PD-AAM-798

ISN 29702

936-5402 1 of 2

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT PAPER FACESHEET

1. TRANSACTION CODE: [A] A ADD, C CHANGE, D DELETE — PP

2. DOCUMENT CODE: 3

3. COUNTRY/ENTITY: S&T/MD

4. DOCUMENT REVISION NUMBER: Original

5. PROJECT NUMBER (7 digits): 936-5402

6. BUREAU/OFFICE: A. SYMBOL: S&T/MD; B. CODE: 36

7. PROJECT TITLE (Maximum 40 characters): Managing Energy and Resource Efficient Cities

8. ESTIMATED FY OF PROJECT COMPLETION: FY 86

9. ESTIMATED DATE OF OBLIGATION: A. INITIAL FY 82; B. QUARTER 4; C. FINAL FY 85 (Enter 1, 2, 3, or 4)

10. ESTIMATED COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY B. FX	FIRST FY C. LC	FIRST FY D. TOTAL	LIFE OF PROJECT E. FX	LIFE OF PROJECT F. LC	LIFE OF PROJECT G. TOTAL
AID APPROPRIATED TOTAL	500		500	1,530		1,530
GRANT	500		500	1,530		1,530
LOAN						
OTHER U.S. 1						
OTHER U.S. 2						
HOST COUNTRY						
OTHER DONORS						
TOTALS	500		500	1,530		1,530

11. PROPOSED BUDGET APPROPRIATED FUNDS ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE	C. 1ST FY 82 GRANT	D. 1ST FY 82 LOAN	E. 2ND FY 83 GRANT	F. 2ND FY 83 LOAN	G. 3RD FY 84 GRANT	H. 3RD FY 84 LOAN
(1) SD	720	860	500		400		400	
(2)								
(3)								
(4)								
TOTALS			500		400		400	

A. APPROPRIATION	I. 4TH FY — GRANT	I. 4TH FY — LOAN	J. 5TH FY — GRANT	J. 5TH FY — LOAN	K. LIFE OF PROJECT — GRANT	K. LIFE OF PROJECT — LOAN	12. OBLIGATION STATUS
(1) SD	30				1,530		
(2)							
(3)							
(4)							
TOTALS	30				1,530		

13. DATA CHANGED TO REFLECT AMENDMENTS MADE IN THE P.P. FACESHEET DATED BLOCKS 12, 13, 14 OR 15 OR IN PAR. FACESHEET DATED BLOCK 11 (IF NOT, ATTACH CHANGED PAR FACESHEET)

2

14. CLEARANCES — SIGNATURE: Jerome T. French

TITLE: Director, Office of Multisectoral Development

DATE SIGNED

15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

AUTHORIZED

Best Available Document

June 7, 1982

ACTION MEMORANDUM FOR THE AGENCY DIRECTOR FOR HUMAN RESOURCES OF THE BUREAU FOR SCIENCE AND TECHNOLOGY

FROM: S&T/MD, Jerome T. French

THRU: S&T/MD, Eric Chetwynd, Jr.

SUBJECT: Authorization of S&T/MD's Managing Energy and Resource Efficient Cities Project

Discussion: S&T/MD's proposed project on Managing Energy and Resouce Efficient Cities was reviewed by the project committee on May 6, 1982. At this meeting issues were raised concerning implementation strategies and requirements in specific regions, and several technical issues were raised calling for clarification or modification in the project paper. It was agreed that the project paper be submitted to the Human Resources Sector Council for consideration at its May 24 meeting, along with an attached issues paper that identifies and discusses each issue and reports its resolution.

The Human Resources Council reviewed the project on May 24 and certain modifications were made in the project as a result of the Council's discussion. The project is to be implemented in two stages, with funding approved for only the first stage. The first stage concentrates on further development and application of the MEREC approach in cooperation with the Asia and Near East Bureaus. Networking will be done on an informal basis, and resources will not be invested in the development of a formal MEREC network or association. If during implementation of the first stage of the project LAC or AFR Bureau feels the project approach can be adapted to address energy and resource conservation needs in intermediate-sized cities in their geographic regions, funding for a second stage of field applications in these regions will be considered.

Recommendation: That you approve this project for an initial four-year period and funding for it in the amount of $1,530,000 by signing the attached project authorization.

11

Clearances: Robert McClusky/Lisa Matt, S&T/MD
Jerome T. French, S&T/MD
Garland Standrod, S&T/PO
Bernard Chapnick, S&T/PO

References:

1. Project Paper
2. Action Memorandum (S&T/MD Director to Agency Director for Human Resources)

PROJECT AUTHORIZATION

Name of Country/Entity: Asia/Near East

Name of Project: Managing Energy and Resouce Efficient Cities

Number of Project: 936-5402

1. Pursuant to Section 106 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the centrally funded project Managing Energy and Resource Efficient Cities involving planned obligations of not to exceed $1,530,000 in grant funds over a four year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs for the project.

2. The project consists of assistance to small and intermediate-sized cities in the establishment of energy/resource efficient strategies and coordinated sectoral action plans for strategy implementation. The project is to be implemented in two stages, and initially will be carried out in cooperation with the Asia and Near East Bureaus. The project will address, in a cost-effective manner, the needs of selected demonstration cities in these geographic regions in order to stimulate improved efficiencies in energy and resource consumption. The authorization and initiation of a second stage of the project is contingent upon the development of specific regional approaches so that field applications can be introduced in LAC or AFR countries.

3. Special conditions of approval. The work envisaged by this project is exempt from the provisions of A-76 because (1) it is for the provision of technical assistance and (2) the facilities and resources of the Tennessee Valley Authority are particularly or uniquely suitable for the technical assistance being sought and are not competitive with private enterprise.

4. Source and Origin of Goods and Services

   a. Each developing country where training or other assistance takes place under this project shall be deemed to be a cooperating country for the purpose of permitting local cost financing.

   b. Goods and services, except for ocean shipping, financed by A.I.D. under the project shall have their source and origin in a cooperating country or in the United States except as A.I.D. may otherwise agree in writing.

   c. Ocean shipping financed by A.I.D. under the project shall, except as A.I.D. may otherwise agree in writing, be financed only on flag vessels of the United States.

Signature

Ruth Zagoran
S&T/HR

7/1/82

14

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE: A (A = Add, C = Change, D = Delete) | Amendment Number: | DOCUMENT CODE: 3

2. COUNTRY/ENTITY: Asia/Near East

3. PROJECT NUMBER: 936-5402

4. BUREAU/OFFICE: S&T/MD 36

5. PROJECT TITLE (maximum 40 characters): Managing Energy and Resource Efficient Cities

6. PROJECT ASSISTANCE COMPLETION DATE (PACD): MM 09 DD 30 YY 85

7. ESTIMATED DATE OF OBLIGATION (Under "B." below, enter 1, 2, 3, or 4): A. Initial FY 82 B. Quarter 3 C. Final FY 85

8. COSTS ($000 OR EQUIVALENT $1 =)

A. FUNDING SOURCE	FIRST FY 82			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	500		500	1,530		1,530
(Grant)	(500)	( )	(500)	(1,530)	( )	(1,530)
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S. 1.						
Other U.S. 2.						
Host Country						
Other Donor(s)						
TOTALS	500		500	1,530		1,530

9. SCHEDULE OF AID FUNDING ($000)

A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE 1. Grant	C. PRIMARY TECH. CODE 2. Loan	D. OBLIGATIONS TO DATE 1. Grant	D. OBLIGATIONS TO DATE 2. Loan	E. AMOUNT APPROVED THIS ACTION 1. Grant	E. AMOUNT APPROVED THIS ACTION 2. Loan	F. LIFE OF PROJECT 1. Grant	F. LIFE OF PROJECT 2. Loan
(1) SD	720	860		0		1,530		1,530	
(2)									
(3)									
(4)									
TOTALS				0		1,530		1,530	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each): 876 871 878

11. SECONDARY PURPOSE CODE: 740

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code	BD	RGEN	TECH				
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

The purpose of this project is to assist small and intermediate-sized cities in the establishment of energy/resource efficient strategies, and coordinated sectoral action plans for strategy implementation.

14. SCHEDULED EVALUATIONS: Interim MM 10 YY 83 | MM 10 YY 84 | Final MM 10 YY 85

15. SOURCE/ORIGIN OF GOODS AND SERVICES: [X] 000 [ ] 941 [X] Local [ ] Other (Specify)

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a ____ page PP Amendment)

17. APPROVED BY: Signature | Title: Director, Office of Multisectoral Development | Date Signed MM DD YY: 9/1/82

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION MM DD YY

Contents

VI

FIGURES

ANNEXES

Preface

S&T/MD/RRD* made use of a facilitator contractor, Development Analysis and Programming (DAP), in the preparation of materials used in the design of the MEREC project and ultimately as inputs to the PP. This approach, combined with the pre-test of the project concept in Tacloban, the Philippines, made possible much more extensive and intensive participation in the design process by regional bureau representatives than would otherwise have been feasible. We appreciate the efforts of the Asia Bureau, Philippine Mission, and the national and local government representatives in the Philippines who made possible the Tacloban pre-test and who contributed through doing so to the creation of the MEREC core approach. We appreciate the interest and substantive contributions of the many people in AID/W who helped in the adaptation of this approach to AID's wider needs and to special regional conditions. We trust that these special efforts have produced a project with which most of the MEREC design participants can identify.

* Regional and Rural Development Division, Multi-Sectoral Development Office, Bureau for Science and Technology.

2. PROJECT SUMMARY

A. The Problem

Cities in developing countries, as elsewhere, are energy and resource sinks, consuming massive amounts of local and national resources and in recent years suffering the budgetary impact of greatly increased energy and resource costs. The pressures on cities to conserve resources are mounting, and nowhere are there more opportunities for far-reaching, cost-effective conservation programs than in the planning and management of small and intermediate-sized cities in developing countries and the stimulation of resource economies in their private sectors. In cities of this size, unlike larger cities, basic growth patterns still are evolving, transportation, waste removal, water, sewer, and electric power systems still are at early stages of development. Building structures tend to be modest in size and the housing stock is relatively small with respect to future demands. Adoption of energy and resource conservation approaches in all of these areas can influence significantly present and future levels of energy and resource consumption, reducing the resource and budgetary strains on development.

B. Goal and Objective

The goal of this project is to reduce the energy and resource pressures on rapidly growing towns and their surrounding regions in developing countries. Its objective is to stimulate much improved efficiencies in energy and resource consumption on the part of small and intermediate sized cities. The conceptual heart of the project is the development and implementation of a resource-efficient or resource-conserving strategy by the individual small or intermediate-sized city. Development of such a strategy is feasible and practical only where serious resource and energy constraints exist and are recognized by local leaders. Prerequisites also include support or at least interest on the part of provincial and national levels of government, potential for active participation of the private enterprise sector and private citizens, and constitutional authority at the local level to plan and implement locally conceived strategies and programs.

C. Pre-Test

A pre-test of this approach was undertaken in the city of Tacloban, capital of Leyte, in the Philippines. In the six months from August 1981, through January 1982, an energy and resource conserving strategy was developed by the city with the help of S&T and mission resources and outside consultants (see Annex 1). The highly participatory strategy developement process developed in Tacloban formed the basis for the methodological core of the MEREC project, described in more detail in Part 3 and in Annex 2. The preliminary state-of-the-art field manual developed concurrently with the pre-test served as the technological baseline for the project.

D. Core Design

We selected a conventional sectoral method as the basic MEREC approach after exploring and rejecting two interesting but more complex and more abstract alternatives (see Technical Feasibility Analysis and Annex 1). The sectoral approach is keyed to the urban sectors likely to be energy and resource intensive or wasteful such as land use, transportation, solid waste, sewage, water, energy, and electric power. It was found in the case of Tacloban that the sectors can be examined for resource consumption patterns and wastage, by the local professionals responsible for them, with minimal orientation and technical guidance. The resulting information is then pulled together through a participatory, interactive process into a coherent and well orchestrated multi-sectoral, energy and resource conserving strategy for the city. Guidelines for all of these steps were developed in the Tacloban pre-test, with the help of the Philippine participants, and are reported at length in Annexes 1 and 2.

E. Project Strategy

To achieve the goals and objectives of the MEREC project, the following strategy has been adopted:

1. The project will be carried out in two stages; the first will be limited to the two AID geographic regions found most suitable for the MEREC approach, Asia and the Near East. If, as the project matures, the Africa and Latin America and Caribbean Bureaus see prospects for adaptation of

the project to their regions, consideration will be given to a second stage of the project, to include field demonstrations in AFR and LAC plus formal network development. In the first stage, field demonstrations will be undertaken in the Philippines and Indonesia, and in a Near East country, probably Egypt.

2. Each demonstration will be learning-based and produce case studies outlining processes, procedures, tools, and reusable information with respect to data collection and analysis, strategy formulation, preparation of action plans, technological approaches, institutional mechanisms, and education and training. Resources will be built into each demonstration, where necessary, for pilot and demonstration implementation activities.

3. Annual reports will be produced and disseminated which contain: (a) an overall review and evaluation of the project; (b) updated guidelines for city core designs and adaptation procedures; and (c) a well organized compilation of the reusable information and procedural experience generated by the MEREC project (including continuous updating of the MEREC state-of-the-art material).

4. If the project enters the stage two extension into the Africa and/or Latin America and Caribbean regions, a potentially self-maintaining association of energy and resource efficient cities will be created using first the network of MEREC demonstrations and expanding it as quickly as possible to include other cities (not necessarily limited to developing countries) which are pursuing energy and resource efficient strategies -- either in response to the MEREC project or through their own volition. The association will maintain and disseminate the reusable information base, encourage and assist other cities in MEREC approaches, publish a newsletter for information exchange, and promote other activities, as appropriate. As noted, the network will be established only if the project goes into a second stage. Meanwhile, network development will be limited to informal networking among demonstration projects and to exploring existing networks or associations into which the MEREC network might be incorporated as a sub-theme.

5. Close coordination and collaboration will be maintained with other AID projects which can gain from or contribute to the MEREC process and

information base, and every opportunity will be exploited to link the MEREC project with mission programs which might contain resources for implementation of MEREC strategy elements. MEREC sites will be limited to countries in which AID is sponsoring major decentralization, local or provincial development programs, and they will be located in AID priority regions in any given country.

F. Adaptations

Each MEREC project will be different in that the core design will be adapted to the local conditions and institutional base. However, in some circumstances, the core design may have to undergo significant adaptation. In the small and intermediate-sized cities of highly centralized countries, including many in Latin America and French-speaking Africa, legal authority to plan and implement is limited and institutional capacity to do so is correspondingly weak. Ins such cases, care will be taken to pursue approaches that can adapt to this situation and still be replicable. Various options include: (a) linking into mission decentralization projects; (b) linking into an energy project, such as ST/EY's Energy Planning and Conservation project, which starts at the national level; (c) providing for greater involvement of national and regional level officials in the MEREC process, emphasizing training and education elements to strengthen local management capacity; (d) identifying cities in the region that are actively engaged in resource conservation and using these as case studies to interest other cities in the region in MEREC approaches; or (e) some combination of the above. Whatever the approach, development and implementation of local strategies must proceed at a pace commensurate with the legal and technical capacity of local institutions and leadership to undertake them.

G. Spinoff Benefits

While the MEREC project is keyed specifically to energy and resource efficiency, its impact on local perceptions, institutions, and processes have ancillary benefits of no small consequence. Specifically, the project strengthens local capacity to plan and manage urban and local area development, stimulates private sector participation in the local development process, and improves conditions for decentralization of urban growth and development. These attributes will not be emphasized in the project since

they are its natural by-products. However, they do represent areas of linkage and tie-in with other AID activities, particularly at the field mission level, and they will be pursued in this context.

H. Implementation Mechanisms

Overall responsibility for implementation of the MEREC project will be assigned to the Office of Economic and Community Development of the Tennessee Valley Authority (TVA/OECD) through a PASA to be developed under the 1965 General Agreement between TVA and AID. OECD has had considerable experience with community level activities akin to those of the MEREC project and has access to the wide range of TVA expertise in resource and energy management, including its international training facilities. Further, TVA is committed to maximizing private sector involvement in its activities and can sub-contract in areas it is unable to cover through its own resources. Under supervision of HD/RRD, TVA will be responsible for overall coordination, design and backstopping of field activities, case studies, annual reports, identification and recruitment of technical expertise, and development of the MEREC network and association.

Grants for individual field applications will be implemented through Project Grant Agreements, signed by the field missions, with the appropriate national and local government authorities. This approach will help to insure a full measure of local understanding and commitment to the project and will facilitate the level of involvement or control desired by the mission.

Self-evaluation responsibilities will be built into the TVA PASA and into each Project Grant Agreement. However, HD/RRD will retain overall management and impact evaluation responsibility, and will develop evaluation techniques for these purposes, as necessary.

The AID/W project design group or committee that has been actively involved in project development will be invited to meet periodically to review project progress with RRD, TVA and its key technical and contractor personnel. This could take the form of an annual project workshop and provide the basis for reporting to the Human Resource Sector Council on significant project developments.

3. DETAILED DESCRIPTION

A. Problems to be Addressed

Urban areas consume massive amounts of resources. Particularly in developing countries, available resources generally do not suffice to accomodate adequately the socioeconomic development of both the urban areas and their rural hinterlands. Aside from public and private investment capital, resources of special concern in this context include energy in its various forms, and natural resources such as water, agricultural land, forest resources, fishery resources, buildable land, clean air, areas with tourism and recreation potential, and so on.

Not only are these resources in short supply, they also tend to be used inefficiently because of shortcomings in the development planning and management process. "Sectors" of urban development and operation that require explicit conservation, attention and coordination if resources are to be used efficiently include land use, transportation, waste disposal, sewage disposal, water supply, building design and construction materials, small industries, electric power supply, and alternative energy use. Many of the benefits of public and private investments in urban areas today are, regrettably, being lost (and additional investment is being inhibited) because of inadequate coordination and lack of concern for conservation.

The World Bank approach to cities in countries, according to a recent policy statement[1/], is to help municipal authorities manage urban areas better, and to help local governments provide services which they can best provide while discouraging them from undertaking activities that are best left to the private sector. "Available experience indicates that activities such as housing, transportation, and solid waste disposal are often best left to the

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1/ Churchill, Anthony. "Toward a Greater Private Sector Role in Urban Development." Economic Development and the Private Sector, Washington, D.C.: The World Bank, September, 1981.

private sector, while the public sector should concentrate its resources on providing the roads, water, education, safety, health, and other basic services necessary to enable the private sector to function efficiently.[1/]"

The need to facilitate the private sector role argues in favor of the focus on local rather than central government responsibilities. Local communities must be involved in the critical decision making processes in order to achieve the requisite coordination of public and private investments. Incentives for this coordination are more directly realized on a local level.

In small and intermediate size cities basic growth patterns are still emerging, transportation, waste disposal, water, and electric power systems are still at early stages of development, and there remain significant opportunities to influence design, layout, and material content of homes, buildings and other structures. The future course of development can be influenced more dramatically and economically in these cities than in large metropolitan areas.[2/] Moreover, the implications of strengthened development in secondary cities extend far beyond the direct immediate benefits to those cities. They extend upward in the hierarchy of urban places to easing the strains of overexpansion on primate cities, and they extend downward to supporting increased productivity, off-farm employment, expanded markets for agricultural goods, and generally strengthened urban functions for the development of rural areas.

B. Project Goal and Purpose

The goal of this project is to improve efficiency and equity in the use of energy and natural resources for urban development and operation in small and intermediate-sized cities. It will help to strengthen local decision-making

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1/ Churchill, Anthony. "Toward a Greater Private Sector Role in Urban Development." Economic Development and the Private Sector, Washington, D.C.: The World Bank, September, 1981.

2/ Chetwynd, Eric. "Managing Energy and Resource Efficient Cities in Developing Countries: Reflections on Strategy Development in Tacloban, The Philippines." Prepared for the Expert Group Meeting on the Role of Small and Intermediate Size Cities in National Development, 26 January - 1 February, 1982. Nagoya, Japan.

capacity for urban planning and management by providing local governments and private sector representatives with experience in resource identification, conservation, and use, and in establishing mechanisms for planning and implementing coordinated development activities. Such decentralization is based on the assumption that increased local responsibility for development activity will result in a more responsive, self-sustaining, and efficient development process that will strengthen the effectiveness of secondary cities in performing urban functions in the context of a hierarchy of settlements.

The specific purpose of MEREC is to assist secondary cities in the establishment of energy/resource efficient strategies and coordinated sectoral action plans for strategy implementation. The project is designed to address, in a cost-effective manner, the needs of a number of demonstration cities in diverse locations and with diverse problems and potentials. Reusable information and replicable procedures compiled in this context will provide the basis for similar efforts in secondary cities not part of the MEREC project. The city demonstrations are expected to be catalytic with respect to other AID activities (e.g., infrastructure projects, energy programs, decentralization projects, etc.), and to enhance secondary city capabilities to attract and effectively utilize capital improvement funds.

C. Project Overview

At least one city demonstration in each AID region is planned in the context of the overall MEREC project. The individual city demonstrations are guided by a "core design" that has been developed following the experience of a MEREC "pretest project" in Tacloban, Philippines (see case study in annex). This core design will be adapted for application in any specific AID region, country, and city in coordination with appropriate AID bureaus and field missions, and with host country and city participants.

The core design calls for a dynamic participatory process over a period of six to nine months in each demonstration city. This process involves representatives of the relevant local public agencies, private sector organizations, levels of government, and parastatal agencies. In the Tacloban pretest the MEREC task force and sectoral subcommittees included the City Mayor, the City Administrator, the President of the City Council, the City Planning and Development Coordinator, and the City Engineer. Representing the

regional level were officials of the regional Bureau of Land and Transportation, the regional Water District, and the regional electrical cooperatives. National level project participants included representatives of the National Economic and Development Authority, and the Ministries of Energy and Human Settlements. The MEREC project design also calls for explicit private sector representation. Representatives of the private sector participated in the Tacloban pre-test workshops and already have proposed specific project activities under several of the strategy elements.

Assisted by short term outside experts, an integrated policy- and project-oriented information base is established in MEREC demonstrations and energy/resource efficient strategies and sectoral action plans are formulated that are coordinated across government levels and among private and public sectoral agencies. The action plans focus on sectors that hold the greatest promise of achieving significant efficiencies and focus on policy implementation instruments that are available and most effective under the particular local circumstances.

In the Tacloban pretest project the local participants compiled a "situation" report identifying local energy and resource concerns, while the AID consultant prepared a State-of-the-Art monograph covering energy and resource conservation measures. The action plans covered both government and private sector activities, including land use, transportation, solid waste management, sewage disposal, water supply, and electric power supply. The action plans made use of implementation instruments such as public investment, codes and regulations, taxation and economic incentives, education, public information, and community organization. Each element of the action plan identified intended results, specific tasks to be carried out, timing, estimated costs, funding sources, responsible agencies, associated administrative activities, and appraisal criteria for detailed project planning. Coordination of these action plans was established in plenary meetings on the basis of linkages that exist among sectors and agencies as a result of a shared resource base.

During the city demonstration activities local participants receive education and training to support the resource planning and management process and its continued refinement. The six to nine month demonstration period will produce strategies and action plans of limited sophistication. But it is expected

that the demonstration activities will generate the momentum and create the conditions for self-sustained continuity of the process with ever-increasing breadth and technical quality. An essential element of this is the provision of a small amount of implementation funds with the help of which priority activities called for in the action plan can be launched immediately.

To ensure efficient implementation of the city demonstrations and to provide a basis for similar efforts in secondary cities not part of the MEREC project, a strong active coordinating function has been outlined in the project design. MEREC coordinating personnel will assist in demonstration city selection and in adaptation of the demonstration core design; provide a direct link among demonstration cities and assure that what is learned in one demonstration is applied in the next; coordinate among the demonstration cities and between demonstration cities and the MEREC project base at AID/W; create and maintain the mechanisms for cumulating and sharing information and experience and providing for their continuation on a self-sustained basis; and evaluate what has been learned in report form: ensure dissemination of information and encourage replication. In short, the coodinating function is designed to ensure that MEREC is a learning-based project geared to replicability, and not merely a collection of isolated demonstration experiences.

D. Required Inputs and Intended Results

(1) Inputs

The MEREC project will require the following AID inputs in addition to the travel costs and personnel contributions of AID/W and field mission staff.

- o MEREC project coordination institution to assist AID project management staff to carry out the overall MEREC activities.

- o Principal field consultant(s) for each demonstration city to provide periodic on-site support and coordinate technical expert consultants.

- o Expert consultants to serve as technical and technology resources and as trainers, as needed by each demonstration city during the demonstration period.

- o Local technical assistance funds, to be matched by each demonstration city, to cover on-site costs associated with the planning and management process during the demonstration period.

- o Implementation funds, representing a fraction of the initial costs of action plan implementation.

Ideally, a new city demonstration will be launched every six months. Initially, a higher proportion of funds would go for the MEREC project management and coordination, but these should taper off as routines are set in place. As the reusable base of information and procedural experience expands, and as cities begin assisting each other, the proportion of funds that go for the principal field and expert consultants would also diminish.

(2) Intended Results

MEREC will result in action plans for urban planning and management covering both public and private sector activities such as:

- o land use and area development;
- o transportation;
- o waste disposal;
- o building design and construction material;
- o small industries;
- o electric power supply;
- o alternative energy use;
- o others.

The MEREC action plans will be based on energy/resource efficient strategies formulated for resources such as:

- o fresh water sources;
- o prime agricultural land, urban farm land;
- o fuelwood and forest resources;
- o recyclable wastes (industrial, agricultural, municipal);

- o fishery resources;
- o buildable land;
- o areas with recreation and tourism potential;
- o natural and cultural heritage areas;
- o clean air;
- o mineral deposits (local construction materials);
- o fossil fuels;
- o electricity;
- o others.

Aside from strategies and action plans, MEREC will result in more efficient and effective planning and management at the local level, and in simplified government and less bureaucracy particularly at the national level. By providing the framework for local self-coordination, MEREC will result in more responsive planning and management with less government.

Efficiency strategies and action plans that are coordinated among private and public sectors on various levels will determine the most effective roles these participants can play in urban development, and will promote sound private investments.

By establishing coordinated energy/resource efficient strategies, related action plans, and strengthened local planning and management capacity, MEREC will be catalytic to AID mission projects as well as to national and other internationally assisted projects (i.e., by preparing local governments for the "Basic Village Services" or "Provincial Cities" projects in Egypt or the proposed "Local Resources" project in the Philippines).

By providing training for efficient local management and promotion of sound investment in secondary cities, MEREC will contribute to decentralization of development activity, administrative capacity, administrative authority, and development resources.

Other special results arising from the unique MEREC approach include:

- promotion of transfer of technology and expertise among developing countries by facilitating the exchange of personnel and information among cities (e.g., through strategically scheduled review meetings and workshops);

- transfer of reusable information and replicable procedures from one to the next MEREC demonstration in a learning-based process (through a replicable demonstration core design, a MEREC coordinative umbrella, and a structured information system);

- indirect assistance to more secondary cities than could possibly be reached directly by a project addressing local participants in the development process (through compilation, documentation, and dissemination of reusable information and experience in operational handbooks and practical case studies).

E. End of Project Products

By the end of its five-year duration the MEREC project will have produced the following specific products (see figure 1, below).

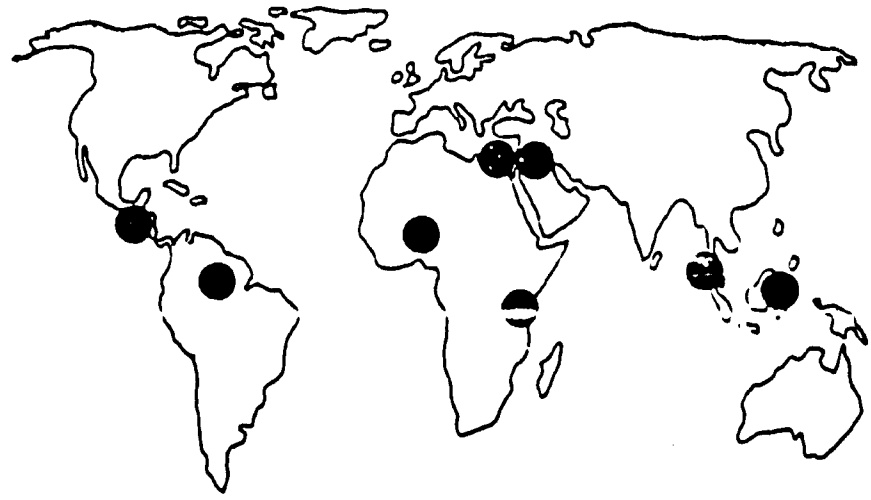
(1) At least six strategy development demonstrations yielding packages of processes, procedures, and tools, including information, through which medium-sized cities in developing countries can identify and carry out measures to increase energy and resource efficiency within the context of urban development planning and management. Two demonstrations will have been conducted in each of AID's major geographic regions. Each of the demonstrations will have produced:

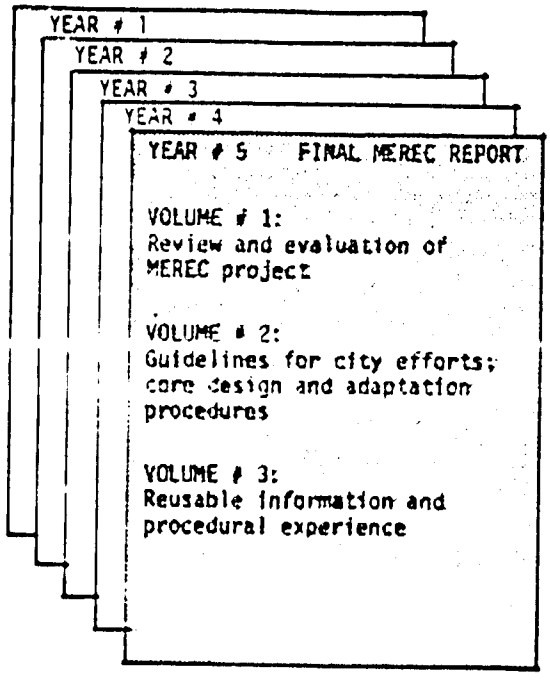
- data and analyses, within the framework of an ongoing and regularly updated information base, to support an energy/resource efficient strategy;

- an energy/resource efficient strategy coordinated with public and private development strategies;

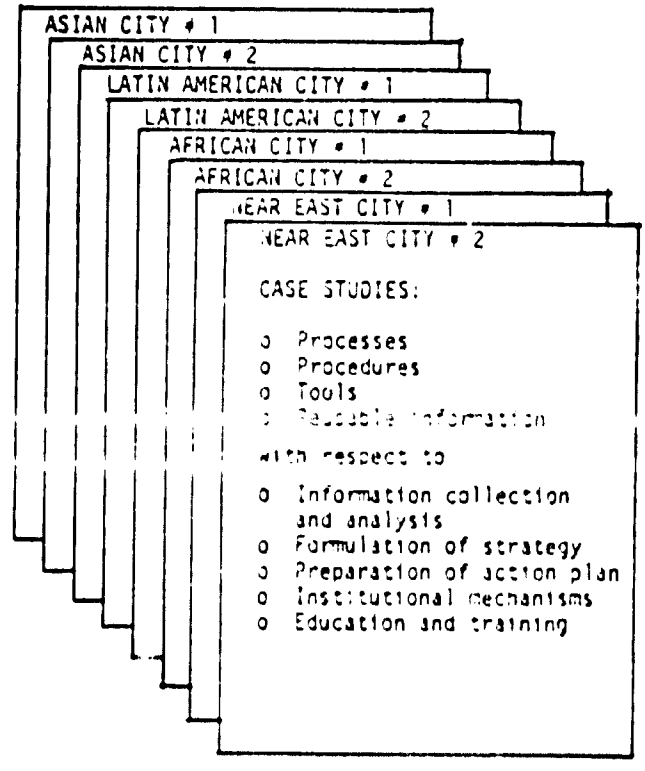
A) EIGHT SUCCESSFUL DEMONSTRATIONS

- o Data and analysis / information system
- o Energy/resource efficiency strategy
- o Action plan
- o Institutional mechanisms for continuity
- o Education and training





B) FIVE ANNUAL REPORTS (cumulative)



C) EIGHT CITY DEMONSTRATION CASE STUDIES

D) SELF-MAINTAINING ASSOCIATION OF ENERGY/RESOURCE EFFICIENT CITIES

- o Maintains reusable information base
- o Encourages and assists other cities
- o Publishes newsletter for information exchange
- o Other activities

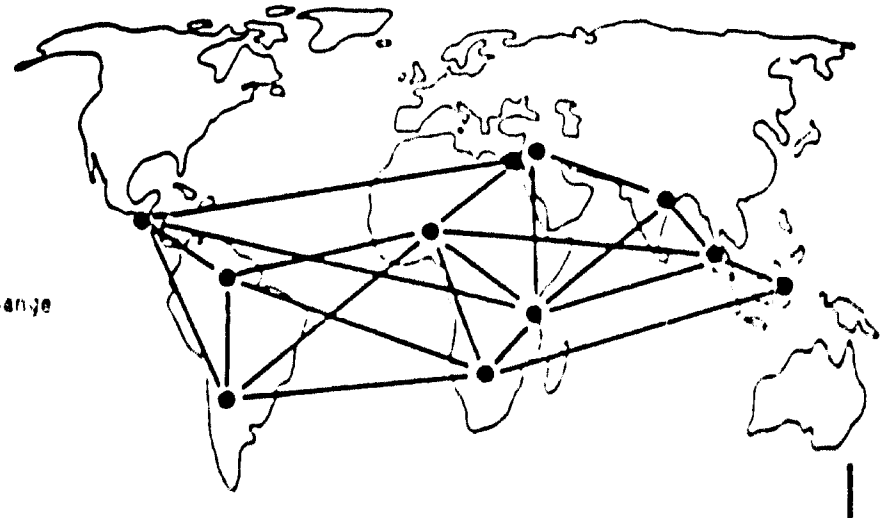


FIGURE 1 SUMMARY OF MEREC PROJECT PRODUCTS (Assumes implementation of stage I and II)

- o an action plan for carrying out the strategy;
- o mechanisms for continuing to update and carry out the strategy;
- o better-trained government staff and an ongoing training and education program that systematically upgrades the capacity of public and private sectors to achieve greater energy/resource efficiency in the context of more efficient economic development.

Not only a strategy, but a dynamic mechanism will have been established in each demonstration city, and initial projects to implement the strategy will be underway.

(2) A series of case studies, one for each demonstration. A case study will be prepared once a demonstration city has begun to implement its strategy. The collection of case studies will be updated annually and constitute a companion to the annual reports.

Annual report volumes and case studies will be formatted such that they will be a manageable size, nonduplicative, easily amended without wholesale reprinting, and can be combined in special-purpose packages suitable to different types of users.

(3) A series of annually updated MEREC project reports that cumulate project experience and culminate in a final version reviewing and evaluating the entire five-year effort. The reports will consist of three separate volumes:

- o a review and evaluation of the overall MEREC project to date with recommendations for mid-course adjustments;
- o guidelines encompassing the core demonstration design and adaptation procedures for use in future city demonstrations and for use by cities wishing to undertake energy/resource efficiency efforts outside the MEREC project framework;
- o updated background information in relevant fields and other reusable technical information and procedural experience generated by the city demonstrations (building on the state-of-the-art manual done for the Tacloban pre-test).

These reports are conceived as integrated components of the learning-based structure of the MEREC project. In addition to performing the usual functions of project reports (principally in the first volume), they will constitute a growing and ever more refined record of the lessons of experience in a format that facilitates immediate application in future MEREC city demonstrations and elsewhere. The second volume of each annual report will provide the basis for replication of the city demonstrations based upon the original demonstration design as refined through experience in application. The third volume of each annual report will use city demonstration experience to expand upon the SOTA work undertaken in connection with the Tacloban pre-test, and will also contain reusable information generated by the city demonstrations regarding technical matters, training, institutional capacity at appropriate levels and sectors, processes, procedures, tools, and special techniques. While the second volume will provide guidelines, the third volume will provide the substantive support, serving as a reference document for application of the guidelines.

(4) A self-maintaining association (network) of MEREC demonstration cities and other cities undertaking similar programs. Participating demonstration cities will be encouraged to exchange information and work together both during MEREC project activities and after. Ideally, this expanding association of energy/resource efficient cities will constitute a primary vehicle for replicating MEREC demonstration experience and thereby multiplying the benefits of the project among developing countries. It is expected to have the capacity to continue to update and disseminate the information in the second and third volumes of the project report--that is, to maintain the reusable information base. It will encourage other cities to undertake similar programs; and it will arrange for member cities to serve as study sites, providing training through exchange of professionals, and supplying technical and management consulting services for them. Finally, it is expected that the association will maintain a newsletter for continuing exchange of information. The network would be formally established in Stage II.

The MEREC management agency will explore prospects for using some existing international network or association concerned with cities or resources management as a vehicle for the MEREC network. The MEREC network might be included as a sub-theme or sub-network in such an organization.

4. PROJECT ANALYSES

A. Technical Analysis

Management of cities to achieve significant new economies in energy and resource consumption is a new field, given rise to recently by increasing global recognition of energy and resource shortages and the impact of these shortages on local development and budgets. There were no pat approaches available to the MEREC project for application in developing countries.

Sectorally oriented resource conserving technologies had been developed, but the approach adopted for developing energy and resource efficient strategies for cities had to be developed for and through the MEREC project pre-test, and it will continue to be improved upon as the project progresses. Similarly, specific sectoral technologies, many of which are summarized in the preliminary state-of-the-art handbook developed for the project, will be improved and new ones discovered through project application in varied circumstances and through exchange of information and experiences.

(1) Choice of Technology. Two approaches to the MEREC project were considered and rejected prior to the adoption of the sectoral approach applied in Tacloban. The first of these is the quantification of energy and resource flows in the city to determine the magnitude of the problem, assess the costs involved, and to try to suggest the savings to be gained by the introduction of various resource conserving measures. This approach, while conceptually satisfying, would be complex, cumbersome, and inaccurate in the extreme if applied in small and intermediate-sized cities in developing countries. Current data would be difficult to locate, incomplete, and unreliable in most cases. The whole effort would smack of yet another study, raising suspicions and stretching patience rather than stimulating local interest, initiative, and support. Moreover, suitable methods for quantifying the resource flows would be difficult to identify and develop.

Quantification of energy flows and consumption was attempted in a U.S. pilot energy conservation program sponsored by the U.S. Department of Energy. Standard ratios and other mechanisms were estimated for application as measuring tools in the participating cities. At the conclusion of the

program, the accuracy of such tools was questioned and their application proved to be complex, expensive, and time consuming. Moreover, translating the results of these energy analyses into meaningful programs proved extremely difficult. The results pointed to general deficiencies but not to specific solutions or approaches.[1]

A second approach, the "Urban Ecosystems" model originally adapted for contemporary application by Richard Meier in the early 1970's, proved a useful conceptual framework for understanding the city as a resource consuming system. However, in the final analysis, it lacked the specificity and rigor that would be required if it were to be taught to others and applied in a variety of field situations. The urban ecosystems approach was adapted further for consideration in the MEREC project in a report completed in March, 1981.[2] The report suggests that the urban ecosystem framework "views cities as the loci of living populations interacting with the built and artificial environment." It goes on to say that "these interactions take place within a boundary permeable to inputs and outputs" and that these transactions, requiring energy and other resources, articulate implicitly an energy accounting system. The urban ecosystem framework is set out in Figure 1. However, without further specification, this model proved too abstract for the purposes of the MEREC project. It was considered conceptually too complex to apply at the level of small and intermediate-sized cities in developing countries, although it remains a useful holistic conceptual model of the city as a resource consuming system.

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1 Interview with Warren Williams, Energy Coordinator, Davis, California, October 1981.

2 Meier, R.L., et. al., The Urban Ecosystems and Resource-Conserving Urbanism in Third World Cities, a report done for the Office of Urban Development, Bureau for Science and Technology, A.I.D., by the Energy and Environment Division of Lawrence Berkeley Laboratory, Berkeley, California, March 1981, pp.

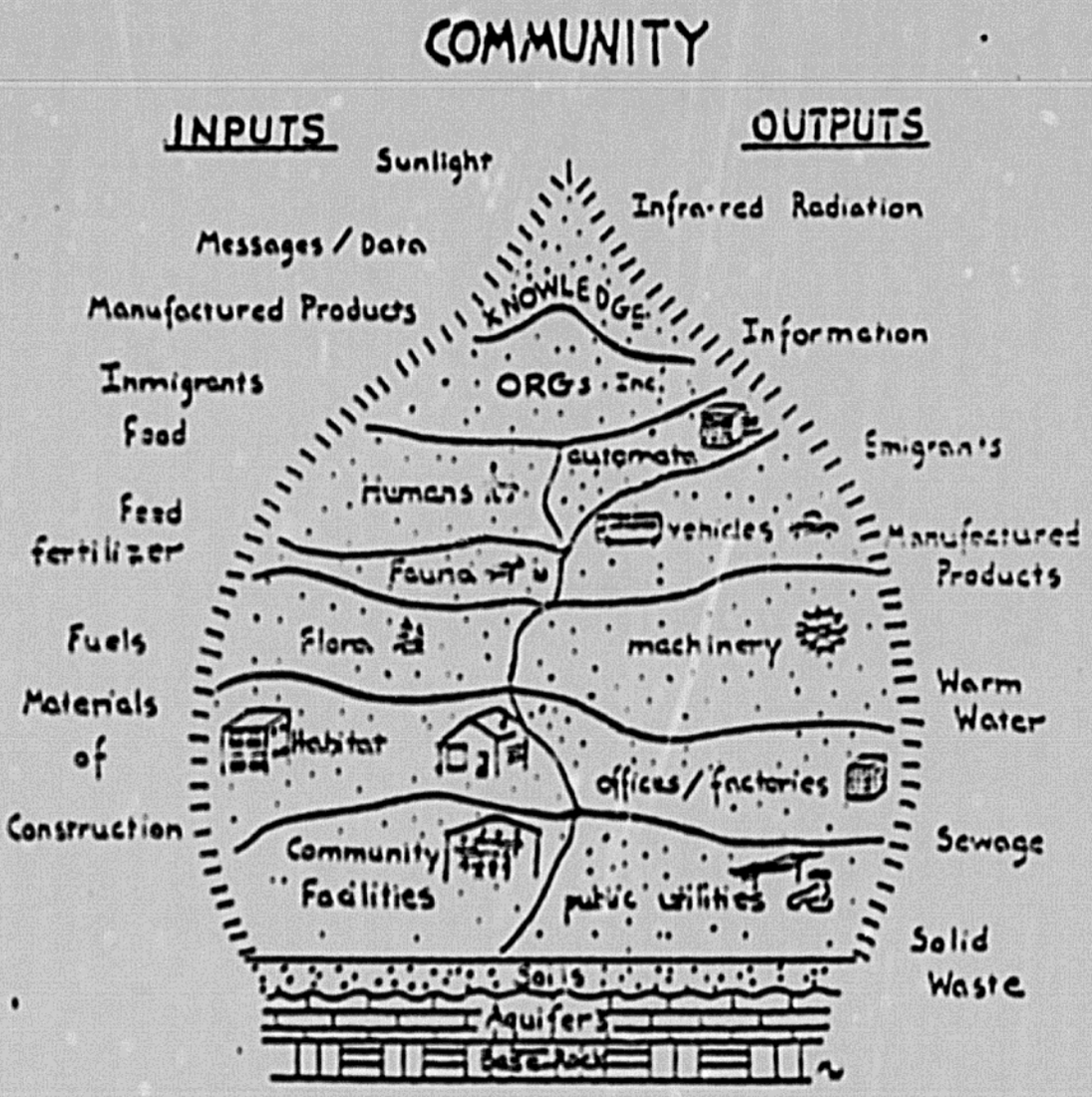

FIGURE 2: The Urban Ecosystem as Energy Converter

Source: R.L. Meier, et. al., The Urban Ecosystem and Resource Conserving Urbanism in Third World Cities, a report done for the Office of Urban Development, Bureau for Science and Technology, A.I.D., by the Energy and Environment Division of Lawrence Berkeley, California, March 1981.

Against this background of explorations and rejections we opted for the conventional sectoral approach that worked so well in the Tacloban pre-test. It is significant that this approach also has the spin-off benefits noted earlier, namely: (a) strengthening local capacity to plan and manage development; (b) stimulating private sector participation; and (c) improving conditions for decentralization of urban growth. The sectoral approach is explained above in section 2, and in further detail in annexes 1 and 2.

(2) The Case for Focusing on Small and Intermediate-Sized Cities. It could be argued that resource conservation should begin in the major cities where most of the urban resources are consumed, rather than in the small and intermediate-sized cities on which the MEREC project is focused. The major cities are growing very fast and are intensive resource consumers. In 1950 in developing countries there were only thirty-one cities of greater than one million population. Today there are more than 120 such cities and within eighteen years (by the year 2000), their number will have reached nearly three hundred -- roughly a ten fold increase in fifty years.[1] Moreover, many countries have polarized urban systems in which one or a very few of these large cities contain a major portion of the nation's population, wealth, infrastructure, and economic activities.[2] Quadrupling of oil prices in recent years has placed incredible strains on metropolitan budgets, and power shortages and brownouts are commonplace.

There is no question that resource conservation in major cities is of great importance, but it is a complex and costly proposition. Physical layout and design, growth trends and patterns, building styles, infrastructure systems, and the lifestyles that all of these things sustain already are well established. In these larger cities resource conservation must involve expensive

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1 Rondinelli, Dennis A., Developing and Managing Middle-Sized Cities in Less Developed Countries, a monograph prepared for the Office of Urban Development, Science and Technology Bureau, U.S. Agency for International Development, Washington, D.C., 1981. Figures were taken from Table I-1, which was based on U.N. data.

2 Ibid., p. 13.

retrofitting of buildings and homes, difficult changes in infrastructure systems, and complex and politically costly social engineering to change attitudes and practices.

In focusing our Managing Energy and Resource-Efficient Cities project on small and intermediate-sized cities, we are not downgrading the resource problems of major cities. These must be addressed. However, given limited resources, we see an opportunity for AID to make a greater contribution initially by concentrating on those cities in which basic growth patterns still are emerging, transportation, waste disposal, water, and electric power systems still are at early stages of development, and there still is time also to influence the design, layout, and material content of homes, buildings, and other structures. The future course of development can be influenced more dramatically and economically in these small and medium-sized cities than in large metropolitan areas. This is significant since global conditions mandate that resource conservation must be an underlying theme of future growth.

The case for the MEREC project focusing initially on small and intermediate-sized cities goes beyond the question of opportunity costs and AID resources. The Lawrence Berkeley Laboratory report noted above suggests that these cities have less resiliency than large metropolitan centers in times of energy crisis.[1] The sheer size and complexity of large cities give them greater organizational capacity for coping with energy and resource shortages. Relative to smaller cities, they have:

(a) Superior communication infrastructure which permits them to discover substitute processes and to act speedily on them;
(b) Better current information on the global energy and resource situation which gives them more awareness of coming shortfalls;
(c) More direct control over heavy energy and resource-consuming sectors, such as cement, steel, nonferrous metals, petrochemicals, and glass manufacturing, which may be shut down temporarily to avoid shortages in more

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1 R.L. Meier, et. al., op. cit.

critical sectors, such as public health and sanitation, transportation, public safety, and defense;

(d) Superior links with resource suppliers; and

(e) More political power with which to claim priority in time of shortage and to pass on shortages and costs to areas with less power and influence.[7]

The report also noted that large cities tend to have greater energy productivity than smaller cities. That is, their gross domestic product per unit of energy is higher because their size economies permit relatively greater knowledge intensity in productive services and correspondingly lower energy content or intensity. This is an advantage that can be induced in smaller cities if special efforts are made to assist them.

Finally, the increasing attention which developing countries are giving to decentralizing urbanization by stimulating growth in smaller cities is yet another compelling reasong for working at this level now on problems of resource conservation. These cities already are growing rapidly in many countries and this trend will spread and intensify. Since cost effective, resource conserving measures are most feasible at the early stages of a city's growth and development, it is important to move quickly to introduce them. Moreover, there are opportunities to conserve resources by taking advantage of the close ties that most smaller cities have with their surrounding rural regions, i.e., through conversion of urban wastes to agricultural uses.

(3). Adaptability. It has been noted earlier that the core approach adopted for the NEREC project is flexible. At the local level, the intensity of local participation in the process assures compatability with local conditions, and, in fact, the core approach was derived from a direct field operation. On the other hand, in highly centralized countries where local application and participation and is not feasible, the process can be elevated to the level of the capital city to set up a demonstration that can influence the way in which the government guides growth and development in smaller cities. Based on experience to date, we have no reason to believe that this approach is not feasible, although it has yet to be tested. We do have evidence to suggest that its costs will be higher and its impact less dramatic than we can expect at the small and intermediate-sized city level.

B. Economic Analysis

MEREC is not the type of AID project for which a strict economic analysis is practical. Yet, a large part of the rationale for the project is to increase efficiency in the consumption of scarce resources, and the project is keyed to the small and intermediate-sized cities where the impact of modest investments will be greatest. The economic soundness of this objective is unarguable, but it contains an internal economic issue that should be addressed, namely -- on a sector-by-sector basis, do the benefits of short and long term resource savings sufficiently outweigh the costs of MEREC strategy development to justify the program?

A major assumption underlying the project is that the answer to this question is yes. We found, for example, that the outlay for the development of a strategy in Tacloban was relatively modest. It cost $200,000, including development of the provisional state-of-the-art handbook--a one time cost for the project. Another $250,000 is planned for pilot and demonstration implementation and follow-on monitoring and evaluation. There will be only minimal ongoing cost to the city of Tacloban to continue with strategy maintenance and implementation because the process, by-and-large, will be integrated into the ongoing planning and management process of the city. On the output side, significant economies can be achieved in most of the sectors included in the strategy -- especially in the medium and long term. Further, and this assumption applies to the project in general, the resources in question are becoming increasingly scarce and costly. Moreover, the spinoff benefits noted earlier have considerable value, although these are difficult to assess, and the spread of the MEREC approach to other cities through demonstration effects and networking further enhance the overall economic benefits of the project.

In conclusion, it would be difficult to argue that MEREC benefits will not considerably outweigh the costs. Costs also will decline over the life of the project as a function of the learning curve and the development of improved field manuals, etc. However, in the interests of strengthening the project, it will be useful to assess the impact of various sector strategies on resource consumption, i.e., measure, however crudely, the effect of one sector

strategy against another. Sector specific evaluation approaches will be developed in the MEREC project to make this kind of assessment, and impact evaluation will be built into each MEREC field application.

C. Beneficiary Analysis

The MEREC project objective is to improve efficiency in the consumption of energy and other key resources in small and intermediate-sized cities in general. It is not geared to a specific target group, although since the wealthy and middle income groups consume the most resources and tend to be relatively inefficient in this consumption compared with the poor, it can be expected that the general impact of conservation measures will be progressive. However, resource efficiencies will tend to benefit the whole community. Jobs will be created and upgraded in some sectors, i.e., through more effective use of land, urban gardening projects, waste recycling programs, production of bio-gas generators, etc. The overall environment will be improved, traffic will flow more smoothly and conveniently, more resources will be managed more efficiently. Long term beneficiaries would include a wide spectrum of the population -- studies have shown, for example, that severe energy shortages affect all classes of society, but first and most severely the poor. Hence, strategies that diminish the chances of serious shortages ultimately are of considerable importance to the poor.

Short term beneficiaries of the project would be the field missions' national and local government entities, and private sector representatives who would be given the technical means and resources to address pressing local resource problems -- at least on the conservation side.

D. Project Administration

(1) Overall Management. The management functions of the overall MEREC project are summarized in the figure below. Five basic clusters of activities are involved, namely: (a) overall project administration; (b) site selection and adaptation of demonstration core design; (c) implementation of the city demonstration, including strategy development and pilot and demonstration implementation activities; (d) monitoring, evaluation, and information

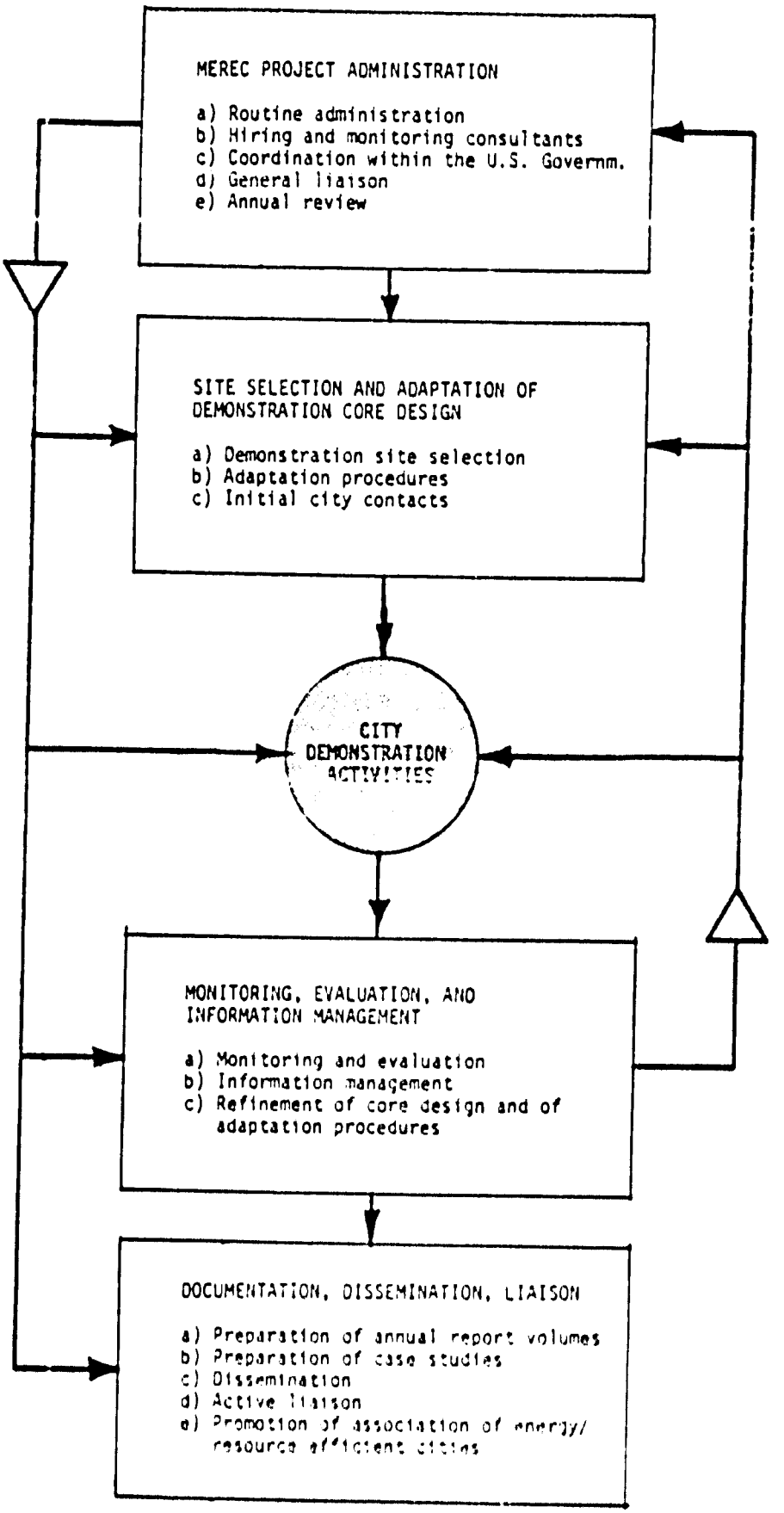

FIGURE 3: SUMMARY OF MEREC PROJECT MANAGEMENT ACTIVITIES

management, and; (e) documentation, dissemination, and liaison, including promotion of an association of energy and resource efficient cities. All of these functions, under the general supervision of S&T/HD/RRD and in collaboration with regional bureaus and appropriate missions, would be managed through a PASA with the Tennessee Valley Authority.

The TVA is an ideal management agency for this assignment. There is a near perfect fit between the MEREC approach at the community level and the way in which TVA works with the communities in the region (and it works with at least thirty-five communities at any given time). TVA has developed this approach through fifty years of experience and accomplishment in providing technical guidance and support to communities, helping them to develop their own plans, strategies, and recently, conservation programs, using a sectoral and multi-sectoral approach. This community based work is the responsibility of TVA's Office of Economic and Community Development (OECD) which is responsible for TVA's community and regional planning and development programs. OECD's community based style is compatible with the MEREC approach and it has worked in the area of community energy and resource conservation.

The TVA has the organizational units and functions to support the MEREC approach, including Conservation, Energy, Electric Power, Solid Waste, Sewage, Water, Land Use Planning and International Training to name a few. TVA's areas of technical expertise correspond directly to the sectors included in the MEREC project, and its style, like MEREC, emphasized a public/private sector partnership for planning and implementation. The resources of all TVA units would be available to the MEREC project under the proposed new PASA (e.g., with OECD's Community Development Branch). Further, TVA operates on the principle of maximizing use of private sector resources and would sub-contract as needed under a PASA to secure for the agreement the skills and services necessary for effective implementation of the MEREC program. In the case of the MEREC project.

The TVA has reviewed some of the basic MEREC concept documents and is enthusiastic over prospects of this new partnership under the existing AID General Agreement with TVA dated 1965. The Authority can provide the required services cheaply, covers the full spectrum of technical areas, can sub-contract as necessary, and adds to the project the international

experience, reputation, and institutional staying power it has gained over the past fifty years. In all probability, MEREC will influence positively the TVA client communities in the USA through this association. A draft of the implementing PASA is attached at Annex 4.

(2) Field Demonstrations. Individual field demonstrations, unless otherwise indicated by the field mission, will be funded through a Project Grant Agreement (PGA) signed by the mission. These agreements will cover local expenditures and in some cases, as appropriate, outside technical expertise. TVA will provide site selection and design adaptation assistance, strategy development backstopping, monitoring and evaluation services, and will keep the mission and project abreast of latest MEREC informational developments, both through direct communiciations and though the MEREC association (network).

It has been found that the PGA is a useful instrument for field operations of central projects. They permit missions to assume as active a role as they desire in project development and management, commit the host country to the program, and make for relatively quick obligation of funds. RRD will give priority in field site selection to missions which agree to co-funding of MEREC projects. For example, a logical division is MEREC funding of project design and strategy development and mission funding of follow-on pilot and demonstration implementation activities. MEREC could be used by missions as a design instrument for a mission sponsored activity or as a component of a larger mission project or program.

Identification of collaborating countries will not pose a problem in the MEREC project. A commitment already has been made to the Philippine Mission and the city of Tacloban, subject to PP approval, to do a follow-up pilot and demonstration phase in Tacloban, and the mission may wish to start a second demonstration in a rainfed agricultural region.

The misson in Indonesia has requested a MEREC demonstration, and there are a number of mission activities to which it could relate.

The Near East Bureau has expressed an interest in doing a demonstration in Egypt in connection with the decentralization activities underway there. Other NE possibilities suggested by Bureau representatives are Tunisia, Morocco, and Jordan.

In Africa, possibilities exist in Sudan, Cameroon, and Kenya. However, AFR has shown less interest in the project than other bureaus.

For Latin America, where highly centralized governments pose a problem for MEREC activities, bureau representatives nonetheless have suggested the following countries as prospective MEREC sites: Brazil (Curitiba), Jamaica, Peru, Bolivia, Panama, and Honduras. LAC sites will have to be selected very carefully to maximize demonstration effect while at the same time addressing the generic problem of weak local governments.

(3) Coordination with Other S&T Offices. S&T's Office of Energy, and Office of Forestry, Environment and Natural Resources have an active interest in the MEREC project and have participated in its design. S&T/EY currently is developing an Energy Planning and Conservation project which in some instances may be an effective complement to MEREC field demonstrations. The EPC project focuses on energy conservation and planning at the national level in countries with a particular interest in conservation. It may be possible, and certainly would be appropriate, to introduce a MEREC field demonstration into a country in which an EPC project is operating and in which there is a desire to move into a demonstration phase at the local level. Also the prospects of joint workshops and collaborative networking will be explored actively as the two projects become operational.

(4) Project Monitoring in AID/W. The project design group that contributed to the deveelopment of the MEREC project will be invited to remain the core AID/W monitoring group. An annual MEREC workshop would be held for the group and other invitees to report on and review project progress. This annual workshop, convened after completion of each MEREC annual report, would also be the basis for keeping the Human Resources Sector Council apprised of project progress.

E. Environmental Analysis

The MEREC program and its city demonstrations are "intended to develop the capability of recipient countries to engage in development planning" with

special emphasis on the planning and management of natural resources in the development process. This represents a class of action (§216.2 [c][2][xiv]) that is not subject to the procedures set forth in §216.3 of 22 CFR.

To the extent that the program is designed to ultimately result in AID activities directly affecting the preservation and disposition of natural resources, design criteria and standards will be applied that are developed and approved by AID. These actions will also fall into a class (§216.2 [c][2][xv] that is not subject to the procedures set forth in §216.3 of 22 CFR.

The MEREC program and its individual projects satisfy the criterion set forth in §216.2 [c][1][ii] for determining classes of actions included in §216.2 [c][2] for which an Initial Environmental Examination, Environmental Assessment and Environmental Impact Statement generally are not required: "AID does not have knowledge of or control over, and the objective of AID in furnishing assistance does not require, either prior to approval of financing or prior to implementation of specific activities, knowledge of or control over, the details of the specific activities that have an effect on the physical and natural environment for which financing is provided by AID."

Recommendation

The above analysis indicates a Categorical Exclusion (§216.2 [c][2]) for MEREC and its city demonstrations from the requirements of Initial Environmental Examination, Environmental Assessment, and Environmental Impact Statement.

5. IMPLEMENTATION PLAN

A draft PASA with TVA will be ready at the time the PP is signed. It may be possible to obligate in the third quarter the $275,000 budgeted in FY 1982 for the first year of funding. However, the latest date at which this PASA will be signed is July.

A draft Project Grant Agreement for the Philippine field activity, in the amount of $225,000 also will have been sent to the mission by the time the PP is signed. The AID and counterpart budget and basic terms of this agreement were developed with the GOI last January. This mission will conduct final negotiations and the PGA could be signed as early as July.

These two documents obligate the FY 1982 project budget, set up the overall management mechanism for the project, and activate the first field demonstration which, due to the pre-test, already is at the pilot implementaton phase.

The first tasks of the TVA will be to prepare a detailed work plan for the implementation of their five basic management tasks. TVA's first field responsibilities will be to assist the Philippines with the Tacloban activity, establish a reporting plan for that project, and begin work with the regional bureaus and missions on selection of the next two field sites for which activities should be initiated in FY 1983. This will require development of background and proposal material on an Egypt demonstration and close work with the NE Bureau on design of initial and follow-up field activities. Further, TVA will work with Asia Bureau in developing a second site in the Philippines and a site in Indonesia.

G. FINANCIAL PLAN

Overall S&T/MD/RRD funding for the MEREC project is set at $2.2 million. This relatively modest figure is based on a number of factors, namely: (1) the knowledge that the design stage of this project has been intensive, has worked out many of the bugs already, has produced some of the basis project start-up tools, and has generated some valuable field experience; (2) the expectation that the PASA with TVA provides a low-cost and highly efficient means of managing and servicing the project; (3) the assumption that the costs for management functions and for field demonstrations will decline over time as a function of the learning curve and the decline in heavy variable costs associated with start-up; and (4) the hope that missions will contribute on the average, at least half of the field demonstration costs once the project is established. Failure of one or more of these factors to materialize will force reconsideration of the number of field activities that is planned. The input budget, by fiscal year, is shown below.

Input Budget ($1,000's)

	FY 82	FY 83	FY 84	FY 85	Totals
Field Demonstrations (Proj. Grant Agreement)	225(1)	350	120		695
TVA PASA	250	200	250		700
Salaries & Wages	(75)	(75)	(80)		
Overhead (17%)	(13)	(13)	(14)		
Consultants	(62)	(42)	(51)		
Travel & Transportation	(75)	(50)	(75)		
Domestic & International & Per Diem					
Other Direct Costs	(25)	(20)	(25)		
Evaluation*	25	50		30	105
Totals	500	600	400	30	1,530

*Not broken out separately is at least $15,000 per year beginning in FY 1983 that TVA will invest in various evaluation responsibilities. The $25,000 shown in FY 1982 and $50,000 in FY 1983 is for development of an impact evaluation handbook. The $30,000 in FY 1984 is for a final evaluation, probably to be done by an IQC contractor.

7. EVALUATION PLAN

Evaluation is "writ large" throughout the MEREC project description and is incorporated into its core design. This section recapitulates the elements of the evaluation scheme and explains how they interrelate.

There are four aspects to the evaluation plan as follows:

1. Continuous management reviews. MEREC management will make periodic visits to field demonstrations in order to review demonstration progress, identify bottlenecks and information gaps, provide ad hoc assistance, and, as necessary, engage short-term assistance. Each visit will emphasize evaluation and will add to the project evaluation record.

2. Annual reviews. Each year project management will conduct a workshop in AID/W to present to the project committee and to a wider invited audience the progress, problems, and lessons learned in the MEREC project. The results of this workshop will be recorded as part of the project record and shared also with missions and countries participating in the project. The annual reports which will be cumulative from year to year, will reflect this information, as appropriate, and project management will act on recommendations to emerge from the workshop that are approved by the project committee. The workshop also will be a basis for keeping the Human Resources Sectoral Council abreast of project developments.

3. Impact assessment guidelines. ST/HD/RRD will develop a handbook, through use of a contractor, to help cities build impact assessment into specific MEREC sector strategies. The purpose of this activity is to assess the impact of sector strategies on resource consumption, compare the relative effectiveness of various strategies used throughout the project, and assess the impact of the project overall, on resource consumption. Records will be maintained by participating cities through use of the handbook and, as necessary, technical consultants.

4. Final evaluation. At the conclusion of the project, the contractor will produce the final annual report, which will contain also an overview of project results, including a report on . In addition, an IQC will be contracted to perform an overall evaluation of the project to determine its impacts on resource consumption and its replication effects, assess spinoff benefits, and reflect our lessons learned.