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EXPERIMENT ACTIVITIES

Activities of Experimental Research (Barangay 195)

Barangay 195, Manila City		
Date	Title	Place
May 26	Explanation Experimental Research to Manila City Government	Manila City Hall
May 31	Explanation of Experimental research to Brgy. 195	Brgy 195 Hall
June 9	Data Gathering - Barangay Profile	Brgy 195 Hall
June 12-14	Training Program for BEM and Team ESTERO	Great Eastern Hotel and Aberdeen Court, DPWH Central, Tripa de Gallina Pumping Station, Calatagan Creek, Brgy. 24 South Cembo, Estero de Tripa de Gallina, Pier 17 Dumpsite
June 19	Site Inspection	Barangay 195
June 26	Training Workshop for BEM and Team ESTERO	Executive Plaza Hotel, Malate, Manila
July 5	Stakeholder Analysis and SWOT Analysis Demonstration	Brgy 195 Hall
July 24	Lecture on Waste Segregation and R.A. 9003	Jollibee, Abad Santos corner Hermosa Branch, Manila
August 5	Following-up of Program Proposals for each Focal Point (SWM, Beautification and Greening, Pollution Control, and IEC)	Brgy 195 Hall
August 19	IEC Workshop	Brgy 195 Hall
September 9	Monitoring	Barangay 195
October 16	Presentation General Rehearsal	Barangay Palanan Hall, Makati
October 19	Presentation Final Rehearsal	Brgy 195 Hall
October 22	2 nd Barangay Cluster Workshop	Traders Hotel, Manila
October 27	Site Visit	Barangay 195
November 4	Surprise Site Inspection	Barangay 195
December 9	Evaluation Monitoring – Knowledge, Attitude, and Practices Survey for BEM-ESTERO Team	Brgy 195 Hall
January 15	Site Visit	Barangay 195
January 22	Site Visit	Barangay 195
January 29	Brgy. 195 Children's Participation in the Experimental Research (Orientation-Seminar)	Barangay 195

Activities of Experimental Research (Barangay 46)

Barangay 46, Pasay City		
Date	Title	Place
May 25	Explanation Experimental Research to Pasay City Government	
May 29	Explanation of Experimental research to Brgy. 46	Brgy 46 Hall
June 9	Data Gathering - Barangay Profile	Brgy 46 Hall
June 12-14	Training Program for BEM and Team ESTERO	Great Eastern Hotel and Aberdeen Court, DPWH Central, Tripa de Gallina Pumping Station, Calatagan Creek, Brgy. 24 South Cembo, Estero de Tripa de Gallina, Pier 17 Dumpsite
June 19	Site Inspection	Barangay 46
June 25	Training Workshop for BEM and Team ESTERO	Max's Restaurant, Greenbelt, Makati
July 6	Stakeholder Analysis and SWOT Analysis Demonstration	Barangay Chapel
July 25	Lecture on Waste Segregation and R.A. 9003	Brgy 46 Hall
August 5	Following-up of Program Proposals for each Focal Point (SWM, Beautification and Greening, Pollution Control, and IEC)	Barangay 46 Hall
August 23	IEC Workshop	Barangay Chapel
September 8	Monitoring	Barangay 46
October 16	Presentation General Rehearsal	Barangay Palanan Hall, Makati
October 19	Presentation Final Rehearsal	Brgy 46 Hall
October 22	2 nd Barangay Cluster Workshop	Traders Hotel, Manila
October 28	Site Visit	Barangay 46
November 4	Surprise Site Inspection	Barangay 46
December 9	Evaluation Monitoring – Knowledge, Attitude, and Practices Survey for BEM-ESTERO Team	Brgy 46 Hall
January 15	Site Visit	Barangay 46
January 22	Site Visit	Barangay 46

Activities of Experimental Research (Barangay Palanan)

Barangay Palanan, Makati City		
Date	Title	Place
May 26	Explanation Experimental Research to Makati City Government	Makati City Hall
June 3	Explanation of Experimental research to Barangay Chairman of Brgy. Palanan	Brgy Palanan Hall, Makati City
June 9	Data Gathering - Barangay Profile	Brgy Palanan Hall, Makati City
June 12-14	Training Program for BEM and Team ESTERO	Great Eastern Hotel and Aberdeen Court, DPWH Central, Tripa de Gallina Pumping Station, Calatagan Creek, Brgy. 24 South Cembo, Estero de Tripa de Gallina, Pier 17 Dumpsite
June 19	Site Inspection	Zobel Roxas and Tramo
June 25	Training Workshop for BEM and Team ESTERO	Max's Restaurant, Greenbelt, Makati
July 3	Stakeholder Analysis and SWOT Analysis Demonstration	Barangay Hall Conference Room
August 5	Following-up of Program Proposals for each Focal Point (SWM, Beautification and Greening, Pollution Control, and IEC)	Barangay Palanan Hall, Makati City
August 24	IEC Workshop	Barangay Palanan Hall, Makati City
September 8	Monitoring	Barangay Palanan Hall, Makati City
October 16	Presentation General Rehearsal	Barangay Palanan Hall, Makati City
October 20	Presentation Final Rehearsal	Barangay Palanan Hall, Makati City
October 22	2 nd Barangay Cluster Workshop	Traders Hotel, Manila
October 28	Site Visit	Barangay Palanan, Makati City
December 9	Evaluation Monitoring – Knowledge, Attitude, and Practices Survey for BEM-ESTERO Team	Barangay Palanan Hall, Makati City
January 22	Site Visit	Barangay Palanan, Makati City

Report for Proceedings - 1

Training Program for BEM and Team ESTERO

Date: June 12-14, 2004

Place: Great Eastern Hotel and Aberdeen Court, Makati City

TABLE OF CONTENTS

	Page
I. Introduction	1
II. First Day: June 12, 2004 (Regency Suites, Great Eastern Hotel and Aberdeen Court, Makati Avenue, Makati City)	
<i>Profile of Participants</i>	1
<i>Preliminaries</i>	2
<i>Overview of the Experimental Research Study</i>	4
<i>Briefing for the JICA Study on Drainage Improvement in the Core Area</i>	5
<i>Drainage Improvement Plan in the Core Area</i>	6
<i>Urban Environment Related Regulations</i>	6
III. Second Day: June 13, 2004 (Regency Suites, Great Eastern Hotel and Aberdeen Court, Makati Avenue, Makati City)	
<i>Profile of Participants</i>	7
<i>Experiences of the JICA Pilot Projects for Community Based Solid Waste Management</i>	7
<i>Existing Condition of Solid Waste in the Core Area</i>	8
<i>Community Based Solid Waste Management</i>	8
<i>Environmental Management Plan</i>	10
<i>BEM/ESTERO Organizing</i>	10
IV. Third Day: June 14, 2004 (Field Trip)	
<i>Profile of Participants</i>	13
<i>Assembly</i>	13
<i>The Trip</i>	13
V. Attachments	
A. Attendance	16
B. Program	19
C. Opening Remarks: Training Program for "BEM and Team ESTERO"	21

D. Experimental Research for Drainage System Improvement in the Core Area of Metro Manila	28
E. Study on Drainage Improvement in the Core Area of Metro Manila	36
F. Drainage Improvement Plan	41
G. Barangay Environmental Management Planning (Experimental Research for Drainage Improvement in Core Area of Metro Manila)	53
H. Barangay Environmental Management Planning	61
I. Gabay na Tanong	67
J. Training for BEM and Team ESTERO	70
K. Photographs	72

THE STUDY ON DRAINAGE IMPROVEMENT IN THE CORE AREA OF
METROPOLITAN MANILA

**Training Program for BEM and Team ESTERO
Experimental Research**

June 12-14, 2004
Regency Suites, Great Eastern Hotel and Aberdeen Court
Makati Avenue, Makati City

PROCEEDINGS

I. INTRODUCTION

Three Barangay Units, Barangays 46, Pasay City, Palanan, Makati City, and 195 City of Manila, were selected for the Experimental Research for the Study on Drainage Improvement in the Core Area of Metropolitan Manila as typical and/or representative barangays in the Core Area of Metropolitan Manila (DICAMM) for the development of a model for Barangay Institutional System. The selection was based on certain conditions such as the character of the people, and types of problems in the areas.

This Training Program is only the onset of the entire research where the Barangay Environmental Managers (BEM) and Team ESTERO (Environmental Strategic Task for Estero Renewal Organizing) from the three different Project Sites have come to meet and learn from one another, aside from the facts the resource persons have shared with them.

II. FIRST DAY: JUNE 12, 2004

(Regency Suites, Great Eastern Hotel and Aberdeen Court, Makati Avenue, Makati City)

Profile of Participants

Almost all members of the Experimental Research Team were present, Dr. Akinori Sato (Team Leader, also the Deputy Team Leader-JICA Study Team), Dr. Felixberto Roquia, Jr. (Public Participation II-JICA Study Team), Mr. Jesus Averilla (Head/Env'l/Environment/Solid Waste Management-Counterpart Team), Engr. Joselito Manoos (Public Participation-Counterpart Team), Engr. Manuel Leano (Solid Waste Analyst), and Ms. Bridgette Bautista (Coordinator).

Also present were Dr. Takayuki Nobe (Deputy Team Leader-JICA Study Team), Dr. Tadānori Kitamura (Drainage Planning II/Hydraulics-JICA Study Team). From the Counterpart Team were Mr. Napoleon Famadico (Team Leader), Engr. Elmo Atilano (Hydrological and Hydraulic Modeling), Ms. Diana Parubrur (Database). From the JICA Study Team Support Staff were Ms. Grace Milanio (Project Secretary), Mr. Mike Marcelo (Typist/Administrative Assistant), Ms. Marie Payumo (Data Encoder), and Ms. Donna Gabriel (Data Encoder).

The Resource Person of the day, Dr. Sixto Tolentino, Jr., Regional Director of the Department of Environment Natural Resources - Environmental Management Bureau, NCR (DENR-EMB, NCR), was able to hold a fruitful lecture. The presence of Ms. Elsie Encarnacion is also being acknowledged.

Of the 18 Barangay participants who attended, 9 were from Barangay 46, Pasay City (1 BEM, 7 Team ESTERO, and 1 Barangay Chairman), 4 were from Barangay Palanan, Makati City (1 BEM, 3 Team ESTERO), and 5 were from Barangay 195, City of Manila (4 Team ESTERO and 1 Barangay Chairman).

Preliminaries

The program officially started at 9:10 a.m. Mr. Jesus Averilla welcomed the crowd and led the Prayer, and was followed by the singing of the Philippine National Anthem led by Ms. Bridgette Bautista.

Afterwards, Dr. Takayuki Nobe gave his Welcome Remarks supplemented by a PowerPoint Presentation entitled, *Opening Remarks Training Program for "BEM and Team ESTERO"* (Please see attachment). This was followed by the Group Dynamics, Leveling Off, and Course Briefing, facilitated by Dr. Felixberto Roquia, Jr. For the Group Dynamics, Dr. Roquia led the stretching exercises. In the Leveling Off, Dr. Roquia prepared three questions for the participants and provided them three colored meta cards to write their answers on. The questions were: 1) *Ano ang inyong inaasahan sa Training na ito?* (What do you expect of this Training?); 2) *Sa tingin ninyo, ano kayang maidudulot sa inyo ng Training na ito?* (In your point of view, how would this Training be of help to you?); and 3) *Iba pang inaasahan* (Other expectations). Answers to question number one should be written on the yellow meta cards, question number two on the pink meta cards, and question number three on the green meta cards. Below are the participants' expectations.

Participants' Expectation of the Training

1. *Ano ang inyong inaasahan sa Training na ito?* (What do you expect of this Training?)
 - With this team effort this Training Program will be successful
 - *Magkaroon ng sapat na kaalaman tungkol sa* (To gain enough knowledge about) BEM at (and) Team ESTERO
 - *Upang pag-aralan ang makabagong pamamaraan* (To be able to learn modern techniques)
 - *Magkaroon ng* (To have) proper training regarding drainage prob.
 - *Matuto at maibahagi sa aming komunidad* (Learn and impart to our community)
 - *Matuto sa pangangalaga ng estero* (Learn to nurture the estero)
 - *Matuto at mapag-alaman ang ikaaayos tungkol sa problema sa basura* (Learn and know the ways in resolving the problems on garbage)
 - *Matuto at masanay sa awareness* (Learn and to get used to)
 - *Matuto kung paano pahalagahan ang ating mga estero* (Learn how to give importance to our esteros)
 - *Matuto at magkaroon ng kaalaman para sa kalinisan ng estero at kung paano ito mapapanatili* (Learn and to gain knowledge for the cleanliness of the estero and how to maintain it)

- *Kaalaman kung paano gamitin ang estero* (Knowledge on how to use the estero)
 - *Malalaman kung ano na ang kundisyon ng estero* (To know the conditions of the estero)
 - *Malaman ang kahalagahan ng* (Know the importance of the) *Training para sa ikauunlad ng kapaligiran* (for the improvement of the surroundings)
 - *Malalaman ang kahalagahan ng Training at kahalagahan nito* (Know the importance of the Training)
 - *Malaman ang kahalagahan ng* (Know the importance of the) *trainee sa ikauunlad ng kapaligiran* (for the improvement of the surroundings)
2. *Sa tingin ninyo, ano kayang maidudulot sa inyo ng Training na tio?*
(In your point of view, how would this Training be of help to you?)
- *Matuto ng kaalaman tungkol sa pagpapahalaga sa kalusugan* (Learn tips on importance of health)
 - *Upang maiwasan ang anumang uri ng karamdaman dahil sa pagkakasira ng estero* (To be able to prevent whichever kind of disease caused by the damaged estero)
 - *Malawsan ang sakit sa kapaligiran at* (To prevent diseases in the surroundings) *beautification ng kapaligiran* (of the surroundings); *Iwas sa baha* (Prevent flooding)
 - *Kalinisan ng paligid ng estero para sana rin sa malusog na pamumuhay* (Cleanliness of the surrounding of the estero for a healthy living)
 - *Maging* (To be) *aware sa kagandahan ng paligid* (of the beauty of the environment)
 - *Kalinisan at kaayusan ng estero para sa magandang kapaligiran* (Cleanliness and orderliness of the estero for a beautiful environment)
 - *Ang maidudulot sa Training ito ay upang maiwasto ang tamang pagtapon ng basura* (The Training would be of help to correct garbage disposal)
 - *Matutunan ang tamang proseso at karagdagang kaalaman para dito* (Learn the proper process and additional knowledge for this)
 - *Malaman natin ang wastong paggamit sa mga estero* (Learn the proper usage of the esterios)
 - *Kaalaman sa bagay ng pangangalaga ng estero* (Knowledge on proper care to estero)
 - *Malaki, dahil malaki ang aming matutunan sa Training na ito* (Much, because we can learn a lot in this Training)
 - *Sapat na kaalaman at pang-unawa upang lubos na maintindihan ang project na ito* (Sufficient knowledge and understanding for better appreciation to the Project)
3. *Iba pang inaasahan* (Other expectations)
- *Upang ipahayag ang iba't-ibang sistema ng problema sa drainage* (To be able to inform the different systems of problems on drainage)
 - *Matupad ang lahat ng programa sa pamamagitan ng tulong-tulong na pakikiisa* (To make reality all programs through helping one another and unity)
 - *Makakita kung paano magpatupad ng tungkulin* (To visualize how we can enact the obligations)
 - *Kasaganahan, kayamanan, kalusugan at kaayusan sa kapaligiran - KKKKK* (Progress, Wealth, Health, and Tidiness of Environment)

- *Kalusugan ng mga mamamayan sanhi ng kalinisan* (Community's health caused by cleanliness)
- *Maitaguyod ng maayos at malinis ang estero at hindi magiging madumi pa muli* (To establish orderly and cleanse the estero and prevent from getting polluted again)
- *Magbago pa!* (Revolutionize)
- *Marami! Nakita ko na sa magiging resulta nito* (Plenty! I've seen the result of this)
- *Mga plano kung paano isasaayos ang mga programa tungkol sa estero* (Plans on how to organize programs regarding the estero)
- *Mabigyan ng solution ang problema ng baha sa aming Barangay* (To provide solutions to the flooding problem in our Barangay)
- *Pagbabago at kaayusan, katuparan ng proyektong ito* (Transformation and orderliness, implementation of this Project)
- *Para ipamahagi sa bawat barangay ang tungkol dito para maliwanagan ang isa't-isa tungkol dito* (To share this to every barangay to enlighten them about it)

Introduction of Participants was inserted next for it was overlooked, this portion should have come first before the *Group Dynamics, Leveling Off, and Course Briefing*. Barangay Palanan, Makati participants introduced themselves first, followed by those from Barangay 195, City of Manila, then by those from Barangay 46, Pasay City, and lastly followed by the JICA Study Team, its Counterparts, and Support Staff.

Dr. Roquia continued with the Course Briefing, he elaborated to the participants the schedule written in the Program. Afterwards, snacks were served for a fifteen minute break.

Overview of the Experimental Research Study

Dr. Akinori Sato presented the study using a PowerPoint presentation. He discussed the Objectives of the Experimental Research such as, 1) to find a workable, sustainable and effective mechanism through experimental research, and 2) to be fed back to Master Plan formulation from the result of the Experimental Research. This was followed by the Problems for O/M of Drainage System, Causes of Problem, Necessary Measurement for Improvement of Drainage, "Why do we need to establish a community involvement of system?" Approaches of Experimental Research, Conditions of Target Barangays for Model Development, Activities of the Experimental Research, Organization for Experimental Research, Structure of the BEM and Team ESTERO, Roles of BEM, Roles of Team ESTERO, Supporting Group, Monitoring and Assessment Group, and finally, Process of Experimental Research.

After the presentation, the session was open for the Barangay participants' questions and suggestions. Barangay Chairman Ernesto Ereño of Barangay 195, City of Manila started with requesting identification cards for recognition. Afterwards, Barangay Chairman Arthur Gaylican of Barangay 46, Pasay City requested Dr. Akinori Sato and the rest of the Experimental Research Study Team to visit their Barangays after the Training to encourage more residents to cooperate in the Study in their area. Team ESTERO Member Ms. Flordeliza Isip commented to the entire group that they should first cooperate with one another to invite and encourage more residents in supporting the Study.

Barangay Chairman Nestor Ereño added, for a more effective output and participation, compensation must be provided. DPWH and JICA Study Team responded that there will be allowances given to the BEM and Team ESTERO only apologies to the Barangay Chairmen who are not included.

Barangay Chairman Arthur Gaylican requested the Experimental Team to replace their destroyed pushcarts. Mr. Jesus Averilla, as the facilitator, clarified to the Barangay participants that the equipments and other things they are requesting will still have to be justified in the Planning.

Dr. Felixberto Roquia, Jr. assured the participants that basing from a survey, priorities and top problems of their area will surface, from there, we can plan out which to support first. Barangay Chairman Nestor Ereño disclosed an issue on garbage collection in their area. They have somebody assigned to collect their garbage, but the time of collection is indefinite so the residents are confused when to put out their garbage and where to throw it. Dr. Felixberto Roquia advised them to have their time of collection regularized. Barangay 195 has a common dumping container in front of the Barangay Hall to lessen the difficulties for the dump truck to enter their neighborhood, but it is so small that it cannot accommodate the rest of their garbage, so they are requesting if the Experimental Research Study Team could provide them additional containers.

Briefing for the JICA Study on Drainage Improvement in the Core Area

Engr. Napoleon Famadico briefed the Barangay participants about the on-going Study in Metropolitan Manila. He started with the Background of the existence of the said Study, followed by a clear explanation and demonstration of the evolution of the situation of the esteros. The explanation made the participants fully understand why their esteros are at its present state. The Necessity of the Study came next followed by a brief description of The On-going JICA Assisted Study, then the Objectives of the Study, Approach and Methodology, Scope of Study, Schedule of the entire Study, Reporting, and the Organizations involved.

For the Open Forum, the issues regarding the signatories of the identification cards of the Barangay participants were debated for clarification. Mr. Jesus Averilla recapped that the IDs will be having their pictures to avoid usage of a non-owner and these will also be signed by DPWH, City Mayor, and the Barangay Chairman. Barangay Chairman Nestor Ereño agreed that it should be signed by the City Mayor for a more influential appeal. Barangay Chairman Arthur Gaylican added that the City Engineer and the City Mayor should sign. Dr. Akinori Sato pointed out that the DPWH should be signing because it is the implementing agency. Barangay Chairman Nestor Ereño agreed with Dr. Akinori Sato, but suggested to involve the JICA Experimental Research Study Team Leader for it is the component of the entire Drainage Improvement Study spearheading this particular research, and to keep the residents aware and convinced of the existence of this Study. Engr. Napoleon Famadico agreed with the Barangay Chairman, but suggested to choose only one who will sign. Finally, Dr. Akinori Sato said that we must leave the decision to the JICA Study Team Leader, Mr. Hajime Tanaka.

In addition, Barangay Chairman Nestor Ereño stated that, aside from the IDs to be provided by the Experimental Research Study Team, after the Drainage Improvement

Study, DPWH shall provide different IDs for the Barangays because they will be the ones monitoring the continuity of the implementation of the models/project/programs.

The morning session ended at 11:50 a.m. which gave the room ten minutes more to freshen up before having lunch at 12:00 noon.

Drainage Improvement Plan in the Core Area

Mr. Jesus Averilla introduced Engr. Elmo Atillano. For an ice breaker, Engr. Elmo Atillano led the room to a famous dance craze named *Otso-otso* and assisted by Dr. Felixberto Roquia's stretching exercises. Engr. Elmo Atillano discussed the Major Drainage Conditions in the Metropolitan Manila Core Area, and according to him, the Estero de Tripa de Gallina is the most problematic or damaged. This was followed by the Problems and Constraints of the Present Drainage System, then by the Basic Concept of Drainage Improvement, and lastly by the Applicable Measures of Drainage Improvement in the Core Area (please see attachment for details).

As Engr. Elmo Atillano finished his discussion, Dr. Felixberto Roquia asked him to elaborate and emphasize on the Supporting, Structural, and Non-structural Measures for these are the keys to the solution the Barangay and the Team can do. After which, Dr. Takayuki Nobe, requested the participants to strengthen their will in participating.

Urban Environment Related Regulations

Dr. Sixto Tolentino, Jr., the Regional Director of EMB-DENR Environmental Management Bureau-Department of Environment and Natural Resources), NCR, started his lecture with the History of Planning in Metropolitan Manila and the Philippines. According to him, the Planning in our country were influenced by Spanish, British, and American Designs. He introduced to the participants terms like Agglomeration of Economies, which means, people choose and live near Central Business Districts; and NIMBY (Not In My BackYard) Syndrome. He also informed them that the Pasig River is the country's National Drainage because the tributaries of drainages mostly end and discharge here, and incineration is strictly prohibited in the country for it greatly contributes to air pollution.

Dr. Sixto Tolentino finally said that the solution to all our garbage problems is Ecological Solid Waste Management, segregation at source. The simpler the plans are, the better and easier to implement.

The first training day ended fruitfully at 4:40 p.m.

III. SECOND DAY: JUNE 13, 2004

(Regency Suites, Great Eastern Hotel and Aberdeen Court, Makati Avenue, Makati City)

Profile of Participants

From the Experimental Research Team, Dr. Akinori Sato, Dr. Felixberto Roquia, Jr., Mr. Jesus Averilla, Engr. Manuel Leano, and Ms. Bridgette Bautista were the ones who attended. From the JICA Study Team and its Support Staff, Dr. Tadanori Kitamura, Mr. Mike Marcelo, Ms. Marie Payumo, and Ms. Donna Gabriel attended the Training.

The Resource Persons of the day were Engr. Rogelio Pescasio of Soldiers Village, and Ms. Elsie Encarnacion of Metropolitan Manila Development Authority (MMDA).

The Barangay participants increased their attendance from 18, during the first day, to 20. Complete attendance was again given by Barangay 46, Pasay City (9 participants), from Barangay Palanan, Makati City, 1 was added to the 4 previous participants, and 1 was also added to the 5 participants from Barangay 195, City of Manila.

Experiences of the JICA Pilot Projects for Community Based Solid Waste Management

This second day of the Training officially started at 9:53 a.m. by Mr. Jesus Averilla, introducing the first resource person, Engr. Rogelio Pescasio, the Project Supervisor of Management Division of Maynilad Water Services, Inc.

Engr. Rogelio Pescasio started by stating a fact that solid waste management is significantly related to health, especially when it comes to children. He also mentioned about the danger the industrial toxic waste causes our waters, lands, and people. He stated that 'waste are not garbage, they can be reused.' Compostables can be converted to organic fertilizers, and recyclables can be sold and some (tetra packs) can be used in making bags and table clothes. He assured that in this way, employment can be generated from these transformations of waste to useful materials.

According to him, we should start broadening our knowledge about solid waste management in order to enhance our present knowledge on health and nature especially that many children play in dirty water; they would probably capture diseases like influenza and diarrhea.

He shared to the participants the JICA assisted Project in their area in Soldiers Village, Pasig. The project was also about solid waste management. Their village has established their own Recycling Area or MRF (Material Recovery Facility) in March 1998. According to him, the biodegradables of the community are being collected and brought to the MRF and convert it to fertilizer, while the recyclables are being stored in their recycling area for selling or trading with bigger junkshops.

Sustaining their facility went through a lot of hardships, Engr. Rogelio Pescasio admitted, but he can proudly say that it was a success. Junkshops and even the pushcart boys were their great competitors, but later on, they were able to compete at

the same level of the junkshops' and even top them because they have the edge of collecting the waste from the households. As they have earned, they were able to provide for the renovation of their MRF, aside from the requests they asked from the Government.

As an ender, Engr. Rogelio Pascasio challenged the three participating Barangays to be like the Soldiers Village.

For the Open Forum, Barangay Chairman Nestor Ereño recapped Engr. Rogelio Pascasio's lecture; recycling area can be of help in minimizing diseases and flood, and enrich cleanliness in their barangay. Mr. Jesus Averilla thanked the resource person and requested the BEMs of the participating barangays to share the present and similar conditions of their respective areas. BEM Benjamin Evangelista of Barangay 46, Pasay City asked how we can pursue an MRF Project if we don't have enough space to construct a building on. Dr. Akinori Sato said that recycling is important, therefore, we must make a good plan on this issue. Dr. Felixberto Roquia added that in Quezon City, plastic bags are being used to put in recyclables placed along the street for easy access. Dr. Akinori Sato assured the participants that there will be always problems to be encountered in pursuing this Project so always feel free to communicate with everybody involved, especially the JICA Team.

Mr. Jesus Averilla further explained that the Barangays are selected model of the Experimental Research, should not expect JICA to do everything. JICA and the Barangays must share their future programs/plans for the success of the research. Dr. Felixberto Roquia clarified to the Barangay participants that they must not think of JICA equivalent to money. The Experimental Research team gives the Technical Support, not an everlasting fund. Their Barangay shall also continue the sustenance of the Program as part of their Barangays' life. Lastly, partnership should be established among the Experimental Research Study Team and their Barangays.

Existing Condition of Solid Waste in the Core Area

Mr. Jesus Averilla introduced the next speaker, Engr. Manuel Leaño. The speaker started with a statement 'wastes are main reason of flooding.' He simply described the pictures flashed in the PowerPoint Presentation. Surveys were conducted in selected Pumping Stations and Esteros in Metropolitan Manila, some of which were the Floating Garbage Analysis, and Deposited Garbage Analysis. Results were also shown in the Presentation but percentages were not mentioned clearly. He emphasized that the stagnancy of the esterros are caused by the garbage clogging the drainages, and houses standing on the stream which blocks the flow of the water in the estero. He suggested the Barangay participants to establish a Community Activity to gather volunteers to clean their esterros to attain a cleaner surrounding.

Community Based Solid Waste Management

Mr. Jesus Averilla introduced Ms. Elsie Encarnacion, from MMDA. Ms. Elsie Encarnacion started by leading a stretching exercise to awaken the participants. She first defined what a Community is. According to her simple Filipino definition, Community is a Barangay, Sitio, Purok, Village, and Subdivision. This was followed by

the definition of Solid Waste of RA 9003, which goes, *all discarded household, commercial waste, commercial waste, non-hazardous institutional waste, street sweepings, construction debris, and agricultural waste*. She also defined Solid Waste Management, *discipline regarding the control of generation, storage, collection, transfer and transport, processing and disposal in a manner that is in accord with but principles of public health, econ, engineering, conservation, aesthetics, and other (laws, regulations)*.

Ms. Elsie Encarnacion informed the participants that PET Plastics' mark is having dimples at the bottom, while PVC Plastics are those with lines at the bottom. She also shared that PET Plastics can be processed as jackets, carpets, and bathing suits. The processing cannot be done in the Philippines because we do not have the technology; the plastics are being exported to other countries to be processed. But soon, we might have the processor because San Miguel Corporation is planning to put one up.

The people must learn to segregate and recycle as soon as possible because it is very difficult to find a site or land to sump solid waste on, and we are running out of time; garbage keep on increasing in volume.

Ms. Elsie Encarnacion also discussed the Steps and Activities in Community Based Solid Waste Management:

1. Social Preparation Phase
 - formal entry: courtesy calls, project introduction
 - area profiling
 - identification of potential leaders and other groups (junkshop owners, associations, women's group, organizations)
2. Organizational Development
 - constitution of Barangay Solid Waste Management Committee
 - organization of groups, street leaders
 - formation of organizing structures (cluster, sitios, purok, streets)
3. Community Planning: workshops
4. Project Implementation, Management, and Operation
 - Action Plan adapted by the Barangay Council
 - Monitoring and Evaluation System in place and LGUs are able to monitor the Project Sites
 - Information and Education Campaign
 - Project Sustainability

After which, Barangay Chairman Nestor Ereño pointed out that waste segregation will be a hard task because many would refuse exerting extra effort. Why else would we command people to do complicated tasks if they are already doing a convenient one like simply putting the garbage in one plastic bag? Ms. Elsie Encarnacion responded to that by saying, that's why we have to come out of a Community Based Ecological Solid Waste Management Strategic Plan, and plans of each barangay will be unique from one another because the plans for an area should suit the condition of that particular area.

The discussion broke off by lunch at 12:30 p.m.

The Training resumed at 1:35 p.m. Ms. Elsie Encarnacion asked for five more minutes to discuss what IEC Materials may be sent out for dissemination.

Environmental Management Plan

Dr. Akinori Sato discussed to the Barangay participants how to prepare a Barangay Environmental Management Plan (BEMP). He explained the Objectives of the BEMP, Status of BEMP, Limitation of the Plan, Planning Process, Structure of BEMP, and the Structure of Implementers. He also showed an outline of contents of the Barangay Profile and BEMP (please see attachment).

BEM/ESTERO Organizing

Dr. Felixberto Roquia started by explaining the Social Aspects considered in pursuing the Study especially the *Kultura sa Samahan*, which basically tells how Filipinos' attitude (please see attachment for details).

After a brief explanation, Dr. Felixberto Roquia flashed an Action Plan table to be filled up by the participants as their exercise:

Action Plan

Sitwasyon ng Lugar	Paraan upang Isaayos	Sino ang Gagawa	Agency ng Gobyerno	Budget..
Estero <ul style="list-style-type: none">• Kabahayan• Basura				
Kalye <ul style="list-style-type: none">• Daanan• Basura				
Kalusugan				
Beautification				
Kabuhayan				

Please see each Barangay's answers below:

Barangay Palanan, Makati City

- **ESTERO:** Kunin ang datos kung ilang ang maninirahan doon sa estero
- KABAHAAYAN:** Kausapin ang mga nakatira doon, kung paano mapanatili ang kalinisan sa kanilang paligid at maituro ang wastong pagtapon ng basura
- BASURA:** Maituro sa kanila kung ano ang epekto ng basura sa kanila at ipatupad ang City Code (RA 9003)

- KALYE:
 - DAANAN: Mapanatili ang kalinisan nito
 - BASURA: Ilagay sa tamang lalagyan
- KALUSUGAN: Kumunsulta sa Health Center
Ituloy-tuloy ng Health Worker ang programa ng Health Council
- BEAUTIFICATION: Pagbutihin ang trabaho ng Clean and Green Worker
- KABUHAYAN: Paunlarin pa ang cooperation sa Barangay

Barangay 195, City of Manila

ESTERO KABAHAYAN

1. Turuan ng wastong pagtapon ng basura (tao) para huwag makapinsala
 - a. Kalikasan
 - b. Sakit
 - c. Baha
 - d. Iwasan huwag madimolish

CALYE:

DAANAN

1. Huwag maglalagay ng ano-mang bagay na sagabal sa kalye
2. Malinis at maayos

KALUSUGAN

1. Laging malinis ang estero/sakit/baha

BEAUTIFICATION

1. Magtanim ng halaman sa paligiran

KABUHAYAN

1. Livelihood Program/torotot

SINO ANG GAGAWA

- BEM at Team ESTERO, MMDA & DPWH (Agencia ng Gobyerno)

PARAAN UPANG MAISAAYOS

1. Kausapin ng maayos ang lahat ng nakatira sa estero ng Barangay 195 na huwag magtapon ng basura sa sapa
2. Turuan ng tamang paraan para sa ikaayos at ikagaganda n gaming Barangay

Barangay 46, Pasay City

Sitwasyon ng Lugar	Paraan upang Isaayos	Sino ang Gagawa	Agency ng Gobyerno	Budget
Estero <ul style="list-style-type: none"> • Kabahayan • Basura 	<ul style="list-style-type: none"> • Bigyan ng tamang sulat • Ipaalam sa mamamayan ang paghihiwalay ng basura 	<ul style="list-style-type: none"> • May ari ng bahay • Mamamayan 	BEM ESTERO	
Kalye <ul style="list-style-type: none"> • Daanan • Basura 	<ul style="list-style-type: none"> • Panatiliing malinis ang kalsada • Maglagay ng waste can 	<ul style="list-style-type: none"> • Mamamayan • Barangay 	BEM ESTERO Barangay	1,000
Kalusugan	<ul style="list-style-type: none"> • Mother Class Feeding 	<ul style="list-style-type: none"> • Health Center/ health worker 	City Health Office Barangay NGO	5,000
Beautification	<ul style="list-style-type: none"> • Magtanim ng halamang namumulaklak • Pagpipintura 	<ul style="list-style-type: none"> • Barangay • Mamamayan 	Barangay	15,000
Kabuhayan	<ul style="list-style-type: none"> • Livelihood Program • Craft making 	<ul style="list-style-type: none"> • Mamamayan 	TESDA Mamamayan	20,000

At the end of the day, Dr. Felixberto Roquia handed out evaluation form for the participants to fill up for the Organizers be able to know where to improve in facilitating.

IV. THIRD DAY: JUNE 14, 2004 (Field Trip)

Profile of Participants

Dr. Akinori Sato joined the Field Trip until the first stop, Tripa de Gallina Pumping Station, and then went back to the Project Office. Engineers Joselito Manooos, Leonardo Sanchez, Manuel Leano, and Ms. Bridgette Bautista were able accompany the participants on the trip.

Among the participants, Barangay 46, Pasay City gave a complete attendance for the third time (9 participants), from Barangay Palanan, Makati City, the 4 consistent participants were able to join, and those from Barangay 195, City of Manila, 7 attended.

Assembly

The Barangay participants and the Experimental Research Team met in front of the Department of Public Works and Highways for the day's Field Trip to Tripa de Gallina Pumping Station, Calatagan Creek 3, MRF Makati (Barangay 24 South Cembo), Estero de Tripa de Gallina, and Pier 17 Dumpsite. The group left the assembly area at 9:15 a.m.

The Trip

The group arrived at the Tripa de Gallina Pumping Station at 9:37 a.m. The Operators of the pumps demonstrated how the machines work. The group left Station at 10:16 a.m. to proceed to Barangay Baricaban, Pasay City for the participants be able to take a glimpse of another dirty part of the Estero de Tripa de Gallina while site seeing, Engr. Joselito Manooos left the group to buy the snacks. By 10:30 a.m., the group left Barangay Baricaban, Pasay City to meet with Engr. Joselito Manooos and their snacks at Jollibee Philtranco.

The group left Jollibee at 10:40 a.m. for Barangay South Cembo, Makati City. The group arrived at South Cembo Barangay Hall at 11:00 a.m. where its Barangay Officials shared us their recycling activities, how they have done it and its present condition. After the short sharing and discussion, they toured the group to their recycling stations in some of the zones of their barangay. The group was back at the Barangay Hall and had lunch altogether at 12:25 p.m.

At 1:00 p.m., accompanied by some South Cembo Barangay Officials, the Barangay participants took a visit at Barangay Comembo, Makati's MRF. The visit lasted thirty-two minutes, from 1:15 p.m. to 1:47 p.m. The group headed to Onyx, a clean point of Estero de Tripa de Gallina, next, and arrived at 2:15 p.m. By 2:30 p.m., the group left for Pier 17 Dump Site, and arrived 3:05 p.m. Most from the group did not last the pungent scent of the dump site, which made the group leave early and headed back to the DPWH Central Office for the Closing Remarks and small program and gathering.

The group arrived at DPWH Central Office at 3:35 p.m., earlier than the time expected this trip be finished. The rest of the JICA Study Team and Counterparts joined the small gathering which ended at 6:00 p.m.

ATTACHMENTS

EXPERIMENTAL RESEARCH FOR DRAINAGE SYSTEM IMPROVEMENT IN THE
CORE AREA OF METRO MANILA

TRAINING PROGRAM for BEM and TEAM ESTERO

Date: June 12, 2004 (Saturday)/8:30 am - 15:30 pm

Venue: Great Eastern Hotel & Aberdeen Court, Makati Avenue, Makati City

NO.	NAME	BARANGAY	POSITION (BEM or Team ESTERO)	CONTACT NUMBERS	SIGNATURE
1	Nestor Ereño	195-17	CHAIRMAN	09193552536	
2	Severino Reyes	195-17	MEMBER		
3	Flordeliza Isip	195-17	MEMBER		
4	Arlene Bautista	195-17	MEMBER		
5	Rosalinda Antonio	195-17	MEMBER		
6	Alma Managuit	46-06	MEMBER		
7	Natividad Tan	46-06	MEMBER		
8	Ofemia Villanueva	46-06	MEMBER		
9	Jose Pascua	46-06	MEMBER		
10	Benjamin Evangelista	46-06	MEMBER		
11	Lucio de Guzman	46-06	MEMBER		
12	Antonio Tangon	46-06	MEMBER	524-1725	
13	Jesus Mora	46-06	MEMBER		
14	Art Gaylican	46-06	CHAIRMAN	524-1725	
15	Roel C. Arevalo	Palanan	MEMBER	551-9007	
16	Ma. Lourdes Cambosa	Palanan	MEMBER	09187135625	
17	Emmanuel B. Alivio	Palanan	MEMBER	551-9007	
18	Ryan Amante	Palanan	MEMBER	758-9521	
19					
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EXPERIMENTAL RESEARCH FOR DRAINAGE SYSTEM IMPROVEMENT IN THE
CORE AREA OF METRO MANILA

TRAINING PROGRAM for BEM and TEAM ESTERO

Date: June 13, 2004 (Sunday)/9:00 am - 17:30 pm
Venue: Great Eastern Hotel & Aberdeen Court, Makati Avenue, Makati City

NO.	NAME	BARANGAY	POSITION (BEM or Team ESTERO)	CONTACT NUMBERS	SIGNATURE
1	Art Gaylican	46 Zone 6	CHAIRMAN	09202618955	
2	Alma M. Managuit	46 Zone 6	MEMBER		
3	Natividad C. Tan	46 Zone 6	MEMBER		
4	Ofemia Villanueva	46 Zone 6	MEMBER		
5	Jose H. Pascua	46 Zone 6	MEMBER		
6	Lucio F. de Guzman	46 Zone 6	MEMBER		
7	Antonio M. Tangon	46 Zone 6	MEMBER	524-1725	
8	Jesus B. Mora	46 Zone 6	MEMBER		
9	Benjamin S. Evangelista	46 Zone 6	BEM		
10	Emmanuel B. Alivio	Palanan	MEMBER	551-9007	
11	Roel C. Arevalo	Palanan	BEM	551-9007	
12	Ryan C. Amante	Palanan	MEMBER	758-9521	
13	Ma. Lourdes Cambosa	Palanan	MEMBER	09187135625	
14	Rogelio Pescasio	Pasig	MEMBER	09172040884	
15	Nestor Ereño	Manila	CHAIRMAN	09193552536	
16	Severino Reyes	Manila	MEMBER		
17	Rosalinda Antonio	Manila	MEMBER	360-2470	
18	Analiza Lao	Manila	MEMBER	09166082697	
19	Joseph Bayna	Manila	MEMBER	350-7802	
20	Jean Rosas	Manila	MEMBER	09106149031	
21	E.D.P. Dionisio	Makati		899-9057	
22					
23					
24					
25					

EXPERIMENTAL RESEARCH FOR DRAINAGE SYSTEM IMPROVEMENT IN THE
CORE AREA OF METRO MANILA

TRAINING PROGRAM for BEM and TEAM ESTERO

*Date: June 14, 2004 (Monday)/9:00 am - 16:30 pm
Venue: DPWH - Central Office, Manila*

NO.	NAME	ADDRESS	CONTACT NUMBERS	SIGNATURE
1	Alma M. Managuit	Brgy. 46-06 Pasay		
2	Ofemia M. Villanueva	Brgy. 46-06 Pasay		
3	Natividad C. Tan	Brgy. 46-06 Pasay		
4	Jose H. Pascua	Brgy. 46-06 Pasay		
5	Benjamin S. Evangelista	Brgy. 46-06 Pasay		
6	Antonio M. Tangon	Brgy. 46-06 Pasay		
7	Lucio F. de Guzman	Brgy. 46-06 Pasay		
8	Jesus S. Mora	Brgy. 46-06 Pasay		
9	Art Gaylican	Brgy. 46-06 Pasay	09202618955	
10	Roel C. Arevalo	Brgy. Palanan	09185678032	
11	Ma. Lourdes Cambosa	Brgy. Palanan	09187135625	
12	Ryan C. Amante	Brgy. Palanan	09187714373	
13	Emmanuel B. Alivio	Brgy. Palanan	834-0915	
14	Rosalinda Antonio	Brgy. 195 Manila		
15	Nestoe Ereño	Brgy. 195 Manila	09193552536	
16	Severino Reyes	Brgy. 195 Manila		
17	Jean Rosas	Brgy. 195 Manila	09106149031	
18	Arlene Bautista	Brgy. 195 Manila		
19	Joey Bayna	Brgy. 195 Manila		
20	Analiza "Isay" Lao	Brgy. 195 Manila	09164393695	
21				
22				
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Training Program for BEM and Team ESTERO

Experimental Research for the Study on Drainage Improvement in Core Area of Metropolitan Manila

Great Eastern Hotel and Aberdeen Court

7842, Makati Avenue, Makati City

June 12 – 14, 2004

PROGRAM

Day 1

8:30-9:00	Registration	
9:00-9:10	Prayer	Mr. Jesus O. Averilla Co-Team Leader DPWH
9:10-9:15	National Anthem	Engr. Leonila R. Mercado DPWH
9:15-9:25	Welcome Remarks	Mr. Takayuki Nobe Deputy Team Leader, JICA Study Team
9:25-10:05	Group Dynamics, Leveling Off and Course Briefing	Dr. Felixberto H. Roquia JICA Team Public Participation
10:05-10:20	SNACK	
10:20-11:20	Overview of the Experimental Research Study	Dr. Akinori Sato JICA Study Deputy Team-Leader
11:20-12:00	Briefing for the JICA Study on Drainage Improvement in the Core Area	Engr. Napoleon Famadico DPWH
12:00-13:00	LUNCH	
13:00-14:00	Drainage Improvement Plan in the Core Area	Engr. Elmo F. Atillano/Mr. Takayuki Nobe
14:00-15:00	Urban Environment Related Regulations	Dr. Sixto Tolentino, Jr. DENR NCR

Day 2

9:00-10:15	Experiences of the JICA Pilot Projects for Community Based Solid Waste Management	
10:15-10:30	SNACKS	
10:30-11:15	Existing Condition of Solid Waste in the Core Area	Engr. Manuel Leano DPWH
11:15-12:00	Community Based Solid Waste Management	Ms. Elsie I. Encarnacion MMDA
12:00-13:00	Lunch	
13:00-14:15	Environmental Management Plan	Dr. Akinori Sato JICA Study Deputy Team Leader
14:15-15:15	BEM/ESTERO Organizing	Dr. Felixberto H. Roquia JICA Study Team Public Participation
15:15-15:30	SNACKS	
15:30-17:30	BEM/ESTERO Organizing	Dr. Felixberto H. Roquia JICA Study Team Public Participation

Day 3

9:00	Leaving to Field Trip from DPWH Central Office	
9:45-10:15	• Tripa de Gallina Pumping Station	
11:00-11:20	• Calatagan Creek 3	
12:00-12:30	LUNCH	
12:30-13:10	• MRF Makati (Barangay 24 South Cembo)	
14:00-15:00	• Estero de Tripa de Gallina	
15:45-16:15	• Pier 17 Dumpsite	
16:30	Arrival at DPWH Central Office	
	Closing Remark	Engr. Rebecca T. Garsuta Engineer V, Development Planning Division, Planning Service, TWG Member

Opening Remarks

Training Program for “BEM and Team ESTERO”

JICA Study Team: Takayuki Nobe

Outline of Study Schedule

- The study commenced in the last Feb. 2004**
- May to July, drainage improvement master plan will be formulated**
- Sept. to Feb. 2005, feasibility study for priority projects for urgent implementation will be conducted**
- Final report will be submitted in March 2005**

Problems of Present

Drainage System

- **Estero is fundamental drainage facilities as waterways in the core area of Metro Manila**
- **Such Estero is losing their original cross-sections/flow capacities in the design/construction stages**
- **Major reasons are illegal activities of 1) encroachment of informal settlers and 2) dumping of solid waste**

Drainage Improvement

- **To cope with such problems, drainage improvement will be planned**
- **The plan consists of 1) rehabilitation of pumping station, and 2) dredging and declogging of estero and other channels**
- **To support and sustain drainage improvement, community based solid waste management and improvement of illegal social activities will be formulated**

Sustainable Drainage Management

- **“Estero is a face of Metro Manila”**
- **In developing community based management system, effort of “BEM and Team ESTERO” is indispensable for improvement of quality of your life**
- **The dead Estero must be recovered forwards original beautiful and valuable Esteros in the early 20th century**

Ending

- **Likewise, activity of “BEM and Team ESTERO” is a breakthrough for changing drainage condition in the core area of Metro Manila**
- **We request you to fully discuss, debate and cooperate through 3-days-training program**

Thank you and “Arigatou”

Experimental Research for Drainage System Improvement in Core Area of Metro Manila

1. Background

It can be said that the problems of drainage system in Core Area of Metro Manila are throwing refuse and informal settlers occupation. Throwing refuse into esteros is caused by lack of people's awareness. It is believed that inappropriate waste collection system is also one of the reasons for throwing refuse. However, where areas are covered with waste collection services, refuse is still scattered in just about anywhere. Therefore, problems regarding drainage system stem from mainly the lack of people's awareness, so that this aspect should be improved. However, it takes time for improvement of awareness and behavior of individual people. It is required that institutional system at community level for improvement of drainage system be constructed.

On the other hand, people obtain benefit from improvement of drainage system. Provided that people do not cooperate with operation and maintenance of drainage system, drainage system does not work. Then, people are affected by increasing flooding risk. Only DPWH and MMDA cannot operate and maintain the drainage system well without community cooperation so that community system for operation and maintenance of drainage system should be established immediately in order to ensure safety of society against flood.

2. Objectives of Experimental Research

Objectives of experimental research are:

- to find a workable, sustainable and effective mechanism through experimental research,
- to be fed back to M/P formulation from result of experimental research.

The Study Team hypothesize that community participation for operation and maintenance of drainage system is an important strategic approach. However, community participation could either succeed or not depending on community situations. The draft model of community participation for operation and maintenance of drainage system by the Study Team will be tested as experimental research to see how things work in Core Area of Metro Manila. The result of experimental research feeds back to the master plan in order to shape a model for institutional system at community level to be more realistic, applicable, acceptable and replicable.

3. Approaches of Experimental Research

Problems of drainage system should be solved by establishment of institutional system at barangay level

In order to solve drainage system problems, institutional system for improvement of drainage at community level will be established as model. This institutional system provides a workable, sustainable and effective organizational structure at community level that is socially accepted.

Proposed institutional system will deal with not only with issues on the drainage system but also with the broad area of environmental improvement and development. It is possible that only drainage system improvement will not attract people's interest. Developed institutional system through experimental research will be expanded to other barangays.

4. Methodology

4.1 Major Activities

During experimental research, the following activities will be conducted in order to verify proposed institutional system:

- Establishment of BEM (Barangay Environmental Manager);
- Establishment of Team ESTERO (Environmental Strategic Task for Estero Renewal Organizing);
- Formulation of Barangay Environmental Management Plan (BEMP) by community people including solid waste management;
- Implementation of selected projects and programs; and
- Monitoring and evaluation by Barangay chairperson, DPWH, MMDA and the Study Team.

4.2 Process of Experimental Research

Process of experimental research is shown in Figure 1.

It is necessary to prepare institutional arrangement in order to operate and maintain drainage system at barangay level. Barangay office will appoint Barangay Environmental Management Officer (BEM) who is facilitator and interface between barangay residents and DPWH/Study Team. Working Group and Barangay Task Force, named Team Environmental Strategic Task for Estero Renewal Organizing (Team ESTERO), also will be established.

According to the Local Government Code of 1990, Barangay offices have responsibility for

providing services for good environment of their barangay. The organizations mentioned above shall promote improvement and development of environment in barangays. Experimental research shall give technical support to barangay offices. However, these organizations are not new idea; some of barangay offices of Metro Manila have already established similar organizations like Clean and Green Commission.

BEM and Team ESTERO shall coordinate and facilitate barangay residents for formulation of Barangay Environmental Management Plan supported by DPWH counterpart and the Study Team. It is expected that formulated BEMP will be given authorization by Barangay ordinance. BEMP is composed by pollution control, public awareness and beautification including solid waste management. After formulation of BEMP, DPWH and the Study Team will support selected projects and programs.

Through these activities, it is expected there will be various problems ahead. On the other hand, it is also expected that the barangay residents will be able to handle these problems with the support of DPWH and the Study Team. Issues of community participation for drainage improvement can be identified. The Study Team will do its best to find successful factors and unsuccessful factors that can be used to develop an implementable mechanism to more greatly realize the master plan.

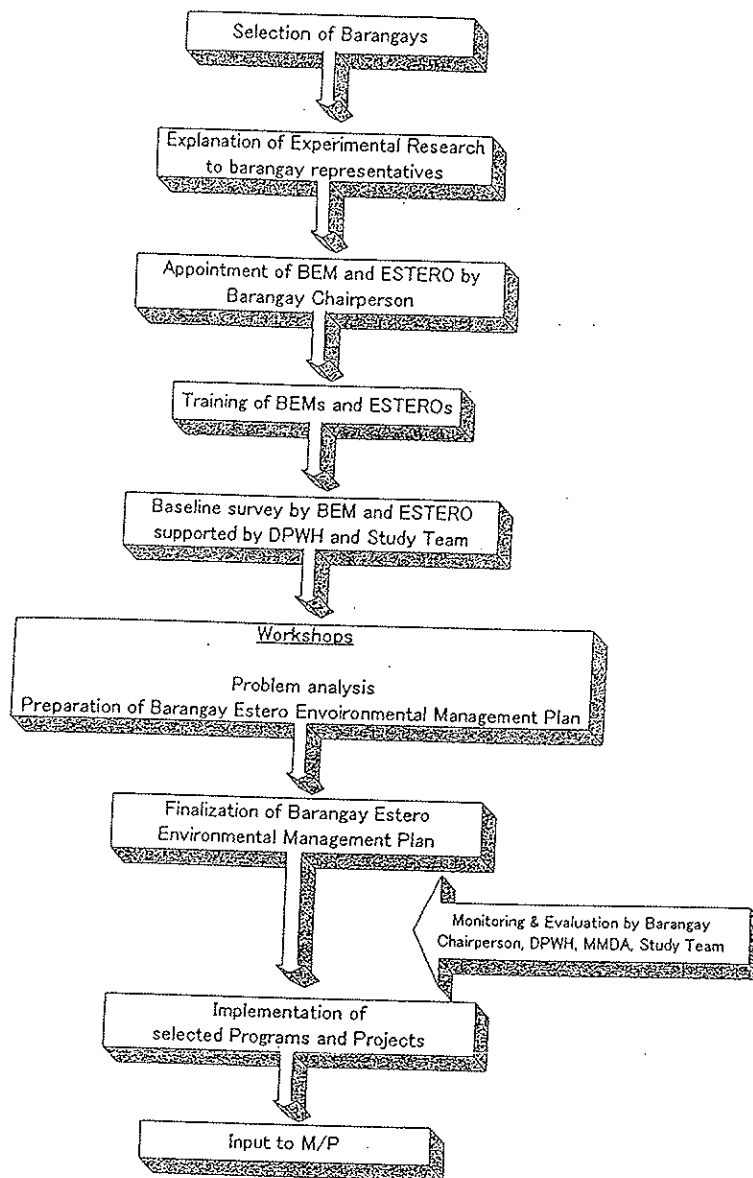


Figure 1 Process of Experimental Research

4.3 Selection of Target Barangays

The experimental research aims to develop a model for barangay institutional system so that target barangay should be typical and/or representative barangay in Core Area of Metro Manila. Typical and/or representative barangays may be based on characters of people and types of problems.

It is possible that people's awareness depends on income level mainly. Types of problems are based on land use including road network, density of building and topographic conditions. Income level of people can be roughly converted to land use. It can be said, in general, that

the people with the same income level gather at the same places. On the other hand, there is no significant difference of topographic conditions in Core Area so that topographic conditions can be ignored.

Other factor of people's awareness such as land use and density of house building are important. However, land use should be considered for selection of target barangays because of the reasons stated above.

Classification of land use along esteros is shown in Table 1. According to land use map, those areas along esteros are mainly categorized as residential area, commercial/business area and industrial area. The areas where people throw garbage into esteros are residential area so that residential area should be selected from along esteros. Residential area can be divided into several sub-classification based on density of buildings such as slum area, high-density residential area, medium-density residential area and low-density residential area. Intensity of density impacts road conditions, income of people and others. Therefore, it is reasonable that three barangays will be selected from two types of barangays such as slum area and high- or middle-density areas.

	Slum area	High-/Middle-Density area
Residential area	✓	✓
Commercial/Business area		
Industrial area		

4.4 Organization

Organizational chart of experimental research is shown in Figure 2. The functions of each organization are described in the next section.

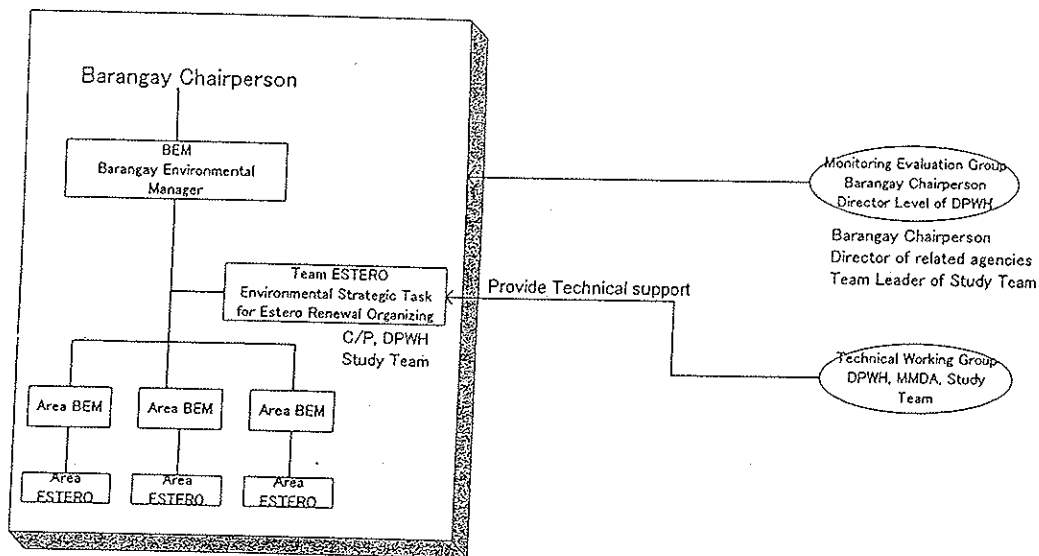


Figure 2 Organizational Chart of Experimental Research

4.5 Functions of Established Organizations

(1) Barangay Environmental Manager (BEM)

BEM is volunteer. BEM will be appointed as community leader by Barangay Chairperson.

Roles

- facilitate pollution control, improvement of public health and improvement of beautification for their barangay
- coordinate between barangay chairperson and barangay residents in order to formulate, implement and monitor Barangay Environmental Management Plan
- facilitate and monitor Team ESTERO
- disseminate information to barangay residents for improvement and development of barangay environment

(2) Team Environmental Strategic Task for Estero Renewal Organizing (Team ESTERO)

Team ESTERO is also volunteer. Team ESTERO will be appointed by Barangay Chairperson. They have roles of barangay environmental improvement and development as working group and/or task group.

Roles

- support BEM in order to improve and develop their environment
- organize barangay residents in order to improve and develop their environment
- facilitate pollution control, improvement of public health and improvement of beautification for their barangay

(3) Supporting Group

Supporting Group will support BEM and Team ESTERO daily for smooth implementation of experimental research. Supporting Group consists of DPWH Counterpart of the JICA Study on Drainage Improvement in Core Area of Metro Manila, MMDA, city governments and the Study Team.

Roles

- support BEM and Team ESTERO in order to improve and develop their environment
- advise BEM and Team ESTERO technically

(4) Monitoring and Assessment Group

Monitoring and Assessment Group ESTERO consists of director level of DPWH, MMDA and city government. The Group will work every milestone.

Roles

- monitor activities of experimental research milestones
- assess activities and performance of experimental research
- give advise to Supporting Group

5. Schedule of Experimental Research

Schedule of experimental research is shown in Figure 3.

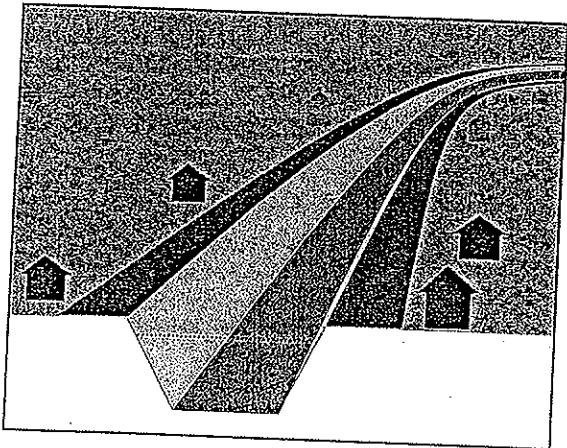
Figure 3 Schedule of Experimental Research
[Draft]

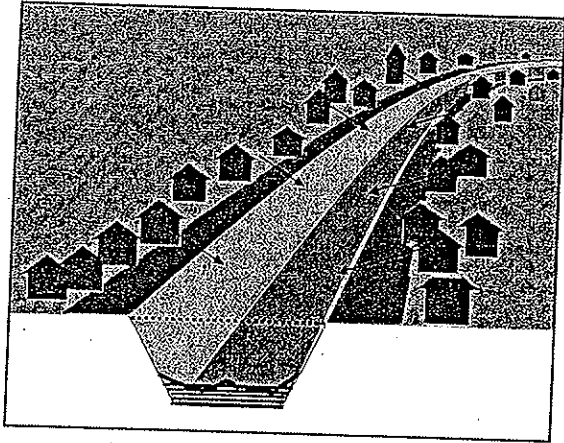
Activity	Start Date	End Date	Duration	Remarks
Explanation to Barangay	2004/05/24	2004/06/03	10d	
Agreements with Barangay	2004/06/03	2004/06/06	3d	
Appointment of BEMs and ESTEROs	2004/06/07	2004/06/08	3d	
Training of BEMs and ESTEROs	2004/06/11	2004/06/13	3d	
Baseline Survey	2004/06/18	2004/06/26	3d	
Planning	2004/06/27	2004/07/30	40d	
Implementation of Selected Pilot Barangay	2004/08/01	2004/11/30	122d	
Monitoring and Assessment	2004/05/24	2004/05/24	0d	

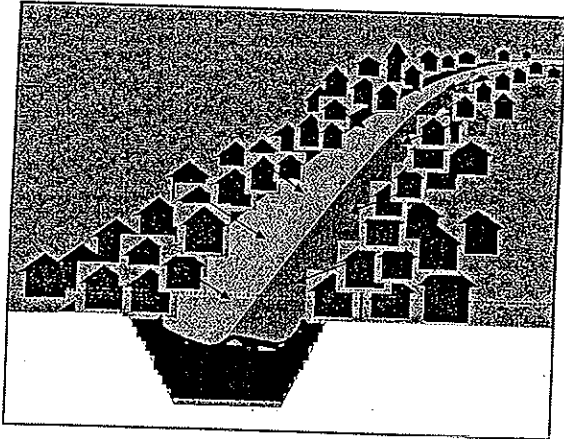
STUDY ON DRAINAGE IMPROVEMENT IN THE CORE AREA OF METRO MANILA	
>	BACKGROUND
>	NECESSITY OF THE STUDY
>	THE ON-GOING JICA-ASSISTED STUDY
>	OBJECTIVES
>	APPROACH AND METHODOLOGY
>	SCOPE OF STUDY
>	SCHEDULE
>	REPORTING
>	ORGANIZATION

BACKGROUND

- MM Core Area is vulnerable to flooding
- Original drainage master plan developed in 1952
- Urgent projects implemented by GOP
- GOJ gave financial assistance since 1972
- Facilities: PS, esteros, drainage laterals/mains
- Became effective, attained certain safety level against drainage problem
- But later, the development and urbanization affected the effectivity of the system
- Garbage and illegal settlement reduces the capacity of drainage facilities
- Flooding became a serious problem that can be solved only with peoples awareness and participation







NECESSITY OF THE STUDY

- To solve flooding, restore function of existing facilities
- Investigate actual condition of the area
- Identify causes of the problem
- Study different solutions in view of technical and social aspects
- Hence, a comprehensive study is required

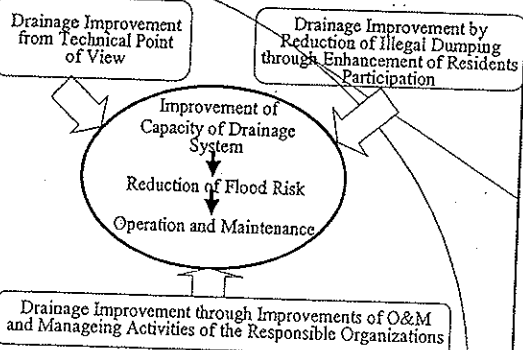
The on-going JICA Study

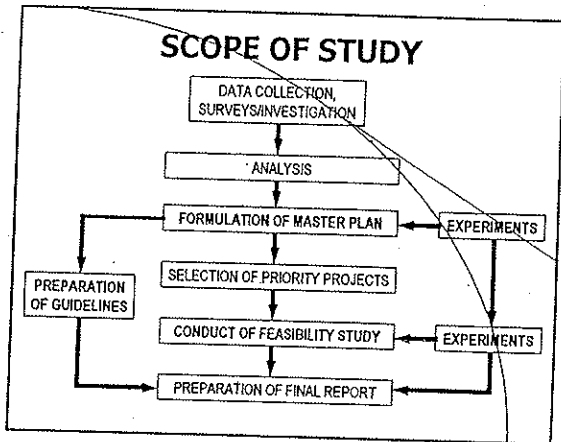
- The GOP requested assistance from GOJ
- The GOJ considered the study under JICA assistance
- The Implementing Arrangement between GOP and GOJ was agreed in February '03
- The Study commenced in March 2004
- Study area: Metro Manila core area, 73 km²
- Cities covered: Manila, Makati, Pasay, Quezon, Caloocan, Taguig

OBJECTIVES

- formulate master plan for drainage improvement
- conduct feasibility study on priority projects
- prepare guidelines for drainage management
- technology transfer

APPROACH AND METHODOLOGY





- ### SCHEDULE
- Duration: 14 months
February 2004 - March 2005
 - Phase I : Master Plan
February 2004 - August 2004
 - Phase II: Feasibility Study
September 2004 – March 2005

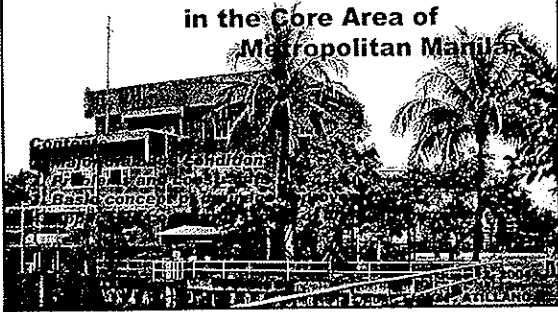
- ### REPORTING
- Inception Report February 2004
 - Progress Report May 2004
 - Interim Report September 2004
 - Draft Final Report February 2005
 - Final Report March 2005

ORGANIZATION

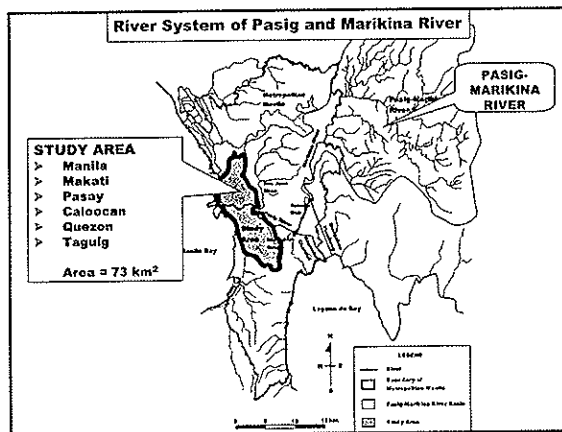
- **Implementing Agency** : DPWH / MMDA
- **JICA Advisory Committee** : Mr. Takeda *Chairman*
- **Steering Committee** : Usec. Bonoan *Chairman*
- **Technical Working Group** : Dir. Gatan *Head*
- **JICA Study Team** : Mr. Tanaka *Team Leader*
(13 members)
- **Local Counterpart Team** : Mr. Famadico *Team Leader*
(with LGUs concerned)

Thank You!

**Drainage Improvement Plan
to cope with
Problems and Constraints
in the Core Area of
Metropolitan Manila**



**Topic 1 :
Major Drainage Conditions**



**Topic 2 :
Problems and Constraints
of Present Drainage System**

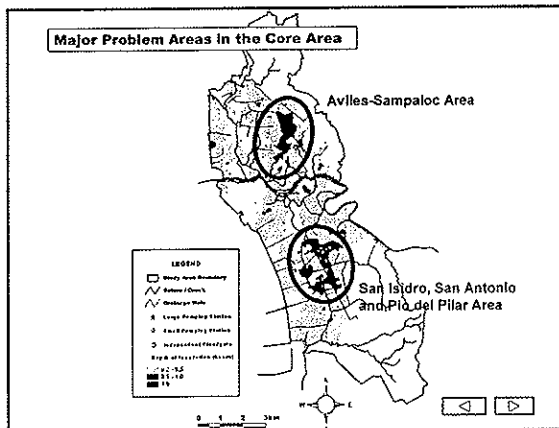
**Problems of Present Drainage System
in the Core Area (1/4)**

1. Inundation

- (1) Flood frequency is still high and serious inundation areas are remaining locally
- (2) Inundation is causing various adverse impacts to urban area and severe inundation causes serious problems to socio-economic activities in Capital City



Major Problem Areas in the Core Area



**Problems of Present Drainage System
in the Core Area (2/4)**

2. Drainage Channels and Facilities

- (1) Drainage facilities are losing their discharge capacities due to deposited garbage/solid waste and sediment
- (2) Drainage pumping stations are fundamental facilities in the core area, but 10 of which constructed 20_30 years ago are superannuating in mechanical and electrical aspects
- (3) Increase of run-off ratio due to urbanization
- (4) Lack of storm water retention facilities in the urban area
- (5) Rising of sea water level due to global warming



**Problems of Present Drainage System
in the Core Area (3/4)**

3. O/M of Drainage Channels and Facilities (1/2)
For drainage pumping stations

- (1) Insufficient budget allocation affecting the O/M activities and shortage of spare parts
- (2) Number of O/M experts is decreasing due to low wage level
- (3) A large volume of garbage must be collected at the pumping stations

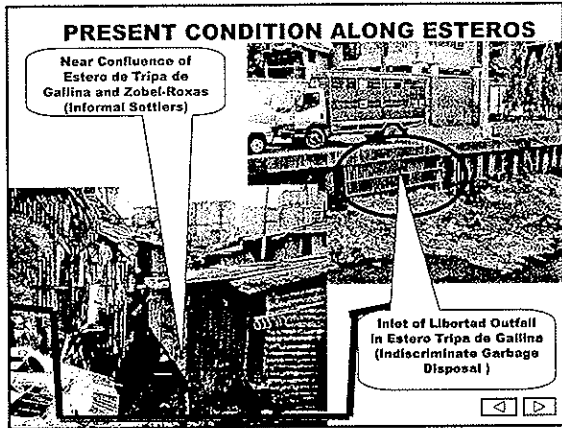


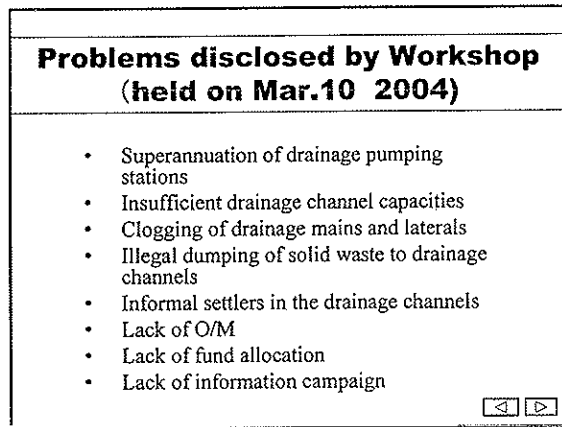
**Problems of Present Drainage System
in the Core Area (4/4)**

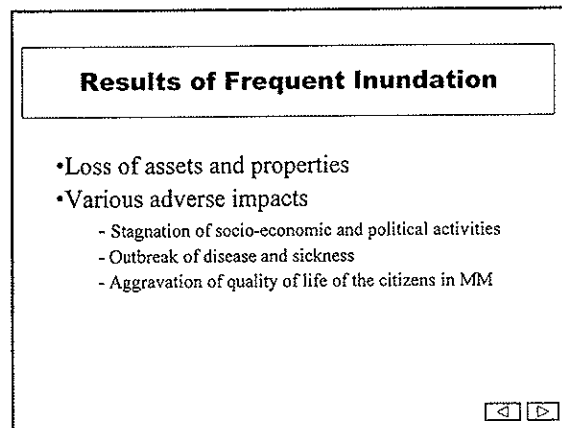
3. O/M of Drainage Channels and Facilities(2/2)
For drainage channels

- (1) Encroachment of informal settlers in and along drainage channels and illegal social activities
- (2) Insufficient budget allocation for O/M activities
- (3) No integrated management of O/M activities between channels and pumping stations, and among DPWH, MMDA and LGUs
- (4) Uncontrolled garbage collection along drainage channels and Lack of information, education and communication campaign









**Topic 3 :
Basic Concept of
Drainage Improvement**

**Basic Idea of Drainage Improvement
Master Plan (1/3)**

In order to solve and mitigate drainage problems, drainage improvement master plan is studied for the coming 3 months period.

Major concepts of plan formulation will be as follows:

1. Target area: Core Area of Metropolitan Manila (73 sq.km)
2. Target year: 2020 with 15 years implementation period

Implementation schedule will be as follows:

Priority Projects:	2006 ~ 2010
Medium Term Projects:	2011 ~ 2015
Long Term Projects:	2016 ~ 2020

**Basic Idea of Drainage Improvement
Master Plan (2/3)**

3. Target of drainage improvement: to restore/recover and sustain original function (design flow capacity) of drainage channels and facilities and thereby reduce inundation area, depth and duration as much as possible in the catchment

- To execute required additional works and remedial works
- To activate floodplain (inundation prone area) management incl. solid waste management and resettlement program
- To provide storm water retention facilities
- To strengthen O/M activities incl. resident participation on O/M system
- To activate information campaign against illegal social activities



Basic Idea of Drainage Improvement Master Plan (3/3)

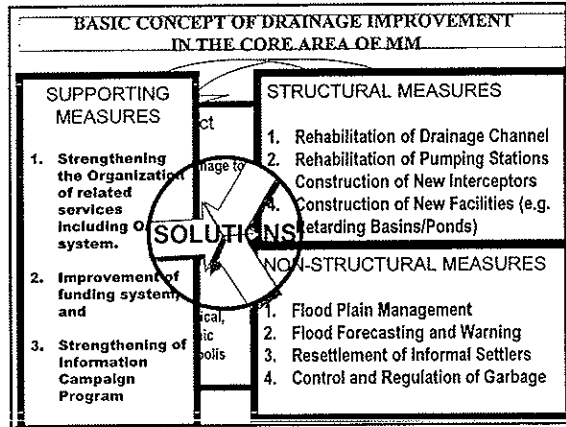
4. *Planning scale:*

- Pumping stations: same as original drainage capacity
- Drainage channels: to be proposed after study

5. *Countermeasures to be taken up:* the following 3 measures are taken into consideration

- Structural measures
- Nonstructural measures
- Supporting measures

◀ ▶



**Topic 4 :
Applicable Measures of
Drainage Improvement
in the Core Area**

**Applicable Structural Measures
to cope with problems and constraints
in the Core Area**

- *Purpose:* to recover/retrieve original functions of the present drainage channels and pumping stations
- Rehabilitation by dredging of major Esteros leading storm water to pumping stations
- Rehabilitation of drainage pumping stations
- Construction of additional channels and facilities in regional inundation area (2 sites)
- Other than the above : declogging



**Structural Measures
(to increase drainage
capacity)**

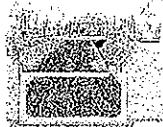
Reference 1: Improved Channel with Promenade



Reference 2: Playground in River Channel



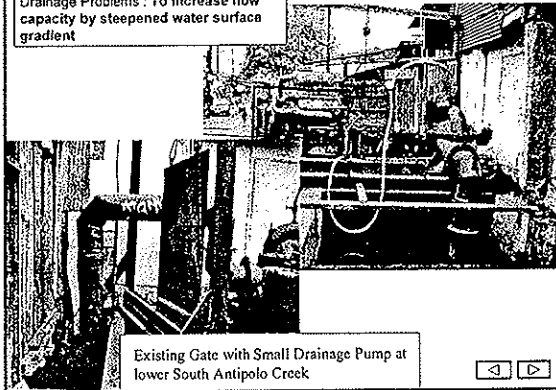
Reference 3: Two-story River Channel



River Channel Improvement in Japan as a Place of
Recreation and Relaxation for the Citizens

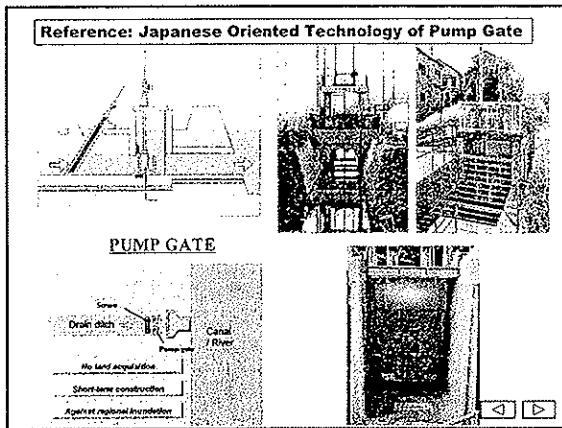


One of Countermeasures for Local
Drainage Problems : To Increase flow
capacity by steepened water surface
gradient



Existing Gate with Small Drainage Pump at
lower South Antipolo Creek





Applicable Non-structural Measures to cope with problems and constraints in the Core Area

Purpose: to improve vulnerability against flooding/ inundation and to sustain structural measures of the present and future drainage system

1. Existing EFCOS, Inter-agency Floodplain Management, Disaster Management System etc., are applicable as they are
2. Construction of rainwater retention facility
3. Preservation of swamp and pond areas
4. Permeable pavement on road surface and parking area
5. Control of solid waste dumping
6. Minimum-level resettlement of informal settlers

Non-structural Measures of Floodplain Management
(to decrease surface run-off volume to drainage channels)

Reference 1: Regulating Pond

Reservoir area: 6,200 m²
Reservoir water depth: 6.0 m
Reservoir capacity: 23,000 m³

Non-structural Measures of Floodplain Management
(to decrease surface run-off volume to drainage channels)

Reference 2: Storm Water Retention Facility by means of Tennis Court



Normal time: Tennis Courts Flooding Time: Reservoir



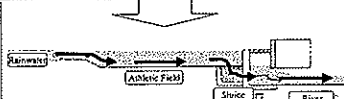
Non-structural Measures of Floodplain Management
(to decrease surface run-off volume to drainage channels)

Reference 3: Storm Water Retention Facility by means of Athletic Field

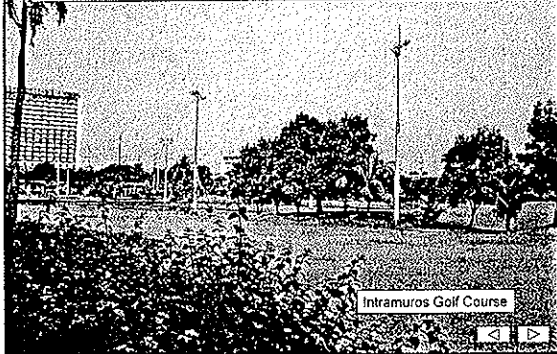


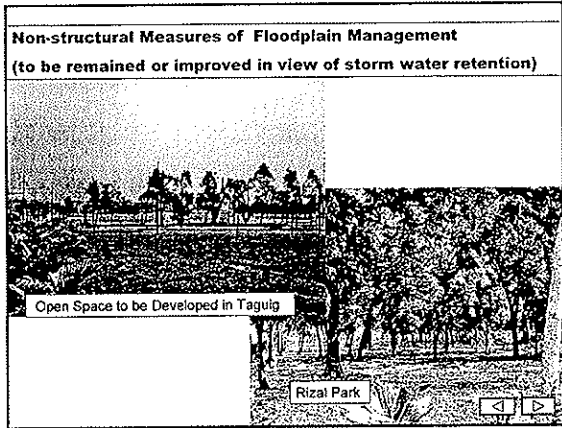
Normal time is used for athletic field

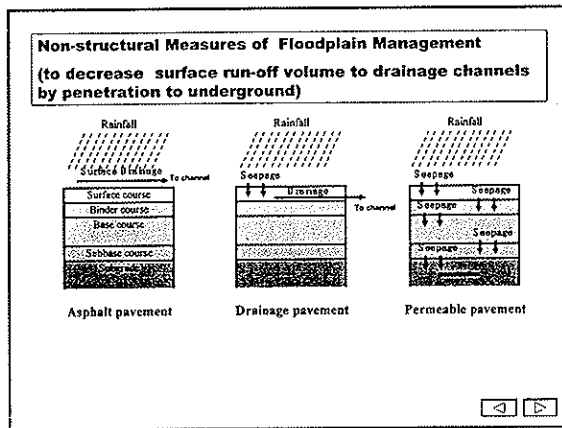
Reservoir area: 20,000 m²
Water depth : 0.378 m
Storage capacity: 7,300 m³

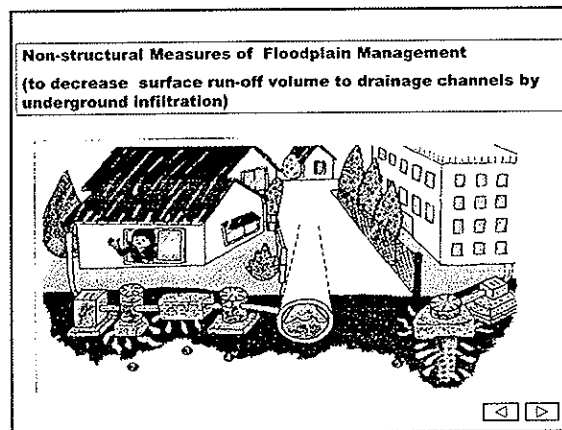


Non-structural Measures of Floodplain Management
(to be remained in view of storm water retention)









**Applicable Supporting Measures
to cope with problems and constraints
in the Core Area**

Purpose: to support and sustain the above 2 measures

1. Improvement of operation and maintenance system
 - Pumping station and drainage channel O/M system
 - Documentation system
 - Resident participation system for O/M
2. Strengthening of fund allocation system
3. Social education/information campaign



Finally:

*"Now is the proper time to restore the original function of our
drainage system for the Improvement of quality of life of the
citizens*

In the Capital City of the Philippines."

Mr. Takayuki NOBE
JICA-Deputy Team Leader

The END...

THANK YOU VERY MUCH FOR YOUR ATTENTION

Barangay Environmental Management Planning

Experimental Research for Drainage Improvement in Core Area of Metro Manila

Deputy Team Leader for Social Aspect, JICA Study Team

Akinori Sato

1. Objectives of BEMP

In the barangay plan, key players for the planning and implementation of barangay management is not only governmental agencies but also communities and the private sector. However, the government initiative, especially of city governments, is imperative to ensure that the overall viewpoints of these entities are reflected. At the same time, complementary efforts from communities to the government initiative are necessary to make more a precise management plan according to the local situation and existing management issues. Therefore, approach of barangay institutional system development should be taken for good barangay management. It is bottom-up approach or community initiative approach.

Furthermore, Local Government Code (1990) prescribed most of tasks and responsibilities were already transferred to local government especially city/municipal governments and barangay administrations including living environment and public health.

Barangay Environmental Management Plan (BEMP) aims to improve and develop their own barangay area by community peoples by community people in order to sustain enforcement effectively.

2. Status of BEMP

City Government formulates Comprehensive Land and Water Use Plan (CLWUP) and City Development Plan. CLWUP is spatial management plan by showing how to use area from view point of area potentiality and constrains. City Development Plan shows scenario for the future image of development.

Based on the City Plan, Barangay Office should formulate barangay development plan. There are several management plans at barangay level can be formulated such as infrastructure plan, sanitation plan, public health plans and other plans. Barangay Environmental Management Plan covers living environmental improvement including public health and sanitation, pollution control and beautification.

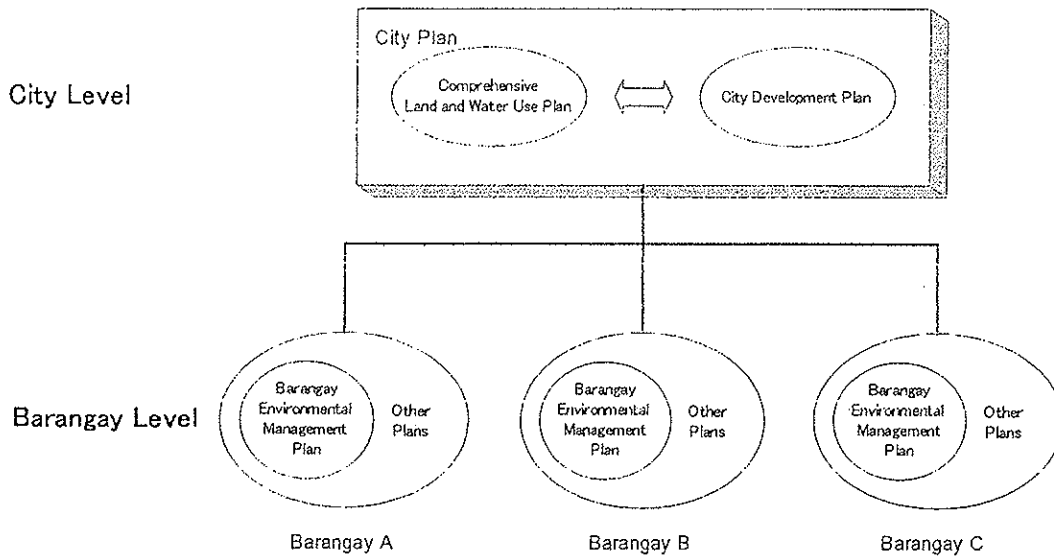


Figure 1 Status of Barangay Environmental Management Plan

3. Limitation of Plan

According to Local Government Code, although Barangay administration has lot of tasks, BEMP covers only living environment within their barangay administrative boundary.

The plan has life span because plan cannot match as existing situations permanently when the situations will be changed. Therefore, BEMP should be revised regularly based on the existing situations. It is recommended that BEMP should be revised every 3 years.

5. Planning Process

Planning process of BEMP is shown in Figure 2.

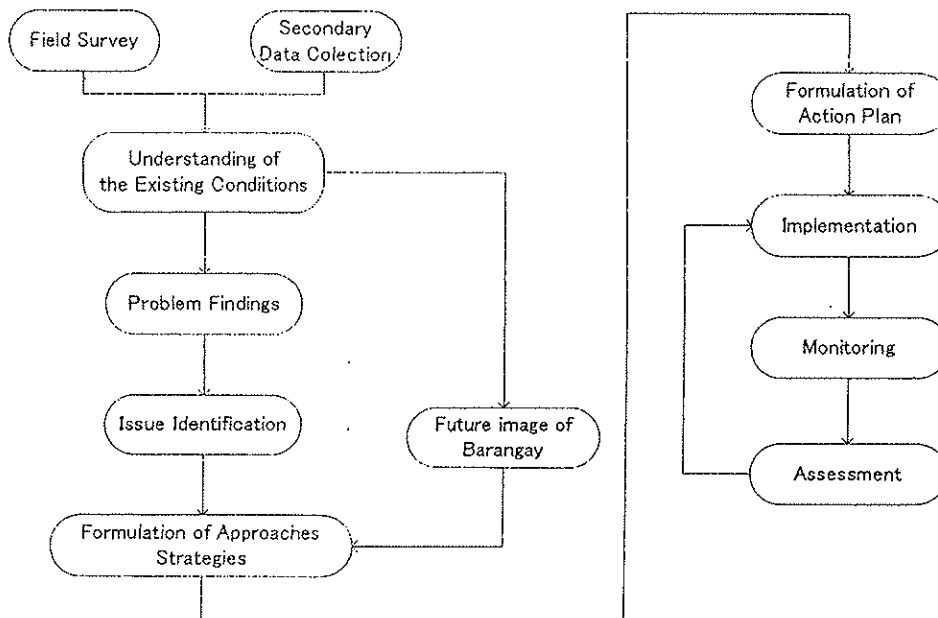


Figure 2 Planning Process for Barangay Environmental Management Plan

6. Structure of BEMP

The basic table of contents of BEMP is proposed in Appendix-B. Table of contents is depended on the situations of Barangay.

In chapter 1 and 2, the existing conditions of barangay are described including potentiality, constraints and problems finding. Chapter 2 shows problems structure. Barangay profile is summarized into these chapters.

Chapter 4 shows framework of BEMP. Good future image of barangay is shown in this chapter. Several problems can be found through analysis of the existing environmental conditions. However, all problems can not be solved in BEMP by barangay authority and effort. Some issues to be solved in BEMP are identified as planning issues.

Chapter 5, 6 and 7 of Appendix-B are examples. These chapters describe major contents of BEMP. Number and description of these chapters are depended on issues identification of the barangay. Contents of plans should be clear and detailed. The following 5W1H should be clearly especially implementing groups, implementation cost, financial sources and completion date:

What	:	Contents
Why	:	Reasons
Who	:	Implementer, beneficiaries
Where	:	Location
How	:	Methods, Cost
When	:	Schedule, Completion date

“Chapter 8 Implementation” describe how to implement plan. It includes implementing system, financial sources and implementing schedule.

8. Structure of Implementers

Process of BEMP implementation is Figure 3, and summarized as follows:

- 1) Barangay Environmental Manager (BEM) and Team ESTERO facilitate with barangay people in order to prepare BEMP.
- 2) BEM and Team ESTERO recommend Draft BEMP to Barangay Chairperson. as barangay residential representative.
- 3) Barangay Chairperson receives Draft BEMP from BEM and Team ESTERO, make inquiry BEMP to Barangay Council.
- 4) Barangay Council examines BEMP. BEMP is revised if necessary. Then, Barangay Council submit report to Barangay Chairperson.
- 5) Barangay Chairperson receives report from Barangay Council. Then, BEMP is authorized as barangay ordinance.

Organization Structure for implementation of BEMP is shown in Figure 3. After authorization of BEMP, BEMP is implemented. Barangay Administration implements BEMP led by Barangay Chairperson. Activities from BEMP are supported from BEM and Team ESTERO through facilitation of residents.

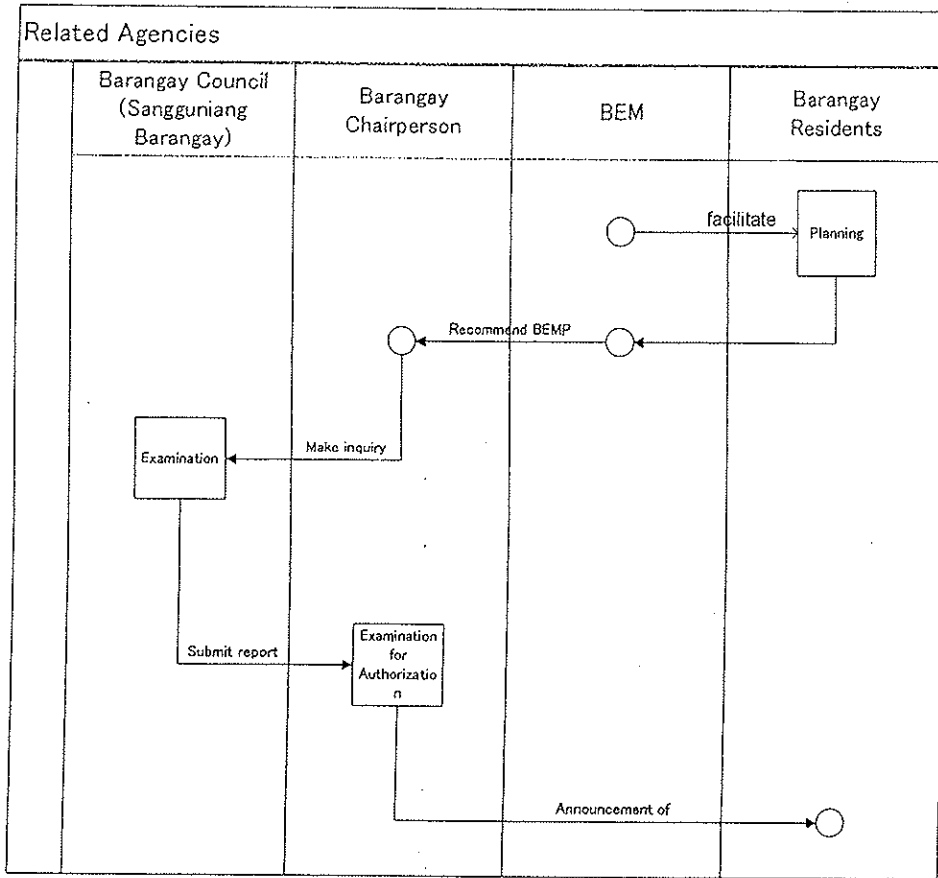


Figure 3 Implementation Process of Barangay Environmental Management Plan

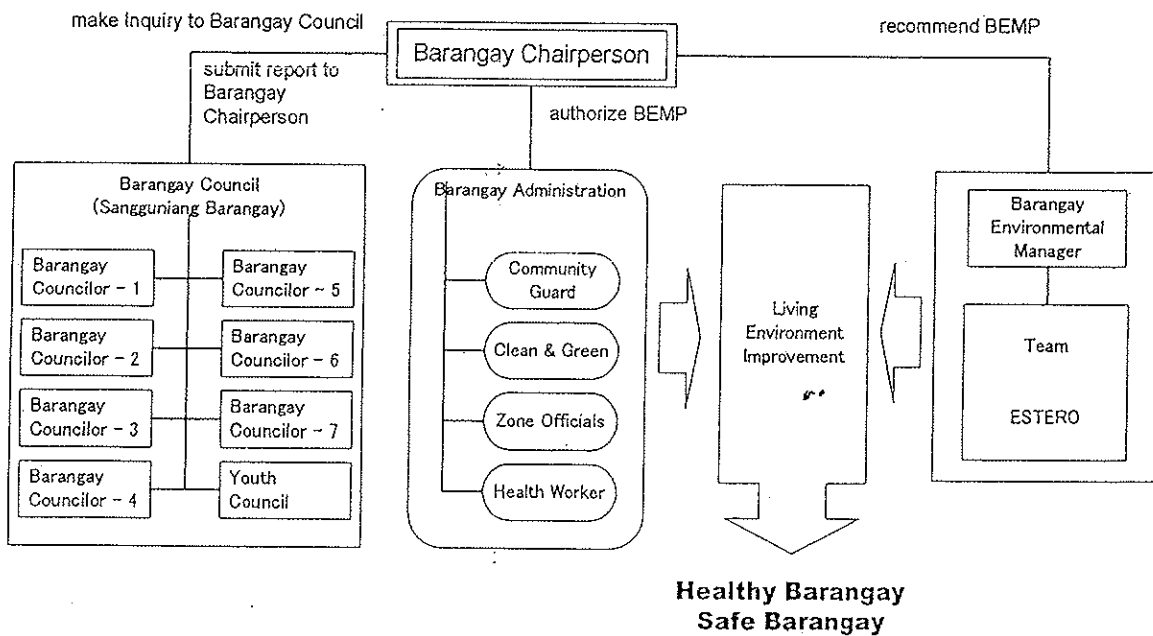


Figure 4 Implementing Structure for Barangay Environmental Management Plan

Appendix - A

Sample of Barangay Environmental Profile

Barangay ProfileTable of Contents (Draft)**1. Geography and History of Barangay**

1.1 Geography

- Location
- land area

1.2 History

2. Barangay Administration

2.1 Organization

2.2 Administrative Services

2.3 Budget and Expenditure

2.4 Barangay Projects and Programs

3. Socio-economic Conditions

3.1 Population

3.2 Household

3.3 Land Use

3.4 Social Setting

(1) Culture

(2) Education

(3) Health

- Birth Deliveries
- Dead
- Modifiable Disease
- Nutrition
- Health Facilities

(4) Women's Role in Barangay

3.5 Sanitation

(1) Solid Waste


(2) Water Supply

(3) Sewage and Toilet Facilities

3.6	Community Infrastructure
	(1) Transportation
	(2) Electricity
	(3) Lightning
	(3) Sport Facilities
3.7	Commerce and Industry
3.8	Peace and Order
4.	Environmental Conditions
4.1	Water Environment
	(1) Ponds
	(2) Water Ways and Drainage
4.2	Vegetation and Park


Appendix-B**Sample for Table of Contents of Barangay Environmental Management Plan****Barangay Environmental Management Plan**Table of Contents

- 1. Introduction**
- 2. Existing Conditions of Barangay**
- 3. Problem Findings**
- 4. Planning Framework**
 - 4.1 Goals
 - 4.2 Planning Issues
 - 4.3 Planning Approach
 - 4.4 Planning Area
 - 4.5 Management Strategies
- 5. Solid Waste Management**
- 6. Pollution Control**
- 7. Beautification and Greening**
- 8. Information, Education and Communications**
- 9. Implementation**
 - 9.1 Implementing Groups
 - 9.2 Financial Sources
 - 9.3 Implementing Schedule
- 10. Monitoring and Assessment**



**Barangay
Environmental
Management
Planning**


Akinori SATO
JICA Study Team



**Why we need to
formulate BEMP?**


- We have NCR plans and City Government Plans.
 - These plans are based on overall viewpoint
 - Local situations and issues cannot be considered in these plans
 - These plans cannot be used for good barangay services based on Local Government Code

Different Barangays have:
different residents, socioeconomic conditions,
environment, requirement, management issues




**Necessary management
plan at barangay level**

- More detail and precise management plan based on local situations and local management issues.
- Community acceptable plan
- Sustainable Plan




Community Initiative Management

By the Community
For the Community

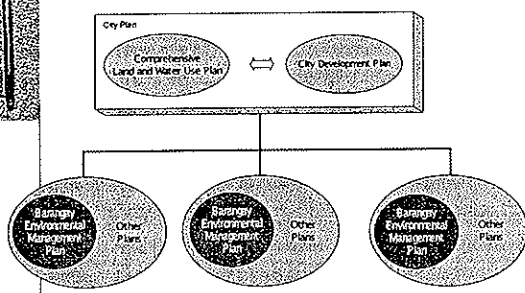


BEMP aims:

To improve and develop own Barangay area from viewpoint of **living environment** by **community people** in order to sustain enforcement effectively.




What is the status of BEMP?



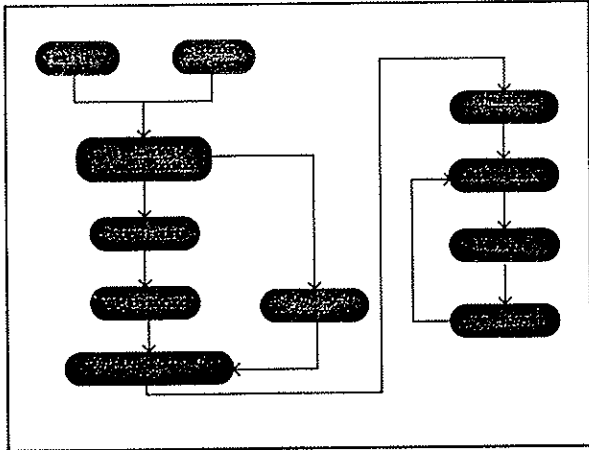
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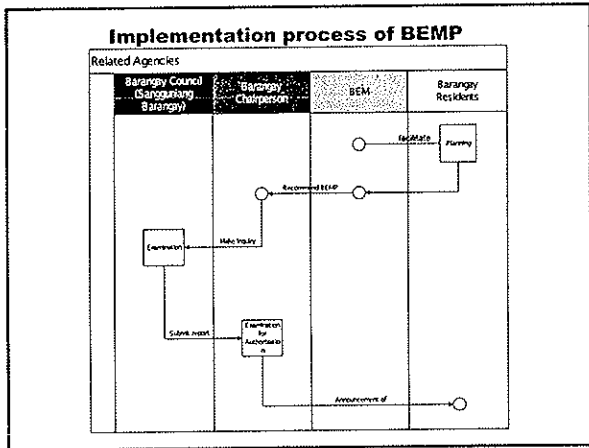
    graph TD
      subgraph CityPlan [City Plan]
        C1(Comprehensive Land and Water Use Plan)
        C2(City Development Plan)
        C1 <--> C2
      end
      subgraph BEMPs [Barangay Environmental Management Plans]
        B1(Barangay Environmental Management Plan)
        B2(Barangay Environmental Management Plan)
        B3(Barangay Environmental Management Plan)
      end
      CityPlan --- BEMPs
      B1 --- OP1[Other Plans]
      B2 --- OP2[Other Plans]
      B3 --- OP3[Other Plans]
  
```

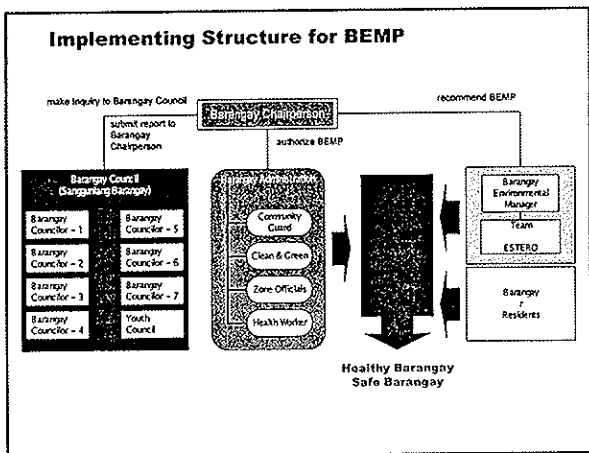



Limitation of Plan

- BEMP covers living environment improvement within administrative boundary of Barangay
- BEMP has a life span
 - ⇒ BEMP should be revised every 3 years










Barangay Profile (1)

Chapter 1: Geography and History
Chapter 2: Barangay Administration


- 2.1 Organization
- 2.2 Administrative Services
- 2.3 Budget and Expenditure
- 2.4 Barangay Projects and



Barangay Profile (2)

Chapter 3: Socio-economic Conditions

- 3.1 Population
- 3.2 household
- 3.3 Land Use
- 3.4 Social Setting
- 3.5 Sanitation
- 3.6 Community Infrastructure
- 3.7 Commerce and Industry
- 3.8 Peace and Order



Barangay Profile (3)

Chapter 4 Environmental Conditions

- 4.1 Water Environment
- 4.2 Air Pollution
- 4.3 Noise and Vibration
- 4.4 Vegetation and Parks

Barangay Environmental Management Plan

- Chapter 1 Introduction
- Chapter 2 Existing Environmental Conditions
- Chapter 3 Problems Findings
- Chapter 4 Planning Framework
- Chapter 5 Solid Waste Management
- Chapter 6 Pollution Control
- Chapter 7 Beautification and Greening
- Chapter 8 Information, Education and Communication
- Chapter 9 Implementation
- Chapter 10 Monitoring and Assessment

13

**BEMP
Chapter 4: Planning Framework**


- 4.1 Goals of BEMP
- 4.2 Planning Issues
- 4.3 Planning Approach
- 4.4 Planning Area
- 4.5 Planning Strategies

14

**BEMP
Chapter 8: Implementation**

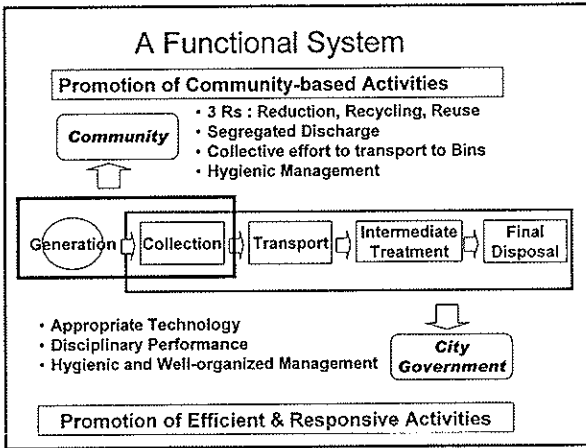
- 8.1 Implementing Groups
- 8.2 Financial Sources
- 8.3 Implementing Schedule


15



Contents of Plans

- Contents of Plans should be clear and detail
- Following 5W1H
 - What: Contents
 - Why: Reasons
 - Who: Implementer, Beneficiaries
 - Where: Location, Size
 - When: Schedule, Completion date
 - How: Methods, Cost





Beautification and Greening

- Cleaning roads and esteros
- Stop throwing garbage
- Planting trees and flowers along estero and roads
- Clearing illegal and damaged structures

Gabay na tanong:

1. Ano ang pangyayarihan para sa iyo?
2. Ano ang pagiging pinuno para sa iyo?
3. Ano ang pagiging kasapi para sa iyo?
4. Ano ang iyong karanasan sa kapangyarihan at pamumuno?
5. Ang mga karanasan bang ito sa kabuoan ay positibo o negatibo?
6. Ano ang limang positibo at limang negatibo estilo at pahahalaga ng pamumuno na iyong nakinilala?
7. Ano ang limang positibo at limang negatibo estilo at pahahalaga ng pagiging kasama na iyong nakilala?
8. Paano ba naimpluwensiyahan ang iyong iyong karanasan sa kapangyarihan at at pamumuno ang inyong pagiging pinuno ngayon.

Dakikipagkomunikasyon / Dakikipag-usap

Nababatay ang mabisang team building sa kakayahang pinunong mabisang makipagkomunikasyon sa kanyang mga miyembro. Maaring maging mabisang tradisyunal na paraan ng pakikipagkomunikasyon

Pagsasangguni

Magagamit sa pangkalahatang talakayan gayundin, sa kaso ng pagdidisiplina, dapat gawin nang harapan upang walang mapahiya. Napakahalaga sa kultura ng Pilipino ang dangal ng tao. Dapat mapangalagaan ang respeto sa sarili. Nakatalalay ang esensya ng pagsasangguni sa kakayahang umapela sa pinagmulan sa halip na sa mentsal.

nabibigyan ng pagkakataon makisangkot ang lahat sa pagdedisyon kung saan mabibigyang konsiderasyon ang mga presensyon at damdamin.

KULTURA SA SAMAHAN

ANG SAMAHAN

☐ Mga katotohanan:

- > Dala ng mga kasapi sa samahan ang kaugaliang taal na kanilang nakasanayan.
- > Gingagamit nila ito sa pagkipagkapwa sa loob ng samahan.
- > Ang hindi pagkakaunwaan ay nangyayari dahil sa iba't-ibang oryentasyon ng pananaw.
- > Ang pangunahing layunin ng pag- buo ng samahan ay upang magkaisa ang lahat sa isang gawain.

PAANO? Ang kahalagaan ng pakikipag-KAPWA ay magagamit upang magbigay ng tamang kapaligiran upang maitalag ang isang matatag na samahan.

Panghihiikayat

- sa tradisyunal na sikolohiyang Pilipino, pinakamahalagang pamamaraan ito ng "pang-akit ng mga kaibigan at pag-impluwensya ng ibang tao". Nawugat sa tiwala at lakas ng loob ang puwersa nitong mang-akit.
- Nakapaloob sa mga konsepto ng pagbabahala at paggalang ang pang-akit moral. Itinuturo nitong pangatawanan ng tao ang kanyang mga ginawa dahil ibinibigay sa kanila ang responsibilidad; bahagi na sila ngayon ng pangkat.
- Makapangyarihang pamantayan ang bahala na positibong ginagamit dahil may panghatak ito ng pagtitiwala sa kakayahang ng isang tao na hawakan ang isang suliranin. I.e. Bahala ka ryan o ikaw na ang bahala, nangangahulugan ito na nagtitiwala nang buo ang tao sa kanyang kausa

Mga Pamantayan

Dakikitunga
may malasakit at kumuhap sa iba upang makamtan ang kabutihan para sa isang tao o grupo.

Dakikitunga
sumasagayon at mapakumbaba upang malutas ang hindi pagkakaunwaan ng matupad ang ano mang gawain.

Dakikitama
Mababala sa kabutihan ng iba at nakikiramay sa ibang tao lalo na sa panahon ng pangangailangan.

- (1) maraming maglalaro
- (2) madaling lalaro
- (3) malala lalaro
- (4) magmalasakit

Pagkakasundo

- ✓ musunod ang isa sa pasya ng pangkat dahil
- ✓ iyon ang tinatanggap ng lahat sa pangkat bilang
- ✓ makatviran at higit na mainam kaysa sa ibang mga alternatibong nakalain.



Paggagamit
 Sa katunayan ang maraming paggamit, bahagi ng isang miyembro sa pamumuhay ng kanilang mga interpersonal na pagtatagpuan. Maraming mga damdamin, lo and damdamin.

Ang mga Pamantayang Magagamit bilang Mabibisang Gabay upang Makamit ito ay:

Hiya – paggalang, katumbas din ng hiya o paghapahiya. Isa itong alituntuning para sa pag-uugali sa harap ng mga tao, lalo na sa mga interpersonal na pagtatagpuan. Ang taonang paggamit ay nagsisilbing pantipunang pampigil at nagbibunga ng relatasyong mpayapa na nagpapaliglad ng pagkakaibigan, kooperasyon at mas mainam na pagkasagawa.

Ang sigla at kagustuhan ay bumubuhay sa kapasidad na tinatawag na "kaya", isang kagalingan sa paggawa ng mga bagay, kakayahang kumilos, ang kabisaang madali at mainam na makagawa at nagpapalutang ng mga sumusunod na puwersang motibo:

- kaskapan
- Kasinupan
- kahusayan



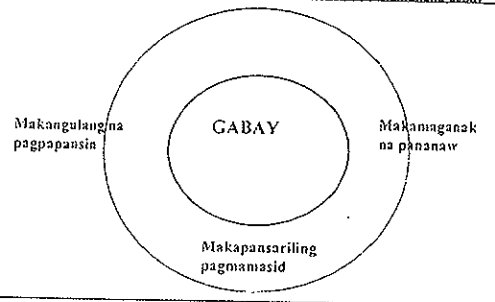
Delicadeza – mabisang gamit sa pagpapalutang ng maasahang pamumuno, pagiging sensitibo sa transgresyon ng haanglupang pantipunan.

Awa – pangkaisipan, nagangahulugan ito ng 'pagkaawa, sincericidad at hatapatan. Kung gagamitin nang wasto, magiging pangunahin itong pagmumulan ng hatapatan at patibisanghiot.

Pamumuno

Kakayahang itong pasunurin ang mga tao upang gumawa ng mga bagay dahil gusto nilang gawing ito, sumunod dahil gusto nilang sumunod, at kumilos dahil pinaniniwalaan nila ang kanilang ginagawa. Sa kontekstong ito, nagiging mahalaga ang konsepto ng mga Pilipino sa gabay.

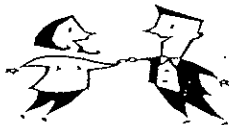
Dayararam na Hangeakila na mga dominanteng elemento sa pamumunong gabay



Lahat ng ito, kung gayon, ay magbibunga ng pag-asa sa nabuong relasyon na para sa mga Pilipino ay Tivala.

Bubuo ng tivala ang mga sumusunod na damdaming kultural

- hatapatang-look
- hatikayang-look
- hulahasang-look



Oras na magising, ang mga damdaming kultural na ito ay nagsisilbing makapangyarihang puwersa na nagpapasigla, nagpapatiglad at bumubuhay na muli sa mga pananaw, pagsasagawa at pangarap. Ang nalilikhang kagustuhan ay nagdadala ng sigla na tumutukoy sa:

- kasaganaan ng damdamin
- katiwasayan ng pag-iisip
- kalawakan ng pananaw



Ilang batayan ng oryentasyong kultural na Pilipino, mairing maging mahalaga ang mga sumusunod na paulatig kapag nakikipag-ugnayan sa mga manager, supervisor, empleyado at manggagawang Pilipino. Marairaldamin ang mga Pilipino. Huwag maging agresibo, kumunsulta

- > Personal sa kanilang pamamaraan ang mga Pilipino. Huwag mamilit; makipag-ugnay.
- ✓ Makapamilya ang mga Pilipino. Huwag maging makasarili; maging magkasundo
- ✓ May tendensyong umusa sa nakatatanda ang mga Pilipino; huwag maging buriyokratiko, gawan ng paraan.



✓ Nagbibigay ng halaga sa kanilang mga pinuno ang mga Pilipino. Huwag maging awtokratiko; maging demokratiko.



✓ Gusto ng mga Pilipino na mayansin. Huwag maging impersonal; magpamalas ng malasakit.



✓ Inasahan ng mga Pilipino na gagabayin sila ng kanilang mga pinuno. Magbigay direksyon.



✓ Paternalistiko sa kanilang pananaw ang mga Pilipino. Pamunuan mo sila.



TRAINING FOR BEM AND TEAM ESTERO

TRAINER'S WORKSHOP EVALUATION

Bigyan po ninyo maikasing panahon upang ma-ebalwet ang laman at proceso ng training . Wag po lagyan ng pangalan.

A. Ang pag-presenta

1. Pag-pahayag tungkol sa training (Dr. Sato)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong masasabi? _____

2. Briefing for the JICA Study on Drainage (Engr. Napoleon Famadico DPWH)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong masasabi? _____

3. Drainage Improvement Plan (Engr. Elmo F. Atiliano DPWH)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong masasabi? _____

4. Urban Environment Related Regulations (Dir. Sixto Tolentino, Jr. EMB-DENR)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong masasabi? _____

5. Environmental Health Risk (DOH)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong
masasabi? _____

6. Existing condition of Solid Waste in the Core Area (Engr. Manuel Leano)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong
masasabi? _____

7. Community-based Solid Waste Management (Ms. Elsie Encarnacion)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong
masasabi? _____

8. Environment Management Plan (Dr.Akinori Sato)

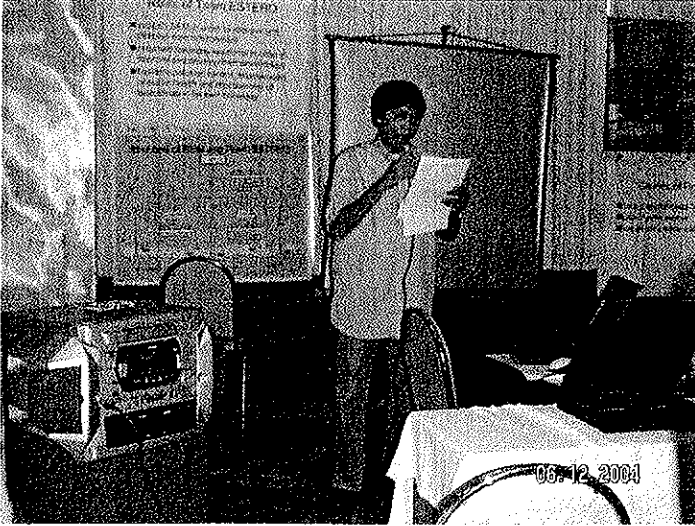
Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong
masasabi? _____

9. BEM / ESTERO Organizing (Dr. Felixberto H. Roquia, Jr.)

Naunawan _____ Naunawaan kaunti _____ Di-unawaan _____

Anong
masasabi? _____



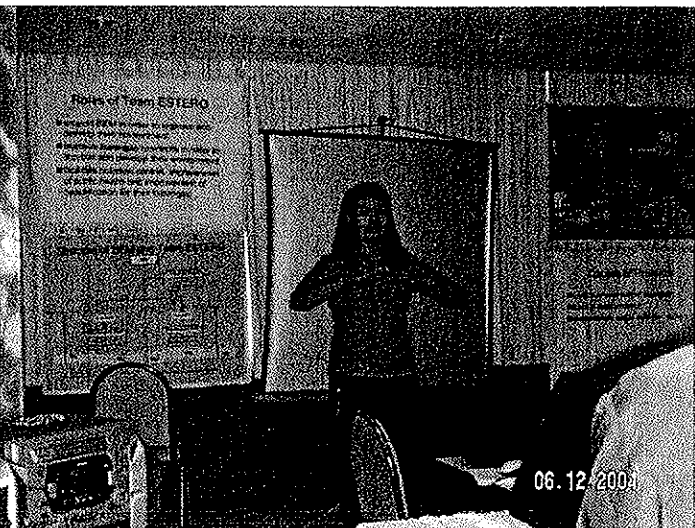
Facilitator Mr. Jesus Averilla
leading the Opening Prayer

(June 12, 2004)



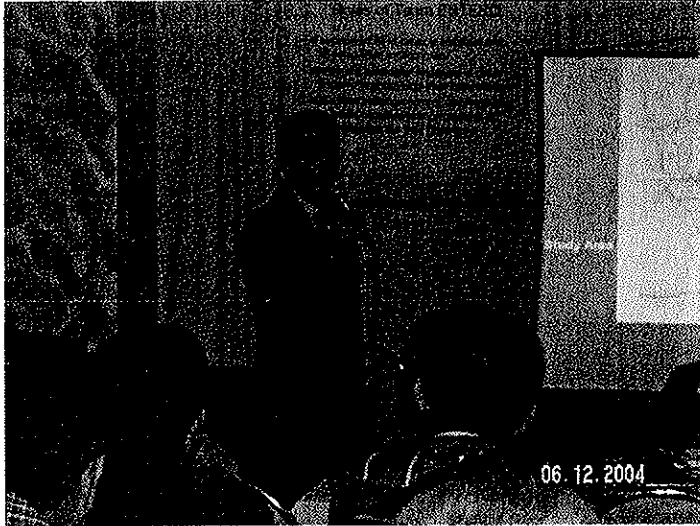
The Barangay Participants

(June 12, 2004)



Ms. Bridgette Bautista
conducting the National
Anthem

(June 12, 2004)



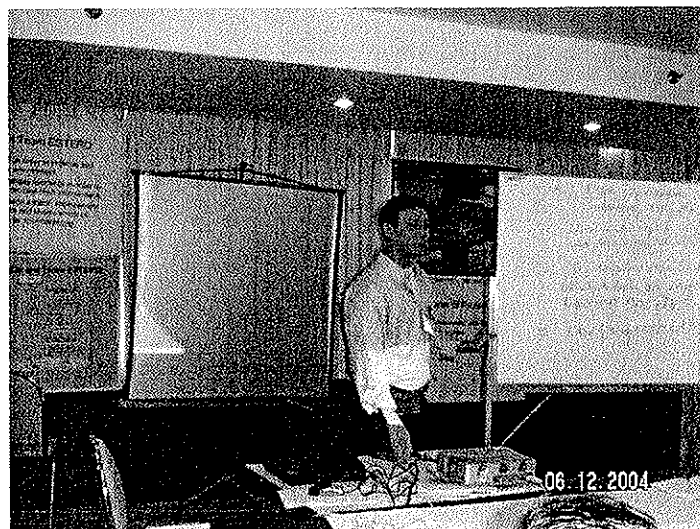
Opening Remarks by Mr.
Takayuki Nobe

(June 12, 2004)



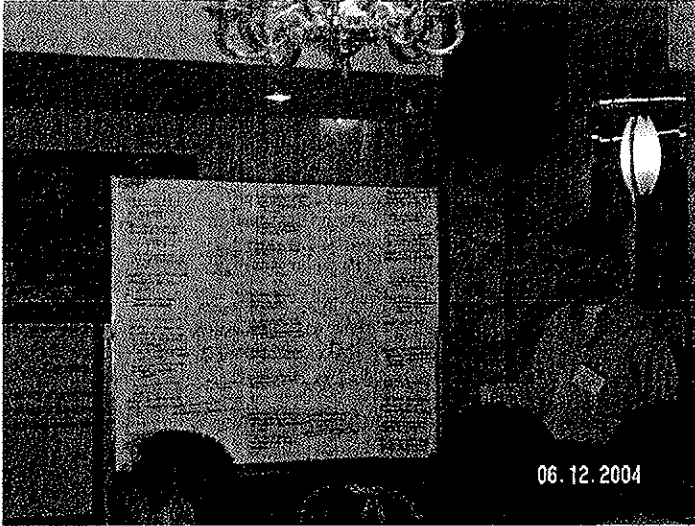
The Barangay Participants
on the Group Dynamics,
stretching and warming up
for the day's Activities

(June 12, 2004)



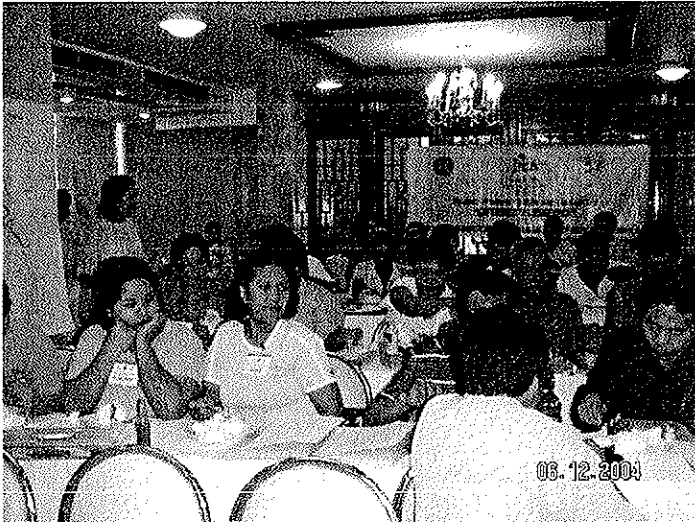
Dr. Felixberto Roquia, Jr. for
the Group Dynamics, Leveling
Off, and Course Briefing

(June 12, 2004)



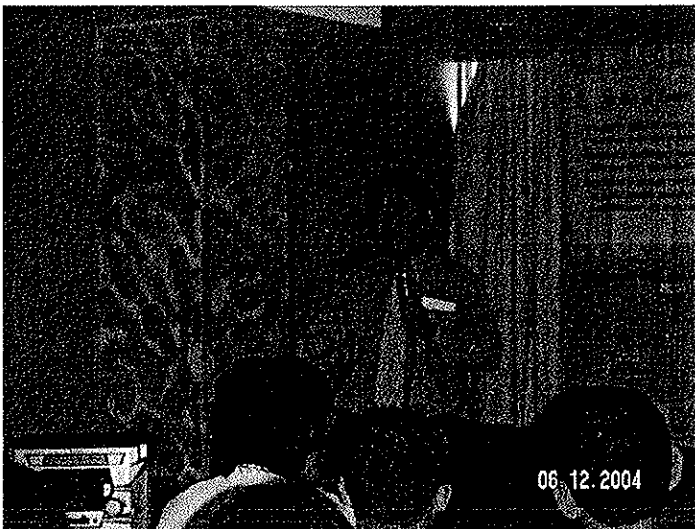
Dr. Felixberto Roquia, Jr.
recapping the expectations
listed by the Barangay
Participants

(June 12, 2004)



Snack Time

(June 12, 2004)



Dr. Akinori Sato on
Overview of the
Experimental Research
Study

(June 12, 2004)



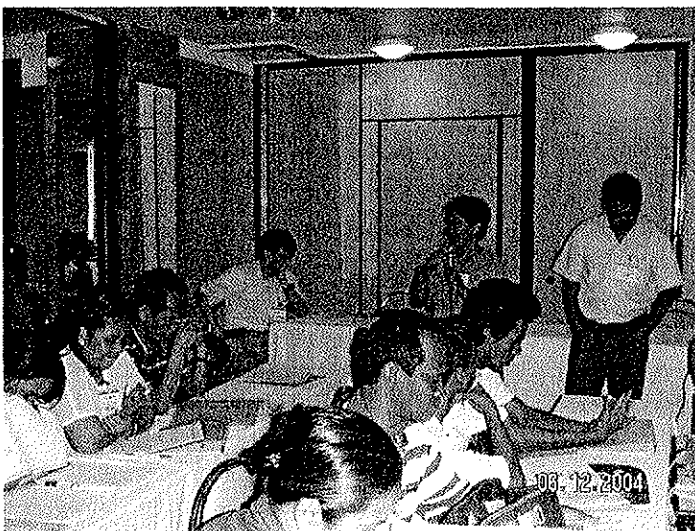
Barangay Chairman Nestor Ereño of Barangay 195, City of Manila requesting the Experimental Research Study Team to provide the participants identification cards for recognition

(June 12, 2004)



Barangay Chairman Arthur Gaylican of Barangay 46, Pasay City requesting the Experimental Research Study Team to take a visit to the Project Sites after the Training Program for the enlightenment of the residents

(June 12, 2004)



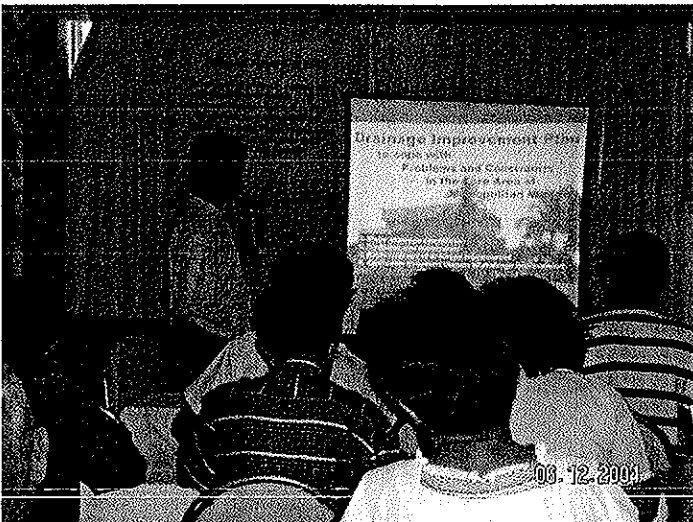
Team ESTERO Member Flordeliza Isip encouraging the rest of the participants to start the cooperation among themselves for their fellow residents will imitate

(June 12, 2004)



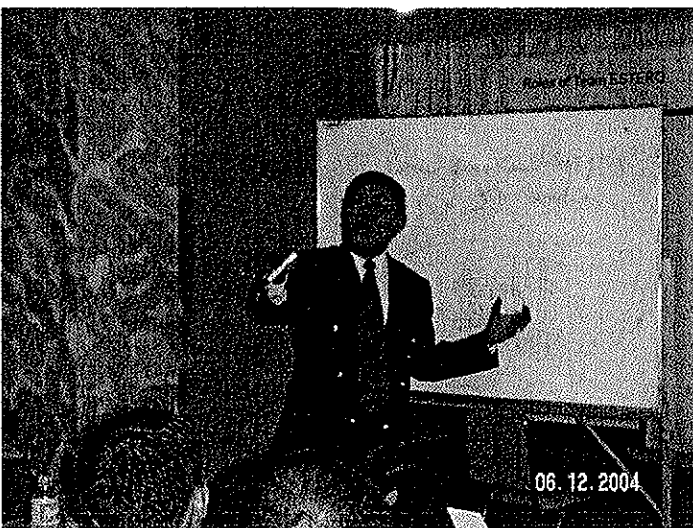
Briefing for the JICA Study on
Drainage Improvement in the
Core Area by Engr. Napoleon
Famadico

(June 12, 2004)



Drainage Improvement Plan in
the Core Area by Engr. Elmo
Atillano

(June 12, 2004)



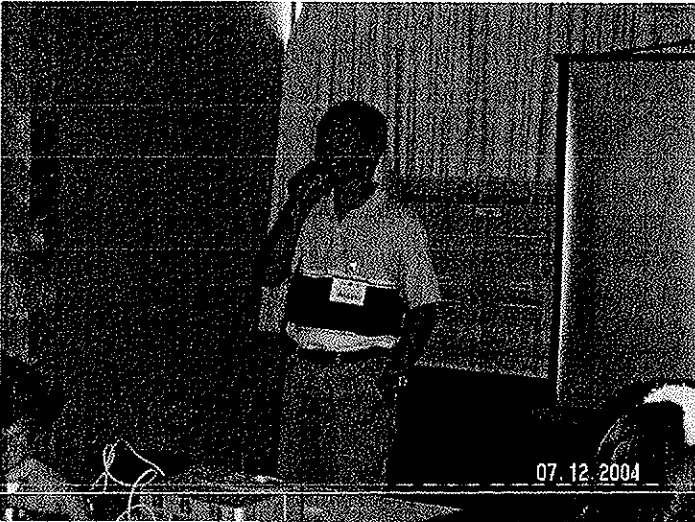
EMB-DENR, NCR Regional
Director Dr. Sixto Tolentino on
Urban Environment Related
Regulations

(June 12, 2004)



Facilitator Mr. Jesus Averilla
introducing the first Resource
Person for the day, Engr.
Rogelio Pascasio

(June 13, 2004)



Engr. Rogelio Pascasio on
Experiences of the JICA
Pilot Projects for
Community Based Solid
Waste Management

(June 13, 2004)



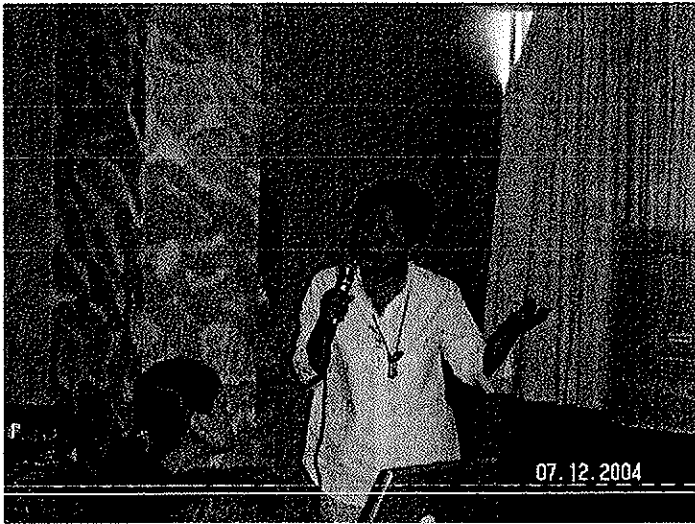
The Barangay Participants

(June 13, 2004)



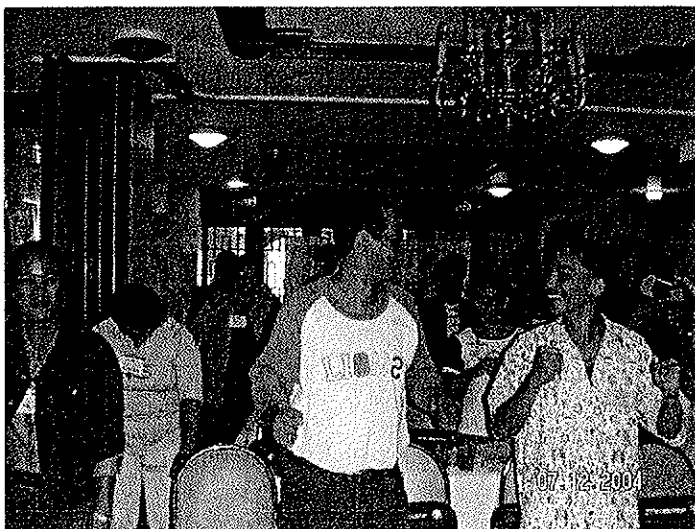
Existing Condition of Solid Waste in the Core Area by Engr. Manuel Leño

(June 13, 2004)



Ms. Elsie Encarnacion on Community Based Solid Waste Management

(June 13, 2004)



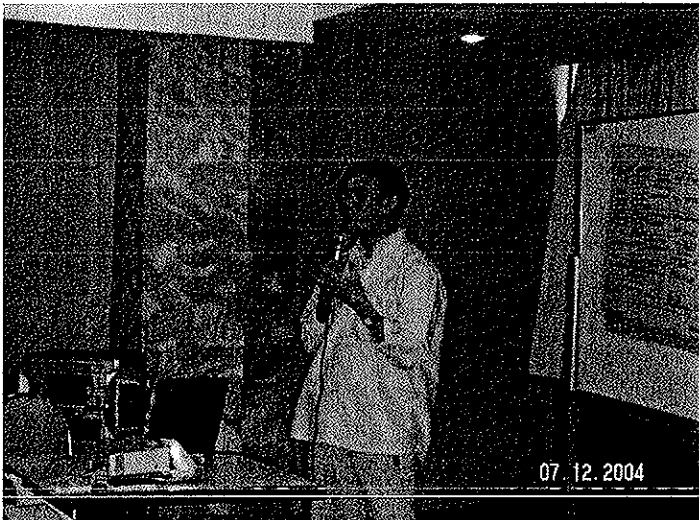
Stretching Exercises as Ice Breaker by Ms. Elsie Encarnacion

(June 13, 2004)



Dr. Akinori Sato on
Environmental
Management Plan

(June 13, 2004)



Dr. Felixberto Roquia, Jr.
on BEM/ESTERO
Organizing

(June 13, 2004)



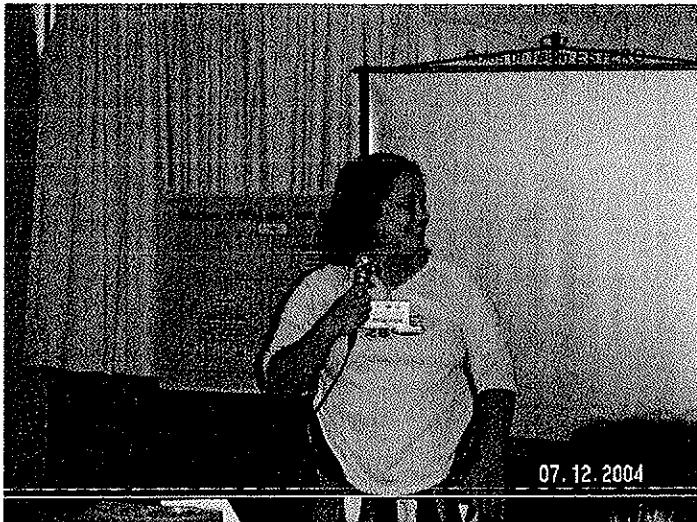
The Barangay Participants
working on the Action Plan

(June 13, 2004)



The Barangay Participants
working on the Action Plan

(June 13, 2004)



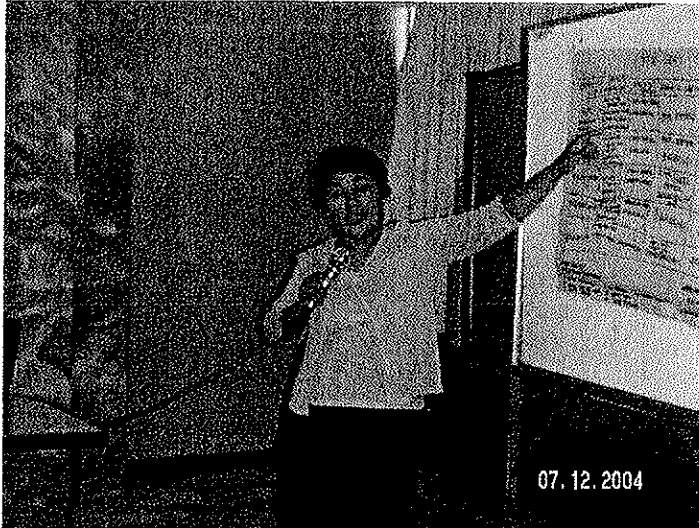
Team ESTERO Member
Rosalinda Antonio of
Barangay 195, City of
Manila reporting their
group's output

(June 13, 2004)



BEM Roel Arevalo of
Barangay Palanan, Makati
reporting their group's
output

(June 13, 2004)



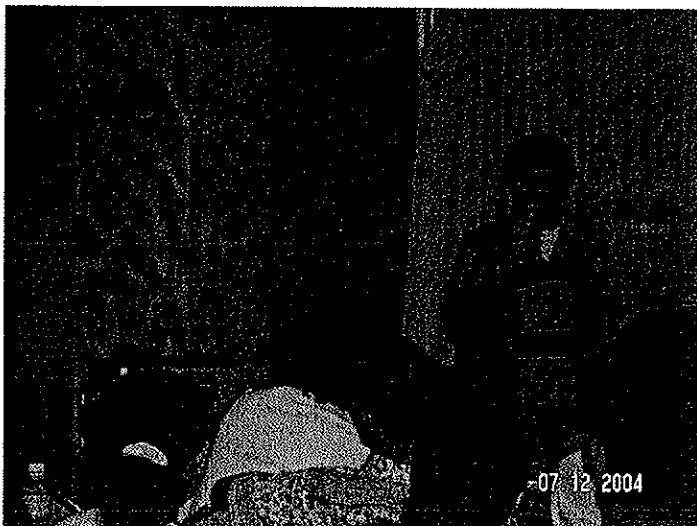
Team ESTERO Member
Alma Managuit of
Barangay 46, Pasay
reporting their group's
output

(June 13, 2004)



The Barangay Participants
filling up the Evaluation
Sheets for the Training
Program

(June 13, 2004)



Facilitator Mr. Jesus
Averilla officially closing the
Training Program

(June 13, 2004)



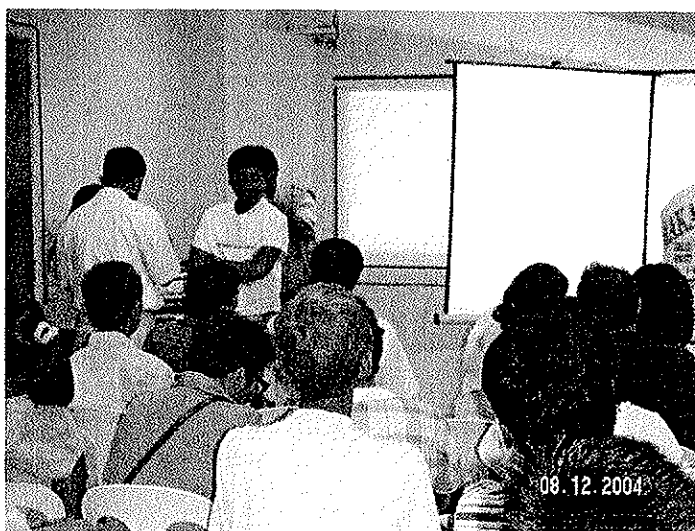
The Experimental
Research Study Team and
Barangay Participants at
the Tripa de Gallina
Pumping Station

(June 14, 2004)



The Experimental
Research Study Team and
Barangay Participants at
the Estero de Tripa de
Gallina, Pasay City

(June 14, 2004)



The Experimental
Research Study Team and
Barangay Participants at
the Barangay South
Cembo Barangay Hall
Conference Room, Makati
City

(June 14, 2004)



The Experimental Research Study Team, Barangay Participants, and Barangay South Cembo Officials touring the Zonal MRFs of Barangay South Cembo, Makati City

(June 14, 2004)



One of the six Zonal MRF of Barangay South Cembo, Makati City

(June 14, 2004)



The MRF at Zone 1 South Cembo, Makati City

(June 14, 2004)



Tri-bike used for the collection of recovered recyclables from the residences

(June 14, 2004)



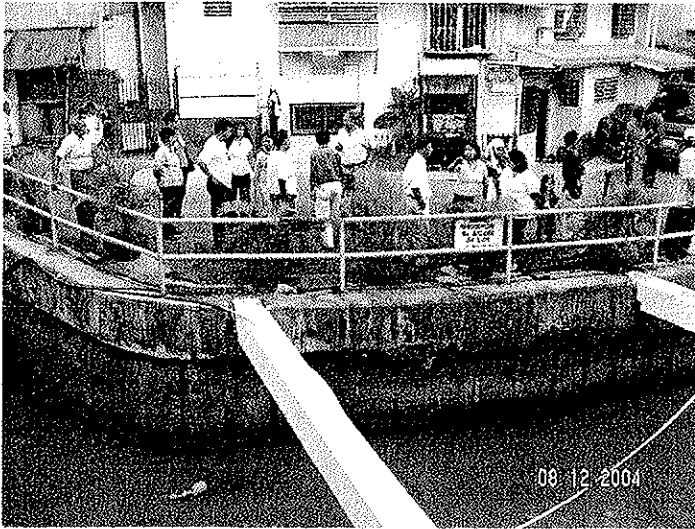
Barangay Comembo's Eco-Center

(June 14, 2004)



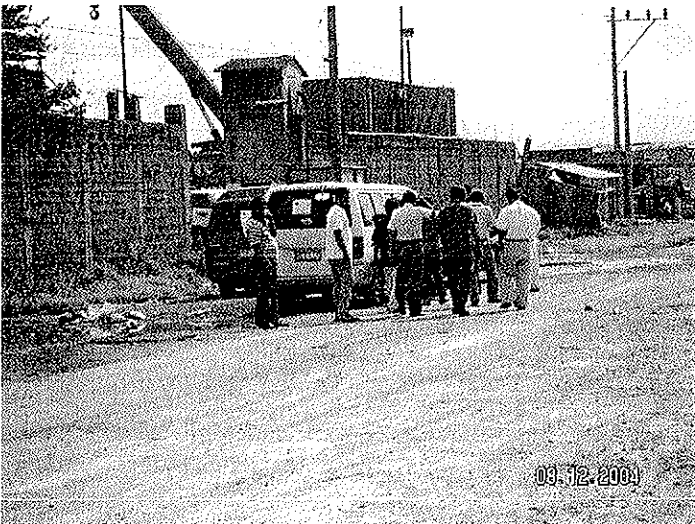
Barangay Comembo's Eco-Center

(June 14, 2004)



The Experimental
Research Study Team and
Barangay Participants at
the Onyx, Estero de Tripa
de Gallina (Buendia Outfall)

(June 14, 2004)



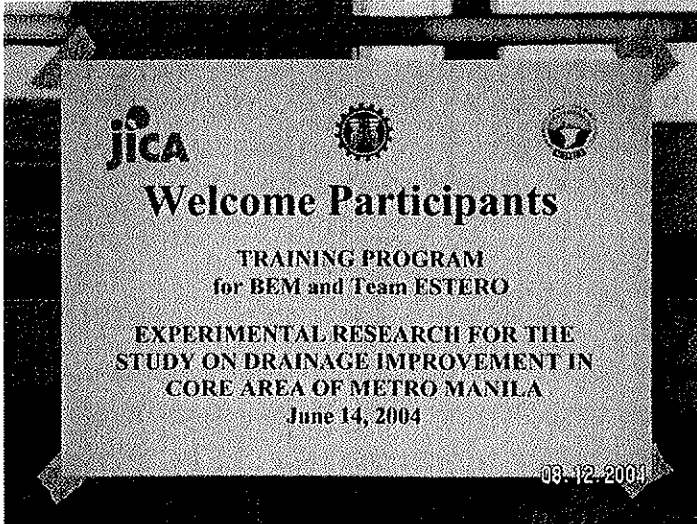
The Experimental
Research Study Team and
Barangay Participants at
the Pier 17 Dump Site

(June 14, 2004)



Pier 17 Dump Site

(June 14, 2004)



DPWH Central Office's
Training Room for the Final
Closing of the 3-day
Training Program

(June 14, 2004)



Mr. Jesus Averilla
facilitating the Closing
Ceremony of the Training
Program

(June 14, 2004)



The Experimental
Research Study Team and
Barangay Participants at
the DPWH Central Office
Training Room

(June 14, 2004)



Closing Remarks by Engr.
Napoleon Famadico

(June 14, 2004)



Awarding of Certificate of
Participation to the
Barangay Participants by
Mr. Takayuki Nobe, Mr.
Sabbir Hassan, and Engr.
Napoleon Famadico

(June 14, 2004)



The Experimental
Research Study Team and
Barangay Participants

(June 14, 2004)