretation, data presentation, and data collection quality control.

Full-Scale Data Collection

After reviewing the data collected during the training (for the 104-subproject sample), Kafr El Sheikh personnel proceeded to visit all remaining LD II-P subprojects in the governorate. Completed SSAFs were summarized on markaz-level summary sheets and entered in an automated data base developed by Kafr El Sheikh personnel. A quality control effort was initiated that checked the accuracy of 226 of the total 1,042 subprojects. The software development and quality control efforts are described below.

The level-of-effort information presented in Table 3 is included in this report for the benefit of other governorates that may wish to implement a subproject monitoring system and would like to estimate the cost of the system in terms of data collection effort. The actual level of effort expended was significantly greater than the planned level of effort, primarily because far more time than anticipated was required for assembling project records from the various locations where they were kept. This was a one-time effort; in subsequent quarters the review of subproject records will be much faster.

It is important to note that the level of effort expended in this task was for the development and implementation of a system that encompasses visits to all subprojects. The level of training and expertise required to implement a system

Table 2

Subproject Sample Used for Training
Number of Subprojects by Markaz, Sector, and Plan Year

MARKAZ NAME	1987				1988				1989				1991					TOTAL					GRAND TOTAL	TOTAL POPULATIO	SAMPLE %
	W	R	E	B	W	R	E	B	W	R	E	B	W	R	E	B	G	WATER	ROADS	ENVIR.	BUILD.	GENER			
0. Governorate																	1					1	1	1	100%
1. Baltiem				1		1		1				1	1			2		1	1		5		7	56	11%
2. Beila	2				1	1		1	1			2		1		1		4	2		4		10	91	11%
3. Desouk	1	2		3	1			3	1	1		2		1				3	4		8		15	195	8%
4. El Hamoul	1					1		1		1		1				1		1	2		3		6	60	10%
5. Fowah				1			2	1								1				2	3		5	47	11%
6. Kafr El Shiekh	1	2		3	1	1	1	3		1		2				4		2	4	1	12		19	223	9%
7. Metoubas	2			1	1		1			1		1	1					4	1	1	2		8	90	9%
8. Qaleen	2					1		1	1	1		1		1		2		3	3		4		10	92	11%
9. Sidi Salem	3	2	1	1	1	2	1	1				1			1	2		4	4	3	5		16	145	11%
10. El Ryad	1					1			1	1		1		2				2	4		1		7	29	24%
Sample Size	13	6	1	10	5	8	5	12	4	6	0	12	2	5	1	13	1	24	25	7	47	1	104	1039	10%
Total Population	97	118	13	89	38	69	36	119	37	57	34	118	16	54	7	136	1	168	298	90	462	1	1039		
Sample (% of Pop)	13%	5%	8%	11%	13%	12%	14%	10%	11%	11%	0%	10%	13%	9%	14%	10%		13%	8%	8%	10%	100%	10%		

Table 3
Planned/Actual Level of Effort Expended

Markaz	No. of Forms	No. of Persons	Planned			Actual		
			Start Date	Duration (days)	Person Days	Start Date	Duration (days)	Person Days
Governorate	6	4	3/3/92	2	8	3/3/92	3	12
Balteim	66	2	22/2/92	37	74	3/3/92	53	106
Beiala	91	4	15/2/92	26	104	15/2/92	35	140
Desouk	195	5	15/2/92	41	205	15/2/92	61	305
El Hamoul	60	2	15/2/92	32	64	15/2/92	49	98
Fowah	47	3	20/2/92	22	66	20/2/92	29	87
Kafr El Shiekh	203	5	16/2/92	44	220	16/2/92	67	335
Metoubas	90	3	15/2/92	37	111	15/2/92	55	165
Qaleen	92	4	22/2/92	23	92	22/2/92	36	144
Sidi Salem	145	4	25/2/92	47	188	25/2/92	64	256
El Rayad	47	3	3/3/92	21	63	3/3/92	29	87
TOTAL	1042	39			1195			1735

based on sampling would be significantly higher. Time and statistical sample design skills would be required to develop a sampling plan; additional time and statistical analysis skills would be required to analyze the data (that is, to estimate means, percentages, totals, standard errors, and confidence intervals). For large amounts of data it would be necessary to develop statistical analysis software to perform the computations. Training for interpreting statistical estimates would also be needed.

Software Development

As explained earlier, data collected on the SSAFs are not entered directly into a computer data base, but are first recorded on a markaz-level summary form, an English translation of which is presented in Appendix C. The purpose of this step is two-fold. First, basic counts can be computed manually from the summary form. Allowing for manual summaries at the markaz level is important because markaz-level computer resources may be limited (or, perhaps in some governorates, nonexistent). Second, summarizing the data substantially facilitates entry of the data into a computer data base at the governorate level.

The FoxPro Data Management System was selected for entry of the data at the governorate level because of its simplicity, reliability, flexibility, and user-friendly interface. The system was first developed in English and then converted to Arabic with the Mussa'ed Alarabi/2 program for use by Kafr El Sheikh personnel.

Data Processing and Analysis

Training Sample After data for the 104-subproject sample were entered into the governorate data base, the SPSS/PC+ statistical analysis program package was used to produce frequency counts and cross tabulations of the data and the QuattroPro electronic spreadsheet program was used for final production of selected tables and graphs. SPSS was used because it can produce descriptive statistics (counts, means, totals, frequency distributions, cross tabulations) very quickly and easily. Moreover, Chemonics possesses the SPSS package and Chemonics staff are available who know how to operate this system. The FoxPro system can also produce the required descriptive statistics, but some programming is first required.

Table 4 summarizes the data for the training sample by sector and status. Figure 6 depicts the proportions of the training sample that fall into various implementation, operation, and service delivery categories of the SSAF. Note that the estimates presented in

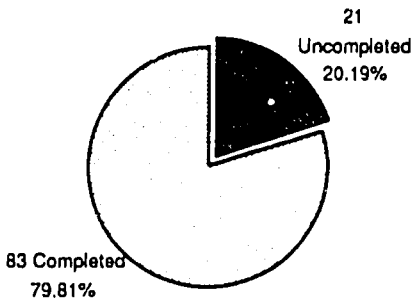
Table 4

Summary of Training Sample Data

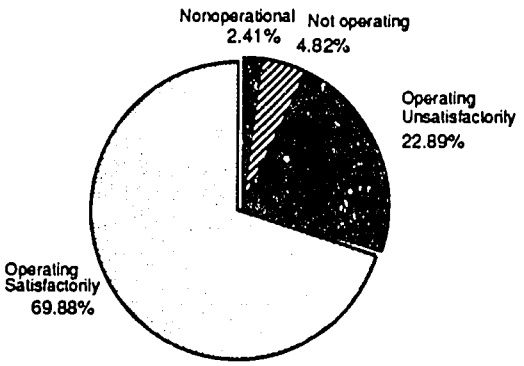
SECTOR / TYPE	Completed Subprojects																				Uncompleted Subprojects												GRAND TOTAL			
	Operational												Non Operational				SUB-TOTAL				Underway						Stopped Subprojects				SUB-TOTAL							
	Operating								Not Operating												Satisfact. Performance				Unsatisfact. Performance															
	Satisfactory				Unsatisfactory																																	
	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%	No	%	LE	%
Water																																								
Distribution	8	73%	511,275	82%	2	18%	38,559	6%	1	9%	76,800	12%					11	100%	626,634	100%	1	50%	28,856	40%					1	50%	43,000	60%	2	100%	71,856	100%	13	65%	698,490	68%
Storage & Distribution													1	100%	40,000	100%	1	100%	40,000	100%																	1	5%	40,000	4%
Plant Equipment	2	33%	88,293	30%					4	67%	201,000	70%					6	100%	287,293	100%																	6	30%	287,293	28%
SUB-TOTAL	10	56%	567,568	63%	2	11%	38,559	4%	5	28%	277,800	29%	1	6%	40,000	4%	18	100%	853,927	100%	1	50%	28,856	40%	0		0		1	50%	43,000	60%	2	100%	71,856	100%	20	19%	1,025,783	21%
Roads																																								
Bridges / Culverts	4	100%	70,665	100%													4	100%	70,665	100%																	4	13%	70,665	4%
Paving	16	89%	785,328	83%					2	11%	83,520	7%					18	100%	868,848	100%					1	20%	21,008	11%	4	80%	173,000	89%	5	100%	194,008	100%	23	77%	1,043,556	61%
Heavy Equipment	1	33%	195,000	32%	1	33%	229,863	38%	1	33%	180,000	30%					3	100%	604,863	100%																			3	10%	604,863	35%
SUB-TOTAL	21	84%	1,050,993	69%	1	4%	229,863	15%	3	12%	243,520	16%	0		0		25	100%	1,524,576	100%	0		0		1		21,008		4		173,000		5	100%	194,008	100%	30	29%	1,718,184	36%
Environment																																								
Canal Lining	2	100%	8,980	100%													2	100%	8,980	100%																	2	33%	8,980	3%
Drain Covering	1	100%	50,000	100%													1	100%	50,000	100%																	1	17%	50,000	18%
Electricity																													1	100%	0	0%	1	100%	0	0%	1	17%	0	0%
Equipment	1	50%	30,000	12%									1	50%	217,109	88%	2	100%	247,109	100%																	2	33%	247,109	81%
SUB-TOTAL	4	80%	88,980	29%	0		0		0		0		1	20%	217,109	71%	5	100%	306089	100%											0		1		0		6	6%	306,089	6%
Buildings																																								
Schools	5	83%	384,847	84%					1	17%	25,083	6%		0%		0%	6	100%	419,740	100%	4	80%	121,372	89%	1	20%	14,448	11%					5	100%	135,820	100%	11	23%	555,560	32%
Maintenance Workshop	5	63%	377,800	87%					3	38%	58,805	13%		0%		0%	8	100%	436,205	100%																	8	17%	436,205	25%
Clinic	3	60%	102,708	38%					2	40%	166,054	62%		0%		0%	5	100%	268,762	100%	2	67%	30,000	82%					1	33%	18,081	38%	3	100%	48,081	100%	8	17%	317,423	18%
Community Hall									1	100%	83,506	100%		0%		0%	1	100%	83,506	100%																	1	2%	83,506	4%
Phone Office																					1	100%	33,149	0%									1	100%	33,149	100%	1	2%	33,149	2%
Post Office	4	100%	63,920	100%													4	100%	63,920	100%	1	100%	19,337	100%									1	100%	19,337	100%	5	11%	83,257	5%
Slaughter House	1	50%	41,800	81%					1	50%	10,000	19%					2	100%	51,800	100%																	2	4%	51,800	3%
Warehouse	1	50%	18,000	69%	1	50%	8,205	31%		0%		0%					2	100%	26,205	100%																	2	4%	26,205	2%
Fire Station	1	33%	18,000	34%					2	67%	36,781	66%					3	100%	55,781	100%	2	100%	20,000	100%									2	100%	20,000	100%	5	11%	75,781	4%
Local Unit Offices	2	67%	50,271	79%		0%		0%	1	33%	13,407	21%					3	100%	63,678	100%																	3	8%	63,678	4%
Tools for Workshop	1	100%	20,000	100%													1	100%	20,000	100%																	1	2%	20,000	1%
SUB-TOTAL	23	66%	1,087,846	74%	1	3%	8,205	1%	11	31%	373,456	25%	0	0%	0	0%	35	100%	1,469,507	100%	10	83%	223,858	87%	1	8%	14,448	6%	1	8%	18,081	7%	12	100%	256,387	100%	47	45%	1,725,574	35%
General																																								
Computer Facility																													1	100%	0	0%	1	100%	0	0%	1	100%	0	0%
SUB-TOTAL																													1	100%	0	0%	1	100%	0	0%	1	1%	0	0%
GRAND TOTAL	58	70%	2,825,487	66%	4	5%	276,727	7%	19	23%	894,876	21%	2	2%	257,109	6%	83	80%	4,254,199	89%	11	52%	252,714	48%	2	10%	36,056	7%	7	33%	234,661	45%	21	20%	523,431	11%	104	100%	4,777,630	100%

Figure 6

Proportion of Subprojects Completed
104 Subprojects



Operating Status of Completed Projects



Implementation Status of Uncompleted Subprojects

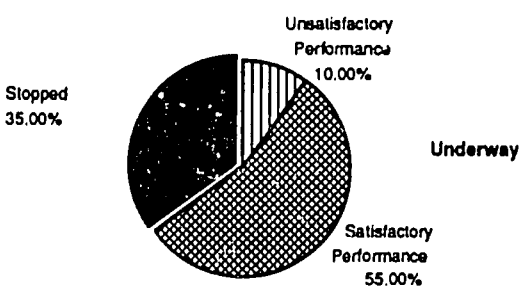


Figure 6 are not unbiased estimates, since the training sample was not a probability sample. In spite of the fact that the training sample was not intended as the basis for policy decisions, it was gratifying to note that a high proportion of the training sample subprojects were operational and delivering satisfactory service.

In addition to the estimates presented in Figure 6, other sample analyses were presented in a task briefing for USAID conducted at Chemonics on 31 March 1992.

A listing of all problem subprojects, which describes the nature of the problem and the recommended action, will be provided. Appendix D is a listing of problem subprojects from the training sample of 104 subprojects. The implemented system will produce a similar quarterly listing of problem subprojects, which can be transmitted to appropriate personnel for follow-up.

Total Sample

Data from all of the LD II-P subprojects in Kafr El Sheikh have been collected, recorded on the markaz-level data summary forms, and entered into a automated data base using the FoxPro data entry software. The comprehensive statistical analysis of the data has not yet been conducted.

SPSS will be used by Chemonics staff to conduct a comprehensive statistical analysis for the complete 1,042-subproject population during the first quarter in which the Kafr El Sheikh monitoring system is operational, but the completed system will not use SPSS. After reviewing the results from the first quarter, advisors will develop a FoxPro program to produce selected descriptive statistics. Training will be provided to Kafr El Sheikh personnel on using the FoxPro software to process the data.

Quality Control

An important aspect of the subproject monitoring system is data integrity. To assure a high level of data integrity, quality control procedures were designed and implemented. After data were collected from the complete population of 1,042 subprojects by Kafr El Sheikh personnel, advisors from Chemonics' M&E Section revisited 226 subprojects that had been previously visited by governorate personnel to check the accuracy of the collected data. The 226-subproject sample represents all subprojects in 17 randomly selected villages (a cluster sampling plan).

Table 5 summarizes the results of the quality control check. In this table, the heading "Correct" means that the data collected by Kafr El Sheikh personnel were correct in every respect. The heading "Some Inaccuracies" means that the

Table 5: Results of Data Collection Quality Control Check

ITEM	Correct		Some Inaccuracies		Inaccurate or Missing		TOTAL	
	No.	%	No.	%	No.	%	No.	%
I. All Subprojects								
1. Compliance of Actual Description with Planform	180	80%	29	13%	17	8%	226	100%
2. Compliance of Sources of Funds with QPR	196	87%	11	5%	19	8%	226	100%
3. Compliance of Money Spent with Documents	181	80%	25	11%	20	9%	226	100%
4. Contractors & Suppliers Information	191	85%	9	4%	26	12%	226	100%
5. Linked Subprojects	189	84%	6	3%	31	14%	226	100%
II. Implemented Subprojects								
1. Implementation Status	26	63%	1	2%	14	34%	41	100%
2. Scheduled Dates	17	41%	11	27%	13	32%	41	100%
3. Performance Evaluation	25	61%	2	5%	14	34%	41	100%
4. Physical Completion Percent	27	66%	0	0%	14	34%	41	100%
5. Financial Status	25	61%	2	5%	14	34%	41	100%
III. Completed Subprojects								
1. Operational Status	169	91%	5	3%	11	6%	185	100%
2. Operating Status	164	89%	8	4%	13	7%	185	100%
3. Regular Operation	153	83%	15	8%	17	9%	185	100%
4. As-Planned Service Delivery	139	75%	28	15%	18	10%	185	100%
5. Level of Service Delivery	122	66%	37	20%	26	14%	185	100%
6. Required Funds to Fix/Complete Subproject	24	53%	3	7%	18	40%	45	100%
7. Maintenance Status	103	65%	32	20%	23	15%	158	100%
IV. Visitors' Understanding								
1. Follow-up Actions	23	31%	6	8%	45	61%	74	100%
2. Remarks and Recommendations	44	62%	5	7%	22	31%	71	100%
Problem Definitions	90	64%	11	8%	39	28%	140	100%

Contents of Subproject Files At Village Council

FILE CONTENTS	104 Subprojects Feb Sample		226 Subprojects APR Sample	
	No.	%	No.	%
1. Plan Form	0	0	161	71%
2. Drawings and Specifications	0	0	78	35%
3. Bill of Quantity and Materials	0	0	171	76%
4. Approved Amendments	0	0	1	0
5. Tender Documents and/or Bids	5	5%	138	61%
6. Contracts and/or Work Orders	11	11%	182	81%
7. Site Hand-over Document	7	7%	137	61%
8. Bills and Payments	9	9%	172	76%
9. Final Test and Hand-over	2	2%	104	46%
10. Final Account	13	13%	130	58%

data were deficient in some aspect—neither 100 percent correct or completely inaccurate. The "Inaccurate or Missing" heading indicates that data were wrong or missing. As can be seen, the error/missing rates are generally small, but range up to 30 - 40 percent for some items.

When error rates suggested that a problem existed, advisors investigated the problem, discussed corrective action to improve data quality in workshops, and met on an individual basis with the appropriate individuals. In most instances, high error/missing rates were the result of missing information. Because the data collection effort lessened during the month of Ramadan, data collectors were sometimes unable to make the required field visits. When this happened, no data were collected on site, which resulted in blank values on the SSAF. Missing values also occurred as a result of insufficient information on the original planning document, which made it difficult for the data collector to ascertain if the subproject was on schedule or what the implementation performance, physical completion percent, or financial status was.

Chemonics advisors have provided Kafr El Sheikh personnel with training in the use of the Quality Control Form found in Appendix E. Kafr El Sheikh personnel have now begun to perform their own quality control checks.

In developing and implementing quality control procedures, emphasis was placed on producing a subproject monitoring ***system*** rather than conducting a one-time survey. Subprojects will be revisited on a regular basis, so governorate personnel will be able to improve the quality of the collected data on the next round of visits. The number of subprojects revisited for quality checks can be reduced in future quarters, as the data accuracy improves.

The bottom portion of Table 5 shows the improvement in the completeness of subproject files between February, when the 104 subprojects for the training sample were visited and April, when the 226 subprojects selected for the quality control checks were visited. The presentation shows dramatic improvement in the completeness of the subproject files.

SYSTEM PRODUCTS AND STATUS

The development of a governorate-level subproject monitoring system for Kafr El Sheikh is nearing completion. Instrumentation has been developed; data collection training is complete; data entry software is available; data have been collected from all 1,042 LD II-P subprojects, recorded on the

markaz-level summary forms, and entered into a computer data base; and a quality control check has been completed.

What remains is the completion of a comprehensive statistical analysis of the complete set of projects, selection of a subset of data analyses for implementation in FoxPro, programming of FoxPro to produce these analyses, discussion of the results with Kafr El Sheikh personnel, and a final presentation of the system to Kafr El Sheikh personnel. These activities will continue through September, 1992.

From the onset of the task to develop a governorate-level subproject field visitation system, Chemonics' advisors desired to produce a system that not only would be of continuing value to Kafr El Sheikh, but could be replicated in other governorates. It is our belief that the developed system meets this goal. The instrumentation and software could be used by other governorates, with little or no modification. Training in the use of the instrumentation and software would be necessary, but training modules have already been developed to help accomplish this.

After the system has been in operation in Kafr El Sheikh for several quarters, an evaluation should be conducted to assess the value of the system to Kafr El Sheikh officials. Based on the evaluation, a decision could be made concerning efforts to replicate the system in other governorates.

Appendix A

English Translation of SSAF Form Used in Kafr El Sheikh Field Visitation Pilot Project

LOCAL DEVELOPMENT II - PROVINCIAL PROJECT
SUBPROJECT STATUS ASSESSMENT FORM

I. IDENTIFICATION

Governorate:_____ Geocode:_____
Markaz:_____ Plan Year: 86/87___ 88___ 89/90___ 91___
Village Council:_____ Serial No.:_____

Subproject Name/Description:_____

Source of Funds: LDII_____ Other_____

Site Visit: Yes_____ No_____ Visit Date:_____

Date of Last Visit:_____
Date of Last Amendment:_____
PLDC Approval Date:_____
Funds Received Date:_____

Persons Met During Visit:

Name:_____ Position:_____
Name:_____ Position:_____
Name:_____ Position:_____
Name:_____ Position:_____

Reporter:_____ Date:_____

2. SUBPROJECT QPR VERIFICATION

Identify subproject and verify latest QPR data as of / /91.

a. Subproject Description:

- Per Subproject Plan Form (QPR): _____

_____

- Actual (as found): _____

_____

b. Basic Information

Item	Plan Form	QPR	Actual
1. Sector			
2. Type			
3. Nature			
4. Location			
5. Sponsorship			

c. Financial Information

Item	Plan Form	QPR	Actual
1. Planned Allocation (LE)			
2. Committed/Contracted Total (LE)	XXX		
3. Block Grant (LE)			
4. Governorate Cash Contribution (LE)			
5. Popular In-Cash Contribution (LE)			
6. Pool of Funds (LE)			
7. Total Funds (LE) (Sum of 3-6)			
8. Total Cash Spent (LE)	XXX		
9. Total Value of Work / Invested (LE)	XXX		

3. SUBPROJECT COMPLETION STATUS

a. Implementation started? Yes____ No____

b. If No, specify reason and go to Question 14.

Reason: _____

Reason Code: _____

c. Subproject completed? Yes____ No____

d. If Yes, state hand over date _____ then go to Question 7.

4. UNCOMPLETED SUBPROJECT: IMPLEMENTATION STATUS

a. Implementation Stage	Starting Date		Underway		Stopped
	Planned	Actual	Satisfactory	Unsatisfact.	
1. Tendering					
2. Awarding & Contracting					
3. Site Possession					
4. Construction / Purchasing					
5. Testing & Handover					

b. Specify reason for Unsatisfactory or Stopped Status:
Reason:_____
Reason Code:_____

c. Observations:_____
_____
_____

5. UNCOMPLETED SUBPROJECT: SCHEDULE STATUS

a. Percent physical work completed:_____%
b. Subproject starting date:_____
c. Planned completion date:_____
d. Estimated completion date:_____
e. Specify reason for delay (if any):
Reason:_____
Reason Code:_____

f. Contractor Penalties: Barred_____ Other (specify)_____
Comments:_____
_____

6. UNCOMPLETED SUBPROJECT: FINANCIAL STATUS

a. Total spent to-date (LE):_____
b. Committed balance to completion (LE):_____
c. Estimated cost to completion (LE):_____
d. Specify reason for cost overrun, over 25% of allocation, (if any):
Reason:_____
Reason Code:_____

Go to Question 13

7. COMPLETED SUBPROJECT: OPERATIONAL STATUS

a. Subproject operational? Yes____ No____

b. If No, specify reason and go to Question 12.

Reason:_____

Reason Code:_____

8. OPERATIONAL SUBPROJECT: START-UP STATUS

a. Has subproject started yet? Yes____ No____

b. If No, specify reason and go to Question 12.

Reason:_____

Reason Code:_____

9. OPERATING SUBPROJECT: SERVICE DELIVERY STATUS

a. Subproject delivering service regularly? Yes____ No____

b. If No, specify reason.

Reason:_____

Reason Code:_____

10. OPERATING SUBPROJECT: PLANNED SERVICE DELIVERY STATUS

a. Service being delivered as planned? Yes____ No____

b. If No, specify current service:_____

c. If No, specify reason and go to Question 12.

Reason:_____

Reason Code:_____

11. OPERATING SUBPROJECT: PLANNED SERVICE LEVEL STATUS

a. Delivered service level satisfactory? Yes____ No____

b. If No, specify reason.

Reason:_____

Reason Code:_____

12. OPERATION AND MAINTENANCE (O&M) STATUS

a. Subproject being maintained? Yes____ No____

b. If No, what is (are) the problem(s)? Technical____ Managerial____

Contractual____ Financial____ Operational____ Other____

Comments:_____

_____

13. ADDITIONAL FUNDING REQUIREMENTS

(For those subprojects that have implementation / operating problems)

a Funds required to fix/complete subproject: LE _____

Explain:_____

_____

b. Funds required to fix/complete system: LE _____

Explain:_____

_____

14. FOLLOW-UP ACTIONS & RECOMMENDATIONS

a. No follow-up action required because (check one):

- No problem identified ____
- Unimportant problem, action has been taken ____
- Additional review will be of little or no help ____

Explain: _____

_____

- Other (explain): _____

_____

b. Need for more expertise and analysis (describe):

_____

_____

c. Follow-up action being taken (describe):

_____

_____

d. Follow-up action recommended by problem area:

Problem No.	Recommendations
- Question 5b	_____
- Question 6e	_____
- Question 7d	_____
- Question 8b	_____
- Question 9b	_____
- Question 10b	_____
- Question 11c	_____
- Question 12b	_____
- Others	_____

1. COMPLETENESS OF SUBPROJECT FILE

a. Subproject file exist? Yes____ No____

b. If Yes, where is it kept? GOV:_____ MKZ:_____ VIL:_____

c. File contents:

Components	Available			Not Available	Not Yet Required
	GOV	MKZ	VIL		
Plan Form					
Design Drawings					
Technical Specifications					
Bill of Materials/Quantities					
Time Schedules					
Approved Amendement Forms					
Tenders					
Contracts					
Work/Delivery Orders					
Site Hand Over Report					
Purchasing Bills (copies)					
Contractor Bills (copies)					
Quality Test Reports					
Final Hand Over Report					
Final Account					
O&M Budget					
Others:					

2. CONTRACTOR /SUPPLIER BASIC DATA

a. Total Number of Contractors:_____

1. Prime Contractor Name:_____
2. Contractor ID Tax No.:_____ 3. Cntractor Register No.:_____
4. Responsible Person Name:_____
5. Position:_____ Phone No.:_____
6. Work Description:_____

b. Total Number of Suppliers:_____

1. Prime Supplier Name:_____
2. Supplier ID Tax No.:_____
3. Responsible Person Name:_____
4. Position:_____ Phone No.:_____
5. Delivery Description:_____

3. LINKAGE OF SUBPROJECTS

Please list all other subprojects to which this one is functionally linked in an integrated system regardless of plan year or implementation status. Identify by Plan Year/Serial No.

____/____ ____/____ ____/____ ____/____

____/____ ____/____ ____/____ ____/____

Appendix B

Proposal to Kafr El Sheikh for Subproject Field Visitation System

Proposal Presented to Kafr El Sheikh Governorate for Approval of Field Visitation System

A written proposal was prepared by the M&E team during the November 25-27 site visit at Kafr El Sheikh to obtain approval for initiating the monitoring and evaluation system. The proposal was signed by the secretary general, presented to the governor, and approved on November 27.

The proposal indicated that the system would:

- Assess the feasibility of implementing an integrated M&E system for LD II projects at Kafr El Sheikh, the selected pilot site.
- Improve the current automated monitoring system because it will review actual data and information now used at all management levels (village, markaz, and governorate) plus information from the technical and financial departments.
- Enable a vast amount of information to be used with improved accuracy and speed, thus facilitating timely decision making. Improved performance is expected as well as the identification of and solutions for unresolved problems with LD II projects.
- Provide benefits to the governorate by allowing it to use this system for following up projects other than LD II projects.

The proposal indicated that Chemonics personnel would design, develop, and prepare the data collection forms and field visit reports. These reports, which would be presented to all management levels, would be customized to fit the requirements needed by each level to make decisions and take corrective action.

Chemonics would also design, prepare, and install the software for data entry, data processing and report preparation, and provide training at the governorate level in each of these areas.

Chemonics would train all local personnel responsible for project follow-up at the governorate, markaz, and village levels. Training would consist of how to define, classify, and describe the problems of projects that involve implementation or operation. All training would take place at the training center of the governorate at the expense of Chemonics.

For maximum benefit of this system, Chemonics proposed that markaz and village chiefs participate in these training programs so that they could assist in defining requirements of the system, become aware of the system, and help resolve any problems that may arise during implementation. This commitment by the chiefs would ensure the continuity of the system.

In addition, Chemonics proposed the following:

- A one day meeting during the period of December 2-4 to introduce the secretary general, secretary general's assistant, markaz chiefs, managers of roads, housing, financing and governorate rural managers to the purpose of the system and its design capabilities.

- Training programs, sessions, and courses for markaz chiefs, governorate rural managers, governorate follow-up persons, markaz rural follow-up persons, and village chiefs. Each workshop would be for five days and the governorate would be divided into three groups:
  29 December - 2 January, Markaz Kafr El Sheikh, Baella, El Hamoud
  12 January - 16 January, Markaz Souk, Matobas, Baltim
  26 January - 30 January, Markaz Cedesalum, Kelean, Fowa, El Raid.

- Conduct computer training on data entry, processing and report generation for the operators at the governorate level.

- Begin field visits after all training is complete. The follow-up person would collect data based upon the schedule prepared during the workshop. Forms would be sent to the computer department at the governorate level under the supervision of Chemonics and the Governorate Follow-Up Committee.

- Begin data entry on 1 March - 31 March under the supervision of Chemonics, and produce the quarterly QPR Report as a product of the field visitation.

- Present the reports and overall results in a 2 to 3 day seminar from 12 April to 19 April for three groups. The meeting would be attended by markaz chiefs and follow-up teams at the markaz and village levels. These groups would be responsible for identifying the problems that faced them during implementation, and such problems should be resolved. Groups could also identify problems that occurred during implementation and operation of projects so corrective action can occur. Findings would be summarized and presented to the governorate Local Development Committee, which is headed by the governor.

- Present final results and governorate consolidated reports in a one-day seminar on 10 May 1992, to be attended by the governor, secretary general, secretary general's assistant , markaz chiefs, service department managers, and rural managers. Two major outcomes of this meeting would be to identify the advantages and disadvantages of implementing an automated monitoring system and to discuss the feasibility of duplicating the system in other governorates.

Appendix C

Markaz-Level Data Summary Form (English version)

Visit Date	I. Subproject Identification						II. Completed Subproject Status							II. Uncompleted Subproject Status										IV. Funds Required			
	Markaz	Village	Plan Year	Ser #	Sys Code	Type Code	Impl. Begun	Operational Status	Operating Status	Service Delivery			O&M Problems†	Stage Status*	Schedule Status					Financial Status					Sub project	Multi-Yr System	Follow up Actions	Comments
										Reg	As Priced	Satis			% Work Compl.	Start Date	Plan Date	Est. Date	Reas Code	Spent-to-date	Bal to Cmpl	Est to Cmpl	Reas Code				

Completion Status and Reason Codes:
01 = Yes
00 = No or no reason given
Other codes = reason

† O&M Problem Codes:
T = technical
M = managerial
C = contractual
F = financial
P = operational
= other

* Status Stage Codes
T = tendering
A = awarding & contracting
S = site possession
C = construction & purchasing
H = testing & handover

Implementation Status Codes
S = satisfactory
U = unsatisfactory
T = stopped

Follow-up Action Codes
01 = no problem identified
02 = additional review will be little or no help
03 = unimportant problem; action has been taken
04 = other
05 - 14 = follow-up action code

Appendix D

Listing of Problem Subprojects from Training Sample

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF COMPLETED BUT NOT OPERATIONAL SUBPROJECTS

(Training Sample of 104 Subprojects -- February 1992)

No.	MARKAZ VILLAGE Subproject Name	PI Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
1.	Metoubas Brembal Water Tower and Pump Staton	88	141	Water Storage & dist New	*Subproject needs development and funds*	*Planning* *Financial*	*The subproject is very vital to the area. It needs filters, pumps and pipes to be completed and to deliver the satisfactory service. Cost LE250,000.*
2.	Metoubas Elgzira Elkhdra Purchasing Waste Water Tanker	88	209	Environment Equipment New	*The sludge pump is not working*	*Technical*	*LE7,000 is required to replace the sludge pump and modify its coupling to motor, or to sell the truck and use its money in another useful project.*
3.	Qaleen Kafr Elmarazqa Paving Eien Elhaiat Road	89	64	Roads Paving New	*Funds were insufficient to complete*	*Financial*	*1.2km out of 3km are completed, LE135,000 is required to complete remaining works. Only LE90,000 was allocated in the 4th cycle.*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF COMPLETED AND OPERATIONAL BUT NOT OPERATING SUBPROJECTS

(Training Sample of 104 Subprojects – February 1992)

No.	MARKAZ VILLAGE Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
1.	Kafr El Sheikh El Hamra El-Hamra Maintenance Workshop	87	140	Buildings Maintenance Shop New	*Electricity is not connected* *Insufficient electric capacity in village*	*Administrative*	*This situation needs cooperation from all parties to get the workshop operational*
2	Sidi Salem El Hadadi Purchasing 200 KVA Generator	87	279	Water Tools New	*No need for generator, elect. is available*		*No action taken. Generator needs to be 'reassigned' to other subvillages.*
3.	Baltiem Markaz Baltiem Maintenance Workshop	87	2	Buildings Maintenance Shop New	*Requested works cannot be done in the workshop. Special purpose equipment is needed to fulfill the maintenance requirements.*	*Technical*	*Management should decide to operate this workshop, or the investment will be wasted. Entrance should be completed and floors need to be reinforced.*
4.	Kafr El Sheikh EL Khadmiya Fire Station	88	128	Buildings Fire Station New	*Station is not equiped with fire engine*	*Administrative*	*Security department should take an action take an action to supply a fire engine*
5.	Baltiem Markaz Grader for Roads Maintenance	88	225	Roads Heavy Equipment New	*No reason identified*		
6.	Desouk Kenist El Saradous Fire Station in K. Taradous	88	66	Buildings Fire Station New	*No fire engine or operating staff*	*Administrative*	*No action has been taken yet*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF COMPLETED AND OPERATIONAL BUT NOT OPERATING SUBPROJECTS

(Training Sample of 104 Subprojects -- February 1992)

No.	MARKAZ VILLAGE Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
7.	Baltem Borg El Brollous Completon of Slaughterhouse	89	9	Buildings Slaughterhouse Completon	*No license has been obtained, no urgent need for Slaughterhouse, and electricity is not connected*	*Administrative Planning*	*Authorized department has been contacted to approve the start-up of operation. Electricity should be connected to the building*
8	Metoubas El Gezeira El Khadra Rehab. El Gezeira Health Unit	89	183	Buildings Clinic New	*Shortage of trained personnel & equipment*	*Administrative*	*Health Dept. in Kafr El Sheikh is responsible for this not operational status. There is no trained staff or equipement*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF SUBPROJECTS DELIVERING UNSATISFACTORY OR NOT AS-PLANNED SERVICE

(Training Sample of 104 Subprojects -- February 1992)

No.	MARKAZ VILLAGE Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
1.	Baltem Markaz Baltem Maintenance Workshop	87	2	Buildings Maintenance Center New	*Requested works cannot be done in the workshop* *Special purpose equipment is needed to fulfill the maintenance requirements*	*Technical*	*Management should decide to operate this workshop otherwise the investment will be waste. Entrance should be completed and floors be reinforced*
2.	Beila Kafr El Garaida Paving Kafr Elgaraida Entranc.	87	41	Roads Paving New	*Short of funds to complete work as planned*	*Fin. & Plan.*	*Two other subprojects were planned to complete the remaind works: 88131 (LE34800) & 89112 (LE130000).*
3.	Desouk Mahlit Abu Ali Public Warehouse in M. Abu Ali	87	73	Buildings Warehouse New	*No available agri-products to be stored* *Needs assessment is not complete*	*Planning*	*Currently used to store materials of local unit.* *Change the purpose of the subproject or improve the current use in social activities.*
4.	Desouk Mahlit Diai Mahalet Diai Workshop 104 m2	87	74	Buildings Maintenance Shop New	*Electrical machines are not working* *No electricity connected*	*Administrative*	*Electricity company has been contacted to to connect the workshop with 3-phase line*
5.	Kafr El Sheikh El Hamra El-Hamra Maintenance Workshop	87	140	Buildings Maintenance Shop New	*No specific work or specialised labour* *Electricity is not connected* *Insuffiecient electric load in village*	*Administrative*	*This situation need cooperative actions from all parties to get the workshop operational*
6.	Kafr El Sheikh Mahlit Mousa Building Fence of Warehouse	87	183	Buildings Warehouse New	*Used as local unit offices for employees.* *No offices for local unit personnel*	*Planning*	*There is a need for offices and not for agri products store. Therefore, the purpose of this subproject should be changed.*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF SUBPROJECTS DELIVERING UNSATISFACTORY OR NOT AS-PLANNED SERVICE

(Training Sample of 104 Subprojects -- February 1992)

No.	MARKAZ VILLAGE Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
7.	El Reyad El Hasata 6" Water Pipeline, 5km.	87	149	Water Distribution New	*No water delivered most of the time* *Reach to max. capacity of portable unit* *Insufficient production of water Qty*	*Technical* *Planning*	*New pipelines were installed without considering the capacity of source and its production rate.* *This weak planning point happened because of limited funds allocated to the village.*
8.	Beila Beila city Paving 4km in Beila city	88	13	Roads Paving New	*Pave unplanned roads & short length* *Inaccurate estimates & short of finance*	*Planning* *Technical* *Financial*	*Under estimating of subproject quantities because no soil tests were conducted before contracting.*
9.	Beila El-Kom El-Tawiel Build Agri-products Store	88	17	Buildings Warehouse New	*No agri-products to be stored, but used as community hall for social occasions, since people need social hall and not a store*	*Planning* *Financial*	*This subproject is a completion of another:1987125 to build a warehouse, LE19880. The total cost of Building is LE83386. Purpose should be changed.*
10.	Desouk El Agouzein El Agouzien Maint. Workshop	88	201	Buildings Maintenance Shop New	*No funds. No skilled labour. No work* *Repair 4" pipelines & elect. works*	*Planning* *Financial* *Personnel*	*Hire or contract with skilled, specialized labour and funding operations as an investment project*
11.	Fowah Qabrait Covering Drains in Qabret	88	56	Environment Drains Covering New	*Only one drain was covered, because the Irrigation depart. does not approve the other one.*	*Administrative* *Planning*	*Irrigation depart. should be contacted to get approval or find out a satisfactory solution.* *Money that remained already used to build three classrooms without new planform and not in the QPR.*
12.	Kafr El Sheikh El Khadmiya Fire Station	88	128	Buildings Fire Station New	*Station is not equipped with fire engine or telephone, because fire department did not send fire engine or trainned staff*	*Administrative* *Planning*	*Security department should take an action to supply a fire engine and trained staff.* *LE3,000 is required to install a telephone.*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM
LIST OF SUBPROJECTS DELIVERING UNSATISFACTORY OR NOT AS-PLANNED SERVICE
(Training Sample of 104 Subprojects -- February 1992)

No.	MARKAZ VILLAGE * Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
13.	Kafr El Sheikh Kafr El Hamrawi Purchasing Wastewater Tanker	88	207	Environment Equipment New	*Car motor engine need repairs & overhaul* *Service is not delivered when needed*	*Technical*	*LE3,500 is required to repair and overhaul motor engine.*
14.	Kafr El Sheikh Sidi Ghazy Water Pipe Line 500m	88	129	Water Distribution New	*30% of planned service is delivered* *Low pressure in pipe line*	*Technical*	*A portable plant is needed to increase water pressure in pipeline since the quantities are not sufficient and the service time is too short.*
15.	Sidi Salem Markaz Paving Entrance of City Souke	88	176	Roads Paving New	*Road is covered with mud & excavation debris.* *Difficult to use for vehicles or even walking.*	*Administrative*	*New subproject should be started.*
16.	Baltiem Borg El Brollous Completion of Slaughterhouse	89	9	Buildings Slaughterhouse Completion	*No license has been obtained,* *no urgent need for Slaughterhouse, and* *electricity is not connected.*	*Administrative* *Planning*	*Authorized department has been contacted to approve the start of operation.* *Electricity should be connected to the building*
17.	Metoubas El Gezeira El Khadra Rehab. El Gezeira Health Unit	89	133	Buildings Clinic New	*Shortage of trained personnel & equipment*	*Administrative*	*There is a need for the service of the clinic center therefore, all parties should do its best.* *Health depart. in Kafr El Sheikh is responsible for this not operational status.* *There is no trained staff or equipement.*
18.	El Reyad Baqoula Paving Subvillages Entrance	89	129	Roads Paving New	*Only partial service is delivered* *Short of funds to complete paving of remaining 350m.*	*Planning* *Financial*	*Not only paving is required but also lining of closed canals is very important to extend the subproject lifecycle*

KAFR EL SHEIKH GOVERNORATE - SUBPROJECT FIELD VISITATION SYSTEM

LIST OF SUBPROJECTS DELIVERING UNSATISFACTORY OR NOT AS-PLANNED SERVICE

(Training Sample of 104 Subprojects – February 1992)

No.	MARKAZ VILLAGE Subproject Name	Pl. Yr	Sr. No.	SECTOR TYPE Nature	Reasons	Reason Category	Action Taken Remarks
19.	Qaleen Meit El Deiba Subvil 4" Pipeline, L=3.35km	89	65	Water Distribution New	*Quality of water does not meet specifications.*	*Technical*	*In general, the quality and quantity of water in Kafr El Sheikh are below standard specifications*

Appendix E

Quality Control Form

SUBPROJECT FIELD VISITATION SYSTEM
QUALITY CONTROL FORM

Governorate: _____ Geocode | | | | |

Markaz: _____ Local Unit: _____

Date of Last Visit: _____ Name of Visitor: _____

Date of Review: _____ Name of Reviewer _____

Subproject Name: _____

Plan Year: 1 9 | | Serial No.: | |

Sector Name: Water 1 | Roads 2 | Waste Water 3 | Environment 4 | Buildings 5 | General 6

Subproject Type: | | Subproject Nature: New 1 | Completion 2 | Expansion 3 | Rehab./Renew 4

Subproject File Exists at:

Governorate 1 | • Plan Form 1 | • Drawings & Specifications 2 | • Bill of Qty & Materials 3 | • Approved Amendment 4

Markaz 2 | • Tender Doc After Bids 5 | • Contracts or Work Orders 6 | • Site Hand-Over Doc. 7 | • Schedules & Plans 8

Village 3 | • Bills & Payments 9 | • Quality Reports 10 | • Final Test & Hand-Over 11 | • Final Account 12

	Not Required	Comply with Reality or Documents	Not Accurate	Not Comply Not Correct		Not Required	Comply with Reality or Documents	Not Accurate	Not Comply Not Correct
1. Descrip. As-Found	1	2	3	4	11. Operational Status	1	2	3	4
2. Compliance w QPR	1	2	3	4	12. Operating Status	1	2	3	4
3. Compliance w Doc's	1	2	3	4	13. Regular Operation	1	2	3	4
4. Contractor/Supplier	1	2	3	4	14. As-Planned Service	1	2	3	4
5. Linked Subprojects	1	2	3	4	15. Level of Service	1	2	3	4
6. Implement. Status	1	2	3	4	16. Required Funds	1	2	3	4
7. Scheduled Dates	1	2	3	4	17. Operation & Maint.	1	2	3	4
8. Performance Eval.	1	2	3	4	18. Follow-up Actions	1	2	3	4
9. Physical Completion	1	2	3	4	19. Remarks / Recom.	1	2	3	4
10. Financial Status	1	2	3	4	20. Problem Definition	1	2	3	4

Actions That Has Been Taken to Solve Problems

• No Problem 1 | • Will Not Help 2 | • Management Don't Know 3 | • No Actions Taken 4

• Insufficient Actions 5 | • No Response 6 | • Solution Underway 7 | • Problem Solved 8

Identification of Current Problems

• No Problem 1 | • Management Action is Required 2 | • Needs Coordination 3 | • Special Review is Required 4

• Technical 5 | • Financial 6 | • Planning 7 | • Operational 8

Follow-up Problems

• No Problem 1 | • Administ. 2 | • Legislat. 3 | • Transportation 4 | • Facilities 5 | • Personnel 6 | • Misunderstand of Definitions 7