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Project Assistance Completion Report

**RESOURCES FOR INDUSTRIAL DEVELOPMENT PROJECT
(REDI)
Project No. 596-0128**

**U.S. Agency for International Development
Regional Office for Central American Programs
(ROCAP)**

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PROJECT ASSISTANCE COMPLETION REPORT

Resources for Industrial Development Project (REDI)

Project No.596-0128

I. INTRODUCTION

The Resources for Industrial Development Project (REDI) was originally conceived as a two year transitional effort designed to support the Central American Research Institute for Industry (ICAITI) in its efforts to become a more demand-driven and market-responsive institution. Specifically, the project was devised as a means to strengthen ICAITI'S capacity to deliver relevant, efficient, competitive, production-oriented, income-generating services on a self-sustaining basis to the private industrial sector of Central America.

The primary motivation for the Project was the idea that industrial growth in Central America is considered of key importance if the region is to progress towards economic development and stability. At the time the Project was designed, the private sector had experienced a prolonged recession which forced it to concentrate its limited resources on survival rather than on revitalizing industrial capacity. To change this situation, technical and financial assistance were considered essential to support this recovery. Some needs, especially for technical assistance, were considered to be better met through use of an existing regional organization (ICAITI) whose roles and objectives were based on the growth of the industrial sector and which could draw on a trained staff and existing infrastructure. ROCAP's REDI Project sought to support ICAITI and use it to provide such assistance, and to establish the mechanisms required for ICAITI to continue to perform that function on a sustained basis.

The Project Agreement was signed between ROCAP and ICAITI on June 22, 1988. Delays at ICAITI in presenting their first work plan, however, and difficulties at ROCAP in approving funds, delayed initiation of programmed activities until November 1988. Project funding was originally authorized at a level of \$1,370,000, and later amended to add \$250,000 to the original Cooperative Agreement. The total amount obligated for the Project was therefore \$1,620,000, and the original PACD (June 19, 1990) was extended accordingly to July 31, 1991. No Project evaluation was programmed due to (1) the short life of the Project, and (2) the retention of a PSC using Project funds to monitor Project activities closely.

II. PROJECT PURPOSE AND GOAL

The purpose of the REDI Project was to "improve the institutional capability of ICAITI to respond to the technical service needs of Central American export-oriented industries on a more demand-driven and self-sustaining basis." The project goal was to "improve industrial productivity and promote exports."

III. PROJECT DESCRIPTION

The Project contained three interrelated components: 1) a market assessment and development of a strategic business plan; 2) technical reorientation; and 3) development of improved support systems. Specific activities implemented under these three components included the following:

1. Development of new menu of "profitable" services;
2. Establishment of a functional Private Sector Advisory Committee;
3. Development and operation of long-term and strategic planning processes;
4. Development of a marketing strategy;
5. Training of ICAITI staff at all levels to carry out the new organizational strategy;
6. Establishment of improved linkages with external technical institutions;
7. An Administrative and Financial System in place to deal effectively and efficiently with the new organizational focus;
8. Development of a well-defined strategy for implementing a self-sustaining outreach program;
9. An improved organizational and management system geared to responding to the region's industrial needs;
10. Strengthened linkages to international technical centers to assure that technology is up to date; and
11. Strengthened linkages to national industrial development programs and private chambers of industry to assure that services are relevant.

AID provided a total of \$1,620,000 in funding to the project. Pursuant to A.I.D. Handbook 3, no counterpart contributions were required under the Cooperative Agreement; ICAITI provided significant in-kind contributions throughout Project implementation, however, including office space, staff time and equipment use.

IV. IMPLEMENTING AGENCY

The Project was executed by the Central American Research Institute for Industry, one of the oldest regional institutions in Central America. ICAITI was established in 1955 by the five regional republics with support from the United Nations Industrial Development Organization (UNIDO). As a regional non-profit organization with a mandate to promote economic and industrial development in Central America through the appropriate use of the region's natural resources, ICAITI provides advisory services and technical assistance to the governments and industries of the region.

The Institute presently maintains a staff of about 154 people, approximately half of whom are professionals and technicians. The central facilities in Guatemala City include a microbiological research center, organic and inorganic chemistry laboratories, a pulp and paper pilot plant, a food technology laboratory, a stove and combustion technology laboratory, and one of the best technical libraries in the region. In addition to its headquarters in Guatemala, ICAITI maintains offices in Honduras, El Salvador, Nicaragua and Costa Rica.

V. PROJECT ACCOMPLISHMENTS

The Project, completed in July 1991, succeeded in assisting ICAITI in developing a number of systems and subsystems that helped promote the Institute as a "center of excellence."

A. Long-term Strategic Plan

A five-year strategic plan for ICAITI was completed with the assistance of an outside consultant, and the involvement of all ICAITI personnel in the planning process proved to be an important element of this activity. The plan established clear goals and provided a long-term vision and operational objectives for the institution, which helped ICAITI both internally and externally. Internally, it helped to unify concepts, approaches and priorities, and reinforced a commitment to work together towards accepted common goals. Externally, it helped to develop an understanding of ICAITI's role in Central America, including its present position and future objectives. It also helped by identifying key organizations for future cooperation and clarifying the nature of that cooperation.

B. Market Assessment

A comprehensive market study was undertaken to identify where ICAITI had a competitive advantage--taking into account its existing facilities and expertise--and therefore where best to market its services at full cost. This study fell behind schedule because of a number of errors and deficiencies in the draft final report presented by the contractor, and as a result ICAITI staff took over this activity and completed a satisfactory product (the payment to the contractor for the final product was reduced accordingly). This study was valuable in implementing Project activities.

C. Private Sector Advisory Committee

To comply with ICAITI's mandate, it was considered necessary to establish solid communications between the institution and its clientele. In order to do this, a Private Sector Advisory Committee was officially formed and has been operating and meeting on a regular basis. Its members have taken an active role in ICAITI's affairs, specifically in the promotion and administration of the Total Quality Management Program which is being operated in each Central American country. The Committee has also assumed a significant role in the strategic planning process of the Institute.

D. Improved Linkages

The Institute established important linkages with U.S. and Canadian institutions to assure that technology in ICAITI was up to date and to provide high level technical backstopping to Central American industry. ICAITI established working arrangements or linkages with five major US institutions: the Lenox Research Institute, Pennsylvania State University, Mississippi State University, the Human Resources & Research Organization, and the National Productivity Network. Five major working relationships were also established in Canada, with the Protein Oil and Starch Pilot Plant Corporation, the Saskatchewan Research Council, the Nova Scotia Research Foundation Corporation, the Research and Productivity Center, and the Quebec Industrial Research Center.

E. Training

All ICAITI personnel participated actively in training activities, a major element of the Project. Two types of training took place. The first consisted of courses designed to solidify the institutionalization of the various administrative, organizational and technical changes occurring under Project implementation. All 154 employees participated in these training activities. The second type of training focused on establishing a permanent career development program. The objective of this program was to establish

career levels and corresponding professional requirements, in order to motivate employees to obtain the training required to encumber more rewarding positions. Areas covered included knowledge of the Institute, administrative procedures, basic training, technical specialization, and complementary technical training.

F. Administration and Finance

An improved administrative and financial system was established to help management in Project execution, and to enhance performance and productivity on a continuous basis. Emphasis was given to the identification of key areas that needed clear institutional policies, and consolidation of those policies in administrative manuals. Main target areas included: budgetary procedures, cost allocation and recovery, pricing policies, reporting systems, warehouse inventory and supplies ordering, and internal audit. This improved financial and administrative system is now in place and results are already evident. Accounting data are registered and available for analysis within the first ten days of each month; department and division managers are better informed and able to make decisions based on factual data; and based on these financial and performance data, important cost cutting actions have been taken.

VI. MAJOR OUTPUTS

All major outputs were achieved in accordance with the Project Agreement. These outputs included: a menu of new services; establishment of a Private Sector Advisory Committee; preparation of a long-term institutional plan; preparation of a market assessment; establishment of technical linkages; improvement of administrative and financial systems; and training.

VII. LESSONS LEARNED

Three major lessons were learned through implementation of the REDI Project.

1. Achieving institutional improvements requires a strong internal authority structure and constant dedication to achieving institutional objectives. The REDI Project confronted significant problems at its beginning. The organization went through a period of uncertainty caused by the absence of a confirmed Director, which in turn resulted in competition among various internal groups for institutional control. The Acting Director had little authority to make changes within the Institute, and this made it difficult for him to initiate and carry out the institutional changes considered necessary under the Project. Once the Director (Ing. Ludwig Ingram) was confirmed, however, and a full time Project Coordinator was brought on board, Project implementation gained momentum and institutional improvements began to occur.

2. Long-established habits in a quasi-governmental institution are difficult to change; improving innovation and efficiency requires a clear understanding the objectives pursued, and the complete participation of all organizational personnel. A key objective of the Project was to change the human behavior, methods, procedures and work habits of a 33-year old institution where "their way" was considered the "right way." Project accomplishments in this respect resulted from (1) establishing a clear understanding of Project objectives and (2) requiring the participation of all institutional personnel. In this respect, implementation of the Project was an object lesson in how to approach the problem of changing long-established work procedures and habits in a quasi-governmental institution.

3. Institutional strengthening projects should employ indicators which inspire human drive, competition, and collaboration in achieving project objectives. The REDI Project confronted some general problems as a result of employing weak indicators of Project success. These problems could be alleviated in similar projects by employing indicators that inspire human drive, competition, and collaboration in achieving project objectives.

VIII. ROCAP SUMMARY ASSESSMENT

The REDI Project succeeded in helping ICAITI put in place a number of systems, subsystems and institutional methodologies that promoted the Institute as an effective center for industrial research and technical assistance in Central America. The more notable institutional improvements include:

1. A firmer ICAITI leadership resulting from an improved organization and management structure working under better defined responsibilities and authorities;
2. An improved method for allocating resources according to institutional priorities;
3. Resources, strategies, objectives, and budgetary controls closely coordinated within the Institute's different departments;
4. A solid base for implementing administrative and organizational modifications necessary to carry out the institution's strategic plan;
5. A Promotion and Sales Department with evaluation procedures that measure the effectiveness of promotional efforts and client satisfaction related to services provided (this unit includes a public relations section working to improve ICAITI'S image and advertise its strengths);

6. An internal communications system to promote institutional identity and provide feedback on progress towards organizational goals. This system is helping to improve internal procedures and interaction with private sector clients, and an external linkage system is helping to keep ICAITI current on technological changes that are needed for the region's industrial development;

7. A solid menu of services relevant to industry needs. This has been accomplished through the linkage of industrial development programs with pressing needs identified through the region's industrial chambers and private sector business persons. A mechanism has been put in place capable of collecting current industrial service by a technical group capable of delivering quality services at competitive prices;

8. Development of a more aggressive institution with the administrative and technical capabilities to achieve self-sufficiency. In the short-run, however, it must be noted that the Institute still confronts financial difficulties and that it will take time for ICAITI to become financially self sustaining.

IX. FINANCIAL SUMMARY

Project funds were expended as follows:

Personnel	698,000
Training	200,000
Commodities	40,000
Other Direct Costs	116,000
Overhead	316,000
<u>Institutional Strengthening</u>	<u>250,000</u>

TOTAL 1,620,000

ICAITI has undertaken a close-out audit of the Project financial accounts (December 1991-January 1992) as requested by the AID/Guatemala Controllers Office.