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PRE-TEST FOR MANAGING ENERGY AND
RESOURCE EFFICIENT CITIES:

RESULTS OF WASHINGTON, D.C., WORKSHOP

December 10-11, 1981

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& Lybrand

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Introduction

This paper contains a review of the points covered during a workshop held in Washington, D.C., as part of the above referenced project. The workshop was a major milestone in a pre-test for developing a strategy around the theme of energy and resource conservation applied to an intermediate sized city (population of approximately 100,000) in a developing country. The city selected for the pre-test was Tacloban, located in the Province of Leyte (Eastern Visayas) in the Philippines. The workshop culminated four months of work, in which Coopers & Lybrand prepared a State-of-the-Art Review and the city of Tacloban prepared a situation report and strategy. Representatives from Tacloban, USAID, Coopers & Lybrand, and outside consultants to C&L participated in the workshop. A workshop agenda and list of participants are included at the end of the report.

The principal objective of the workshop was to refine further a preliminary strategy developed by the City of Tacloban and refined at a prior workshop held in Tacloban October 22-23, 1981. A second objective was to develop a list of action steps the city should take between mid-December and the holding of a final workshop during the pre-test phase scheduled for Tacloban January 20-22, 1982.

The strategy has been developed on the basis of six areas or sectors as follows:

- . Land use planning
- . Transportation
- . Energy & electric power
- . Water & sewer
- . Solid waste
- . Building design & materials

A seventh category, "general support," has been added to cover such areas as public participation and information dissemination that cut across all areas.

The following section covers the short-term strategies recommended at the Washington, D.C., workshop on a sector-by-sector basis. This section is followed by a listing of recommended action steps. Longer-term strategies are addressed in the final strategy report but are not covered here.

SHORT-TERM STRATEGY

Land Use Planning

- . Update Land-Use Plan, including:
 - .. flexible, energy/resource conserving guidelines & standards
 - .. planned industrial site(s), export processing zone
 - .. protection of shoreline, watersheds, etc.
 - .. zoning, building code, other ordinances
 - .. use of aerial photography
- . Organize demonstration effort in urban farming, aquaculture
- . Document agency interactions (zoning, subdivision approvals, building code)
- . Test use of micro-computer to develop data base and classification system (through Ministry of Human Settlements, Land Regulatory Commission)

Transportation

- . Develop short range plan to rationalize system
 - .. traffic engineering & management
 - .. possible route licensing system
 - .. enforcement program (three agencies) & revision of traffic code
- . Implement experimental programs: e.g., vehicle free area downtown, loop road, bicycle lanes.

Energy & Electric Power

- . Obtain clear picture of future power outlook (diesel barge, geothermal)
- . Conduct operations audit of LEYECO II/DORELCO system: equipment, illegal connections, rate structure, management, etc.
- . Test the use of indigenous materials (e.g., rice hulls) on a commercial and industrial scale
- . Explore participation in dendrothermal project with USAID

Water & Sewer

- . Continue existing program and stress problems of salt water intrusion, linkage to health, drainage system, linkage to land use standards; consulting hydrologist required.
- . Coordinate with Leyte Sabah Basin Authority on conservation practices.

Solid Waste

- . Survey waste materials to determine component mix
- . Develop collection plan and system
- . Develop pilot plant to separate & recycle materials, recover methane, produce compost, etc.

Building Design and Materials

- . Conduct cost/end use analysis
- . Establish resource demonstration center

General Support Activities

- . Assess all institutions and interactions and sector linkages
- . Develop public information, participation, training & education campaign
- . Explore use of small grants program to stimulate residential conservation efforts at Baranguay (neighborhood) level.

The criteria to be used in assessing the above activities and formulating an action program include:

- . Cost/benefit relationship (weighing returns in terms of resources conserved and community welfare against life-cycle costs)
- . Must be proven approach and of appropriate (small) scale
- . Replicability of project in other cities and ability of project to be self-sustaining
- . Whether project is learning-based
- . Interaction of public and private sectors and ability of city to manage project and maintain control.

It was agreed that planning must be carried out and that no action should be taken without adequate information and community participation. It was also agreed that, at least during the demonstration phase, nothing should be done that requires significant capital investment; will result in major physical change; will require major changes in social systems; will be risky politically. Resources for initial projects would be derived from any residual funds existing in the project agreement, funds from the Tacloban budget, and funds from national and international sources.

RECOMMENDED ACTION STEPS

There are several steps the City of Tacloban can take prior to the final project workshop. Some of these steps will involve specific actions required in preparation for the workshop, while others may involve initiation of low-cost projects recommended during the Washington, D.C., workshop. Specific steps are suggested as follows:

- (1) Review project budget and program funds through the April closing date. As part of this process, identify funds that may be used to initiate specific projects

- (2) Continue local planning process (including task force structure) and initiate community involvement campaign (e.g., interact with City Council, hold public hearings/meetings, receive input from Barangway leadership)
- (3) Make additional contacts in Manila with National government leaders, USAID, the Asian Development Bank and other groups to stimulate additional interest in the project and additional ideas relating to implementation
- (4) After further planning sessions, initiate one ~~for~~ more low-cost projects (within financial and administrative resources) selected from the following:
 - (a) develop flexible, energy-conserving land-use guidelines and document agency and process interactions (through the Ministry of Human Settlements, Land Regulatory Commission)
 - (b) expand public information campaign pertaining to resource conservation (transportation, energy, water, solid waste, building design and materials)
 - (c) study use of experimental programs in transportation (additional survey work required by Leyte State College)
 - (d) expand management vigilance over water system and LEYECO II; obtain clearer picture of future power situation from National officials in Manila
 - (c) if sufficient resources are available through Leyte State College, consider surveys of building materials costs and end uses in residential and commercial sectors, and, with outside specialists, a technical analysis of the composition of the solid waste stream.

The first three steps and selected elements of step 4 should all be undertaken immediately (January 1, 1982) by the City to maintain project momentum and lead to a series of resource conserving projects as part of a broader social and economic development strategy.

ATTACHMENT I

Pre-Test: Managing
Washington, D.C. Workshop
Coopers & Lybrand
1800 M Street, N.W.

AGENDA

Wednesday, December 9

5:30 p.m. - Reception --
International Club
1800 K Street, N.W.

Thursday, December 10

8:00 a.m. - 9:00 a.m. Coffee, Donuts

9:00 a.m. - 9:45 a.m. Introductory Remarks --
Lawrence Revzan, Project Manager,
C&L
Eric Chetwynd, Jr., U.S.A.I.D.
Hon. Obdulia Cinco, Mayor,
Tacloban City, Philippines

9:45 a.m. - 11:45 a.m. Land Use Planning

11:45 a.m. - 12:30 p.m. Lunch (sandwiches)

12:30 p.m. - 2:30 p.m. Transportation

2:30 p.m. - 4:30 p.m. Energy and Electric Power

4:30 p.m. - 5:00 p.m. Wrap-up

6:30 p.m. - Cocktails and Dinner --
International Club
1800 K Street, N.W.

Friday, December 11

8:00 a.m. - 9:00 a.m. Coffee

9:00 a.m. - 11:00 a.m. Water & Sewer

11:00 a.m. - 1:00 p.m. Solid Waste

1:00 p.m. - 1:45 p.m. Lunch (sandwiches)

1:45 p.m. - 3:45 p.m. Building Design & Materials

3:45 p.m. - 5:00 p.m. General Strategy Discussion

ATTACHMENT II

LIST OF ATTENDEES AT WORKSHOP

Coopers & Lybrand

Lawrence Revzan, Project Manager
D. Andrew Goddard, Urban Environmental Specialist
Hollis Gillespie, Development Specialist
P. Patricio Crespo, Urban & Regional Economist

City of Tacloban

Honorable Obdulia Cinco, Mayor
Antonio Zeta, City Administrator
Lilia Casanova, Ministry of Human Settlements,
Land Regulatory Commission (Manila)
Romeo Crisostomo Development Coordinator
Ranulfo Feliciano, General Manager,
Leyte Municipal Water District
Vicente Mate, Regional Director, Bureau of Land
Transportation, Region VIII

USAID/FEDERAL AGENCIES

Eric Chetwynd, Jr., Office of Urban Development
(Contract Monitor)
Bill Miner, Director, Office of Urban Development
Robert Ichord, Asian Bureau
Garland Standard, Office of Urban Development
John Geraghty, Department of Housing & Urban Development,
International Division

C&L Consultants*/Observers

Sarah Becker*, Urban Environmental Specialist
Luis Diaz*, President, Cal Recovery Systems, Inc.
Donald Kyle*, President, Systan, Inc.
John Scoltock* Energy Systems Specialist
Donald Watson,* Professor, Yale School of Architecture
Avrom Bendavid-Val, Development Analysis Programming, Inc.
Russell Delucia, President, Meta Systems, Inc.
Jochen Eigen, Development Analysis & Programming, Inc.
John Huls, Institute for Self Reliance
Goldie Rivkin, Rivkin Associates, Inc.
Neil Seldmon, Institute for Self Reliance