



FINAL REPORT

**LOCAL RESOURCES FOR DEVELOPMENT PROJECT
YEMEN ARAB REPUBLIC
(Project 279-0045)**

PRESENTED TO:

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PRESENTED BY:

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LIST OF ABBREVIATIONS

AID/W	Agency for International Development/Washington
CC	Coordinating Council
CHEMONICS	Chemonics International Consulting Division
CPO	Central Planning Organization
CYDA	Confederation of Yemeni Development Associations
LDA	Local Development Association
LRD	Local Resources for Development (Project 279-0045)
Project 045	Local Resources for Development (Project 279-0045)
RLA	Roy Littlejohn Associates
USAID	U.S. Agency for International Development
YARG	Yemen Arab Republic Government

SECTION I

INTRODUCTION

This final report summarizes activities carried out by Chemonics International Consulting Division in the Yemen Arab Republic between March 31, 1980 and July 31, 1984, to support the Local Resources for Development Project (No. 279-0045).

A. Objectives of the Final Report

The overall objectives of the report are to: (1) reconsider the content and assumptions of the project design in light of actual events; (2) compare actual to expected results; (3) summarize and analyze problems encountered in implementation; (4) identify lessons learned; and (5) make final recommendations to AID and CYDA.

The intended audience of this report includes officials of USAID/Yemen, AID/Washington, and CYDA, as well as other interested observers. Of necessity, the report assumes prior knowledge of the Yemeni context--its culture, economy and politics. It also assumes some familiarity with the counterpart institutions and the individuals that influenced the design and implementation of the project. Without such knowledge the evolution of the project is virtually impossible to understand.

The contract did achieve most of the outputs expected. The tasks toward which these outputs were directed were only partially accomplished, however, for reasons that will be explored. Consequently, in our view, the project achieved only part of its original purpose.

One result is clear: Much was learned about rural development in Yemen, and even more about development project design and implementation in the Yemeni context. While these lessons were often negative, i.e., how not to do things, we consider them valuable all the same.

So that the report may be widely read, we have tried to be brief, focussing on the qualitative implications of project activities rather than quantitative measures of inputs, outputs and results. Our main concern is to answer the question, "What does it all mean?" rather than to provide more raw information. Wherever possible we refer the reader to details from earlier documents produced under the contract. However, since we are reviewing the decisions, actions, and events of a four-year period, at the same time, we have tried to avoid oversimplifying.

This report obviously reflects just one point of view, that of the technical assistance contractor, but we have tried to be objective nonetheless. Where criticism is stated or implied, it

is intended to apply to ourselves as the main implementer of the project as often as it applies to USAID/Yemen or CYDA. We all shared responsibility for successes and failures.

B. Organization of the Report

The report is organized into three sections and ten annexes. Section I is this brief introduction, summarizing the purposes, structure and intended audience of the report. Section II describes the evolution and content of the Local Resources for Development Project, including its early history, the project design, and the role of the technical assistance contractor. Section III focusses on the implementation phase, covering key events, accomplishments and problems encountered.

The ten annexes are intended to provide more detailed information for interested readers. Annex A contains a copy of the logical framework. Annex B is a chronology of important events. Annex C summarizes the resources provided to the project through the Chemonics contract. Annex D presents in chart form the long- and short-term assignments carried out under the project, including titles, names and periods of employment. Annex E contains a financial report, while annex F is a detailed report on matching grant activities. Annexes G, H, and I provide additional detail on the training, information systems, and institutional development components. Finally, annex J lists all project implementation letters issued under the project, while annex K lists reference documents.

SECTION II

THE PROJECT DESIGN

Section II contains four sub-sections. Sub-section A summarizes the origins of the Local Resources for Development Project (hereafter called LRD or Project 045) as we understand them. Sub-section B describes the intent and logic of the project as originally conceived. Sub-section C analyzes the final project design as embodied in the "logical framework" of the project paper. Finally, sub-section D reviews the intended role of the principal technical assistance contractor in carrying out the project design.

A. The Genesis of the Local Resources for Development Project

Although Chemonics' staff was not present in Yemen during the conceptualization phase, we understand that the LRD project was first conceived in 1976. In October of 1978 the YARG presented a formal request for assistance, and a project paper was submitted to AID/Washington, where some modifications in design occurred. A revised project paper was resubmitted by USAID/Yemen to AID/Washington in late January of 1979. The Near East Advisory Committee of AID/W approved the project on February 22, 1979. The project grant agreement between the YARG and USAID/Yemen was signed on June 30, 1979.

Socio-economic research by two Cornell researchers apparently began in the third quarter of 1979. A Request for Proposal for the principal technical assistance contract was issued on September 19, 1979. The actual contract between AID/Washington and Chemonics was signed on March 27, 1980. The Chemonics Team Leader arrived in Yemen one week later.

B. The Logic Underlying Project 045

As best we can reconstruct, during the 1976-1979 period various officials in USAID/Yemen (especially the Program Officer, the Rural Development Officer and the Social Scientist) recognized that significant rural development was occurring spontaneously throughout Yemen with little or no assistance from central or provincial government organizations. On the presumption that it would contribute to AID's overall policy of contributing to increased production, income and quality of life, they felt that rural development activity deserved Mission support in some form.

However, they all readily acknowledged that their understanding of the extent, nature and processes of rural development in Yemen was very limited. This was true even though many field research efforts had already been done or were at that time being carried out--some supported by AID, others by the World Bank, other international agencies, universities and the American Institute of Yemeni Studies (AIYS).

Given limited understanding, it would have been presumptuous to design a rural development project whose scope and methodology was specified in detail. On the other hand, to wait for further research in order to achieve greater specificity would have meant significant delays. Even then it might not have generated the kind of practical knowledge that can best be acquired by direct intervention in the development process. A logical response to this dilemma seemed to be to design an experimental project with sufficient flexibility to adapt to new knowledge as it was acquired, i.e. a "rolling design".

The intent of Project 045, then, was to enable USAID/Yemen, through a contractor, to learn how rural development actually occurs in Yemen, identify impediments or bottlenecks that USAID might help resolve, test various methodologies for providing assistance, and learn through experimentation how to make a better contribution to rural development. Project 045 was originally envisioned as the first phase of a ten-year effort. The latter phase or phases were to build upon the knowledge gained in the first phase.

Having defined the project intent, the next issue was to decide what institutions to work with. This issue was closely connected with the rural development objective set by the Mission for the 1981-1985 period. Based on the project paper, it was:

"development of the potential for increased local level involvement in national development and development of public and private sector institutions required in support of local level initiatives."

Local Development Associations (LDAs) appeared to be the principal organizations involved in economic and social development in the rural areas of Yemen. Therefore, if USAID/Yemen wanted to become involved in rural development, it was logical to look for a means of providing assistance to the LDA movement.

Although little or no research was available that explained how the LDAs interacted with the Coordinating Councils (CCs) at the provincial level and with the Confederation of Yemeni Development Associations (CYDA) at the national level, by law, LDA activities were controlled, coordinated, monitored, and supported by CYDA and the CCs. For this reason, a decision to link the project to these higher-level entities made theoretical sense, and it also solved the practical requirement of having an established entity to relate to in Sana'a and the governorate capitols.

Although to our knowledge no formal institutional assessment of either CYDA or the LDA/CCs was ever done during the project design effort, USAID/Yemen apparently believed that whatever rural development "methodologies" CYDA and the CCs were then using could be strengthened. Strengthening in turn would improve the rural development process, which would then lead to improving the welfare of people associated with or benefitting from LDA activities.

While this reconstruction of history is in part speculative, we believe that it fairly represents the basic chain of logic that led to the specific design for Project 045.

C. Review of the Project Design

Before analyzing the end results, we would like to comment upon the LRD design in the light of actual experience, readily admitting that it is easier to detect flaws with the benefit of hindsight and that one of the responsibilities of a technical assistance contractor is to mitigate the effects of design flaws or identify the need for design changes.

In the analysis below we focus only on the principal elements of the design--goal, purpose, outputs, inputs and end-of-project status--waiting until after we review actual project events to examine the assumptions that link these design elements together.

1. Objectives and Strategy

a. Summary

The goal of the Local Resources for Development Project was to "contribute to increased production, income and quality of life in rural Yemen" by providing a "coordinated program of technical and financial assistance, including socio-economic research, to the existing local development system."

b. Comments

The goal statement itself was reasonable, although a bit lofty and vague. The strategy statement, on the other hand, concealed serious design issues.

(1) "Local development system"

While the LDA movement does provide an institutional structure for rural development, Project 045 experience revealed that it is more a skeleton than a "system" as the term is commonly used.

Entities such as CYDA, the LDA/CCs and LDAs obviously do exist, and most units do have legal status, personnel, budgets, and identifiable activities. However, the LDA movement only began in the mid-1970s, so CYDA is a relatively young organization, and there exists great variation in growth and capability among individual LDA/CCs and LDAs. Organizational structure, policies, procedures, patterns of interaction, decision-making processes, and flows of resources within the LDA movement are all highly variable, situational, personalized, non-repetitive and therefore unusually hard to interact with.

In retrospect, the distance between the type of intervention envisioned and the absorptive capacity of the cooperating organ-

izations may have been too great. In our team's experience, the LDA movement and LDA-related entities added up to a distinctly "unsystematic" system--one that may not have been ready to make effective use of a "coordinated program of assistance".

(2) "Coordinated program"

Even if the local development system had been more developed at the start of the project, the mix of inputs and activities envisioned in the project design was not really a "coordinated program".

LRD was described in various places in the project paper and RFP as an integrated rural development project. The principal justification at the design stage for using the term "integrated" seems to have been the complexity of the project rather than its comprehensive and cohesive character. Simply saying that the intent was to work at three different levels (national, provincial and local), to affect several major sectors (transportation, education, agriculture, health and nutrition), and make a contribution to various development objectives (income generation, employment creation, infrastructure improvement, institutional development, training and technology transfer) does not make a project integrated. In fact, making a project too complex and grandiose can have the opposite effect--instead of leading to integration, what can result is confusion, dispersion of effort and even chaos.

A coordinated program is only possible when (1) all participants agree on objectives; (2) when the problem to be resolved is well understood and delineated; (3) when a solution has been envisioned; (4) when the appropriate mix and amount of resources have been made available, and (5) when policies and procedures have been agreed upon to guide the application of those resources.

None of these conditions held in the LRD case. Institutional and individual participants strongly disagreed on the project's objective, not only during the design phase but throughout implementation. The problem to be addressed was not well understood or defined--indeed it was not certain that there really was a problem, since everyone agreed that rural development was in fact occurring without significant governmental assistance. No solution was envisioned--instead three alternative types of intervention were to be tested to see if they represented a solution. An inappropriate mix and amount of resources were made available--no long-term specialists in health, agriculture or income generation were provided even though the project was to work in these areas; fewer Peace Corps Volunteers than originally planned were made available at the LDA level; and unrealistic constraints were placed on matching grant financing. No policies for using project resources had been agreed upon in the design stage--CYDA wanted the team to focus on the product (i.e. projects), while AID wanted the team to focus on the process (i.e. rural development).

(3) Research Design

The original research design contained two especially problematic elements: geographic focus and an attempt to reach the local level.

(a) Geographic Focus

The project paper limited project activities to two governorates, Hajja and Hodeida. The reasons for selecting these two governorates were never specifically stated by either USAID/Yemen or CYDA personnel, but Hajja was apparently considered representative of the mountainous areas of Yemen, while Hodeida was considered representative of the coastal plain areas.

Both governorates had LDA/CC offices, complete with a head man and some staff, and both CCs appeared to provide assistance to LDA infrastructure projects. However, the two CCs were very different in terms of development sophistication, managerial and technical capability, level of activity, receptivity to external assistance, and general mode of operating.

Hodeida Governorate had been exposed to foreign influence for many years and was therefore relatively open to technical assistance. The CC had a 10-room office, and was led by an active chairman and a reasonably well-trained technical director, supported by 5-10 full-time administrative and support personnel. Prior to the arrival of the advisory team, the CC had already been providing technical assistance to many LDA subprojects, mainly water systems and school construction, and therefore had active links with specific LDAs.

By contrast, Hajja Governorate had had virtually no contact with foreigners at the time the team arrived, in large part because of the perilous 7-hour drive from Sana'a, and was extremely suspicious of foreign influence. CC facilities consisted of a four-room office. The chairman of the CC was active, but there was no technical director, and a support staff of less than 5 people. The CC apparently had had limited contact with its constituent LDAs--its only activity appeared to be the occasional laying out of mountainous access roads--and was viewed with some disdain by the LDAs themselves.

In retrospect, while Hodeida proved to be a good choice of site, Hajja Governorate probably was not. Hajja's distrust of foreigners, rugged physical terrain, and embryonic LDA/CC all combined to limit the effectiveness of Project 045 resources. Specific cultural, administrative, logistic and technical problems that arose in Hajja are analyzed in detail later in this report.

(b) Work at the Local Level

The intent in the original design was to increase local capacity to do rural development work. Once the

decision was made to rely on the LDA movement as the main vehicle for capacity-building, this intent implied working with LDAs. Working with LDAs proved much more difficult than anticipated, however, for several reasons. First, LDA/CCs were empowered to supervise, monitor and control external assistance to LDAs and in the case of Hajja, access was severely restricted from the start by the various heads of the Coordinating Council. Second, many LDAs existed in name only, without office facilities and often without any salaried staff to work with and train. Third, even where functioning LDAs did exist, it was often difficult to reconcile the need for LDA approval and financial support with the fact that specific projects usually covered less than a full nahiyah. This meant that technically viable projects were often stalled for lack of approval and financing because the uzla that would be the main beneficiary was insufficiently represented on the LDA board to get it through.

2. Purpose

a. Summary

According to the LRD logframe, the purpose of the project was the "establishment, acceptance and initial implementation of methodologies for: (a) increasing the capacity of LDAs to plan, implement and evaluate locally initiated development projects, and (b) increasing government and external support for locally initiated development projects".

b. Comments

The purpose as stated was straightforward and reasonable. The key words, as we understood them, were "methodologies", "capacity", and "locally initiated".

3. Outputs

a. Summary

The Project Paper listed the following types of output: (1) locally-initiated development projects; (2) trained human resources; (3) training capacity; (4) socio-economic administrative studies; (5) tested methodologies for local development initiatives; (6) refinement of AID's rural development strategy and recommendations for support of local development initiatives; and (7) design of a Phase II AID-supported project. These outputs were quantified as far as possible using a set of objectively verifiable indicators, listed below in section III.B.

b. Comments

The nature and magnitude of outputs expected from the project was clear. However, further discussion is needed regarding the explicit and implicit assumptions made in setting these outputs, linking them to anticipated inputs, and achieving

through them the project purpose. This analysis is presented below.

4. Inputs

a. Summary

Project inputs included technical assistance, training and financing. The total value of required inputs was estimated to be \$13.65 million at the grant agreement stage in mid-1979. AID was to provide a grant of up to \$8.7 million and the YARG was to provide goods, services and financing valued at \$4.95 million.

The project paper called for a level of effort of 336 person-months of long-term technical assistance, of which 312 person-months were to be provided through the principal technical assistance contract and the balance through a cooperative agreement for socio-economic research. In addition 60 person-months of short-term assistance were envisioned, plus 624 person-months of volunteer assistance through the Peace Corps. \$900,000 in matching grant funding were also budgeted, as well as about \$1.1 million in training funds and more than \$1.5 million in commodities.

b. Comments

As is inevitable, the level and mix of inputs utilized varied somewhat from the original design. In all, as annex D shows, Chemonics and its subcontractor Roy Littlejohn Associates, inc. provided 345 person-months of long-term assistance, 90 person-months of short-term assistance, and 24 person-months of home-office supervisory and support services. Cornell University provided two expatriate researchers, apparently for 24 months each, or 48 months in all. AID itself provided several person-months of effort in the mid-project and end-of-project evaluations, but the exact amount is not known at this time. The Peace Corps provided about half of the projected effort.

As far as funding is concerned, matching grant expenditures totalled about US\$ 765,789 from AID/Yemen plus the equivalent of US\$ 607,126 from YARG and LDA contributions. Training funds expended were US\$ 667,118, excluding YARG counterpart funds, for which we have no data. Commodity expenditures financed by USAID/Yemen through the Chemonics contract totalled US\$ 495,539. Again, no firm data exists for cash or in-kind contributions by the YARG. This and other financial data is summarized in annex E.

5. End-of-Project Status

a. Summary

The EOPS listed below are taken verbatim from the Project Paper.

(1) Targeted LDAs demonstrating an increased capacity to identify development problems and constraints, develop adequate plans for activities to overcome problems and constraints, mobilize financial and human resources for these activities, effectively implement them and evaluate their impact.

(2) Targeted LDA/CCs and CYDA more effectively performing their administrative and technical support functions in the planning and implementation of local development initiatives.

(3) CYDA enjoying an improved reputation as a leader and coordinator of the local development process.

(4) Increased understanding and implementation on the part of YARG technical ministries of their designated role in support of local development initiatives.

(5) Methodologies established and proven as a result of this project being accepted by elements of the LDA system, other donors and the YARG.

b. Comments

(1) Targeted LDAs

The original research strategy called for providing 6-12 target LDAs with training alone, a second group of 3-6 LDAs with training plus technical assistance, and a third group of 6 LDAs with training, technical assistance and financing. While the concept of testing different mixes of resources was attractive from an experimental point of view, it was not realistic from an operational point of view. This was because insufficient data existed on specific LDAs to enable the team to predetermine which should be the primary, secondary or tertiary LDAs and because it was politically infeasible to allocate on an a priori basis matching grant financing to some LDAs while denying it to others. While some differentiation did occur, in that some LDAs received financing while others did not, this phenomenon occurred naturally as subprojects were analyzed and either accepted or rejected. To the extent that post hoc differentiation occurred, the experimental value of testing various levels and mixes of assistance was necessarily reduced.

(2) LDA/CC Technical and Administrative Support Roles

There was no clear consensus among CYDA or LDA/CC officials about the proper role of the Coordinating Councils, both before the project's beginning and during its implementation.

While the Hodeida Coordinating Council had in fact been performing a technical support role before the team's arrival, the Hajja CC began its technical activities for the first time under

Project 045, and even then there was considerable resistance to the idea from within the Hajja Coordinating Council, the LDAs themselves and CYDA.

Nor was administrative support viewed as a major role of the coordinating councils, either by the CCs themselves or by their constituent LDAs. Little or no administrative guidance or training was provided by the CCs to LDAs. Audit functions were performed by CYDA from the national level.

We found that LDA members viewed the CC primarily as a regulatory body, in effect CYDA's mechanism for reaching the LDAs for control purposes. The LDAs in Hajja were especially suspicious of the Hajja Coordinating Council's motives--believing that its real purpose was to extend central government influence into the governorates by gathering information on activities and people in rural areas.

What this meant, then, was that from the start there existed an inherent conflict between the LDA/CC role as envisioned in the project paper and the role as conceived by CYDA, the LDA/CCs and the LDAs. While the project did demonstrate that LDA/CCs could perform a technical support function, it remains to be seen whether CYDA is willing and able to fund technical staff in the majority of LDA/CCs.

(3) CYDA's Technical and Administrative Support Role

CYDA, on the other hand, did believe that its role should include the provision of technical and administrative support to the LDAs, both directly and through LDA/CCs.

At the moment the Chemonics team arrived, CYDA already had some technical staff and a relatively large administrative staff. The LDA Affairs Department performed an auditing function that apparently did reach LDAs in the two Project 045 target governorates. The CYDA Technical Department, on the other hand, rarely made its presence felt in Hajja or Hodeida until the advent of the LRD project, in part because CYDA had only one fully trained engineer and a few road technicians and draftsmen, but also because CYDA resources tended to be allocated to more politically and economically important governorates such as Sana'a, Ta'iz and Ibb.

Enhancement of CYDA's administrative and technical support capabilities was certainly a legitimate objective, and one that Chemonics attempted to achieve without losing sight of the project's intent to work at the local level.

(4) CYDA's Reputation as Leader and Coordinator of the Local Development Process

This EOPS was clearly a desirable outcome of the project. As we have said, CYDA was viewed at the local level

as mainly a political arm of the central government. At the national level it was regarded by line ministries as a technically and administratively weak institution that competed with them for scarce budgetary resources. For CYDA to be truly effective as a leader and coordinator of the local development process, both of these views had to be changed.

(5) The Designated Role of other YARG Ministries In Supporting Local Development Initiatives

The role of other YARG technical ministries in supporting local development initiatives was never as clear as the word "designated" implies. The distinctions between the mandate of CYDA and that of the National Water and Sewage Authority, the Ministry of Agriculture and other line ministries were never clearcut. Given CYDA's relatively poor reputation among the line ministries, the only leverage over these other entities was that which could be created through the personal credibility of individual team members at the local or provincial levels. Unfortunately, CYDA had virtually no contact with YARG line ministries at the working level, so contractor team members had few opportunities to work closely enough with the line ministries to gain this kind of credibility and thereby influence the ministries' policies or programs with respect to local development initiatives.

(6) Acceptance by other LDA Entities, Donors and the YARG of Methodologies Tested and Established Under this Project

Project 045 sought to improve methodologies relating to: (1) the management of organizations involved in rural development; (2) the formulation of rural development policies and programs; and (3) the design and implementation of rural development projects. This EOPS was relatively clear and straightforward in concept, although not so easily achieved.

D. The Role and Responsibilities of the Technical Assistance Contractor

1. Overall Role

The project design gave the principal technical assistance contractor operational responsibility for most activities envisioned under the project.

The contractor was made responsible for most of the inputs: technical assistance, organization of training, management of matching grant funds, and socio-economic research during the last two years of the project. A Cornell team was responsible for research during the first two years. The Peace Corps was to provide substantial volunteer input as well. CYDA and the LDA/CCs were to provide counterpart personnel, services and financing.

The contractor also had the burden of achieving most of the expected outputs, and of helping to manage these outputs so as to achieve the project purpose.

2. Scope of Work

The contractor was assigned six tasks:

- a. Task One: train and assist local level officials in project planning, financing, management, implementation and evaluation
- b. Task Two: create technical capacities at the local level to carry out and maintain development activities
- c. Task Three: increase the organizational and technical capabilities of line ministries to support and supervise local development initiatives
- d. Task Four: creation of a rural development information program which can be replicated
- e. Task Five: annual work plan
- f. Task Six: pre-implementation visit

3. Analysis and Comments

Again, benefitting from hindsight, there were serious issues concealed within these apparently straightforward tasks.

a. Focus on the Local Level

The project sought to achieve an impact on the local level, yet very few LDAs had a critical mass of human resources and organizational strength to receive and respond to external technical assistance effectively. Moreover, none of the six tasks was directed at CYDA or the LDA/CCs, yet these were the agencies legally charged with assisting the LDAs. They were also the contractor's direct counterpart from the start of the project, controlling and often limiting access to the supposed direct beneficiaries.

b. Intended Locus of Technical Capabilities

Implicit in the creation of technical capabilities at the local level are assumptions that it is appropriate, desirable and cost-effective to build up such capabilities there. Opposing arguments are easily made, however.

Looking first at needs, the number of projects of a given type (i.e. water supply, roads, schools) carried out by a given

LDA may not be sufficient to justify full or even part-time technical capability within the LDA itself. Instead, local contractors should probably be used.

Moreover, even if it were desirable to build up local technical capacity, the use of technicians employed by CYDA plus paraprofessionals employed by the LDA/CCs would probably have made more sense than attempting to create local-level abilities by bringing to bear large amounts of expatriate resources on a thinly dispersed body of potential trainees.

Another issue was the appropriateness of the human resources provided with respect to the needs addressed. The original intent was to develop specific skills in engineering, construction, agronomy, health and human resource development. Resources available within Project 045 were insufficient to achieve this goal unless all efforts were concentrated on a very few LDAs. Such a concentration, even if successful, would have had no value as a rural development model because it would not be replicable.

c. Work with Line Ministries

Improvement of the organizational and technical capabilities of line ministries presupposes willingness to receive assistance from the project, cooperation with CYDA on a working level, and the availability within the project of appropriate types and levels of resources. These three conditions did not hold.

d. Creation of a Rural Development Information System

This task presupposed a consensus on the part of the client organizations, especially CYDA, that rural development information had sufficient potential utility to justify active support for data collection in the field. Such support was a precondition for overcoming YARG suspicion concerning the motives behind information gathering.

This completes our review of the project design. We now turn to implementation.

SECTION III

IMPLEMENTATION

Section III contains just two sub-sections. Sub-section A compares accomplishments to expected results in terms of two key indicators: outputs and tasks. Sub-section B summarizes the problems encountered during implementation. For readers who are interested in the chronology of the project, a synopsis of key events is presented separately as annex B.

A. Accomplishments versus Expected Results

1. Outputs

a. Locally Initiated Development Projects

The Project Paper called for the designation of three types of LDAs. Primary LDAs would be those slated to receive technical assistance, training and financing. Secondary LDAs would be those receiving technical assistance and training, without financial support. Tertiary LDAs were those that would receive only training support.

As we explained earlier, the concept of an a priori stratification of LDAs, however attractive from an experimental point of view, was not practical for several reasons. First, insufficient information existed about individual LDAs at the start of the project to make a reasoned selection, and further research at the LDA level was blocked by the YARG. Second, neither CYDA nor the LDA/CCs supported the idea in principle, because they realized that the project would cause great dissension among LDAs if the amount and type of assistance given were decided on theoretical grounds, rather than in response to an LDA's proven initiative, its sponsorship of a technically viable project, or its willingness to make counterpart contributions. Third, if the concept of pre-selection had been attempted, the project would have risked picking a primary LDA in which a technically and economically viable project did not exist at the right moment. With so few LDAs to work with, losing one or two of the six originally selected would have had a major impact on the validity of the results achieved and lessons learned.

Given these problems, it was agreed by all parties at the June, 1980 start-up conference to deemphasize the availability of funding, focusing initially on limited technical assistance and training with interested LDAs, and, after after six months of becoming more familiar with the two target governorates, re-evaluating the concept of selection. Then in January of 1981, it was agreed that the existence of matching grant funds could be mentioned to LDAs, and that such funding could be made available to specific projects that met the Project Plan/Agreement criteria. In hodeida these were initially limited to four nahiyahs

considered to be the poorest of the poor, while in Hajja the variation was too great to allow any pre-selection of nahiyahs.

In retrospect, the stratification of LDAs in terms of type and amount of assistance did in fact occur, but not through pre-selection. In Hodeida, about 8 LDAs received all three inputs, making them in effect primary LDAs. In Hajja, only 2 LDAs received all three inputs. Some LDAs did receive assistance more than once, allowing for some transfer of development and technical skills. In all, as shown in annex E, 15 matching grant sub-projects were completed, most of them rural infrastructure projects. One of them was a revenue-generating project. This total output is somewhat less than the target of 18 given in the Project Paper, but we think the gap is insignificant, given that the projects actually completed were often much larger than the kinds of projects that the Project Paper had envisioned.

As far as secondary LDAs are concerned, the Project Paper called for technical assistance and training for another 3-6 LDAs. During the first and second project years, much of the fieldwork consisted of responding to requests for limited technical assistance, i.e., helping prepare a rough layout, a full engineering and architectural design, budgets, selecting or negotiating with contractors, and supervising or inspecting actual construction. During the second, third, and fourth project years, training activities affected a large number of LDAs in both governorates. Details of activities may be found in the periodic reports submitted by Chemonics' field staff.

In effect, then, the type of outputs envisioned for the secondary LDAs was provided as planned, and in quantities that far exceeded the Project Paper targets. Again, however, project resources were applied where needs had been expressed by LDA representatives, and were not restricted to certain LDAs in accordance with an arbitrary theoretical design. No Yemenis at the LDA or LDA/CC levels would have understood or accepted the concept of control groups as justification for refusing to help a LDA that otherwise deserved assistance.

The same was true of the "tertiary LDAs". Many LDAs received only training support, which would make them tertiary LDAs, not because they were excluded from technical assistance or matching grant financing from the start, but because they did not generate feasible projects or request specific technical assistance.

b. Trained Human Resources

The Project Paper called for training at many levels (village, LDA, governorate and national), in many subject areas (project planning and evaluation, administrative and financial management, technical trades, etc.), of varying duration (short-, medium-, and long-term), and in different sites (in-country, third country and in the United States). As the detailed information in annex G demonstrates, the Project 045

training component substantially achieved the expected training outputs.

As far as in-country training is concerned, 79 trainees received mid-level technical training, versus a target of 70. A total of 460 trainees attended other programs such as seminars and workshops, compared with a target of 400-500. On-the-job training was given to 166 people, versus a target of 200.

The Project Paper envisioned 20 trainees receiving mid-level technical training in third country programs. The project actually sent 7 trainees for such training, as well as 13 people for other forms of third country training, including invitational travel and short courses. The principal constraints to third country training proved to be the lack of qualified trainees, the need for CYDA to pay travel costs, and the need to cover half of the person's salary and replace him in the interim.

Long-term academic training in the United States was expected to be given to a maximum of 4 participants. Only one individual received such training--the initial CYDA Project Coordinator--but 9 other individuals attended short courses or seminars in the United States. Again the principal constraints to meeting the target proved to be lack of English, lack of acceptable academic qualifications vis-a-vis U.S. universities, the need for CYDA to cover the costs of travel and half-time salary, and finally, a belief on CYDA's part that such training was less beneficial than in-country training.

Virtually all of the subject areas contemplated in the Project Paper were covered as well, and the participants did come from all levels, local to national.

c. Training Capacity

The Project Paper sought to enhance training capacity in two ways: by upgrading the capacity of in-country training institutions and by institutionalizing training within CYDA.

With respect to in-country training institutions, the project made extensive use of existing facilities throughout Yemen: the Basic Skills Training Center in Hajja; the Vocational Training Centers in Sana'a and Hodeida; the National Institute of Public Administration in Sana'a, the Department of Rural Waters Training Center in Sana'a, the Highway Authority Training Center in Taiz, the Usayfira Agricultural Research Center in Taiz, and many others. The utilization of these centers did serve to maintain, and in some cases upgrade, their training capacities because it helped them to cover recurrent costs and to gain more experience as trainers.

With respect to institutionalizing training capacity within CYDA, after an initial period of limited support and collaboration

in the training field, CYDA established a training administration in March of 1983. By the end of the project, this three-person training department had handled 20 training starts involving more than 350 trainees and the use of \$280,000 in training funds. The training administration also received assistance in basic administration, such as filing systems, guidelines for selection of activities and participants, procedures for processing trainees, standard forms, and record keeping.

A video production unit was also set up near the end of the project, complete with equipment sufficient to develop videotaped training aids, and 5 employees were sent to Cairo for intensive, 3-month training in film production. While it was too early to determine whether this capability would become institutionalized within CYDA, a good start was achieved.

d. Socio-economic Administrative Studies

The Project Paper called for a series of baseline studies and implementation studies. Some of these were to be carried out before implementation began by individual contractors, while others were to be done during implementation, by the Cornell research team during the first two years and by the principal contractor during the last two years.

As far as the baseline studies are concerned, an early contractor apparently did do a study of LDA and LDA/CC structure, organization and functions, although it was not aimed specifically at the LDA movement in Hajja and Hodeida, and did not therefore capture the great variation in stage of development that eventually proved to be a major obstacle in Hajja Governorate. Cornell did gather socio-economic baseline data for the target governorates, as well as carry out in-depth studies of two villages. While both efforts generated a wealth of interesting information, the baseline data was too aggregated to serve as a basis for measuring change under this project, and the sites of the in-depth studies had to be chosen before the technical assistance team had been in Yemen long enough to identify target villages. As a result, the linkage between the in-depth baseline research and implementation was tenuous at best.

Implementation studies proved very problematic. Much was still unknown about rural development in Yemen at the start of implementation, so much, in fact that insufficient information was available about LDAs in Hajja and Hodeida to enable the contractor to select target LDAs. Nevertheless, in the eyes of CYDA, the LDA/CCs and other YARG agencies, too much research had already occurred before implementation began, and even the Cornell effort during the first two years received erratic support. Evidence of this was the recurring and serious problem of obtaining travel permits for fieldwork.

By the time Chemonic was to take over the socio-economic research component, the atmosphere was too tense to allow signifi-

cant field research to occur at all. As a result, the project did not achieve the anticipated targets for formal implementation studies. The most significant outputs were several management studies of CYDA and an after-action evaluative study of one of the LDA subprojects in Hodeida. For interested readers, the exact references are given in annex K.

e. Tested Methodologies for Local Development Initiatives

The Project Paper called for the development and refinement of methodologies for identifying, assessing, planning, designing, carrying out and evaluating local development initiatives. In the context of Project 045, local development initiatives meant infrastructure improvement activities, income generation activities and employment creation activities. The PP identified seven types of methodology, each of which is reviewed below.

(1) Project Planning Procedures

Attempts to install formal planning procedures for rural development activities at the LDA, the LDA/CC and CYDA levels were largely unsuccessful. Although LDAs do submit five-year "plans", these are generally "wish lists" of possible projects, not the result of a systematic analysis of potential projects, probable costs, expected benefits, relative priority and time required for implementation. The same is true to a lesser extent at the governorate and national levels.

While the Chemonics team recognized this deficiency, and sought ways to improve the planning procedures, little progress occurred, for a variety of reasons. First, the LDAs were generally too unformed as organizations to be receptive to modern planning techniques, lacking the requisite personnel. Second, the team's access to specific LDAs was too limited to allow the continual and repeated contact necessary to instill planning concepts in LDA leaders. Third, at the LDA/CC level, the organization's role is relatively passive, in that the CC generally responds to requests for assistance rather than anticipating them, and does not control sufficient resources to have a major impact on LDA subproject selection. Fourth, at the national level, the planning process was and is largely a political rather than a technical process, and therefore foreign advisors are not often consulted.

(2) Project Design and Approval Procedures

Project 045 developed and used fairly simple yet rigorous procedures for designing rural infrastructure projects--an initial reconnaissance and information gathering trip, followed by a rough design and budget, discussion and analysis with the client LDA and the CC, a decision to proceed with final design and detailed budget, and finally, preparation and negotiation of a Project Plan/Agreement.

While the design procedure was not written into a manual, since the basic sequence is simple while the design steps vary from project to project, it was repeatedly taught through on-the-job collaboration with CC personnel and technical trainees. In the case of Hodeida, we believe it was fully internalized, while in the case of Hajja there was no personnel to transfer this technique to.

As far as the approval procedures are concerned, the matching grant project methodology was codified through Project Implementation Letter No. 6, and transmitted through repeated use.

(3) Evaluation Procedures

Procedures for evaluating specific subproject opportunities before implementation were established in the selection criteria embodied in PIL No. 6. No formal procedures for post hoc evaluation of subprojects were established because neither CYDA, the CCs nor the LDAs showed any interest in such evaluations. Nevertheless, an in-depth evaluation of a matching grant subproject in Hodeida could serve as a model if such interest should arise later on.

At the level of the overall project, evaluation procedures used in the mid-project evaluation and the end-of-project evaluation could also serve as models, but again we doubt if there would be any interest in such procedures at any level of the LDA system. Where there is no perceived need, transfer of technology is extremely difficult.

(4) Financial Management Procedures

At the LDA level, the establishment of formal budgeting and accounting procedures for matching grant subprojects, however basic they may seem to outsiders, represented significant methodological progress. The concept of counterpart funds, the setting of timeframes for collection of local contributions, the earmarking of present and future collections to specific purposes (as opposed to cash-in, cash-out utilization of local revenue), and the requirement of maintaining records and documentation were all major innovations.

At the CC level, involvement in the formulation of PPAs also helped to train CC personnel in a new financial management methodology for rural development projects. The Chemonics team did not get involved, however, in financial management of the CCs themselves, because of the inherent sensitivity of the matter.

Finally, at the national level, three specific methodologies were developed and installed. The first was the definition of procedures for handling funds received for matching grant projects from the LDAs and from USAID, and then accounting for related expenditures. The second was a set of procedures for handling training funds provided by USAID, and the third was a revamping of

CYDA's overall financial management system, based on recommendations made in a report by the Chemonics Management Specialist Ashraf Rizk.

(5) Organization and Administrative Methods and Procedures

While at the LDA level, Project 045's outputs in this area were indirect, derived mainly from in-country training and from interaction with matching grant efforts, the project had a greater impact at the LDA/CC level (especially in Hodeida), where filing systems were developed, procedures for selection of subprojects established, technical units set up, and the use of formal, written communications increased.

At the national level, the management assessment of CYDA, presented in annex I, noted many organizational and procedural problems, some of which were subsequently corrected. Separate analyses of CYDA's procurement and inventory procedures led to manuals (in Arabic) that resulted in significant improvement in CYDA's internal operation.

(6) Training Methodologies and Syllabi

After a slow start, the Project 045 training program gathered significant momentum in 1983, as indicated by the establishment of a training administration within CYDA, a sharp upsurge of training activities, and progressive institutionalization of the training function through improved policies and procedures.

Each in-country course had its own syllabus, and the content of any course that was given is available from the provider of that course and may be used again in the future.

(7) Technical Practices

Project 045 tested various innovative technologies relating to equipment, materials, and construction practices. In Al Hamidia, a solar-driven pump was installed. In Al Maghrabah, a well was dug and lined using rings to stabilize the sides. In Hodeidah governorate, a low-cost drilling rig was tried as an alternative to traditional drilling technology. In Mowshig, a unique passive solar school design was used.

Perhaps the most important output in this area was the adaptation of modern construction management practices to LDA projects in Hodeida. These included greater reliance on engineering and architectural designs, development of standard designs, the formulation and use of performance contracts for construction work, and the use of PCVs and technical trainees as inspectors.

Some of these technologies were codified in the form of instructions and manuals--the most notable being Keith Pittman's Manual for Well Drilling in the Tihama.

f. Refinement of Rural Development Strategy and Recommendations for Support of Local Development Initiatives

The Project Paper envisioned continuing refinement of rural development strategies applicable to Yemen and to the LDA movement throughout the project. This did occur, albeit more slowly than anticipated and with fewer successes.

The first refinement of the rural development strategy, as mentioned earlier, was to recognize that the experimental design using three groups of LDAs, or control groups, to test alternative approaches is extremely difficult when the groups have to be told ahead of time, when the difference between groups is whether money is provided or not, and when the physical proximity is such that one group will know that money is being provided to another. It might have been possible to split groups across governorates but not within them.

A second discovery was the great variation in LDA capabilities between and within governorates. While Hodeida is relatively uniform, Hajja is not at all. This meant that approaches had to be different.

A third lesson was that strict guidelines for matching grant contributions were inappropriate, given the variation just described. Hajja projects were inherently more expensive because of the rough terrain. Some LDAs were much wealthier than others in Hajja, depending on whether they grew qat or not. This meant that the scale of projects varied according to whether it was in Hajja or Hodeidah, and that the contribution that could be reasonably expected also varied greatly.

A fourth lesson was that in-kind labor is not often forthcoming in rural development projects in Yemen, in part because of the shortage, but in greater part because of attitudes concerning manual labor.

A fifth lesson was that CYDA's relationship to the CCs, and the CCs relationship to LDAs, was not sufficiently close to ensure willing cooperation. Catalysts were generally needed to cause one level to take an action or reach a decision needed by the other level. In most cases individual LDA members served as the catalysts, but the expatriate advisors often did as well.

Many other lessons learned have been cited elsewhere in this report, and they are summarized later in Section IV, so we will not continue enumerating them. What should be clear is that considerable practical knowledge was learned in the course of implementing Phase I of Project 045, that these lessons caused mid-course corrections as originally envisioned, and that the lessons are of potential use in a Phase II effort.

g. Design of a Phase II AID-supported Project

According to the Project Paper, the principal technical assistance contractor was expected to help design a Phase II project. Starting just after the mid-project evaluation, the Chemonics team attempted to provide this assistance, first through efforts by the Team Leader and later by the Socio-economic Researcher. Unfortunately, however, relations between Chemonics, CYDA and USAID were strained throughout this period, effectively preventing a meeting of the minds regarding the content of Phase II. For much of 1983 AID refused to consider a Phase II effort.

As the flow of tangible outputs from Phase I increased during the latter part of 1983 and early 1984, USAID's position eased. However, USAID's concept of a Phase II effort was centered around a modest amount of training, while CYDA wanted \$50 million in funding for a large rural infrastructure effort. No one at CYDA was willing and able to represent the institution in serious negotiations, and USAID stated clearly that it would not entertain a proposal generated by Chemonics, however realistic it might be. In summary, at no point was there meaningful dialogue between USAID and CYDA regarding a Phase II project.

2. Tasks

According to its contract with AID, Chemonics was responsible for accomplishing six major tasks. While an a final assessment of the contractor's performance is the responsibility of the end-of-project evaluation team, below we present one point of view.

a. Task One: Train and Assist Local Level Officials in Project Planning, Financing, Management, Implementation and Evaluation

The Chemonics contract states that "the purpose of this task is to build the capacities of the Local Development Associations to plan, finance, execute and evaluate projects which will improve the productivity, incomes, and quality of life of rural residents. The contractor shall work to achieve the objectives by: (1) involving the local population in development decision-making; (2) increasing the local population's resource commitment to development activities; (3) assisting the LDAs to develop mechanisms to mobilize the financial resources required; (4) training LDAs in the management of those financial resources; and (5) monitoring AID financial inputs to LDA sub-projects."

Looking at the five types of activity in which the contractor was to engage, in our view Task One was substantially accomplished.

(1) "Involving the local population in development decision-making"

The principal way in which Project 045 involved the local population was in the selection of specific projects to pursue rather than in the selection of the type of project.

With very few exceptions, LDA requests for assistance under Project 045 were limited to rural infrastructure projects, as opposed to income- or employment-generation projects. In the case of Hodeida, this meant that LDAs in the final analysis had a choice between a water system or a building (school, clinic, etc). In the case of Hajja, even though the first choice was often a road, during the first several months of implementation it became clear that expatriate advisors could not function as road engineers or surveyors, since the political considerations of whose land would be helped or hurt were simply too delicate. Thus in Hajja the choice was rather straightforward, i.e., a water system, given that other structures tended not to distribute their benefit evenly through the village.

Once it was determined that water projects and buildings were the only realistic possibilities (until income generation projects could be seriously considered, during the last half of the project), local decision-making input centered around the choice of which project to pursue. LDAs did select the projects to be assisted, subject to financial limitations imposed by Project 045 resources and guidelines, as well as their own resource constraints.

Once a project was identified, local input was also solicited concerning the type of construction, materials, exact location, contractor, and labor, although of necessity technical considerations sometimes took precedence over community preferences.

In general, it is fair to say that Project 045 did have a very positive effect on LDAs in that it created a forum for discussing and introducing new ideas about rural development, and it did result in a much increased level of dialogue among LDAs, CCs, and CYDA.

(2) "Increasing the local population's resource commitment to development activities"

The 50% - 50% matching grant arrangement did draw out funds from the LDAs for application to projects; however, it is impossible to know how much of the local contribution would have occurred anyway, without the matching grant mechanism.

(3) "Assisting the LDAs to develop mechanisms to mobilize the financial resources required"

Project 045 probably had little impact in this area because securing funds was largely a "political" task that Chemonics staff eschewed because of its inherent sensitivity. What 045 did contribute to the fundraising process was an image of respectability and honesty. Villagers seemed more willing to contribute if they knew 045 was going to be affiliated with a project, presumably because they felt project staff to be more reliable than the LDA officials themselves.

(4) "Training LDAs in the management of those financial resources"

By the time the contractor team left Hodeidah, the CC and LDAs were utilizing some of the contracting and financial management procedures that 045 had introduced. Both the LDAs and the CC had begun to perceive the use of written contracts as a valuable tool in the case of disputes. If Project 045 had gone on for another two years, this is one area where real improvement on behalf of both the LDAs and the CCs would have been realized.

(5) "Monitoring AID financial inputs to LDA sub-projects"

As annex F shows, Project 045 implemented 15 sub-projects with AID financing of \$765,789. Some projects exceeded the \$50,000 limit shown in the contract, but only after it was amended through a PIL. Others exceeded the 50% rule, based on prior AID approval. Contractor staff did closely monitor procurement and vouchering procedures. Full financial and accounting records of all subprojects were maintained.

In summary, in our view the specific activities assigned to the contractor under Task One were substantially carried out. The subprojects selected did improve the quality of life of rural residents, and to a lesser extent their productivity and incomes. Project 045 cannot claim to have had a measurable impact on the capacities of a large number of LDAs, but individual LDAs undoubtedly did benefit from the technical assistance provided.

b. Task Two: Create Technical Capacities at the Local Level to Carry Out and Maintain Development Activities

According to the Chemonics contract, "The purpose of this task is to create a technical capacity at the local level to support local development initiatives through development of specific skills in the fields of engineering, construction, agronomy, health, and human resources development."

In our view, Project 045 did positively affect the capacity of LDAs in the areas of construction and human resources development, but had little appreciable effect in the areas of engineering, agronomy and health.

In the process of constructing matching grant subprojects, LDA officials, local contractors and, to some extent, local villagers were exposed to and influenced by both 045's construction management and actual construction implementation practices. Field personnel stressed such practices as: (1) clean aggregate; (2) proper concrete form construction; (3) the necessity of adhering to specifications; (4) the value of scheduling to insure that materials and manpower were on-site as needed; and (5) the desirability/necessity of using control documents such as contracts that clearly specified what a contractor was expected to do and for what price.

With regard to human resources development, Project 045 did train technicians to maintain and supervise water systems. Furthermore, project staff did influence the performance of several of the contractors they worked with.

In the field of engineering, little impact was achieved at the local level, simply because engineering requires much more formal education than is commonly found in rural Yemen. It made no sense to try to teach LDA members how to design water projects, for example. All that could be achieved was a sensitization of LDA officials to the complexity of water projects in a physical environment such as Hajja Province.

With respect to agriculture, a decision was made early on by Chemonics, CYDA and USAID not to divert limited project resources into an area in which many other projects were already working.

As far as health is concerned, while some in-country training did occur, the absence of the rural health PCVs called for in the PP made it unrealistic to attempt any local-level work.

c. Task Three: Increase the Organizational and Technical Capabilities of Line Ministries to Support and Supervise Local Development Initiatives

The Project Paper states that "The purpose of this task is to increase the organizational and technical capabilities of YARG's central level agencies to support and oversee the rural economic development initiatives of local organizations and local government agencies. The Contractor shall work to accomplish this task by: (1) training YARG professional and sub-professional employees in development planning, management, and technical skills; (2) providing continuing technical assistance to the Confederation of Yemeni Development Associations (CYDA), and limited technical assistance to the Ministries of Agriculture, Health, and Education; (3) establishing of a rural development information system and adaptive research program with CYDA and the Ministry of Agriculture."

As annex G indicates, Project 045 did train the anticipated number of professionals and sub-professionals, covering the requisite fields of development planning, management and technical skills. However, it is unfortunately true that even though the training that was carried out did reflect priorities voiced by CYDA and interpreted by the Training Specialist, the mix of skills and specialties did not correspond to any comprehensive assessment of the needs of the LDA movement as a whole, nor of CYDA, the target LDA/CCs and the LDAs in Hajja and Hodeida. Such an assessment would have been feasible if CYDA leadership had been fully convinced of the need for training, which they were not.

As far as technical assistance to CYDA is concerned, that assistance was given as planned, both in terms of content and level of effort. By contrast, virtually no work was carried out with the Ministries of Agriculture, Health and Education for the reasons already mentioned: (1) inadequate resources and (2) lack of contact between CYDA and other line ministries.

The concept of a "rural development information system" and "adaptive research program" developed in conjunction with the Ministry of Agriculture was dropped by mutual agreement with USAID and CYDA, since all parties agreed that project resources should be concentrated in other areas.

d. Task Four: Creation of Rural Development Information Program which Can Be Replicated.

According to the Project Paper, "The purpose of this task was to: (a) develop a knowledge base for directing and improving the project; (b) develop a knowledge base which helps refine the rural development strategy implicit in the project; and (c) over time, collect both data and experience which will permit the development of a "model" of rural development which can be replicated elsewhere in Yemen.

Although a rural development information system was created, and some work was done with CYDA archives, census data and project monitoring, the system never matured because of lack of support and commitment from CYDA and active opposition by LDA/CCs and other YARG agencies.

This situation notwithstanding, a useful knowledge base was in fact developed. The sum total of contractor progress and technical reports, coupled with conference results and "Project Implementation Letters", did help direct and improve the project and help refine the rural development strategy implicit in the project. While a "model" for successful rural development in Yemen was not discovered, substantial information on what does and does not work was gathered, and these are also useful research results.

e. Task Five: Annual Workplan

Annual Workplans were submitted as required.

f. Task Six: Pre-Implementation Visit

The pre-implementation visit was carried out as required.

B. Summary of Problems Encountered

While in the preceding narrative we have already mentioned many of the design and implementation problems encountered by Chemonics, in this sub-section we group them into major categories.

1. Disagreement as to the Nature of the Problem and Preferred Solution

CYDA viewed the problem to be resolved as deficient rural infrastructure--a need for more water supply systems, schools, roads, etc. The solution was, therefore, to provide technical knowhow and financing in turnkey fashion. Training and community organization were relatively unimportant as long as the infrastructure got built. Income and employment generation were also relatively unimportant during the early years of the project, when remittances and external budget support were so high in Yemen that rural income and jobs were not seen as serious issues.

USAID viewed the problem as one of imperfections in the rural development process--resource mobilization, technology, training, management, social organization--that could be converted to opportunities for improvements in income, employment and quality of life through appropriate project interventions.

Thus CYDA's view of the problem was much more circumscribed than USAID's, and CYDA's view of the solution was much more uncomplicated and immediate. CYDA was looking for tangible products, measured in terms of completed rural works. USAID wanted intangible products, measured in terms of increased understanding of the rural development process and of how LDAs/LDA/CCs and CYDA functioned, and in terms of increased capacities. CYDA's timeframe for assessing progress was very short, 12-18 months, while USAID was in theory willing to wait for the whole four years of Phase I.

This difference of perception as to the objectives of the project was a continuing source of trouble for the Chemonics technical assistance team from the very start. Immediately after arrival, the Chemonics pre-implementation team was told by the CYDA Project Coordinator, "We don't agree with this project but accepted it for political reasons". Insufficient groundwork had been done prior to completion of the project design, to resolve differences in objectives, to make sure the mix of inputs was

acceptable to CYDA, and thereby to ensure a reasonable level of commitment from CYDA to the project. Lacking this, what happened was inevitable--the contractor was forced to try to engender commitment and active support throughout the implementation phase.

2. Contradiction Between the Top-Down Approach Used in the Design Process and in Creating Counterpart Relations and the Bottom-Up Approach to Development Advocated by the Project

Given the low degree of awareness and commitment shown by the LDA/CCs and LDAs during the first year of implementation, it was evident that they had barely been consulted during the project design process, even though, in the case of the LDAs, they were intended as the main participants. In Chemonics' experience, neither the LDA/CCs nor the LDAs in Hajja and Hodeida understood what the project consisted of, what its specific objectives were, what resources were available, and on what terms, what role the expatriate advisors were to play, or what was expected from them as clients and beneficiaries.

Another discrepancy existed between the stated intent of the project and the institutional framework set up to implement it. The project agreement was signed with the highest level national organization, CPO, in the name of the grantee, CYDA. This meant that AID had to work through an entity not even directly involved in the LDA movement, and only during the first and last years of the project did the USAID staff have significant direct contact with CYDA sufficient to achieve mutual understanding and trust. As principal contractor, Chemonics faced a similar problem at a lower level. Chemonics' primary reporting relationship was with CYDA, yet Chemonics worked most closely with the LDA/CCs, and was often blocked from direct contact with the LDAs themselves. From the start, then, there existed a major contradiction within the project between its stated objective of promoting decentralization and its mode of operating, which tended to reinforce centralization.

3. Incompleteness and Lack of Realism in Assumptions

A number of assumptions were formally stated in the LRD logical framework, some of which held true while others proved to be false. As we have indicated throughout this report, however, the project design was also predicated on many informal, implicit assumptions, and these often proved more important to success or failure than the stated ones. In the discussion that follows we review both the stated and implicit assumptions in terms of their validity and importance.

a. Stated Assumptions at the Goal Level

- Increased local participation in development decision making will encourage indigenous contributions in cash, labor, and kind.

- o Participation will be equitable and, therefore, increased earnings derived from the above investments will be spread to all socio-economic levels.
- o The YAR will continue to make LDA reliance on local self-help and management the major mode for executing rural works.
- o The current gap in YAR organizational capacity to service villages will continue unless LDAs find ways to bridge it and its capacity is increased over time through staff development and improved management.

Experience gained during Phase I indicated that there is indeed a linkage between local participation and local contributions, but cash contributions proved to be by far the most likely type of contribution, followed by labor. Only rarely did LDAs provide any materials, and even then they were mainly bought by the LDA.

As far as equity is concerned, there is no hard data on the beneficiaries of a given subproject, but our impression is that equitable participation does not follow automatically at all.

The YAR did appear to continue to rely on LDA self-reliance, but toward the latter half of Phase I the project began to compete actively with Project 044 for subproject opportunities, and the latter project was based on much more direct participation by a line ministry in project implementation.

With respect to YAR organizational capacity, it is not clear whether this assumption is true or not. Certainly no other organizational form has arisen to supplant LDAs.

b. Stated Assumptions at the Purpose Level

- Local resources for development, both financial and human, are not currently being fully utilized and more can be made available.
- LDAs are viable instruments for local development.
- Capacities of LDAs to marshal and effectively utilize local resources for development can be improved through the creation of technical skills and introduction of planning and management principles and techniques.
- External support is required to maximize utilization of local resources.
- AID resources can be effectively applied to the local development process.

The first assumption, underutilization of resources, does still appear to be true, but the availability of cash at the local level was always difficult to assess, and appeared to decline over the life of the project as remittances declined nationally.

LDAs are indeed viable instruments for local development in that they respond to local needs with concrete results.

The project generated little evidence that the capacity of LDAs to marshal and effectively utilize local resources may be enhanced by the creation of technical skills or the introduction of planning and management techniques, except insofar as the level of trust sometimes rises momentarily when expatriate advisors are overseeing the use of funds. In fact, the imposition of procedures for selecting projects, designing them, contracting construction services, and accounting for funds may actually decrease the capacity of LDAs to raise funds.

External support did influence the utilization of local resources, in that matching grant financing attracted counterpart funds, but it is not clear that those funds might not have been raised anyway for another project.

Phase I did not really prove that AID resources can be effectively applied to the local development process. Proposed mechanisms were tested and rejected, but an optimal solution was not found.

c. Stated Assumptions at the Output Level

- Officials are available and trainable.
- The principle contractor will design an appropriate program which will be effectively implemented by qualified contractor personnel.
- YARG will provide requisite facilities/instructors.
- Cornell will provide a qualified researcher and other experts; CYDA and the target areas will be responsive to the effort.

Actual experience showed that officials were not always available and trainable. CYDA, the LDA/CCs and the LDAs all had difficulties providing suitable candidates, sometimes because the subject of the course was not considered sufficiently relevant, or because the entry requirements were too stiff, or because the per diem/salary payments were problematic.

We leave the second assumption to the evaluators to judge.

The requisite facilities and instructors did prove to be available for all in-country training needs.

Cornell did provide qualified researchers; however, CYDA and other YARG entities were not responsive to the effort.

d. Implied Assumptions

In addition to the formal assumptions listed above, the project design depended on at least two informal assumptions, both of which proved to be false or only partially true:

- that the design process involved sufficient dialogue and interaction to ensure commitment by all parties and, in particular, that CYDA, the LDA/CCs, and the LDAs perceived a need for assistance, and in the forms and approximate amounts prescribed in the project
- that USAID would retain its institutional commitment to the ten-year strategy underlying the whole effort

As far as the design process is concerned, we have already noted that the evidence indicates that consensus and commitment had not been achieved at the design stage. Moreover, CYDA, the CCs, and the LDAs did not perceive the need for assistance in the forms and amounts set forth in the project paper. From the start they all felt that there was far too much technical assistance, far too little financing for specific subprojects, and too much emphasis on training. In our view, a project such as this must begin with an acceptance of the targeted needs on the part of the proposed beneficiaries as well as a willingness to do something about them, i.e., learn new skills or methodologies.

Finally, the project design assumed continuing interest and support on the part of AID/Washington and USAID/Yemen, which proved not to be the case. The Local Resources for Development Project was originally envisioned as the first phase of a ten-year effort. The effort was terminated after the first four-year phase. Difficulties encountered during Phase I certainly contributed to the decision not to pursue a Phase II effort. However, as this report has demonstrated, outputs actually achieved did approximate those specified in the Project Paper, activity was accelerating during the last year of the effort, and much was learned in the process about rural development in Yemen. Since experimentation and learning were the original objectives of Phase I, AID should address the issue of why a long-term effort was abandoned in midstream when it was, in fact, accomplishing its objectives.

ANNEX A
PROJECT LOGICAL FRAMEWORK

GOAL

Increased production, income, and quality of life in rural Yemen.

Measure of Goal Achievement

1. 20% increase in local resource mobilization of affected LDAs.
2. Improved maintenance performance on public works.
3. Increased local participation by 25% in resource allocation and supply of public services.
4. 20% increase in new private investment in area.
5. Increased capability of YARG to support local development initiatives.

Means of Verification

To be determined, but will rely principally on initial baseline data, survey, questionnaires obtained prior to project implementation by PSC researcher, local budgets for development, and subsequent refinement and analyses of data by Cornell research contract.

Important Assumptions

1. Increased local participation in development decision-making process will encourage indigenous contribution in cash, labor, and kind.
2. Participation will be equitable and, therefore, increased earnings derived from the above investments will be spread to all socio-economic levels.
3. The YAR will continue to make LDA reliance on local self-help and management the major mode for executing rural works.
4. The current gap in YAR organizational capacity to service villages will continue unless LDAs find ways to bridge it and its capacity is increased over time through staff development and improved management.

PURPOSE

Establishment, acceptance, and initial implementation of methodologies for a) increasing the capacity of LDAs to plan, implement, and evaluate locally initiated development projects and b) increased government and external support for locally initiated development projects.

End of Project Status

1. Targeted LDAs demonstrating an increased capacity to identify development problems and constraints, develop adequate plans for activities to overcome problems and constraints, mobilize financial and human resources for these activities, effectively implement them and evaluate their impact.
2. Targeted LDA/CCs and CYDA more effectively performing their administrative and technical support functions in the planning and implementation of local development initiatives.
3. CYDA enjoying an improved reputation as a leader and coordinator of the local development process.
4. Increased understanding and implementation on the part of YARG technical ministries of their designated role in support of local development initiatives.
5. Methodologies established and proven as a result of this project being accepted by elements of the LDA system, other donors, and the YARG.

Means of Verification

On-site observation by USAID and contractors, YAR organization charts, RD plans and budgets, survey of villages--by research program as part of project evaluation.

Assumptions

- Local resources for development, both financial and human, are not currently being fully utilized and more can be made available.
- LDAs are viable instruments for local development.
- Capacities of LDAs to marshal and effectively utilize local resources for development can be improved through the creation of technical skills and introduction of planning and management principles and techniques.

- External support is required to maximize utilization of local resources.
- AID resources can be effectively applied to the local development process.

OUTPUTS

- Locally initiated development projects.
- Trained human resources.
- Training capacity.
- Socio-economic administrative studies.
- Tested methodologies for local development initiatives.
- Refinement of rural development strategy and recommendations for support of local development initiative.
- Design of Phase II AID-supported project.

Objectively Verifiable Indicators

- Minimum of 18 subprojects completed.
- Unspecified number of OJT recipients.
- 70 technicians trained in-country.
- 20 technicians trained in third countries.
- 4 professionals trained in United States.
- Training capacity in NIPA and other organizations.
- Unspecified number of training manuals, guidelines, and syllabi.
- Phase II project initiated.

Means of Verification

USAID, YARG, contractors reports, records, on-site observation. Evaluation of contractor's work plans, subprojects.

Assumptions

1. Officials available and trainable.

2. Principal contractor's design appropriate program which is effectively implemented by qualified contractor personnel.
3. YARG will provide requisite facilities/instructors.
4. Cornell will provide a qualified researcher and other experts, CYDA/target areas responsive to effort.

INPUTS

United States

- 28 person-years long-term technicians
- 60 person-months short-term technicians
- Training funds
- Matching grant funding
- Commodities for project technicians
- 52 person-years Peace Corps volunteers
- DSB/RAD support

Host Country

- Personnel
- Housing for U.S. technicians
- Funds for development projects

Means of Verification

- Contractor's reports
- On-site monitoring
- External evaluation

ANNEX B

CHRONOLOGY OF KEY EVENTS

The list below is intended to give readers unfamiliar with Project 045 a sense of how the project evolved. Obviously the list is highly selective, since the project encompassed almost five years of activity involving numerous institutions and individuals in a complex cultural milieu.

I. MOBILIZATION STAGE (MARCH - MAY 1980)

- * AID/W and Chemonics sign contract on March 27, 1980.
- * On same day, AID/Washington contracting officer shows Chemonics staff a cable from the Mission saying that CYDA threatens to cancel the project unless the contractor begins work immediately.
- * Team Leader Martin Kumorek begins employment on March 29 and travels to post two days later.
- * Project Administrator John Lamb travels to Yemen that same week to assist in start-up.
- * Shortly after start-up, Chemonics is advised by the Peace Corps Director that health, nutrition and agriculture volunteers will not be provided as planned.
- * Work plan for the mobilization phase drafted and submitted in mid-April.
- * Administrative Officer Kevin Creyts arrives in Yemen on April 21.
- * Rural Development Specialist Mark Pickett arrives in Yemen on April 24.
- * An initial reconnaissance trip to Hodeida and Hajja Governorates is made in May.
- * Initial criteria and guidelines for selection of matching grant subprojects drafted by RDS Mark Pickett in May.
- * Short-term Rural Development Engineering Advisor Itil Asmon arrives in Yemen on May 11 for a six-week interim assignment, until the Hajja team can be fielded.
- * Rural Development Engineer John Barton arrives in Yemen on May 21.
- * Plans are made for a Project 045 start-up conference in June.
- * Chemonics and Roy Littlejohn Associates, Inc. sign a subcontract in May.

II. IMPLEMENTATION STAGE (JUNE 1980 - JUNE 1984)

A. QUARTER I (JUNE - SEPTEMBER, 1980)

* Start-up conference held in Sana'a, during which Chemonics, USAID, CYDA, LDA/CCs, and Peace Corps personnel reviewed the project design and discussed implementation strategy, focussing on the issue of the experimental design and use of matching grant funds.

* It begins to appear that CYDA does not agree with or understand 045's objectives and content.

* Project 045 office established in CYDA building in Sana'a.

* First annual work plan submitted and approved.

* Hodeida personnel travel to post and establish governorate office, but encounter serious housing problems because the YARG counterpart contribution is not forthcoming--by the end of the quarter AID agrees to allow Chemonics to pay rent, subject to reimbursement.

* Major shipment of equipment and commodities (including vehicles, furniture and appliances) arrives in Yemen in June.

* After a short TDY to attend the conference, Taylor Crosby returns to U.S. to arrange personal affairs, then comes back to Yemen in early July.

* Richard Luckemeir is hired and arrives at post on July 30, 1980.

* Both the Hajja and Hodeidah personnel locate and get their housing refurbished, with some difficulty.

* Hajja team cleans out the basement of LDA/CC to create a technical office.

* After an initial overview visit to several LDAs, field travel by 045 team in Hajja is restricted by head of LDA/CC.

* Problems are beginning to arise from incomplete understanding of, and commitment to, Project 045 by the LDA/CCs.

B. QUARTER II (OCTOBER - DECEMBER, 1980)

* Team is getting settled in, but limited progress has occurred in identifying target LDAs and specific subprojects.

* Project 045 team members are doing more travelling in the field and starting to get involved with ad hoc technical assistance in response to LDA requests, especially in Hodeida.

* The Team Leader and CYDA officials visit ORDEV in Egypt to learn from the Basic Village Services Project experience.

C. QUARTER III (JANUARY - MARCH, 1981)

* Major Project 045 conference held in Hodeida to review progress to date, discuss changes in strategy and resolve issues of selection of target LDAs and use of matching grant funds.

* Short-term Training Specialist Lance Lindabury arrives at post on 2.5 month TDY to do needs assessment and training plan.

* Short-term Information Specialist Barbara Croken is hired to analyze the type and quality of information already available in CYDA.

* Martin Kumorek removed as Team Leader; Chemonics' Project Administrator John Lamb stays on as Acting Team Leader while a permanent replacement is recruited.

* Increased emphasis given to rural infrastructure projects in response to pressure from CYDA for tangible results, at same time that concept of income-generating "central service projects" is developed.

* Cornell researchers still experiencing problems getting travel permits for field work.

D. QUARTER IV (APRIL - JUNE, 1981)

* Project 045 field activity is on the upswing.

* Training Specialist Lance Lindabury returns to post for long-term assignment.

* Short-term Hydrogeologist George Taylor completes two-week needs assessment of CYDA's Public Services Department.

* Short-term Banking Specialist is provided by Chemonics to the Cooperative Development Bank (outside Project 045) to determine the bank's technical assistance needs.

* Timothy McManus arrives at post as new Team Leader.

* First project-sponsored training course in Hodeidah is held over an 8-week period, entitled "Cooperative Administration & Finance", given in conjunction with NIPA.

* First project-sponsored training course is held in Hajja, entitled "Water Project Implementation."

* PIO/P is processed for U.S. long-term training for CYDA Project Coordinator Hamoud Salahi.

- * Potential work sites for matching grant subprojects are identified in both Hajja and Hodeidah; PPAs are drafted.
- * USAID Project Officer Frank Pavich leaves post; he is replaced by Diane Ponasik.
- * Apple computers ordered for the information systems component; Barbara Croken's assignment extended.
- * First standard designs for rural infrastructure projects are completed.
- * Short-term Water Projects Specialist William Claybaugh arrives to assist in analysis of Low-Cost Well-Drilling Central Service Project.
- * Construction and Mechanical Specialist Joseph Schneider arrives at post to assist in field construction, train counterparts in vocational trades and oversee project vehicle repairs.
- * Project 045 personnel and counterparts begin discussions of how to obtain and fund "counterpart technicians" at the governorate level.
- * Project 045 is experiencing problems with visas and exemptions.
- * Quarterly Report again notes that CYDA does not understand 045's intent, and prefers a "bricks and mortar" project.

E. QUARTER V (JULY - SEPTEMBER, 1981)

- * Second annual work plan submitted and approved.
- * CYDA Project Coordinator Hamoud Al-Salahi leaves for long-term training in the United States; replaced by Ahmed Said Al-Aghbari as the new Co-Manager.
- * Apple computers are received, broken in and sent to Yemen; Barbara Croken goes to North Carolina for training.
- * Quarterly report once again notes need to explain 045's intent to CYDA.
- * Al Khowfan and Souk Al'Rabua Water Project PPAs (Hodeidah) approved and funded.
- * Wadi Sharis Water Project PPA (Hajja) submitted to CYDA and AID; other Hajja PPAs in draft process.
- * Project 045 team, while preparing PPAs, is actively involved with many specific, limited technical assistance efforts in both Hajja and Hodeidah.

* Training Specialist visits other Mid-East training facilities to identify programs appropriate to CYDA's needs.

* CYDA fails to meet both "rent and counterpart personnel" commitments.

* In general, Project 045 gets much broader in an attempt to match integrated rural development character of original design.

F. QUARTER VI (OCTOBER - DECEMBER 1981)

* CYDA general elections occur during quarter; virtually all activity dependent on CYDA's assistance grinds to a halt.

* A second 045 Conference is held; basic intent is to try to determine where 045 should be going.

* In conflict with prior Quarterly Report, now stated that Souk Al'Rabua is not on a "go" basis, but rather is bogged down in local political dispute.

* Al Hasinyah primary school PPA in draft process.

* Wadi Sharis and Magrabah Water Project PPAs still awaiting approval and signatures.

* Technical assistance in Hodeidah continuing at reduced level; Hajja technical assistance still occurring at desired level.

* "Low-cost drilling rig" concept being researched.

* "Mobile workshop" plans are in limbo.

* First 6 counterpart technician trainees recruited (3 in Hajja, 3 in Hodeidah); 045 agrees to bear full cost initially with CYDA to assume cost on an incremental basis throughout life of 045.

* 045 still exploring numerous training options with little progress to report; Hamoud Al Ulufi assigned to work with Lance as "training assistant."

* 045 in process of installing and "debugging" Apple Computers.

* National staff is expanding.

G. QUARTER VII (JANUARY - MARCH, 1982)

* Report talks of prospect for "new beginning" for 045.

* The Wadi Sharis, Magrabah, mobile workshop, and experimental well PPAs are all approved and signed.

- * Strained relations with Hajja CC staff are noticed.
- * Khowfan water project is completed.
- * Socio-economic Research Specialist Jon Swanson arrives in-country to begin assignment.
- * Short-term Institutional Liaison Specialist Richard Verdery joins 045 team to train CYDA foreign relations personnel in the management of relations with outside donors and improve linkages.

H. QUARTER VIII (APRIL - JUNE, 1982)

- * Work begins on both the experimental well and Magrabah water project PPA work sites. The use of "in-kind" local labor is proving to be a problem.
- * Souk Al Rabua water project is 95% completed. Al Jirba water project PPA signed. Other Hodeidah PPAs are being prepared. The 045 annual work plan is submitted to the Hodeidah CC prior to formal approval, thus allowing CC to review in advance. Work plan restates need for Project 045 to focus on limited number of selected LDAs as opposed to "shotgun" approach favored by CC and CYDA.
- * Both the Wadi Sharis water project and mobile workshop PPAs (Hajja) are stalled, awaiting approval and signatures. Work is progressing on preparing other Hajja PPAs. However, atmosphere in Hajja CC with regard to Project 045 is deteriorating. CC still fails to understand that 045 is not turn-key type project and considers that agreements made concerning mobile workshop have been ignored. Field travel by 045 personnel is being restricted and hampered by CC by means of travel letter requirement.
- * In a general sense, CYDA is assisting with the matching grant process on an ad-hoc basis; when a specific problem arises, CYDA will sometimes intervene.
- * New annual work plan raises the idea of doing income generation and women-oriented subprojects.
- * CYDA and CCs engaged in dispute over PPA approval procedure; result is that pending PPAs go into limbo.
- * Short-term Management Consultant Ashraf Rizk is provided for a 3-4 month period to do an analysis of CYDA's management systems and offer suggestions. The consultant receives good institutional and individual support from CYDA.

* The International Liaison Advisor receives very little institutional support from CYDA, even though CYDA has often expressed interest in enhancing its "donor" appeal. Result of consultant's investigations is that it is determined that CYDA does engender interest in most donors, but CYDA's poor record scares people away. Conclusion is that CYDA must upgrade its image.

* Two Apple computers are installed in recently completed CYDA computer room, which required extensive modification and upgrading of the electrical wiring. CYDA computer staff now stands at three; all three members well regarded by O45 personnel. Yahiya Al Anisi attends an 8-week course at the University of Connecticut entitled "Uses of Computers in Management and Development."

* Two short training courses are undertaken; one with NIPA in Hodeidah, the other with the Cooperative Bank in Hajja. However, a consensus is emerging that until CYDA views training as an essential component of its long-range institutional agenda and dedicates appropriate effort and resources to training, O45's attempts to assist CYDA in this realm will only meet limited success. The area most affected is that of Arab World training, which requires counterpart funds for travel as well as payment of half-salary for trainees.

* Chemonics again stresses with CYDA the need for socio-economic research in Hajja and Hodeidah as the basis for the rural development information system. CYDA agrees in principle, but takes no affirmative action regarding permits. In the meantime, the socio-economic researcher begins preparing survey forms, etc.

* Taylor Crosby completes his RDS assignment and departs Hajja.

* Kevin Creyts completes his Administrative Office assignment and departs Sana'a; he is replaced on an interim basis by Chemonics' home-office Project Administrator Jean Feister.

* A second group of PCVs arrives in-country and begins training.

I. QUARTER IX (JULY - SEPTEMBER, 1982)

* During the quarter, four holidays occur, including Ramadan, which sharply curtail work accomplished.

* A new annual work plan is approved by CYDA and AID.

* Short-term Hydrogeologist Keith Pitman writes a manual on well-drilling in the Tihama.

* With the assistance of CYDA, the impasse for both the Wadi Sharis water project and the mobile workshop PPAs (Hajja) is overcome and they are signed on August 17.

- * On August 19, 1982, just after RDS Taylor Crosby has left and while RDE Richard Luckemeier is on home leave, two of the three PCVs assigned to Hajja are arrested, the 045 technical office in the CC is put under lock and key, and two 045 project vehicles are seized. A firm statement as to why the PCVs were arrested is never issued by CYDA or any other agency of the YARG; both PCVs are deported from Yemen in early September. All 045 activity in Hajja is suspended.
- * Chemonics requests for improved communication between CYDA and the project staff, CYDA forms a five-man "Project Committee."
- * Matching grant/PPA implementation activities in Hodeidah are severely hampered by the fact that LDAs are unable to gain access to their "zakat" tax revenues with which they can meet PPA financial obligations. Access is blocked by the YARG.
- * The Jaliyah Water Project PPA is prepared.
- * The low-cost drilling rig PPA is stalled; everyone expresses interest in the idea, but CYDA cannot arrive at a plan to manage the project.
- * The singlemost pressing training need is for CYDA to recognize that it must assign a full-time staff person to work hand-in-hand with the 045 Training Specialist for the purpose of devising long-range training plans applicable to CYDA's needs.
- * The Training Specialist and two CYDA officials visit Cairo and Amman to arrange/investigate Arab World training opportunities.
- * A CYDA official attends a training course in publishing at the Al-Ahram Publishing Company.
- * The CYDA Director of Planning attends a University of Florida two week course in "Alternative Energy Technologies."
- * Eight trainees from LDAs begin a six-month course at Taiz Highway Authority Training Center in "Heavy Equipment Maintenance and Repair."
- * The Rural Development Information Specialist visits Cairo to investigate the existence of computer repair and support facilities. Both Apple processors accompany her; both must be repaired as the result of "power surge" damage. Upon return to Yemen, the specialist is diagnosed as having hepatitis.
- * A short-term computer specialist, Sandra Bertoli, visits Yemen for a week to trouble-shoot technical problems and to demonstrate the interactive statistical inquiry system (ISIS) software.
- * The creation of an Income Generation Specialist slot is discussed.

J. QUARTER X (OCTOBER - DECEMBER, 1982)

- * The mid-project evaluation occurs.
- * On December 13, 1982, a major earthquake strikes Dhamar region of Yemen, causing CYDA to divert much of its attention and resources to relief work.
- * Tax revenues are released by YARG to the LDAs.
- * The combination well and Hasinyah primary school PPAs are approved.
- * All 045 activity in Hajja is suspended, though several visits are made to Hajja by 045 staff to retrieve personal effects and to "feel out" the mood of CC personnel.
- * Richard Luckemeier, Dick Verdery and Barbara Croken all complete service with 045; Jim Ginther joins the staff as RDE.
- * The pace of in-country training begins to accelerate in terms of number of trainees and variety of courses.
- * Two CYDA officials attend a three-week course in Turkey on "Preparation and Evaluation of Agriculture & Rural Development Projects."
- * Seven CYDA candidates are accepted for training at the Amman Arab Community College. Five of the candidates are 045 technical counterparts; three new counterparts are recruited
- * Video equipment is purchased for use by CYDA to develop training tapes.
- * The Rural Information Specialist is ill for approximately half the quarter. Sandra Bertoli does TDY to backstop.
- * The low-cost drilling PPA is still stalled within CYDA.
- * Preliminary planning for income generation and women's activities are suspended pending recommendations of the mid-term evaluation.

K. QUARTER XI (JANUARY - MARCH, 1983)

- * CYDA requests the replacement of Team Leader Tim McManus.
- * Paul McVey is promoted to Chief of Party while retaining Admin Officer duties. John Lamb and Ashraf Rizk visit Yemen to assist in the transition. All concerned (CYDA, AID, and Chemonics) feel that a reassessment of 045 goals and direction is required. The end result is an agreement to trim international staff to a level of four and to reprogram resulting savings into increased matching grant activity and training. The process of preparing a revised work plan, manpower plan and budget is begun.

* USAID Project Officer Diane Ponasik departs post; Dr. Pat Peterson becomes the de facto USAID Project Officer.

* CYDA creates a Training Administration and appoints a direct counterpart to the 045 Training Specialist.

* 045 activities resume in Hajja, though 045 is still denied access to the CC 045 technical office and the files it contains. The two 045 vehicles that were seized by the CC are returned. Work resumes on the hand dug well and Magrabah water project PPA work sites. A vehicle is purchased and modified for the mobile workshop. Work begins on the Wadi Sharis water project PPA work site. At the request of CYDA, a Hajja district matching grant priority list is prepared by the 045 Rural Development Engineer which can be used to program uncommitted 045 Hajja matching grant funds.

* Two Yemeni civil engineers are recruited by CYDA and seconded to 045 as "engineer trainees" to assist and participate in the projected increase in matching grant activity.

* Travel letter problems in Hodeidah are becoming more frequent and are verging on harrassment.

* The Souk Al'Rabua PPA work site is; 045 is involved with 9 other Hodeidah matching grants either in the construction or negotiation/draft stage. Implementation problems are becoming serious, with the Hasinyah primary school PPAs a result of poor construction contractor performance.

* The idea of a "solar energy" village water pump project is discussed with CYDA and AID.

* Chemonics and AID both continue to encourage CYDA to make the 045 Co-Manager position a full-time, fully CYDA-funded position. So far, 045 has financially supported this position almost exclusively.

* In-country training continues to grow in scope and quantity. The project lays the groundwork for 10 trainees to participate in Arab World training, and accordingly, requests CYDA to arrange necessary YARG required procedural details, i.e. nominate 10 candidates and process them through the CPO.

L. QUARTER XII (APRIL - JUNE, 1983)

* The Hajja district matching grant priority list remains with CYDA; CYDA fails to advise 045 if they concur or do not concur with the list, thereby delaying commencement of in-depth field surveys.

* The Mowshig primary school PPA is prepared and presented to AID, with a 75%-25% funding breakdown (AID absorbing 75% of total cost). This departure from the traditional 50%-50% format is proposed by CYDA as a result of financial constraints resulting from the December 1982 earthquake.

* A revised 045 budget is submitted to CYDA and AID; the budget reflects a scaled-down international staff and an increased funding level (additional \$213,000) for matching grant and training activities.

* The fact that 045's project activity completion date is approximately one year away begins to affect events and discussions. While funds are being liberated for an expanded matching grant effort, the necessity of tight implementation schedules becomes more and more apparent. CYDA initiates discussions with 045 as to the possibility of a Phase II; however, it becomes apparent that what CYDA would like to see in a Phase II and what AID is willing to discuss are greatly dissimilar in focus and funding levels.

* A full time PCV field supervisor is placed with the hand dug well/Magrabah water project PPAs to accelerate the extremely slow construction pace. Slow pace is the result of virtually no CYDA and CC support and the erratic nature of in-kind local labor on which both PPAs are heavily dependent. PCV is returned to work site only after 045 has received assurances from CC and CYDA that a repeat of the arrest of the two former Hajja PCVs will not occur.

* The long-awaited mobile workshop begins to take on definite form: a building is rented, trainees are selected, administrative and financial procedures are under development, and the Chief Technician Trainer moves to Hajja.

* All construction activity at the Hasinyah primary school PPA work site has ceased due to non-performance by the construction contractor. 045 staff initiate discussions with the Hodeidah CC and CYDA as to possible actions that will result in completion of the school.

* The solar energy pumping project PPA is prepared.

* Project 045 sponsors the second cooperative seminar in Hajja.

* The Training Specialist continues to press CYDA for the names of 10 trainee candidates for Arab World training.

* Project 045 sends five CYDA officials on invitational travel to the USA.

* The issue of CYDA support for the Co-Manager position remains unresolved.

* 045 proposes to CYDA and AID that the contract of the Socio-Economic Researcher be extended, with a revised job description, in exchange for the cancellation of any further short-term consultancy visits.

* The 045 Hodeidah Rural Development Specialist and Rural Development Engineer leave Yemen. The Rural Development Specialist position is eliminated; the Rural Development Engineer assumes all vacated duties.

M. QUARTER XIII (JULY - SEPTEMBER, 1983)

* The revised 045 budget is approved by CYDA and AID. Consequently, seven new PPAs are prepared and submitted. All new PPAs follow a new format that includes enhanced "boilerplate." The solar energy pumping project is included.

* All Hajja matching grant projects move forward, though at varying paces. Most notable is that the mobile workshop is now generating income as a result of field work; discussion starts as to the feasibility of extending the life of the mobile workshop PPA for three months beyond the January 31, 1984 expiration date.

* Construction activity ceases for two Hodeidah matching grant PPA work sites (Shuggan and Jirbah) due to the failure of the LDA to provide funding. After months of discussion, AID cancels the Hasinyah primary school PPA as a result of non-performance on the part of the construction contractor and the inability of either CYDA or the CC to institute affirmative, corrective action.

* AID formally rejects CYDA's request for consideration of 75%-25% matching grant funding guidelines.

* AID cancels the plan to send 10 CYDA trainees to Amman for Arab World technical training because of CYDA's failure to nominate candidates.

* Phase II is still being discussed, but it is increasingly apparent that CYDA is not willing to commit resources to project design; AID insists that CYDA must be the driving force behind any new proposal.

* Frank Mertens takes over as USAID Project Officer.

* Training is undergoing a shift of emphasis from means of processing "X" number of trainees through "Y" number of courses to emphasis on developing institutional capacity within CYDA to administer its own training activities once 045 is completed. At the same time, Project 045 is processing a substantial number of trainees through a wide range of in-country courses.

* Both 045 Engineer Trainees are terminated for disciplinary reasons.

- * The extension of the Socio-Economic Researcher's services is approved by CYDA and AID.
- * The Mechanical and Construction Services Specialist, Joseph Schneider, completes his assignment and leaves post.
- * The Co-Manager support issue remains unresolved; the new budget ends all related funding for the position as of December 31, 1983.
- * The erratic and untimely issuance of travel letters by the Hodeidah CC is becoming a very serious impediment to matching grant work site activities. New PPAs contain specific guarantees of proper issuance of travel letters.

N. QUARTER XIV (OCTOBER - DECEMBER, 1983)

- * All seven newly proposed matching grant PPAs are approved; however, three are cancelled by AID because of the failure of CYDA, the Hodeidah CC and respective LDAs to honor funding and/or travel letter commitments.
- * For the four remaining new matching grant PPAs, a and compromise solution is agreed to for travel letters, funding is supplied.
- * Three matching grant PPA work sites are completed (Jirbah, Medinet Mawr, and Wadi Sharis water systems).
- * For the first time, the CYDA Training Administration designs and implements an 045 supported training program that is not affiliated with another institution (a six-week course entitled "Highland Agricultural Cooperative Course").
- * The proposed three month extension for the mobile workshop remains under discussion with CYDA and AID.
- * The issue of CYDA's support for the 045 Co-Manager goes unresolved; as of December 31, 1983 all 045 financial support ceases.
- * The Shuggan water project PPA remains suspended due to LDA funding problems.
- * Work on the Magrabah water project is further impeded when the water level in the experimental well subsides below the bottom of the well.
- * Even though the Hasinyah PPA is cancelled, the LDA refuses to refund AID supplied funds that are held in the PPA bank account.

O. QUARTER XV (JANUARY - MARCH, 1984)

* Six matching grant PPA work sites completed, the only two outstanding sites being Magrabah water project and the solar energy pump. Due to the continual delays and implementation impediments encountered at Magrabah, AID issues strict guidelines to CYDA regarding exactly what further assistance AID will supply to the work site and under what conditions. Due to redesign consideration and errors in the original PPA budget, the solar energy pump PPA is amended.

* The issue of AID funds held in the Hasinyah primary school PPA bank account remains unresolved even though AID has requested support and action from CYDA.

* Socio-economic Researcher Jon Swanson completes his tour in Yemen.

* Project support for the mobile workshop ceases on April 30, 1984. The Chemonics advisor presents CYDA with a detailed list of management, finance and implementation suggestions with regard to the future of the workshop.

* A final training program is prepared to cover the time remaining until the PACD. Six external training activities are proposed; four are eventually cancelled due to CYDA's failure to affirm the activities and provide nominees. The two programs that do materialize are an Arab World reconnaissance trip for four CYDA officials, and video production training in Cairo for five CYDA nominees.

* For the first time, four women are enrolled in an 045 supported training course (primary health care in Saada).

* As the PACD approaches, a considerable amount of time is utilized in discussing/finalizing 045-CYDA "turn-over" details.

III. CLOSEOUT (MAY - JULY, 1984)

* Both the Magrabah water project and solar energy pump matching grant PPAs are finalized.

* AID and 045 issue a joint PPA amendment for three work sites that allows all outstanding AID supplied funds to be expensed against appropriate project related material and equipment purchases.

* 045 supports training activities until literally the last day of the project; all training accounts are either reconciled or covered by letters of agreement between AID and CYDA.

* Hamoud Al Salahi completes his USA training and returns to Yemen.

* All non-expendable 045 equipment is turned over to CYDA in accordance with AID instructions.

* RDE James Ginther completes his assignment on May 31 and leaves Yemen.

* Training Specialist Lance Lindabury completes his assignment on June 30 and leaves Yemen.

* Team Leader Paul McVey and RDE Frank Devlin complete their field assignments and leave Yemen in July.

SUMMARY OF GOODS AND SERVICES PROVIDED
UNDER PROJECT 045

TECHNICAL ASSISTANCE

Personnel

1. 14 long-term Technical Advisors
2. 13 short-term Technical Advisors
3. 4 project Support Personnel (Foreign)

Project Proposal Agreements for Matching Grant Projects

1. 15 matching grant projects completed

Establishment of Technical Departments in Hajja and Hodeida

1. 2 complete technical offices established
2. Office furniture, equipment, and supplies
3. Technical supplies and equipment

Technical Equipment for CYDA

1. Equipment for the Public Services Department
2. Equipment for the Planning Department

Standard Technical and Administrative Procedures for the
Technical Departments in Hajja and Hodeida

Reports

1. 31 technical and rural development reports

TRAINING

Summary

1. 47 in-country, third country, and U.S. training programs in technical and administrative fields, entailing the training of 569 individuals for a total of 159 person-years of training
2. On-job training (OJT) in technical and administrative fields entailing the participation of 166 individuals for a total of 47.5 person-years of training

Goods and Services

1. 90 sets of bedding for use in trainee lodgings
2. 189 pairs of coveralls for trainees in veterinary and heavy equipment operation and maintenance training
3. 83 pairs of footwear for trainees in latter programs
4. 57 pocket calculators for use by trainees in accounting programs
5. 59 English textbooks for use by trainees in English language programs
6. 30 diesel mechanics textbooks for distribution to technical offices and LDA presidents to promote training in diesel mechanics
7. 1 complete set of World Bank/Economic Development Institute training materials in Arabic for proposed use in CYDA
8. 1 Toyota Land Cruiser for use in the service of training by the CYDA Training Administration
9. Miscellaneous kitchenware for use in trainee lodgings
10. Miscellaneous raw materials and tools used in conjunction with practical training in plumbing, auto mechanics, electrical systems, and reinforced concrete construction
11. Miscellaneous drafting and engineering supplies for use by counterpart technicians
12. Miscellaneous furnishings from project surplus supplies for use in the CYDA Video Production Unit
13. Video photography and editing equipment for use by the staff of the CYDA Video Production Unit

INFORMATION SYSTEM DEVELOPMENT

1. 2 complete Apple II microcomputer systems (See Annex H for details regarding configurations)
2. Computer room furniture
3. Air-conditioner for the computer room
4. Electrical equipment for the computer room
5. Programs for the computer

6. All costs related to development of the programs for CYDA and translating them into Arabic computer language

COMMODITIES

1. 14 four-wheel drive vehicles and all related costs such as gas, oil, maintenance and repair
2. Technical and administrative supplies, materials, and equipment such as drafting tables, blue print machines, complete sets of surveying equipment, complete set of drafting equipment, complete sets of mechanical equipment, Arabic and English typewriters, photocopy machines, duplicating machines, file cabinets, desks, chairs, etc.
3. All furniture, fixtures, equipment and household effects required by the project
4. All personnel support costs including housing, travel, educational allowances, and per diem
5. Over 100 technical, cooperative, and socio-economic reference books and publications

ANNEX D STAFFING PATTERN

CONTRACT MONTH	1980									1981											1982											1983					1984																																																																																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52																																																																												
LONG TERM FIELD PERSONNEL																																																																																																																																
1. Martin Kumorek	3/28/80												4/1/81																																																																																																																			
2. John Barton	5/9/80																																																																7/19/83																																																															
3. Mark Pickett	4/21/80																																																																6/21/83																																																															
4. Richard Luckemeier	7/28/80																																																																2/7/83																																																															
5. Timothy McManus													5/06/81																								3/24/83																																																																																											
6. Taylor Crosby	6/30/80																																																																7/31/83																																																															
7. Jon Swanson																									3/24/82																																																															2/19/84																																								
8. Joseph Schneider													6/17/81																								7/23/83																																																																																											
9. Barbara Croken																									11/30/81																							11/30/82																																																																																
10. Lance Lindabury													6/01/81																																																																												6/30/84																																							
11. Kevin Croyts	4/20/80																																				5/14/82																																																																																											
12. Paul McVey																																					7/06/82																																																															7/31/84																												
13. James Ginther																																																	2/21/83																																																															5/31/84																
14. Frank Devlin																																																													4/10/83																																																															7/11/84				

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ANNEX E

FINANCIAL REPORT

CHEMONICS

2000 M St., N.W.
Suite 200
Washington, D.C. 20036

(202) 466-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440361 CHNC UI

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ANNEX E

TO: Controller, USAID/Sana'a
Washington, DC 20523

Date: May 28, 1985

Project No. 279-0045
Contract No. AID/NE-C-1689
Appropriation No. 943-50-279-0069-91

Period: November 1, 1984 -
May 28, 1985
Invoice No.: Y-57

INVOICE

FOR: Service rendered to the Yemen Arab Republic Government (YARG) as covered in the above cited contract and any amendment thereof:

SUMMARY

Category	Budget Amount	Rec'd. to Date	This Invoice	Remainder in Budget
1. Salaries wages and Fringe				
a. Field	\$ 987,847	993,457.60	0.00	(5,610.60)
b. Home Office	55,705	55,650.26	160.37	(105.63)
c. Local Hire	688,100	664,684.14	0.00	23,415.86
d. Fringe Benefits	9,073	9,484.58	22.16	(433.74)
Total	1,740,725	1,723,276.58	182.53	17,265.89
2. Allowances	1,378,778	1,364,070.44	0.00	14,707.56
3. Travel and Transportation				
a. International	391,158	384,343.00	1,901.91	4,913.09
b. U.S.	17,947	20,083.89	213.88	(2,350.77)
c. Local	238,729	221,967.70	0.00	16,761.30
Total	647,834	626,394.59	2,115.79	19,323.62
4. Equipment and commodities	499,439	495,538.46	0.00	3,900.54
5. Other Direct Costs	251,397	247,329.43	(168.04)	4,235.61
6. Overhead	775,926	844,834.41	120.40	(69,028.81)
7. Training	748,934	667,117.57	0.00	81,816.43
8. G and A	308,370	281,684.44	106.23	26,579.33
9. Fixed Fee	190,369	186,743.59	3,625.41	.00
Grand Total	6,541,772	6,436,989.51	5,982.32	98,800.17
Total This Invoice			<u>5,982.32</u>	
Remainder Against Obligation. .		<u>98,800.17</u>		

ANNEX F

ADDITIONAL INFORMATION ON MATCHING GRANT ACTIVITIES

CHEMONICS

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DESCRIPTION OF MATCHING GRANTS PROJECTS' TECHNICAL ASSISTANCE

HODEIDAH GOVERNORATE

Al Khowfan (No. HO/MG/001/81)

PPA Signature: August 20, 1981
Project Completion: March 29, 1982

Joint effort to construct a basic gravity fed, pumped storage potable water system serving the village of Al Khowfan in Nahiya Al Munira. Provided technical assistance in system design, installation of a concrete well head, pump and engine, water tower, and gridiron distribution system to service private standpipes and taps in village compounds as well as village mosque and a public fountain.

Suq Al Ruboa (No. HO/MG/002/82)

PPA Signature: August 20, 1981
Project Completion: July 26, 1983

Joint effort to establish a potable water system in the village of Suq al Ruboa, Nahiya Al Luhayya. Provided technical assistance in system design, installation of pumps, and construction of pump storage room and water storage tower with distribution to individual household taps and five fire hydrants.

Medinat Mawr (No. HO/MG/001/83)

PPA Signature: February 9, 1983
Project Completion: December 10, 1983

Joint effort to establish a potable water system in Medinat Mawr, Nahiya Al Luhayyah. Provided technical assistance in system design, installation of a pump and motor, construction of a pump house and an elevated concrete water tank, and the laying of a pipe distribution system for an existing well.

Al Jirba (No. HO/MG/002/82)

PPA Signature: May 22, 1982
Project Completion: November 30, 1983

Joint effort to establish a potable water system in Al Jirba, Nahiya Al Durayhimi. Provided technical assistance in system design, water tower and pump house construction, and installation of pipeline distribution system to individual households.

Al Jaliya (No. HO/MG/005/82)

PPA Signature: November 9, 1983
Project Completion: March 12, 1984

Joint effort to establish a potable water system in Al Jaliya, Nahiya Al Munira. Provided technical assistance in system design, installation of appropriate pump and motor for existing well, construction of elevated water tank of reinforced concrete, laying of pipelines, etc., for water distribution system to service each village compound.

Al Shuggan (No. HO/MG/003/82)

PPA Signature: January 13, 1983
Project Completion: March 28, 1984

Joint effort to establish a potable water system in Al Shuggan, Nahiya Al Durayhimi. Provided technical assistance in system design, installation of pumping unit, construction of an elevated water tower and a pump house, installation of pumping unit and distribution system to service each household.

Al Qormiya (No. HO/MG/002/83)

PPA Signature: November 5, 1983
Project Completion: May 26, 1984

Joint effort to establish a potable water system in Al Qormiya, Nahiya Al Durayhimi. Provided technical assistance in system design, provision of a pump and motor for an existing well, construction of an elevated water tank of reinforced concrete, installation of water distribution system to service each village compound and laying of pipe to service nearby village of As Salliya where ground level tank placed.

Al Hamadia (No. MG/HO/001/83)

PPA Signature: November 9, 1983
Project Completion: July 12, 1984

Joint effort to establish a solar-related potable water system in Al Hamadi, Nahiya Al Munira. Technical assistance provided in system design, procurement, and installation of solar array and accompanying water pump and construction of fence enclosure.

Hasaniya (No. MG/HO/004/82)

PPA Signature: November 23, 1982
Project Completion: Unfinished

Joint effort to establish a primary school in Al Hasaniya, Nahiya Al Munira. Technical assistance provided in architectural design and supervision for construction of six-classroom primary school to serve surrounding villages.

Mowshig (No. HO/MG/005/83)

PPA Signature: October 12, 1983
Project Completion: March 12, 1984

Joint effort to construct a primary school in Mowshig, Nahiya Al Khowkha. Technical assistance provided in architectural design and supervision for construction of five-classroom primary school.

Combination Well (No. HO/MG/005/82)

PPA Signature: November 6, 1982
Project Completion: August 13, 1983

Joint effort to establish a potable water system based on the installation of experimental wells in Al Jaliyah in Nahiya Al Munira. Technical assistance provided in system design, supervision of drilling of test wells to locate potable water and subsequent deepening and lining of one well using experimental, precast caisson protective rings to maintain water quality.

HAJJA GOVERNORATE

Wadi Sharis (No. W018)

PPA Signature: August 7, 1982
Project Completion: November 13, 1983

Joint effort to establish a potable water system in the Wadi Sharis district. Technical assistance provided in system design; improvements to water pump platform, collection chamber, and protective wall; installation of pump; construction of storage tanks and distribution system to service the Saris Suq, the village of Al Sudan and a nearby primary school.

Al Magrabah (No. W001)

PPA Signature: March 13, 1982
Project Completion: May 28, 1984

Joint effort to establish a potable water system for Al Magrabah in the Nahiya Al Magrabah. Technical assistance provided in system design and supervision of construction of well in Wadi Nishan and pumping and storage system in Central Al Magrabah. Distribution system to service public taps in village.

Hand Dug Well (No. C011)

PPA Signature: March 3, 1982
Project Completion: June 16, 1982

Effort to develop improved sources of potable water in Hajja Province. Technical assistance provided in introduction of piped water systems using shallow hand-dug wells; construction involved the sinking series of reinforced concrete rings.

Mobile Workshop (No. CS001)

PPA Signature: August 17, 1982
Project Completion: April 17, 1984

Effort to establish a mobile workshop for the mechanical repair and maintenance of heavy equipment in Hajja province as an income-generating project for the Hajja Coordinating Council. Technical assistance in staffing, procuring necessary vehicle and tools and operation and maintenance of workshop services provided.

FINANCIAL INFORMATION ON MATCHING GRANT SUB-PROJECTS

(All Amounts Shown In US\$ @ YR4.54/\$)

(NOTE: WP = Water Project, PS = Primary School Project, CS = Central Services Project)

HODEIDAH GOVERNORATE

<u>SUB-PROJECT</u>	<u>LDA/CYDA</u>	<u>AID</u>	<u>TOTAL</u>
Al Khowfan WP	4,511	37,875	42,386
Suq Al Ruboa WP	27,962	27,962	55,924
Medinat Mawr WP	80,066	82,860	162,926
Al Jirba WP	34,141	58,889	93,030
Jaliyah WP	46,118	46,118	92,236
Shuggan WP	30,176	43,106	73,282
Qormiya WP	40,917	43,120	84,037
Al Hamadia WP (Solar)	26,084	26,084	52,168
Hasaniyah PS	22,063	34,035	56,098
Mowshig PS	67,297	67,297	134,594
Exper. Combo. Well	5,947	24,423	30,370
TOTAL	<u>\$385,282</u>	<u>\$491,769</u>	<u>\$877,051</u>

HAJJA GOVERNORATE

Wadi Sharis WP	137,564	88,106	225,670
Al Magrabah WP	48,480	88,106	136,586
Hand Dug Well Exp.	00	10,700	10,700
Mobile Workshop CS*	35,800	87,108	122,908
TOTAL	<u>\$221,844</u>	<u>\$274,020</u>	<u>\$495,864</u>

PROJECT TOTALS \$607,126 \$765,789 \$1,372,915

(NOTE* Mobile Workshop also received direct Project 045 Training Budget support for Chief Technical Trainer's salary for \$39,648)

ANNEX G

ADDITIONAL INFORMATION ON TRAINING ACTIVITIES

CHEMONICS

**2000 M St., N.W.
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Washington, D.C. 20036**

**(202) 466-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440381 CHNC UI**

ANNEX G

SUMMARY INFORMATION ON TRAINING ACTIVITIES

IN-COUNTRY

A. Formal Training Via Established Courses

	<u>Technical</u>	<u>Admin</u>
Training Agencies Involved	13	7
Number of Training Sites	11	5
Number of Programs	29	7
% of Total Number of Training Programs	62	15
Number of Trainees	353	186
% of Total Number of Trainees	48	25
Person Years of Training	119	18.5
% of Total No. Pers. Yrs. Training	58	9
Average Number of Months/Trainee	4	1
Cost in \$US	\$315,039	\$128,917
% of Total Training Expenditures	33	14
Average Cost/Trainee Month in \$US	\$221	\$585

B. On-the-Job Training in Conjunction with Project Technical Staff

	<u>Technical</u>	<u>Admin</u>
Training Agencies Involved	na	na
Number of Training Sites	37	17
Number of Programs	na	na
% of Total Number of Training Programs	na	na
Number of Trainees	147	19
% of Total Number of Trainees	20	3
Person Years of Training	34.5	13
% of Total No. Pers. Yrs. Training	17	6
Average Number of Months/Trainee	3	8
Cost in \$US	\$141,150	\$15,198
% of Total Training Expenditures	15	2
Average Cost/Trainee Month in \$US	\$341	\$97

EXTERNAL (USA & THIRD COUNTRY)

	<u>USA</u>	<u>3rd</u>
Training Agencies Involved	4	6
Number of Training Sites	3	5
Number of Programs	5	6
% of Total Number of Training Programs	11	13
Number of Trainees	10	20
% of Total Number of Trainees	1	3
Person Years of Training	3.5	18

% of Total No. Pers. Yrs. Training	2	9
Average Number of Months/Trainee	4.25	11
Cost in \$US *	\$133,000	\$157,000
% of Total Training Expenditures	14	17
Average Cost/Trainee Month in \$US	\$3,105	\$720

IN-COUNTRYRY & EXTERNAL TRAINING TOTALS

	<u>TOTAL</u>
Training Agencies Involved	30
Number of Training Sites	78
Number of Programs	47
Number of Trainees	735
Person Years of Training	206.5
Average Number of Months/Trainee	3.5
Cost in \$US **	\$948,913
Average Cost/Trainee Month in \$US	\$382

NOTES

* Funding for USA and Third Country training programs was administered by AID; thus these figures represent Contractor's estimates of cost.

** Amount shown includes \$58,609 expended for miscellaneous goods and services with regard to In-Country Training (e.g. purchase of Toyota Land Cruiser for CYDA Training Administration, video equipment, textbooks, coveralls, drafting tables etc.)

Percentages, totals, etc. are rounded.

For calculation purposes, YR4.54 = \$US

TRAINING
(EOPS)

Summary

In-Country Training

Training Abroad

Statistical Tables

Goods & Services

Lance Lindabury
Training Specialist
(End-of-Four Report)
July 1984

Chemetics International Consulting Division
Aid Contract No. AID/NE-C1689
Project No. 279-0045

SUMMARY

In the course of Project 045, over 700 individuals received training for a total of over 200 person years of training.

Project training activities, which covered a variety of technical and administrative fields, took place in over 70 locations, in-country and abroad, and involved collaboration with 29 training agencies.

Approximately 3/4 (569) of all trainees received training through formal programs, numbering 47. The remaining 1/4 (166) received on-job training (OJT) from members of the Project 045 staff. Trainees in both categories received an average of 3.5 months of training per capita.

Close to 90% of all Project training time was realized in-country and involved 96% of all trainees. Three-fourths of in-country trainees received technical training accounting for 83% of in-country training time.

The average cost of training per capita per month for in-country programs and OJT was USD 297. The average cost per capita per month for all Project training activities was USD 382.

With a few exceptions discussed hereafter, the Project 045 training component largely met and frequently exceeded the targets set for it in the Project Paper.

Among un-projected accomplishments of the Project training component were the establishment of a training administration and a video production unit within the counterpart agency, the Confederation of Yemen Development Associations (CYDA).

IN-COUNTRY TRAINING

Geographic Scope

The geographic scope of the Project training effort--which, as with the rest of Project activities, was limited by the Project Paper to the governorates of Hajja and Hodeidah--was enlarged, beginning in 1982, to cover the whole of Yemen. This decision was taken in light of 1) the limited resource of trainees available from the two targeted governorates and 2) the interest of the counterpart agency, CYDA, to make available to a wider field the training resources of the Project. Through the remainder of the Project, where possible, priority of recruitment and placement was given to trainees from Hajja and Hodeidah.

On-Job Training (OJT)

The greater part of OJT, both in terms of number of trainees and total training time, was realized in the course of sub-project implementation.* The financial management and planning skills of Local Development Association (LDA) officials were improved through their involvement with Project staff and the mechanism of Project Proposal Agreements (PPAs). Similarly, improvement was noted in the performance of local contractors, foremen and laborers working under the supervision of Project technical personnel in the course of sub-project construction.

The Project Paper's projection of "several hundred" OJT recipients (vs. the 166 realized by the Project) would have been achieved had all of the sub-projects planned by the Project been implemented.

Most of the long-term Project 045 staff members enjoyed direct counterpart relations for the duration of their tours. Transfer of technical skills through counterpart OJT was hampered by the difficulty first to obtain and then to hold local, English-speaking engineers. No counterparts were assigned to the Project Information Specialist and Socio-Economic Researcher for the duration of their tours.

Formal Training

The Project sponsored training in all of the fields prescribed in the Project Paper--heavy equipment operation and maintenance, mechanics, carpentry, roads construction and maintenance, water systems design and operation, basic electronics, administration and accounting--as well as in the fields of primary health care and veterinary extension. Project Paper targets for training in these fields were met or exceeded.

Involvement of Women

Difficult as it is to get women involved in training in Yemen, the Project was pleased to support the training of four local midwives who joined the Primary Health Care course held in Saada in 1984.

*See accompanying statistical table on OJT Training for notes detailing the bases on which non-counterpart OJT has been estimated.

Program Design & Evaluation

The absence of assignment of a direct counterpart to the Project Training Specialist for close to the first two years of the Project's training initiative (the CYDA training administration was established in March 1983) and a lack of local consensus through this period as to training needs and priorities effectively blocked Project use of short-term consultant time designated for the design and conduct of new programs. Following the mid-Project evaluation, the pre-emption of the value of this time for dedication to other Project activities largely precluded further possibility of program innovation. Thus, with the exception of the "Small Water Projects" course (designed at the Project's initiative), formal training was done through programs either existing or designed locally with limited input from the Project. While every effort was made to induce collaborating institutions to adopt post-training evaluation and curriculum revision procedures, the Project's ability to influence events in this regard was, for obvious reasons, limited.

CYDA Training Administration

In its brief (16 month) collaboration with the Project Training Specialist, the CYDA training administration (which grew to a staff of three by the end of the Project) handled 20 training starts entailing over 350 trainees and the processing of some USD 280,000 in training funds. During this period, the training administration was assisted in the establishment of a filing system and the development of guidelines, procedures and standard forms for financial planning, accounting, trainee recruitment and record keeping.

CYDA Video Production Unit

The video production unit evolved out of a mutual recognition on the part of the Project and CYDA of the potential utility of economical, reusable, portable video-taped training materials to address training needs in all fields. On the part of the Project, video was seen as an ideal means to convey lessons in financial planning, administration and management to cooperative officials and government employees who are, by and large, unavailable for protracted training or unamenable to training through conventional methods. Realization of this objective was delayed largely due to our inability to locate the Arabic-speaking expertise required to carry out the necessary OJT in production. Belatedly (April 1984) the Project was able to send 5 local employees for intensive, 3-month training in the production of video-taped documentary and training films in Cairo, and it is hoped that CYDA will independently pursue this initiative to fruition.

Costs

The per capita monthly cost to the Project for formal training was on average USD 750. 75% of formal training costs to the Project were in the form of stipends paid to the trainees--i.e., the Project was largely relieved of costs for tuition, facilities, materials and equipment, which were borne, for the most part, by the collaborating institutions. Per capita monthly stipends ranged from USD 85 to USD 1,322 and were determined by taking into consideration the following factors.

- resident or non-resident status of trainee vis-a-vis the city of training
- provision or non-provision of room and board by the training institution
- prevailing local costs for adequate room and board
- provision or non-provision by the training institution of local transportation for off-site trainees
- support provided to the trainee by other sponsoring agencies
- opportunity cost to the trainee in absenting himself from work for the duration of training
- incentive to train—ie, guarantee or non-guarantee of post-training employment
- status of trainee—eg, high-level official, mid-level official, rural youth

By and large, economic circumstances in Yemen--pressures to support or contribute to the support of family or to work to save money towards getting married--mitigate against the expectation that trainees should or can support themselves in exchange for free training. Thus, the provision of such stipends is reasonable policy.

The average per capita monthly cost to the Project entailed in OJT was USD 200. The greater part of this cost was in the form of stipends paid to counterpart technicians. These stipends, pegged at the local government level for technicians, were paid initially by the Project at the request of CYDA, citing budgetary constraints, and subsequently assumed by CYDA on a phased-in basis.

TRAINING ABROAD

The shortfalls noted below in Project accomplishments versus Project Paper targets in the realm of foreign training are, as indicated, due not to a lack of provision of opportunities on the part of the Project, but rather a lack of responsiveness on the part of the counterpart agency. A number of factors may be pointed as contributing to this lack of responsiveness.

- cost considerations: 1) the local government requirement that a government agency forwarding an employee for training abroad maintain his base salary for the duration of training; 2) the USAID requirement that the forwarding agency bear such portion of the trainee's transportation to and from the training site as may be flown on the national airline; and 3) the expense entailed in hiring a replacement for the trainee if such is deemed necessary.
- staffing considerations: ie, what to do with the trainee's replacement (he can't be released, due to government regulations) when the trainee returns OR, if no replacement is hired, how to handle the manpower gap created by the trainee's absence.

- in-house politics and ambivalence: ie, time-consuming lobbying in the interests of promoting or obstructing the nomination of specific individuals (whether for personal or professional reasons) and scepticism at higher, decision making levels as to the value of such training (in cost and personal political fallout) tending to the solution of inaction.

Third Country Training

The Project more than met Project Paper targets for person years of training in third countries. It failed, however, to achieve the targeted number of participants and coverage of projected training in administrative and financial fields. An additional 24 person years of third country training--over half of it in administrative and financial fields and constituting a total well in excess of targets--were proposed to CYDA in the summer of 1983. Unfortunately, the failure of the counterpart agency to respond to this offer in a timely fashion forced the cancellation of the proposed training.

U.S. Training

The Project realized the training of one long-term academic participant against the Project Paper's projection of four. This shortfall was due in part to an absence of potential candidates within the counterpart agency who possessed even a rudimentary knowledge of English--ie, it would have taken any of them two years, at least, to get to the level of proficiency required for departure--compounded by CYDA's reluctance to commit its funding and manpower to what appeared to most a long-term proposition of dubious benefit.

Educational travel for higher CYDA officials--visiting cooperative-related government, business and academic institutions--was generally well received and resulted in improved working relations between the Project and the officials in question as a result of the latter's greater familiarity with Americans and American culture.

An additional 3 person years of stateside training--in the form of an intensive 3-month, USDA/USMID sponsored seminar in public administration for up to 12 higher cooperative officials--was broached with CYDA in January 1984 but was not taken advantage of.

*

TRAINING
(EOPS)

CONTENT	TRAINING AGENCIES	SITES	NO. PROGRAMS	Y TOTAL	NO. TRAINEES	X TOTAL	EVS TRAINING	Y TOTAL	AVG MOs /CAP	COST * (USD)	Y TOTAL	AVG COST/CAP /MO (USD)
IN-COUNTRY												
- FORMAL:												
TECHNICAL	13	11	29	62	353	48	119	58	4.0	315,039	33	221
ADMINISTRATIVE	7	5	7	15	186	25	18.5	9	1.0	128,917	13	585
- OJT:												
TECHNICAL	na	37	na	-	147	20	34.5	17	3.0	141,150	15	341
ADMINISTRATIVE	na	17	na	-	19	3	13	6	8.0	15,198	2	97
- MISC. GOODS & SERVICES										55,609	6	
	(20)	(36) [†]	(36)	(77)	(705)	(96)	(185)	(39)	3.0	(658,913)	(69)	297
ABROAD												
THIRD COUNTRY	6	5	6	13	20	3	13.13	9	11.0	137,000	17	120
U.S.	4	3	5	11	10	1	3.57	2	4.25	133,000	15	3145
	(9) [†]	(8)	(11)	(23)	(30)	(4)	(21.75)	(11)	3.5	(290,000)	(31)	1111
TOTAL	29	74	47	100	735	100	205.75	100	3.5	946,913	100	382

*Funding for Third Country and U.S. Programs was handled by USAID/Yemen. The above figures represent the contractor's pre-implementation estimates and not the final program accounts.

†Training in-country and abroad).

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**IN-COUNTRY TRAINING
(EOPS)**

I. TECHNICAL PROGRAMS FIELD/TITLE	TRAINING AGENCY (IFS)	SITE(S)	NO. PROGRAMS	TOTAL TRAINEES	NO./CAP TRAINING	TOTAL TRAINING
WATER						
Small Water Projects: Issues & Alternatives	045	Hajja/BSTC	1	13	0.5	0.5
Diesel Mechanics: Pumps & Motors Installation, Operation & Maintenance of Small Water Projects	MPW	Sanaa/DRWTC	1	7	1	0.5
	AFTE	Sanaa/DRWTC	1	17	1	1.5
			(3)	(37)		(2.5)
ROADS						
Heavy Equipment O & M	MPW	Taiz/HATC	3	36	6	18.0
Road Maintenance	MPW	Taiz/HATC	2	2	6	1.0
			(5)	(38)		(19.0)
VOCATIONAL*						
Vocational Skills (Long Term)	MOE	Sanaa/VTC	1	3	9	2.0
	MOE	Hodeidah/VTC	1	12	0	9.0
Vocational Skills (Short Term)	MOE	Sanaa/VTC	1	60	2	10.0
			1	49	1.75	7.0
			(4)	(124)		(28.0)
HEALTH						
Primary Health Care	MOH	Saada/SH	1	32	10	26.0
	MOH	Marib/IWH	1	13	5	5.5
			(2)	(45)		(31.5)
AGRICULTURAL						
Agricultural Machinery O & M	MOA	Taiz/UARC	2	20	0.5	1.0
			2	26	1	2.0
			(4)	(46)		(3.0)
VETERINARY						
Veterinary Extension	MOA	Sanaa/VI	1	33	9	25.0
LANGUAGE						
English Language	YALI-BC	Sanaa/YALI-BC	10	30	4.0 avg	10.0
I. Subtotals	(13)**	(11)	(29)	(353)	4.0 avg	(11.0)
II. ADMINISTRATIVE PROGRAMS						
Cooperative Admin & Accounting	NIPA	Sanaa/NIPA	1	46	2	7.75
	NIPA	Hodeidah/NIPA	1	12	2.5	2.5
	CG-CAGB-NOFA	Hajja/SS	1	29	1	2.5
Accounting	NIPA	Sanaa/NIPA	1	2	0	1.0
Agricultural Marketing	MOA	Sanaa/GPPP	1	6	0.5	0.25
Second Cooperative Seminar	CYDA-NIPA	Hajja/TTI	1	70	0.25	1.5
Highland Agricultural Cooperatives	CYDA-MOA	Sanaa/CPIP	1	21	1.5	2.5
II. Subtotals	(7)**	(5)	(7)	(186)	1.0 avg	(1.0)
I. Technical Program Subtotals	(13)	(11)	(29)	(353)		(11.0)
II. Administrative Program Subtotals	(7)	(5)	(7)	(186)		(1.0)
TECHNICAL & ADMINISTRATIVE PROGRAM TOTALS	20	16	36	(539)	3.0 avg	12.0

*Areas of specialization: (1) Construction, (2) Carpentry, (3) Electricity, (4) Auto Mechanics, (5) Plumbing, (6) Metalwork (lathing and soldering)

**Including specialized agency sub-divisions and branch offices.

*Adjusted downward to omit distortion due to rounding.

IN-COUNTRY TRAINING
(EOPS)

III. TECHNICAL OJT	ASSOCIATED 045 PERSONNEL	SITE(S)	TOTAL OJT RECIPIENTS	MOs/CAP OJT	TOTAL PYs OJT
SUB-PROJECT DESIGN & IMPLEMENTATION					
Technicians	RDEs/PCVs/CS	Hajja/Hodeidah CCs	9	13.75 avg	10.33
Engineers	RDEs/PCVs	Hodeidah CC/045-PO	2	6	1
SUB-PROJECT CONSTRUCTION +					
Water Projects: Contractors, Foremen Laborers	RDEs/PCVs/CS	Hodeidah Province (9) Hajja Province (3)	90 39	2 avg 2 avg	15 2.5
Construction Projects: Contractor, Foreman, Laborers	RDEs/PCVs/CS	Hodeidah Province (1)	10	2 avg	1.67
HEAVY EQUIPMENT REPAIR					
Mobile Workshop Crew	CM	Hajja Province (20)++	3	12	3
RURAL DEVELOPMENT INFORMATION SYSTEM					
Computer Unit Staff	IS	CYDA	3	4	1
III. Subtotals		(11)*	(37)	(147)	3 avg (34.5)
ADMINISTRATIVE OJT					
GENERAL DEVELOPMENT					
Project Co-Manager	RDPM	045-PO	1 1	12 36	1 3
TECHNICAL					
Coordinating Council Technical Directors	RDSs	Hajja CC Hodeidah CC	1 1	24 48	2 4
TRAINING					
CYDA Training Administration Staff	TS	CYDA	2	16	2.5
PROJECT MANAGEMENT +					
POA Officers	RDSs/RDEs	Hajja/Hodeidah provinces	13	0.5	0.5
IV. Subtotals		(6)*	(17)	(19)	8 avg (13)
V. Technical OJT Subtotals		(11)	(37)	(147)	3 avg (34.5)
VI. Administrative OJT Subtotals		(6)	(17)	(19)	8 avg (13)
Technical & Administrative OJT Totals		17**	(54)**	166	3.5 avg 47.5

* Figure represents maximum number of staff involved in OJT at any given time during the life of the Project--
to, not the total number of individuals occupying the referenced positions in the course of the Project.

** Excluding repetition.

+ Sub-Project Construction and Management OJT estimates are based on the following approximations:

- sub-project construction: average duration of project construction: 6 months
- average cumulated on-site supervision: 2 months
- average daily number of workers on site (including contractor & foreman): 10
- sub-project management: typical number of officials in charge of management of a sub-project: 1
- average cumulated time spent with official encharged with sub-project management: .5 months

(per Frank Dawlin, Project 045 RDE)

++ Figure represents the writer's "fair guess" in lieu of immediate availability of a precise figure.

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I. TECHNICAL PROGRAMS FIELD/TITLE	TRAINING AGENCY (S)	STIPEND	TOTAL PMs	COST/CAP	PROGRAM COST (USD)	
			CAP/MO(S)	/MO (USD)		
WATER						
Small Water Projects: Issues & Alternatives	WVS	Hajja/BSTC	330	6.5	1,485	9,654
Diesel Mechanics: Pumps & Motors Installation, Operation & Maintenance of Small Water Projects	WVS	Sanaa/BSTC	220/330*	7	413	4,284
	WVS	Sanaa/BSTC	496/901*	17	864	3,117
		subtotals		(30.5)	893 avg	(27,054)
ROADS						
Heavy Equipment O & M	WVS	Taiz/UARC	220	216	292	61,008
Road Maintenance	WVS	Taiz/UARC	220	12	292	3,000
		subtotals		(228)	295 avg	(64,008)
VOCATIONAL*						
Vocational Skills (Long Term)	MOE	Sanaa/VTC	90	135	105	2,208
	MOE	Hodeidah/VTC			105	11,067
Vocational Skills (Short Term)	MOE	Sanaa/VTC	132/330*	120	343	41,180
			330	85.75	471	40,439
		subtotals		(140.75)	281 avg	(95,774)
MECHANICAL						
Refrigeration	MOE	Sanaa/SH	110	310	103	32,741
	MOE	Marib/JWH	110	65	177	11,476
		subtotals		(375)	118 avg	(44,217)
MECHANICAL						
Refrigeration	MOA	Taiz/UARC	661	10	1,180	11,805
			661	26	746	19,405
		subtotals		(36)	867 avg	(31,210)
VEGETATION						
Forest Conservation	MOA	Sanaa/VI	88/154*	297	119	35,405
LANGUAGE						
English Language	MOE	Sanaa/ALD-BC	na	120	122	14,640
I. Subtotals	(11)*	(11)		(1427.25)	221 avg	(317,000)
II. ADMINISTRATIVE PROGRAMS						
Cooperative Admin & Accounting	WIPA	Sanaa/WIPA	110	22	375	24,000
	WIPA	Hodeidah/WIPA	463	10	870	1,000
	WIPA	Hodeidah/WIPA	661	29	685	1,000
Accounting	WIPA	Sanaa/WIPA	330	18	330	5,940
Agricultural Marketing	MOA	Sanaa/WIP	463	3	463	1,788
Second Cooperative Seminar	WIPA-WIPA	Hajja/WIPA	1002	17.5	1,150	2,000
Highland Agricultural Cooperatives	WIPA-MOA	Sanaa/WIP	661	11	656	2,000
II. Subtotals	(7)	(7)		(220.5)	581 avg	(128,000)
I. Technical Program Subtotals	(11)	(11)		(1427.25)		(317,000)
II. Administrative Program Subtotals	(7)	(7)		(220.5)		(128,000)
TECHNICAL & ADMINISTRATIVE PROGRAM TOTALS/SUBTOTALS	(18)	(18)		(1647.75)	269 avg	(443,000)

* Low and high figures are respectively stipend levels for residents and non-residents of Sanaa.

PROJECT PAPER TARGETS vs. TRAINING EOPS

CONTEXT	TARGETS				EOPS			
	NO. TRAINEES	NO. PROGRAMS	AVERAGE MOS/CAP	NO. PYS	NO. TRAINEES	NO. PROGRAMS	AVERAGE MOS/CAP	NO. PYS
IN-COUNTRY								
- Mid-level Technical	70	-	3	17.5	79	9*	5	32
- Other Programs ("Seminars")	400-500	16-20	-	-	460	27	2.75	105
- OJT	200+	na	-	-	166	na	3.5	47.5
THIRD COUNTRY								
- Mid-level Technical	20	-	9	15	7	1	28	16.3
- Other	-	-	-	-	13	5	2.3	2.5
U.S.								
- Academic	4 (max)	-	30	10	1	1	36	3
- Other	-	-	-	-	9	4	0.8	.57

* Includes programs in Heavy Equipment Operation & Maintenance, Roads Maintenance and Vocational Skills.

- = unspecified

na = not applicable

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af



MEMORANDUM:

DATE: 11 July 1984
Those Concerned

FROM: Lance Lindabury, Training Specialist, Project 045 *LL*
SUBJECT: GOODS & SERVICES PROVIDED THROUGH THE TRAINING COMPONENT OF PROJECT 045 (EOPS)

Following please find a listing of goods and services provided through the Project 045 training component to the Yemen cooperative movement during the life of the Project (1980-84).

GOODS

Item/Purpose

- 90 Sets of bedding (mattresses, sheets, pillows, blankets) for use in trainee lodgings during programs in Sanaa, Hodeidah, Hajja and Taiz.
- 139 Pairs of coveralls for trainees in veterinary and heavy equipment operation and maintenance training.
- 63 Pairs of footwear for trainees in the latter programs.
- 1 Pocket calculators for use by trainees in accounting programs.
- 1 English language textbooks for use by trainees in English language programs.
- 30 Diesel mechanics textbooks for distribution to technical offices and LDA presidents to promote training in diesel mechanics.
- 1 Complete set of World Bank/Economic Development Institute training materials in Arabic for proposed use in CYDA.
- 1 Toyota Land Cruiser for use in the service of training by the CYDA Training Administration.
- Miscellaneous kitchenware (camping stoves, butagas, cookingware, dishware, utensils) for use in trainee lodgings in Sanaa, Hodeidah and Hajja.
- Miscellaneous raw materials and tools used in conjunction with practical training in plumbing, auto mechanics, electrical systems and reinforced concrete construction.
- Miscellaneous drafting and engineering supplies for use by counterpart technicians.
- Miscellaneous furnishing from Project surplus for use in the CYDA Video Production Unit.
- Video photography and editing equipment for use by the staff of the CYDA Video Production Unit.

PTO

SERVICES

Training

- 47 in-country, third country and U.S. training programs in technical and administrative fields, entailing the training of 569 individuals for a total of 159 person years of training.
- On-job training in technical and administrative fields entailing the participation of 166 individuals for a total of 47.5 person years of training.

Curricula

- "Course in Skills Improvement for Reinforced Concrete Supervisors" (25pp; English/Arabic) Talib Bashir, Chief Engineer, Governorate of Hodeidah.
- "Small Water Projects: Issues & Alternatives" (44pp; Arabic) Mundhar Naji, TransCentury Foundation.
- "Outline for a Three-Month Course in Applied Surveying" (8pp; Arabic) Diyab Oweis, Dar Al Handasa and Abduh Faraa, Director, CYDA Technical Administration.

Translation

- "A Training Manual for Rural Roads Technicians" (102pp) Colm Ryder & Brendan Duffy, American Save the Children. Translation into Arabic by Azhari Babekir.
- Operating manuals for (1) Panasonic WV 3110 Color Video Camera, (2) Panasonic NV 8410 VHS Recorder, (3) Panasonic 8500 Editing Recorders and (4) Panasonic AV 1500 Editing Controller. Translation into Arabic by Azhari Babekir.
- Excerpts from the "Operator's Manual" for the Apple computer and operating instructions for programs used in conjunction with the Project-sponsored computerized Rural Development Information System.

References

- Arab World Training Resources: Trip report of Project Training Specialist, November, 1981.
- Arab World Training Resources: Trip Report of Project Training Specialist, October, 1982.

Frank Mertens/USAID
Paul McVey/045
Memories/DC

ANNEX H

ADDITIONAL DETAILS ON INFORMATION SYSTEM ACTIVITIES

CHEMONICS

2000 M St., N.W.
Suite 800
Washington, D.C. 20036

(202) 466-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440381 CHNC UI

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ANNEX H

INFORMATION ON INFORMATION SYSTEM ACTIVITIESListing of Major Items Purchased for Use with Project
Information System

<u>ITEM</u>	<u>QUANTITY</u>	<u>COST</u>
Apple 48K US Standard Microprocessor	2	\$4,470
Disk Drive w/o Controller	2	\$870
Disk Drive with Controller	2	\$1,120
Numeric Keypad	1	\$97
Spare Parts for Micro- processors	na	\$163
Spare Power Supply	1	\$245
Sanyo Video Monitor (13" CLR)	1	\$549
Sanyo Video Monitor (9" B&W)	1	\$180
Epson MX-80 Printer	1	\$699
Epson Interface	1	\$125
Arabprint 165 Printer	1	\$4,241
Malibu Printer	1	\$1,351
Malibu Printer Conversion	na	\$1,000
Apple Parallel Interface	1	\$130
Mayday 150W Surge Regulator with battery	1	\$337
Mayday 250W Surge Regulator	1	\$190
Software Packages	13	\$1,096
Carrying Cases	4	\$270

NOTE: Minor items and services such as printer paper, disketts, tools, shipping/handling charges have not been listed.

SAMPLE INFORMATION SYSTEM REPORT

INTERIM REPORT ON THE
DEVELOPMENT OF ARABIC ISIS

Prepared for:

LOCAL RESOURCES FOR DEVELOPMENT PROJECT
YEMEN ARAB REPUBLIC

Prepared by:

FERNANDO BERTOLI
CHEMONICS INTERNATIONAL CONSULTING DIVISION
WASHINGTON, D.C.

MAY 1982

This is an interim report on the development of the Arabic version of the Interactive Statistical Inquiry System (ISIS) computer program for use by the Confederation of Yemeni Development Associations (CYDA) in a rural development information system established under the AID-financed Local Resources for Development Project in Yemen Arab Republic.

A. Background

ISIS was first developed in the French language between 1979 and 1981 by Fernando and Sandra Bertoli of Information Systems International (ISI) in conjunction with a development project in Central Tunisia. The program is a disk-based generalized system for data entry, editing and analysis which operates on the Apple II microcomputer system. ISIS requires no prior knowledge of computing or programming and can be used in a wide variety of applications because of its content-free structure.

A reconnaissance trip to Yemen in April of 1981 by Sandra C. Bertoli of ISI produced a report which compared and ranked alternative micro-computer systems in terms of hardware and software suitability and costs for usage by CYDA. On the basis of this report, Chemonics contracted with ISI for the development of English and Arabic versions of both ISIS and a Library Cataloguing System. In addition, ISI did all the procurement of hardware components, as well as system and applications software.

B. The Arabic Version of ISIS

The English version of ISIS and the Arabic and English versions of the Library Cataloguing Program were completed within the original time and budgetary estimates. The development of the Arabic ISIS version was not brought on line within the level of effort originally anticipated because of unforeseen technical difficulties. The remainder of this report examines the reasons for the record.

The English and Spanish versions of ISIS have been implemented by ISI in less than fifteen person/days for each and within the expected time frames. On the other hand, the original estimate of thirty person/days for the Arabic version was below the final level of effort, and its implementation spanned three months longer than originally envisioned.

For ISI, it involved thirty-five person/days in the U.S., exclusive of translation of documentation which had originally been included in the initial estimate, plus ten days in Sana'a. A total of forty-five person/days instead of the anticipated thirty were required to complete Arabic ISIS, exclusive of documentation.

The fundamental reason for this unforeseen delay in implementation is that Arabic ISIS is not a "translation" of program code and documentation in the same sense that the English and Spanish versions are. It is practically a rewrite of the programs that comprise the package.

The five pages of documentation supplied by Multi Media Video Inc., the sole developers of the Arab Apple II, were found insufficient in light of the fact that the Arabic Apple behaved in a very different and often unpredictable way, relative to its standard American counterpart. A letter to Multi Media Video (MMV) dated October 1, 1981 requesting additional technical information was unsuccessful. From this point, there was no choice but to rewrite ISIS, based on nominal assumptions of processor capability, and to learn about its often undocumented differences.

Briefly summarized, the undocumented modifications performed on the Arabic Apple by MMV changed the location of many DOS (Disk Operating Systems) and monitor routines without describing their new locations, thus affecting the "normal" functioning of ISIS. All programs had to be rewritten because there was not enough documentation to enable us to relocate a machine language sort and print-using routine, used extensively in ISIS. (Sorts are used extensively in data processing to alphabetize and put data in arrays).

Another source of modification of all programs had to do with the choice of the codes for the commas and colons to represent Arabic letters. In the normal BASIC language input, this causes the deletion of subsequent input. In the Arabic Apple, this had to be corrected programatically.

A third source of difficulty for formatting (aligning columns of numbers or text) was that neither the processor nor the printer had enough "intelligence" built in to know the exact length of a set of characters due to changing shapes of letters in Arabic. Needless to say, this created havoc with formatting. This behavior was also undocumented.

Equally undocumented were the differences of the Arabic Apple in immediate execution (outside of a program) versus deferred execution. It was soon discovered that accurate prediction of the processor's behavior could only be obtained under program control. This contributed to a longer time devoted to testing.

Similarly, program development (writing, editing) could only take place in the "English mode", but testing had to be done, naturally, in the Arabic mode. This need to switch constantly between the languages added a considerable amount of time to screen formatting, debugging, translation and correction of typographical errors of the latter.

Finally, the need to keep the data structures compatible between English and Arabic ISIS (which writes them in the opposite order) meant that all programs writing to or reading from disk had to be redone. This added considerable time to development.

C. Conclusion

Although it is in the nature of research and development efforts to be somewhat less predictable than other tasks, it is clear that the underestimation of the level of effort required to bring about the Arabic version of ISIS had to do with unforeseen difficulties, especially the lack of more detailed technical documentation on the modifications performed on the Apple II by MMV and the unwillingness of the vendor to supply such information. The development of the Arabic ISIS version had to proceed mostly by trial and error, given the pale resemblance between the standard Apple II processor and its Arabic counterpart.

This paucity of documentation is unfortunately not uncommon in the rapidly evolving world of microcomputers, in which the pace of change does not allow much time to be devoted to the mundane tasks of institutionalizing the diffusion of information. This lack manifests itself in increased uncertainty in planning and managing activity schedules as new paths are explored and established; the gap represents perhaps the cost of opening up these new vistas.

ANNEX I

ADDITIONAL INFORMATION ON INSTITUTIONAL
DEVELOPMENT ACTIVITIES

CHEMONICS

2000 M St., N.W.
Suite 200
Washington, D.C. 20036

(202) 466-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440361 CHNC UI

ANNEX I

SAMPLE INSTITUTIONAL REPORT

REVIEW AND ANALYSIS OF
CYDA'S ORGANIZATION AND MANAGEMENT

Prepared for:

LOCAL RESOURCES FOR DEVELOPMENT PROJECT
YEMEN ARAB REPUBLIC

Prepared by:

ASHRAF RIZK
CHEMONICS INTERNATIONAL CONSULTING DIVISION
WASHINGTON, D.C.

JULY 1982

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SECTION I

INTRODUCTION

This report evolved as a result of the assignment of the Short-term Management Consultant from April to July, 1982. Although initially requested to review CYDA's internal administrative and accounting procedures, the consultant was successful in persuading CYDA that many of the necessary improvements in the areas of procurement, inventory, accounting, etc., were dependent upon improvements in the basic management structure of the organization. Consequently, towards the end of the assignment, CYDA's organization chart and style of management were analyzed and certain problems identified. Because of the time limitation, however, it was not possible to evaluate all committees and departments at every level of the organization, and the problems which are treated in the report are thus of a somewhat general nature. It is believed that the services of another management consultant, for a more extended period and for the sole purpose of studying this important issue, would be highly beneficial.

SECTION II

ANALYSIS OF THE CURRENT ORGANIZATIONAL STRUCTURE OF CYDA

It is clear from a reading of the General Confederation Law 41 which established CYDA as an entity and from the observations of the consultant over the course of his assignment that there are certain fundamental difficulties with the organizational structure of CYDA as it now exists. For the purposes of this report, the problems have been broken down into eight different categories, many of which are closely interrelated. The problems either reflect a basic departure from the organizational structure which was mandated by the law, or they reflect a departure from the basic principles of sound management, or both. To summarize, the problems are as follows:

- A lack of clear divisions of responsibility across all administrative levels.
- A lack of distinction between elected and appointed officials.
- A committee structure which is problematic.
- An organizational structure which is too dependent on individuals rather than on posts and duties.
- A lack of channels of communication both horizontally and from bottom to top.
- The existence of only one Assistant General Secretary.
- The failure to tie the existing organizational structure to CYDA's goals as established by law and thus, the failure to adhere to those goals.
- The problem of the General Services Administration (GSA) and CYDA's involvement in investment projects in general.

Each of these categories is analyzed below, and suggestions for improvement are presented in section III.

A. Lack of Clear Divisions of Responsibility

As stated above, there is a lack of clear divisions of responsibility across all administrative levels of CYDA. One of the principal difficulties is that most implementation work is currently being performed by the

committees rather than by departments. Yet it is expressly stated in Law 41, Section 15, that the formation of committees, both permanent and temporary, is to help the Administrative Board make proper decisions, i.e., to advise and report to management, to help formulate policy and carry out planning.

Not only does the burden of implementation work interfere with the committees' mandated responsibilities, but also department heads, and department staff in general, are not given the opportunity to bear any responsibility, but are constantly required to refer back to the General Secretariat to make decisions. This non-delegation of authority results in inactivity at the department level and conversely, in an excessive workload at the upper echelons of management, in other words, in an inefficient use of human resources.

The heavy concentration of the committees on implementation work also means that the distinction between the supervision and the execution of tasks becomes blurred. Systematic division of the work into duties and objectives for each separate department is not carried out, both for lack of time and lack of basic understanding of management principles, and much duplication of effort occurs among departments. Further, because no clear departmental objectives exist, employees cannot know their own roles, the roles of their unit, division, or department, and how the work of their unit relates to that of CYDA as a whole. The lack of departmental objectives also means that no measure of performance exists, and therefore, effective supervision cannot take place.

B. A Lack of Distinction Between Elected and Appointed Officials

This issue is closely related to the one above both in its consequences and its potential solution. It is the consultant's view that it is inappropriate and inefficient to have committee presidents involved in implementation work, since the committee members are members by election, that is to say, on the basis of the people's trust in them, rather than on the basis of their specialized knowledge or administrative ability. Moreover, because of the involvement of committee members, i.e., elected officials, in implementation work, there is a serious lack of continuity and a lull in activity which occurs with each new election.

C. Problematic Committee Structure

Not only do committees serve an inappropriate function within CYDA, but their basic structure is frequently problematic as well. There may be no more than a single member on a given committee. Thus, the committee cannot act as a "body," by collective opinion or consensus, and it is doubtful whether it can effectively carry out its legitimate role as a policy-making and planning unit.

D. Organizational Structure Dependent on Individuals

It is the consultant's view that CYDA's organizational structure is currently too dependent on its individual members rather than on the duties and posts of those members. The result is that any change in administration can result in too sudden and dramatic a change in the workings of the organization, and continuity is lost.

E. Lack of Appropriate Channels of Communication

CYDA's current organizational structure is entirely dependent on vertical lines of contact from top to bottom, especially within the various departments, for the purpose of issuing instructions and transmitting decisions. Horizontal lines of communication (for example, department to department), for the purposes of coordinating activities and exchanging information among experts in various divisions of the confederation, are virtually nonexistent, as are lines of communication from bottom to top.

F. The Existence of Only One Assistant General Secretary

The existence of only one Assistant General Secretary has several consequences, largely relating to excessive workload on top CYDA management and an inefficient use of human resources. First of all, a single Assistant General Secretary is unable to supervise effectively the work of eight different departments. Especially given the wide variety of work carried out by these departments, it is unrealistic to expect any one individual to be sufficiently well versed in all areas to express opinions, offer guidance and make decisions. This situation impacts on the General Secretary as well, since he is unable to delegate complete supervisory authority to his Assistant and must remain instead

in direct contact with the work of some departments, due to the Assistant's lack of time or expertise.

G. Organizational Structure Not Tied to Goals

As stated in the introduction to this section, CYDA's existing organizational structure is not tied to its goals as established by law, and thus it often fails to adhere to those goals. Specifically, the structure and formation of the committees do not conform precisely to the goals (for example, there are five goals stated in Law 41 but six committees). Further, there are presently no objectives which have been delineated for the departments and which could lead to the achievement of goals.

H. The General Services Administration (GSA) and Investment Projects

Because of the lack of clarity in the matter of CYDA's organizational goals, some activities are being performed which are not officially within the jurisdiction of the General Confederation. (Examples are the purchasing of digging devices and supplies and the cement pipe factory.) Moreover, participation in some of these activities, especially the participation of the GSA in central service investment projects, results in a continuous burden on the human and financial resources of the entire organization and also results in the undertaking of development projects which have not been sufficiently studied as to their economic value or technical feasibility.

We conclude our discussion of the major organizational problems confronting CYDA. The following section III offers several suggestions for possible solutions to the problems identified. It proceeds according to the same major breakdown, or categories, of problems listed above.

SECTION III
RECOMMENDATIONS

The author feels compelled to note once again that the suggestions and recommendations offered herein are well considered, but tentative, given the time constraints under which he was working, and the resultant inability to study the entire organization at all levels, as is warranted.

A. Recommendations to Resolve the Lack of Divisions of Responsibility

1. Basic Management Functions

There are certain functions which are basic to sound management and administration in any organization. These are:

- The establishment of goals and policies
- Planning
- Implementation
- Evaluation and follow-up
- Supervision
- Coordination
- Direction and Training

In any organization, all functions must be performed without exception. So that no activity is overlooked, and no contradiction, duplication, or concentration of some or all of these functions occur, the role of each administrative level and its officials must be defined. In order to illustrate this point, the consultant has developed a table, appearing on the following page and demonstrating by means of numbers and percentages the extent to which each of the basic management functions should be carried out at each administrative level. The percentages are of course approximate and indicative of broad lines of divided responsibility.

TABLE 1

FUNCTIONS OF THE ADMINISTRATION

Positions	100	20	20	10	12	8	24	6
		Setting of goals and general policy	Planning	Supervision	Coordination	Training	Implementation	Evaluation
The Administration Members of the Administration	Present arrangement	10	10	20	10	--	50	--
	Desired arrangement	70	--	--	--	--	--	30
The General Secretariat (Implementational apparatus)	Present arrangement	10	10	10	20	--	50	--
	Desired arrangement	20	40	--	30	--	--	10
General Directors (High Level Administration)	Present arrangement	--	10	10	--	--	80	--
	Desired arrangement	--	30	20	10	--	10	20
The General Director and his Assistant, Heads of Sections (Medium Level Administration)	Present arrangement	--	--	20	--	--	80	--
	Desired arrangement	--	10	30	10	30	20	--
Officials	Present arrangement	--	--	--	--	--	100	--
	Desired arrangement	--	--	--	10	--	90	--
	500	20	30	60	30	--	360	--
	500	90	80	50	60	40	120	30

Note: The above mentioned table is taken from a period of observation and inspection of the particulars of the work while working with the Consortium. It is not built on analysis carried out over the same period within all the divisions.

From the overview of problems in section II, and from the table just given, it is clear that there are some flaws in the delineation of functions among the various administrative levels of CYDA. The lack of clarity becomes more obvious from a reading of a second table which provides the following information: (1) in the left column, the administrative level is named and its function according to Law 41 (if any) is stated; (2) in the center column, the functions which are currently being performed by a given administrative level are described; and (3) in the right column, the consultant's recommendations, delineating a more appropriate division of responsibility, are given. Some of the information in the table, especially the summaries of existing functions, have already been treated in the problem analysis of section II of this report. The recommendations in the right column relate to the basic problem of the division of labor, but also touch upon certain other issues, i.e., horizontal lines of communication, which will be treated in detail further on in the report.

TABLE 2

DIVISION OF LABOR AMONG THE VARIOUS ADMINISTRATIVE LEVELS

ADMINISTRATIVE LEVEL AND
ITS FUNCTION BY LAW

EXISTING FUNCTIONS

SUGGESTED FUNCTIONS

Administrative Board: comprised of members of the Administration and associated committees. Mandated by law to carry out studies and submit reports.

Administration members now participate in implementation and decision-making, exemplified by the work of the committees.

The Administrative Board should be charged with establishing general policy and delineating the goals of the General Confederation. It should evaluate activities undertaken by the implementational apparatus of CYDA towards achievement of those goals.

Under the General Secretariat, the General Secretary and his Assistant: mandated by law to supervise departmental activities, the implementational apparatus of CYDA and the administrative apparatus, and to prepare reports for the Administrative Board.

The General Secretary issues laws to organize the work of CYDA seven years after the start of CYDA's work. It participates in actual implementation, leaving no time to devise plans and to divide work into duties and objectives for each department.

The General Secretary and his Assistant should be charged with transforming policy and general goals into plans capable of being implemented, and these plans should contain activities and duties which are clearly delineated to achieve CYDA's goals. They should coordinate the work of the various departments according to the specific objectives of each department, and evaluate departmental performance by comparing this performance with the plans, by means of periodic reports. They should directly supervise the departments and their activities.

TABLE 2 (continued)

ADMINISTRATIVE LEVEL AND
ITS FUNCTION BY LAW

EXISTING FUNCTIONS

SUGGESTED FUNCTIONS

High-level Administration, i.e.,
General Directors of Departments and
their Assistants: no duties are
specified in Law 41.

There is currently a duplication of effort among departments and committees, and no connection between the work of the departments and the goals of CYDA as set forth in the law. There are no lines of contact for exchange of information and coordination between the various departments. All topics are referred to the General Secretariat, where decisions are made.

General Directors should be charged with implementing plans of the General Secretariat through their departments. They should coordinate among themselves by means of horizontal lines of communication. They should prepare quarterly reports comparing performance with time schedules. General Directors of departments must take most decisions and bear the responsibility for those decisions.

Mid-level Administration or Division
Heads: no duties are specified in
Law 41.

The role of the division heads is not clear at the present time. Consequently, no description for the post of division heads is given, but further study is recommended.

Division heads should implement plans and perform delineated duties at the division level. They should directly supervise the workers in their divisions and train them to perform their tasks in the proper fashion and time. Also, they must evaluate the performance of their subordinates by means of periodic reports to upper level administration. These reports should deal with performance, not individuals.

TABLE 2 (continued)

ADMINISTRATIVE LEVEL AND ITS
FUNCTION BY LAW

EXISTING FUNCTIONS

SUGGESTED FUNCTIONS

Lower-level Administration, i.e.,
Division-level Employees and
Their Various Units: no duties
specified by law.

Because of the current lack of regulations and procedures, it is difficult for any employee to know his role within his unit and division. Thus, he cannot know the importance of the work he performs in relation to the general framework of activity in CYDA.

Division-level employees should implement the instructions of their superiors according to standard procedures and regulations. They should produce a substantial body of data in the form of periodic reports to their superiors so as to make their views known to them.

Finally, with respect to basic management functions, the consultant has prepared a third table showing CYDA's present organizational structure and a fourth table showing the consultant's recommendations for a new CYDA organization chart. The new chart is consistent with the amount of time allocated to specific functions in Table 1 and with the recommended division of labor in Table 2. Both tables appear on the following pages.

2. Training

Substantial changes in the duties and responsibilities of employees at each administrative level of the organization will demand that the administrative and technical abilities of employees be studied and these abilities linked to a training program so that they will be capable of recognizing their responsibilities as well as the limits of their authority. To bring this about in the most comprehensive and effective manner, the creation of a training department will be essential.

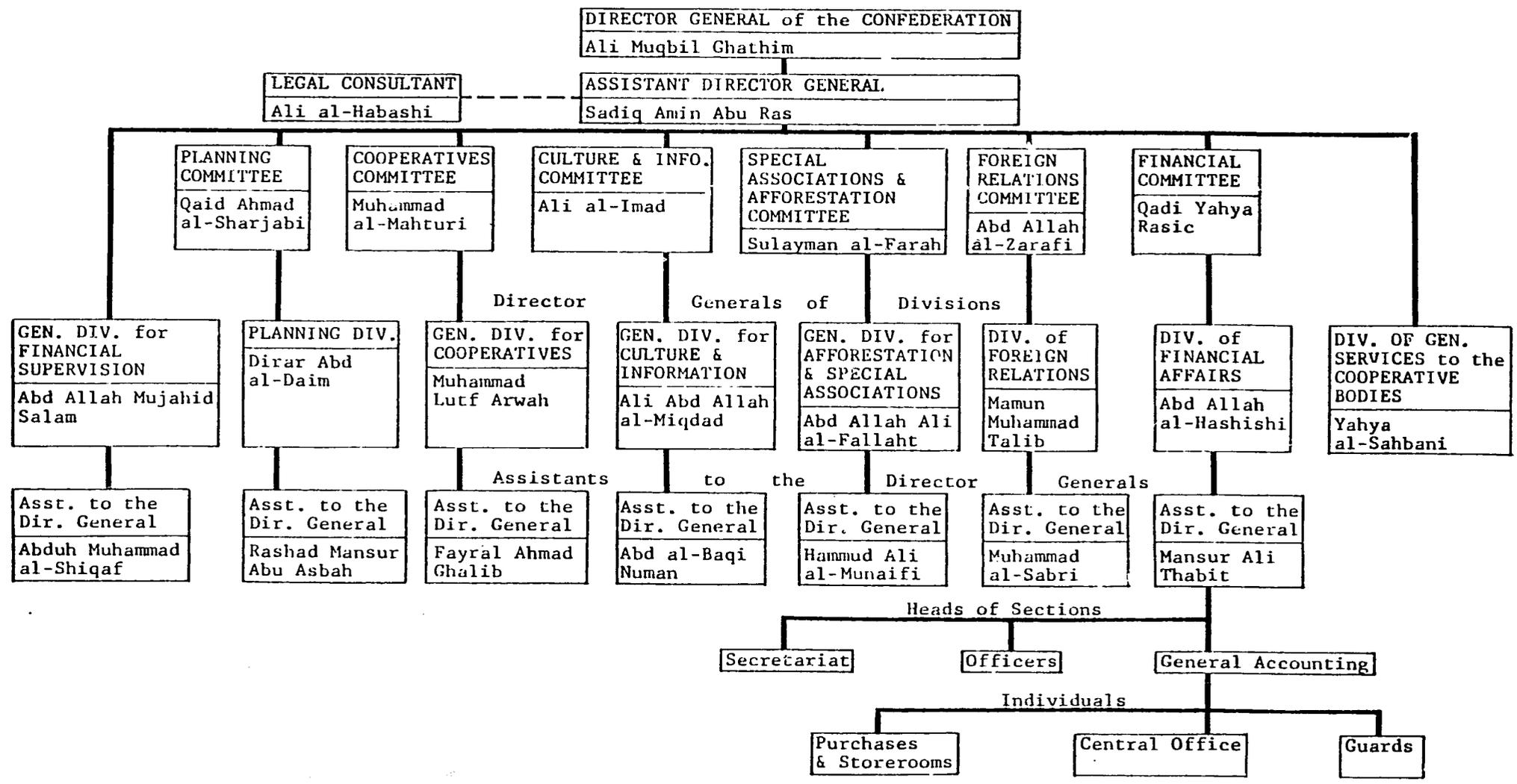
In addition to the institutionalization of the training function, through creation of a training department, it has been suggested to set up training tours varying in length from nine months to two years in the field of administration. The participants would be general directors of departments, their assistants, division heads and directors of the offices of the Coordinating Councils, in other words, participants from many different levels of the organization. As an illustration of just such a training tour, a sampling of topics to be included in a training course for general directors appears below:

- Project planning and departmental work
- Evaluation and its various modes
- Relationships of planning
- Communications
- The administration of human resources and understanding human behavior and motivation
- Administrative analysis and follow-up of administrative activity. Also, its results on other administrative levels

TABLE 3

EXISTING ORGANIZATIONAL STRUCTURE OF CYDA

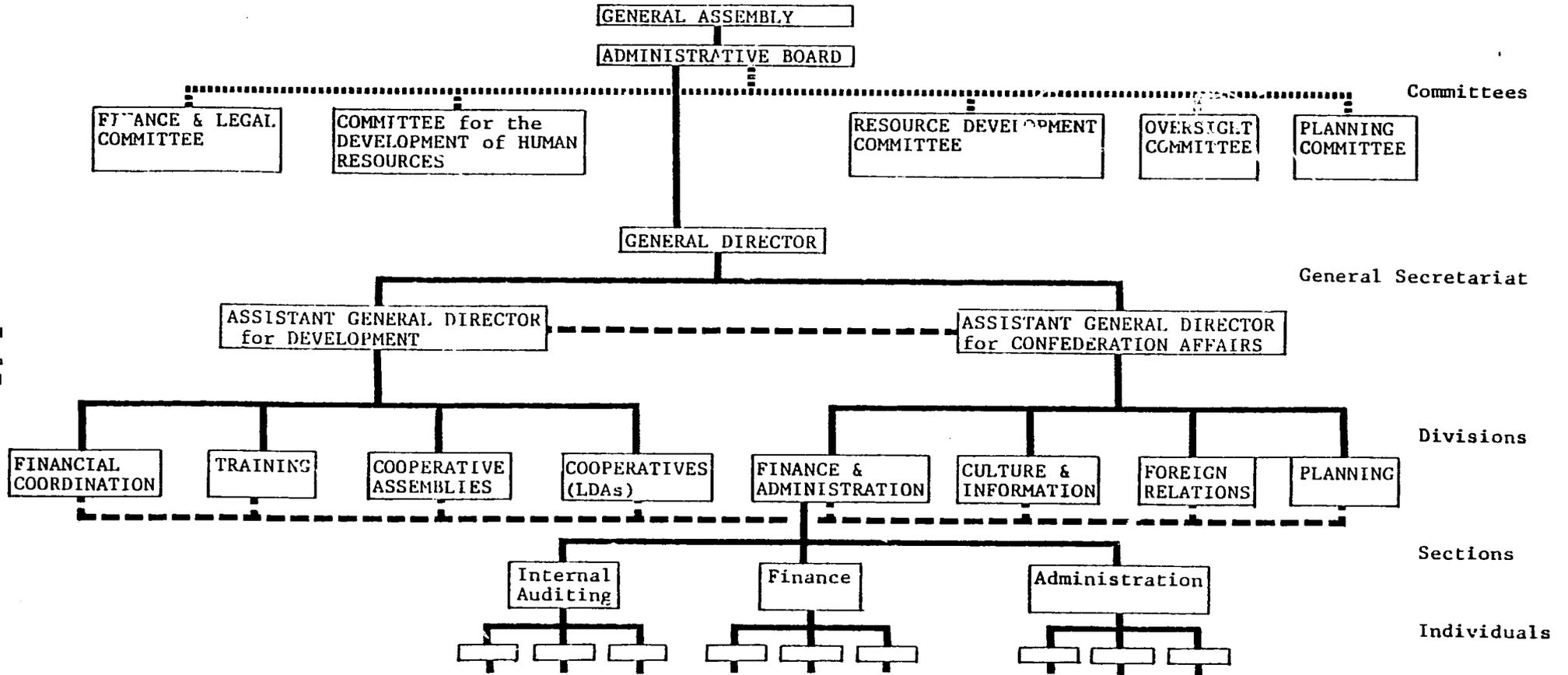
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TABLE 4

PRELIMINARY RECOMMENDATION FOR CYDA'S ORGANIZATIONAL STRUCTURE



_____ lines connecting jurisdiction and responsibility
 consultation
 - - - - - horizontal connecting lines showing coordination and flow of information and reports

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10-1

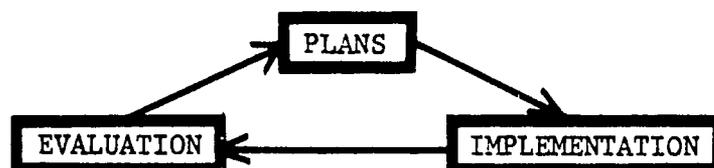
Similar tours could also be arranged, of varying degrees of intensity, to deal with additional topics such as:

- Essentials of administrative jobs
- Supervisory administration and its relationship to training
- Specialized topics such as the use of evaluation timetables and schedules

Upon the establishment of a training department, and with the advice and assistance of the existing 045 Training Advisor, and potentially, another short-term management consultant, training tours could be devised for other levels of the administration as well.

3. Supervision and Performance Evaluation

Finally, assuming the establishment of new duties and responsibilities, and the training of staff to assume their new roles, it will be necessary to create a system of supervision and performance evaluation, whereby the achievement of planned activities can be measured, as shown in the diagram below:



B. Lack of Distinction Between Elected and Appointed Officials

Although this problem has its own set of consequences, as analyzed in section II, its solution is identical to that recommended above, i.e., to redefine the division of labor in CYDA such that the committees assume their official functions of policy-making, planning, and reporting, and the departments assume their appropriate functions of implementation.

C. Problematic Committee Structure

In order to correct the problematic committee structure within CYDA, it is recommended that presidency of the committees go to one of the members

of the Administration, with places provided for three other members, either from among the members of the Administration or not, since it would be perfectly acceptable to incorporate the participation of individuals from outside the field of cooperative work to gain technical insight and advice. For example, it would be possible, and desirable, to have one of the members of Sana'a University or the Cooperative Bank on the committees to lend their expertise to its deliberations and its reporting capability.

The committees would function under the supervision of the Administration with the goal of studying and making proposals in specific areas. It would also be incumbent upon each committee to monitor the activities of the departments by studying the monthly reports sent from the departments to the General Secretariat.

The president of each committee would have to devote himself exclusively to his post and to ask for assistance from other members of the committee whenever he perceived a need, either temporary or permanent.

Each committee's duties would have to be defined clearly so that no duplication of work would occur from committee to committee, and so that committee work would not interfere, duplicate or contradict the work of the departments.

D. Organizational Structure Dependent on Individuals

No recommendations are made by the consultant to resolve the problem of the dependency of CYDA on individuals rather than on posts and duties because of the highly sensitive nature of this issue and the resultant need to study the organization in much greater depth before venturing an opinion. In any event, this problem would be at least partially resolved if the above recommendations concerning a clearer delineation of duties were carried out.

E. Lack of Appropriate Channels of Communication

In order to open horizontal lines of communication, these must be established not only on an informal level, but must be given official sanction. In other words, it must be possible for the director of one department to contact another formally, i.e., in writing, rather than having to contact him indirectly via the Director General. In addition,

it is recommended that bottom-to-top lines of communication be established in the form of periodic work reports.

F. The Existence of Only One Assistant General Secretary

The appointment of a second Assistant General Secretary is strongly recommended in order to alleviate the excessive workload placed on the General Secretary and the existing Assistant General Secretary and to assist the latter in supervising the work of the departments in a more thorough and knowledgeable fashion.

G. Organizational Structure Not Tied to Goals

Individually and collectively, CYDA staff must become knowledgeable about the goals which are established for the organization in General Law 41. The organizational layout must then be built on the basis of specific activities which will achieve these goals, and each department must define its needs, or the inputs required to carry out its duties. Furthermore, the structure and formation of the committees should be directly tied to the goals as set forth in the law.

Below, the consultant has set out, in chart form, the goals of the Confederation and the specific duties or areas of activities which will make it possible to achieve those goals. The original intention was to assign each field of activity to a different department; however, it was not feasible to do so in the short period of time and with the information available to the consultant. Also, further study may indicate changes in the delineation of these goals and duties. But at present, the fact that no specific department has been charged with exclusive performance of any of these activities has meant that an administrative apparatus specializing in cooperative work does not exist, either at the level of the General Confederation, the Coordinating Councils or the Local Development Associations (LDAs).

TABLE 5

GOALS OF THE CONFEDERATION

DUTIES/AREAS OF ACTIVITY
TO ACHIEVE THE GOAL

(1) Represent the Local Development Associations (LDAs) and support cooperative work.	Coordinate the activities of the LDAs and the government agencies and make plans to attain the integration of services and development programs.
(2) Help the LDAs make plans and delineate priorities in a practical way.	Identify sources of governmental and foreign assistance, receive and distribute such funds, along with central income, among the LDAs.
(3) Follow up plans and programs.	Work to find new sources of income for the cooperative movement in general and work to help the LDAs acquire their funds from the Ministry of Finance.
(4) Coordinate the work of the LDAs and the work of concerned government associations and agencies.	Work to overcome conflicts which may arise between members of the LDAs or between LDAs themselves.
(5) Lend assistance to the LDAs in carrying out their work and completing their administrative structure.	Cooperate with the ministry in supervising the activities of the cooperatives technically, administratively and financially.
(6) Supervise and evaluate the achievements of the LDAs.	Make contact through the ministry with international and especially Arab development confederations.
(7) Search for increased capability and experience.	Nominate and send representatives from the LDAs to training and study tours at home and abroad.
(8) Work to solve the problems of the cooperatives and to lessen difficulties and administrative or technical bottlenecks.	Participate with the ministry in taking legal steps to dissolve and liquidate development associations.

H. The General Services Administration and Investment Projects

It has been stated that because of the lack of clarity with respect to CYDA's goals, some activities are being carried out which are not officially within its jurisdiction. For example, it is clear from a reading of the second Five-Year Plan that the Confederation is not supposed to carry out centralized investment projects. Specifically:

The political leadership directs and encourages constantly interest in the productive sector of cooperative work and confirms this by merging the Cooperative Bank with the Agricultural Credit Bank to form a single development bank whose basic goal is to work for the development of this sector. (From the Introduction to the Second Five-Year Plan of CYDA)

Given CYDA's interest in the productive sector as expressed above, and the fact that the Cooperative Bank, now merged with the Agricultural Credit Bank, has an important and fundamental role in the development of this sector, the consultant proposes the following plan for setting up and administering central investment projects, without placing a continuous burden on the resources of the General Confederation. The major points of the plan are as follows:

- It would be the responsibility of the Cooperative Bank to form a department to study the economic value and costs of administering central investment projects.
- The bank would also pay for such studies.
- The bank would take responsibility for setting up specialized companies to administer the projects after the studies had been made.
- The bank would undertake to issue stock in these companies at a public subscription, it being stipulated that the General Confederation participate in providing the capital for these companies by purchasing shares.
- It would be incumbent on the General Confederation to inform the LDAs and to encourage them to put aside a certain percentage of their central income for the purchase of shares in the various companies, whose goal it would then be to provide the LDAs with services of a certain quality and at a reasonable cost.

- It is suggested that the decrees which establish these companies should state that not less than 51% of the shares of these companies be held by the General Confederation and the LDAs and that the LDAs would thereby be able to direct the policies of the companies to make sure that their work was aimed primarily at aiding the development effort.
- It would be incumbent on the bank to buy up the remaining shares so that the subscription would be completed.
- Each company would have a board of directors appointed by the shareholders who would administer the affairs of the company.
- It would be the duty of the bank to distribute the profits of the companies according to the decisions of the board of directors.
- Thus, a new source of income of a semi-permanent nature would be available to the General Confederation and the LDAs, and central investment projects would no longer be a financial drain on the resources of the Confederation but would generate funds in the long run.
- On the national level, the implementation of this recommendation would promote investment in development projects, whether on an individual basis or through other companies that might want to participate in development work.
- Another result would be to give the General Confederation the opportunity to devote its attention to achieving its goals, for example, finding new sources of financing for cooperative work, aiding the LDAs through the Coordinating Councils to plan their needs in light of the resources available to them, training, and raising the capabilities of those working in the various fields of development, cooperatives, etc.
- At various times, the Cooperative Bank may undertake to contract with specialized firms to conduct studies of the economic value and cost of some of the earliest projects in order to gain experience and knowledge in planning and implementing them. Or it may ask foreign experts to help conduct studies before embarking on projects in order to know the probable results.

If the recommendation above is adopted in some form, there would no longer be any need for the General Services Administration in the organizational structure of CYDA. However, focussing on the specialized areas of activity appropriate to CYDA rather than venturing into many other areas will help to conserve CYDA's resources.

SECTION IV

CONCLUSION

The principal lines of the recommended organizational changes for CYDA are summarized briefly below, and a few additional comments made regarding other areas that might warrant study either as a prerequisite or an aid to making these changes.

- Basic management functions would be delineated across all administrative levels of CYDA.
- In particular, the committees would assume their appropriate roles of advising, reporting, policy-making and planning, and departments their role in implementation.
- Training would be conducted to allow employees to assume their new functions, and a training department established to facilitate the creation of a technical apparatus specializing in cooperative activities.
- A system of supervision and evaluation would be established to measure the achievement of planned activities.
- The structure of the committees would be revised to ensure that each one has the technical resources it needs to perform its functions successfully.
- Horizontal and bottom-to-top lines of communication would be established for purposes of coordination and information exchange.
- The post of a second Assistant General Secretary would be created.
- The duties of the departments would be delineated so as to make possible the achievement of CYDA's goals, and the structure of the committees would also be changed to conform to those goals.
- The General Services Administration would be abolished and CYDA would not undertake any further central investment projects. This field of activity would be left to the Cooperative Bank, thus limiting CYDA's participation in financing such investment projects.
- Other administrative changes which might facilitate the smooth functioning of the organization would be studied and, if advisable, implemented, for example: the delineation of the role of the Coordinating Councils and the delegation of authority to the Councils; the creation of a division for internal audit; and the attempt to study results of the past years' activities in order to profit by this experience in planning future cooperative work.

ANNEX J

LIST OF PROJECT IMPLEMENTATION LETTERS

<u>PIL #</u>	<u>DATE</u>	<u>SUBJECT</u>
1	10/22/79	Acknowledgement of fulfillment of Conditions Precedent
2	11/24/79	Turnover of vehicle to CYDA for use by the Project Coordinator
3	4/13/80	Establishment of a \$2,500.00 fund for maintenance and repair of the vehicle assigned to the CYDA Project Coordinator
4	12/21/80	Set aside of \$14,902.69 for invitational travel costs of CYDA personnel
5	2/21/81	Transfer of two vehicles to another project
6	4/21/81	Explanation of procedures for use of matching grant funds
7	3/14/82	Increase in the maximum Matching Grant contribution to a single project from \$50,000 to \$100,000
8	11/2/82	Notification of an increase in the Project 045 grant amount to \$5,404,000
9	11/2/82	Revision in the allocation of the \$5,404,000 grant amount across major budget categories
10	2/??/83	Summary of agreements reached regarding the resumption of activities in Hajja
11	2/05/83	Notification of intent to give two training courses in Hodeida
12	2/07/83	Notification of an increase in the Project 045 grant amount to \$7,349,000
13	3/15/83	Transfer of C. Timothy McManus to Chemonics' home office and approval of Paul McVey as Chief of Party
14	-----	(Drafted but not used)
15	6/04/83	Extension of Project Activities Completion Date to June 30, 1095

ANNEX J

LIST OF PROJECT IMPLEMENTATION LETTERS
(continued)

<u>PIL #</u>	<u>DATE</u>	<u>SUBJECT</u>
16	7/24/83	Notification of \$213,000 reduction in technical assistance funding to free funds for additional matching grant projects
17	3/10/84	Authorization to move YR 99,384 from the cancelled Hasaniyah PPA to other matching grant projects
18	4/03/84	Notification of an increase in the Project 045 grant amount to \$7,989,000
19	4/22/84	Notification of conditions for release of YR 99,384 for Hasaniyah School Project

ANNEX K

LIST OF REFERENCE DOCUMENTS

CHEMONICS

2000 M St., N.W.
Suite 200
Washington, D.C. 20036

(202) 488-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440361 CHNC UI

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ANNEX K

LIST OF REFERENCE DOCUMENTS

CHEMONICS

2000 M St., N.W.
Suite 200
Washington, D.C. 20036

(202) 466-5340
Cable: CHEMONICS, Wash., D.C.
ITT Telex: 440361 CHNC UI

ANNEX K

BASIC DOCUMENTS

1. Local Resources for Development Project Paper
2. Local Resources for Development Request for Proposal
3. Local Resources for Development Cost Reimbursement Type Contract - Chemonics International Consulting Division
4. Yemen Arab Republic Government-USAID Local Resources for Development Grant Agreement
5. Local Resources for Development Mid-Term Evaluation

CONTRACTOR PREPARED REPORTS

Progress Reports

1. Local Resources for Development Quarterly Reports
2. Local Resources for Development Annual Progress Reports
3. Local Resources for Development Matching Grant PPAs and Completion Reports (15 in number)
4. Local Resources for Development Training "End of Project Status Report"

Technical Report Series

1. Village Water Supply in the Tihama: A Study of Alternative Technologies, William R. Claybaugh.
2. Review and Evaluation of the Current Hydrogeological Activities of the Public Service Department, Confederation of Yemenie Development Associations, George C. Taylor Jr.
3. Reconnaissance Evaluation of Potential Ground Water Sources for Rural Water Supply Development in Hajja Governorate, Yemen Arab Republic, George C. Taylor Jr.
4. Reconnaissance Evaluation of Ground Water Development Problems for Rural Water Supply Development in Hodeidah Governorate, Yemen Arab Republic, George C. Taylor.
5. The Development of Rural Water Supply Systems in Hajja Governorate, Yemen Arab Republic, John E. Parkes.

6. The Development of Rural Water Supply Systems in Hodeidah Governorate, Yemen Arab Republic, John E. Parkes.
7. Rural Water Supply in Hajja Province, Richard E. Luckemeier.
8. Assessment of Technical Needs of Local Development Associations (LDAs) and Coordinating Council (CC) Hodeidah, Yemen Arab Republic, John Barton.
9. Miscellaneous Notes on Mountain Water Projects in Hajja Province, Taylor C. Crosby.
10. Rural Road Projects in Hajja Province, Taylor C. Crosby.
11. Problems Encountered in Developing Central Service Projects Within the Local Resources for Development Project, C. Timothy McManus.
12. Report on the Hajja Hand-Dug Well Project, Richard E. Luckemeier.
13. Final Report on RDE Activities in Hajja Governorate, Richard E. Luckemeier.
14. Well Construction Manual for the Tihama Plain, Keith Pitman.

Information System Report Series

1. Current Status of the CYDA Archives, Barbara Croken.
2. Recommendations for the Development of a Micro-Computer Based Information System, Sandra Bertoli.
3. Interim Report on the Development of Arabic ISIS, Fernando Bertoli.

Institutional Report Series

1. Final Report on an Assessment of CYDA's Organization and Management, Ashraf Rizk.
2. LDA Finances and Their Borrowing Potential, Richard N. Verdery.
3. International Liaison Activities with CYDA, Richard N. Verdery.
4. Review and Analysis of CYDA's Organization and Management, Ashraf Rizk.

5. Bulletins & Instructions for Procurement Procedures, Ashraf Rizk.
6. Rules & Regulations of the Warehouse Unit Function, Ashraf Rizk.
7. Regulations & Instructions for the Financial Department & the Formation of the Internal Auditing System, Ashraf Rizk.
8. Some Problems Associated with Design in Project 045, Jon C. Swanson.
9. CYDA Organization and Structure, Ashraf Rizk.

Training Report Series

1. Arab World Training Facilities, Lance R. Lindabury.
2. Summary of Training Activities Conducted and Planned Under the Yemen Local Resources for Development Project, Lance R. Lindabury.
3. Report on the NIPA Course: "Coordination Between Local and Bilaterally-Funded Projects", Richard N. Verdery.

Miscellaneous Documents

1. Preliminary Recommendations for a Study of the National Cooperative Bank for Development and a Proposed Development Corporation, Gordon Cameron.
2. Proposal to Design a Project for the Establishment of a Regional Support Center in the Mid-East for Micro-Computers in Development, Sandra Bertoli and John Lamb.