

GOOD PRACTICES IN LOCAL GOVERNANCE: FACILITY FOR ADAPTATION AND REPLICATION (GO-FAR) PROMOTING LOCAL ENVIRONMENTAL PLANNING AND MANAGEMENT (L-EPM)

Getting through Urban Waste

The Integrated Solid Waste Management Project (ISWMP) and Allotment Garden Barangay Lapasan, Cagayan de Oro City

REPLICATION MANUAL



on the Integrated Solid Waste Management Project (ISWMP)



SAFER RIVER, LIFE SAVER FOUNDATION, INC.

LICEO DE CAGAYAN UNIVERSITY
CAGAYAN DE ORO CITY



Anchor Institution of GO-FAR/L-EPM Project



DEPARTMENT OF INTERIOR AND LOCAL GOVERNMENT Region 10 Cagayan de Oro City



CITY GOVERNMENT OF CAGAYAN DE ORO THROUGH CITY LOCAL ENVIRONMENT AND NATURAL RESOURCES OFFICE (CLENRO) Cagayan de Oro City



Republic of the Philippines DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT Region 10 - Northern Mindanao

FOREWORD

The Local Environmental Planning and Management Good Practices in Local Governance: Facility for Adaptation and Replication (LEPM-GO-FAR) is a project implemented by the Department of the Interior and Local Government (DILG), Liceo de Cagayan University through the Safer River, Life Saver Foundation, Inc. (SRLSF) and the City Government of Cagayan de Oro through the City Local Environment and Natural Resources (CLENRO).

The project is funded by the United Nations Development Program under its (UNDP-Habitad). The aim of which is to document the exemplary performance of the barangays of Lapasan, Gusa and Bugo all of Cagayan de Oro in the field of environmental planning and management. These barangays have proven that the smallest local government unit can effectively implement environmental planning and management with less support from its mother local government unit.

The project intends to replicate this exemplary practice in other barangays of Cagayan de Oro City by providing them the basic guide on how to implement effective environmental planning and management at their respective areas of concern. Hence, a replication manual is developed by the Safer River, Life Saver Foundation, Inc. The projects presented in this replication manual are Solid Waste Management and Coastal Resource Management.

The replication manual is envisioned to direct the users particularly the replicating local government unit what steps to undertake to effectively implement and sustain their project on Solid Waste Management and Coastal Resource Management at the barangay level. On the part of the DILG, this replication manual seeks to enhance the capacities of our field officers in providing appropriate technical assistance interventions to local government units in the area of environmental planning and management.

We are confident that with this replication manual, the best practices of the three barangays will proliferate in other the areas of Cagayan de Oro, Northern Mindanao and other regions for a healthy and clean environment.

AUSTERE A. PANADERO

Asst. Secretary for Policy Capacity Development, International Partner & Field Operations



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OFFICE OF THE REGIONAL DIRECTOR

Message

I commend the laudable efforts of the Safer River, Life Saver Foundation, Incorporated of the Liceo de Cagayan University, Cagayan de Oro City, in successfully documenting the exemplary practices on Local Environmental Planning and Management (LEPM) of Barangays Lapasan, Gusa and Bugo, all of Cagayan de Oro City.

The development of this replication manual is another step forward in ensuring that local government units are given the appropriate tools as guide in enhancing their capabilities in the implementation of national and local laws.

The manual gives a detailed procedures in implementing Solid Waste Management, Coastal Resource Management at the barangay level and how the projects were sustained by the implementing barangays.

I congratulate also the City Local Environment and Natural Resources Office (CENRO) and DILG Regional Office Staff for a successful provision of technical guidance to the Safer River, Life Saver Foundation, Inc. in coming out with this replication manual.

Again, Congratulations.

QUIRINO M. LIBUNAO, CESO III

Regional Director



LICEO DE CAGAYAN UNIVERSITY

Rodolfo N. Pelaez Boulevard, Kauswagan Cagayan de Oro City



OFFICE OF THE PRESIDENT

MESSAGE

The Liceo de Cagayan University of Cagayan de Oro City is very pleased and greatly honored to have contributed to the development of the modules in MASTER IN MANAGEMENT Major in ENVIRONMENTAL PLANNING AND MANAGEMENT (EPM) in the School of Graduates Studies and Good Practices in Local Governance promoting LEPM. I wish to acknowledge the contributions of the Safer River, Life Saver Foundation, Inc. and the School of Graduate Studies.

This component primarily focuses on the creation of a Center of EPM Studies in Mindanao that shall serve as the repository of knowledge on EPM Process and Projects in Mindanao. The Center is expected to facilitate organizing the Local Resource Institutes (LRIs) in Mindanao to share knowledge and technologies as well as design new tools, curriula, and projects concerning L-EPM. In addition, the Center shall closely coordinate with the Urban Leadership and Management Unit (ULMU) of Local Government Academy (LGA) that manages information on urban developments and concerns, including EPM processes.

In behalf of Liceo de Cagayan University, Safer River, Life Saver Foundation, Inc. the School of Graduate Studies. I commend and congratulate the Project Management Team of this endeavor for a job well done. Also, I express my thanks to the cooperating agencies, namely; the Department of Interior and Local Government through the Local Government Academy and the funding agency, the UN-HABITAT for all their support.

To all our partners and the Project Management Team, keep up the good work. Mabuhay!

DR. RAFAELITA PELAEZ-GOLEZ

President



Republic of the Philippines City of Cagayan de Oro

OFFICE OF THE CITY MAYOR

MESSAGE

As the City of Cagayan de Oro scales new and greater heights on both domestic and international fronts, we cannot and must not lose ourselves in the heady milieu of higher altitudes. For with great progress comes the greater responsibility of maintaining the resources and circumstances that accommodates and supports our growth.

Recognizing and acknowledging this symbiosis, the City Government of Cagayan de Oro works hard – singularly and in partnerships – to protect the integrity and health of the environment that breeds, feeds – and at the same time benefits from – our city's advancement.

It is heartening to know that, although we do not flaunt our efforts, they are taken note of and honored, as in the selection of Barangays Bugo, Gusa, and Lapasan as Model Barangays in the implementation of solid waste and coastal resources management programs under the "Good Practices in Local Governance: Facility for Adaptation and Replication – Local Environmental Planning and Management (GOFAR-LEPM).

The Replication Manual that this project aims to produce through collaboration with the city government, UN Habitat, the Department of the Interior and Local Government (DILG), the Barangay Councils concerned, and Liceo de Cagayan University 's Safer River, Life Saver Foundation, Inc., will not only celebrate the efforts of everyone that has worked hard to achieve implementation success, but also ensure the success of future and further implementation efforts.

As those of us who went before boldly went where none had successfully gone before, so now we must hold up the light and show the way to those who resolutely follow, seeking to achieve the same balance.

VICENTE Y EMANO

City Mayor

FOREWORD

The implementation of the Integrated Solid Waste Management System

Program in the pilot barangays of Lapasan, Gusa and Bugo in the City of

Cagayan de Oro has been more than challenging and overwhelming. Proper

waste disposal is a major contribution in dealing inevitable environmental issues.

Promoting segregation at source will make ecological awareness climb to its

peak.

The realization of this documentation will afford a hope that other

municipalities and cities can reflect and replicate the implementation process.

Not just as a community, but such consciousness will become part of each

individual's personal values. After all there is only going to be one earth and it is

everyone's responsibility to take care of it.

Dr. Rosalina S. Huerbana

Project Manager

GO-FAR/L-EPM Project

Preface

The Integrated Solid Waste Management Program is promoted by the Local Government Units all over the country to confront garbage issues that all along become afflicting to the environment. R. A. 9003 or the Ecological Solid Waste Management Act of 2000 – An act providing for an Ecological Solid Waste Management Program, creating the necessary institutional mechanism, and incentives, declaring certain acts prohibited and providing penalties, appropriating funds therefore, and for other purposes. It is a fundamental basis of the implementation of the project. All cities and municipalities are required to execute the law in its barangays. In Cagayan de Oro City, Ordinance Number 8975 – An ordinance requiring the mandatory segregation of waste at source and providing penalty for violation thereof and for other purposes. Hence, it is promulgated to make the said act fully operational.

Project Preface

Introduction

Barangay Lapasan is strategically located in the eastern part of Cagayan de Oro City. It is where most of the business districts are located. Lapasan has two big creeks, first is the *Bitan-ag Creek* that serves as literal and physical boundary of urban and rural barangays namely: in its western side are the urban barangays 22, 24, 26, 33, 35; and, Barangay Puntod in the northwest. Macalajar Bay, which is known to be the gateway of Mindanao, sits on the northern part. Hence, foreign and local vessels dock and trade in its Macabalan port.

Kolambog Creek, that is located in the east, runs through and opens to the coastline. Unfortunately, it became the hatch for all the discharged domestic household wastes.



The Integrated Solid Waste Management Project of Lapasan adopted the Local Environmental Planning and Management (L-EPM) process. This method, in turn, is promoted by the Good Practice in Governance: Facility Adaptation and Replication (GO-FAR). Thus, the focus of program to support LGUs effort is confronting local environmental issues.

LOADING THE EXCESS

In the a city-wide acitvity of L-EPM, Barangay Lapasan's representatives has raised some of the ecological issues that need to be addressed. The city government thru the endeavor of City Local Environment and Natural Resources (CLENRO) invited stakeholders from different sectors of the city. Eventually, they are supportive the willingness of the barangay to implement a project based on the L-EPM.

The main goal of the project is in line with the effort of the barangay, which is to have a clean and healthy environment. The focus is to eliminate irresponsible throwing of garbage, and restoring the creeks that become dumping sites.

The ISWP Picture

Project History: A Flashback

When the Sustainable Cities Program (SCP) in 1999 pioneered L-EPM process, Lapasan was one of the pilot barangays of Cagayan de Oro City. The goal of SCP is to encourage and provide for any sustainable developmental projects in cities and municipalities throughout the world. Eventually, the focus of the global program is seeking measures for prevalent ecological issues, in which are effective and sustainable.

The L-EPM was demonstrated with the facilitation of the city government through the City Local Environment and Natural Resources (CLENRO). L-EPM process includes identifying, clarifying and analyzing local environmental situations. This was made possible through the effort of various stakeholders that were named and mobilized. Moreover, it has conducted activities such as orientations, multi-stakeholders' consultations, seminars and trainings for implementation purposes.

The result of the series of activities was the establishment of the ISWMP project. In this connection, an organizational flow was created, not only to supervise but also to render technical assistance.

Project Description: The Circumstance and Solution

The Situation

The vicinity of Lapasan is considered to be essentially urbanized. It literally represents Cagayan de Oro as a continuously developing city. However, along with industrialization comes the problem on waste disposal. The issue on garbage in the barangay does not only consist of its own. It has also possessed the waste of the places along the streamline, even from the mainland.

In view of that, the coasts become the end basin for the wastes that are being taken by the creek water from barangays in the city. City authorities often warn Lapasan residents about the garbage along the shorelines. Eventually, the wastes flush further to the seaside of Barangay Gusa and Bugo.

Selecting the Pilot Area

An assembly of the Sitio Presidents is conducted in order to discuss the project matter. In the event, choosing for the pilot area is made through 'draw lots.' Sto. Niño then became the lead implementing neighborhood.

Along with this, the strict mandate of R. A. 9003 has also urged the barangay to come up with the Solid Waste Management System. With the assistance of CLENRO, the barangay council identifies key persons to run the project, with its environmental council as its lead agency.

The Objective

The main purpose of the project aside from complying with R. A. 9003 or the Integrated Solid Waste Management Act of 2000 is to really obtain a clean community. The living condition of the barangay homes is guiet susceptible to bad health and sanitation because of the garbage. This is also provoked with the presence of the creeks that has become a leeway of the ditches in the area. Hence, geographic cum demographic situation of Lapasan is a fundamental factor.

To combat the problem, with timely which is the of the project. implementation waste management campaigned at the household level. The traditional throwing of garbage is not favorable as to the present anymore. Considering the materials of the wastes that are mostly dangerous to the environment. The accomplishment intends establish a prominent awareness of prevalent ecological issues PICKING THE PIECES



Lapasan Integrated Solid Waste Management Project

through Solid Waste Management System.

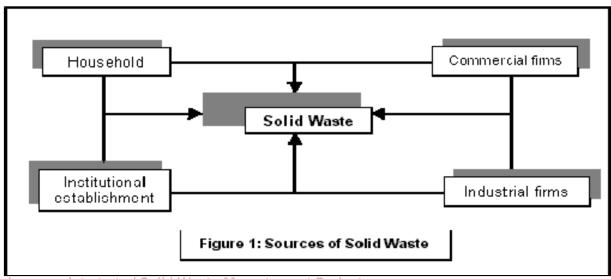
On the other hand, the barangay council plays an important position in realization of the new disposal system. Part and parcel of the vision, mission and goals of an urbanized barangay is advancing environmental perception. The environmental council becomes the spearhead in the implementation. Hence, it is very much ready to provide or help provide for any needed resources.

The Indicators

Looking into the problem of solid waste, the barangay council has found out that the following are the primary indicators of the causes in the increasing volume of garbage:

- Income;
- Population;
- Lifestyle;
- Inadequate Technology;
- Lack of information and education program;
- Lack of research and development;
- NIMY (Not In My Backyard) Syndrome;
- Lack of Appropriate Policy.

The above indicators could be the characteristics of the following sectors as illustrated in the following diagram:



Lapasan Integrated Solid Waste Management Project

The Approach

Consequently, the focus of the implementation centered on the *Reduction of the Garbage* vis-à-vis the *Practice of Segregation at Source*.

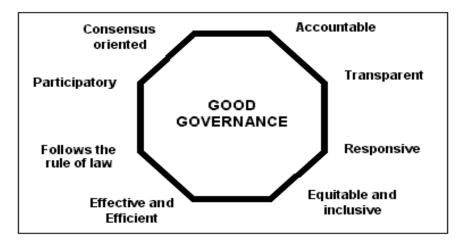


Figure 2: Strategical Action

In Barangay Lapasan, their main approach in the project was to institute compelling good governance; because, successful implementation would depend on the credibility of the authority and those who were involved in a way or another. Thus, promoted the following:

Participatory:

- There has been participation by both men and women in the entire course of the project. Volunteerism was the key factor as well as the commitment to endure until the completion;
- Participation has become direct or through legitimate intermediate or



COLLECTIVE EFFORT

representatives. For instance, the academe or the schools within the vicinity had helped in the advocacy;

- Participation also had become freedom of association and expression on the one hand and an organized civil society on the other hand. The implementation welcomed open for for suggestions and related matters that had influenced the project. In example, should there be consequences for the violators? Or, what would there be penalties?

Rule of Law:

- Good governance required legal frameworks that were enforced impartially. In this case, barangay resolutions and ordinances were promulgated and adapted in relation with ISWMP;
- Full protection of human rights, particularly those of the marginalized community.

Transparency:

- Decisions taken, and its enforcement, were done in a manner that follows the guidelines, rules and regulations of the implementation;
- Information was freely available and directly accessible to those who would be affected with such decisions.

Responsiveness:

- Institutions and processes tried to serve all stakeholders within a reasonable timeframe.

Consensus oriented:

- Need of meditation of the different interests to reach a broad consensus in the society on what was best for whole community and how this could be achieved;
- It had required a long-term perspective for sustainable human development and how to achieve the goals of such development;

Equity and inclusiveness:

- Ensuring that all members of society feel that they have a stake in it and did not feel excluded from the mainstream;
- This required all groups, and especially the most vulnerable to have opportunities to maintain or improve their well-being.

Effectiveness and efficiency:

- Process and institutions produced results that had met the needs of the society while making the best use of resources at its disposal;
- It also sustained the use of natural resources and the protection of the environment.

• Accountability:

- Governmental institutions as well as the private sector and civil society organizations had been accountable to the public and to their institutional stakeholders;
- In general organizations and institutions were accountable to those who would be affected by decisions or actions.

Disposal System before ISWMP

It was indeed advantageous to Lapasan. The barangay has already its own disposal system. The garbage collection was easier than most barangays, because it has its own dump trucks. With the introduction of ISWMP, the barangay garbage system was realigned to fit the process. Hence, the trucks were utilized at the same time was given a little break. This would mean that, it has already the capacity to reduce expenses related to its operation. For instance, there has already been savings on the fuel because of the installation of the pick-up point. Another was the minimizing of maintenance, since the garbage collected has been reduced, the truck would not carry huge bulks of waste anymore.

Key Implementation Steps

The creation of the concept at the city level:

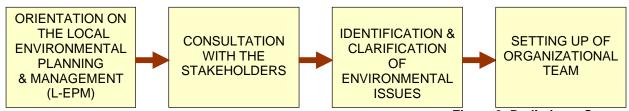


Figure 3. Preliminary Steps

1. Project Preparation:

- Proposing to the barangay council for the adoption of the project;
- Sourcing out appropriation for needed resources;
- Action Planning.

2. Beginning the ISWMP:

- An assembly was called for the Sitio Presidents. They were oriented with the project;
- Identification of the pilot area through a random process of draw lots:
- The 320 households of the identified purok were mapped out by block numbering and corresponding last name of the families. The zoning was for the purpose of comprehensive advocacy and waste volume record.

3. Setting up the Team:

- Identifying the key people to carry out the implementation;
- Establishing the organizational flow cum involving the stakeholders (see annex);
- Organizing the IEC team.



PASSING THROUGH THE PATHS

4. Project Launching and

Lapasan Integrated Solid Waste Management Project

Advocacy:

- The program was formally launched in the barangay community;
- Education and Communication (IEC) campaign has been commenced;
- General assemblies and orientations were conducted to endorse the new solid waste management system;
- House to house approach became part of the IEC;
- The advocacy was supported by a Recorida or street broadcast during the gathering, with a particular mention of those households that had failed to segregate their waste.

5. Project Proper:

The solid management system has its provided schedule of collection. On Mondays, biodegradable were collected and taken to the community garden. Recyclable were gathered on Wednesdays, while Fridays were meant for residuals and hazardous wastes. Hence, the collected wastes were weighed and recorded accordingly, which also include not classified garbage;



UNITED CLEANLINESS

- The biodegradable wastes were taken to the Allotment Garden an offshoot project of ISWMP. It had just become the receiving facility for the biodegrable waste. Since, it would be useful as a compost fertilizer for the plants;
- The residuals were brought to the landfill;
- The recyclables were sold.

At first, there was a house-to-house collection of the garbage. Yet, it demanded much effort considering the location. The plan was revised and sacks were placed in a pick up point, which would be collected by the roving collector — a trisikad that would drive the collection at a place where the garbage truck has access. However, some of the households would just dump their un-segregated waste.

After awhile, it became a compliance to label their waste containers, which were usually cellophanes. This was an easy way to identify which house did not segregate. And if found out, the said garbage would not be collected, and the household who owned the waste would be warned.

Households that consecutively segregated were given incentives of recognition. In this way, they would be more inspired to segregate.

6. Monitoring and Evaluation:

- Each household waste were weighed;
- A record was kept of which household segregated or not. Or, what fraction of the household's waste were segregated;
- With the data, it was easy to identify the volume of garbage. This
 was a very unique feature of the implementation.

Project Results

The Material Recovery Facility (MRF) have not really materialized as it was expected. Although, there were segregation posts throughout the neighborhood. These were the sacks provided, and had been served as pick-up points. The reason for this was, there was no available venue to install the facility. One factor that influenced the issue was that, there was no vacant lot. And if there was, it was privately Lapasan is a highly urbanized barangay.

On the other hand, it was a success that the community has learned to adopt the disposal system. There was an change in the attitude of the barangay with regards to waste. They had also gained an awareness to be concerned with its environmental situation.

However, the Allotment Garden, which was an offshoot of the ISWMP has achieved its goals. Among others, it has become the receiving facility for the biodegradable wastes. Eventually, it has also created income for the local indigents.

Lessons and Insights

Resources and Sustainability. The two issues that seemed to be shortcomings of the implementation were the inadequate human support and resources; and, the lack of Material Recovery Facility. The barangay LGU as well as the community has realized to bridge this gap. Moreover, a barangay ordinance was sanctioned to increase the budget for the complete installation of the waste disposal system. Along with this was a one-year plan to fully implement ISWMP in the whole barangay. Another new local law was made compulsory for its residents, which is an orientation regarding ISWMP. Any citizen that would be seeking barangay clearance has to undergo such seminar and workshop.



Seeking Stakeholders. Coming up with stakeholders had also been a difficult task. Except for the technical assistance from the City Government. There were invitation that organizations. institutions could partake in the activities. but it has also been a matter of priority. The barangay has admitted that they should have strengthen the partnership with the stakeholders.

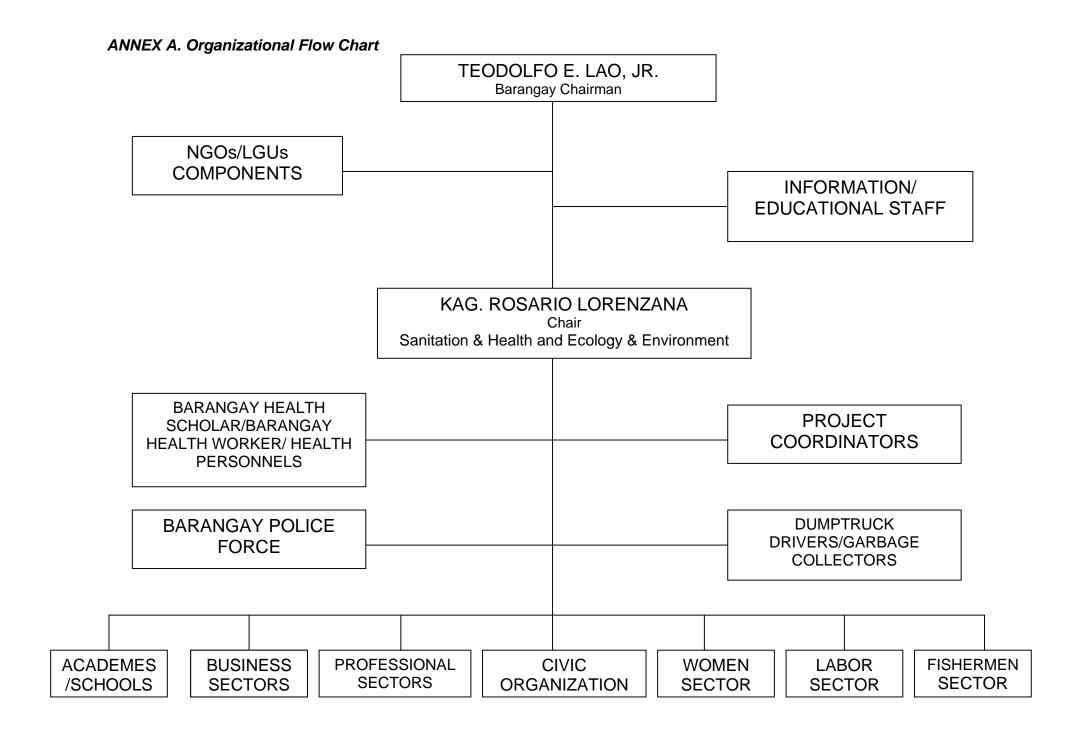
THE ADVOCATES

Strengthening Advocacy. The meticulous advocacy had only expanded to a few households. The barangay contemplated on making its citizens, especially the *renter-residents* to really understand the concept of ISWMP. In turn, segregation would be incorporated in the daily routine.

Plan of Action

ACTIVITY	TARGET CLIENTS/AREAS	DATE OF IMPLEMENTATION
A.Information, Education & Communication Program > Values Formation > Imparting the practical applications of environmentally sound techniques of waste minimization such as resource conservation, segregation at source, recycling, resource recovery including re-use and composting; > Level discussion and description of performance that can be attained by various available solid waste management practices which provide for the protection of public health and the environment;	15,000 Persons All Sitios	January-December '06 Weekdays
B. DATA GATHERING ON WASTE CHARACTERIZATION > Identify the constituent materials on solid waste generation in every sitio: a. Volume b. Percentage in weight or its volumetric equivalent c. Material type d. Source of generation, e.g. comm'l., res'l., etc.	27 Sitios	February-April '06 Weekdays

	T	1
C. Collection and Transfer		
> Establishment of Two (2) Materials Recovery Facilities;	Households, Commercial & Industrial Firms &	
> Attainment of segregation of different types of solid waste for re-use, recycling and composting;	Institutional Establishments All Sitios	January-December '06 Weekdays
> Hauling and transfer of solid waste from source or collection points to processing sites or final disposal;		
D. BARANGAY SOLID WASTE MANAGEMENT COMMITTEE		
 Holding of Regular meetings; Analysis and evaluation of the current state, trends projections of solid waste management in the barangay; Study on feasible tax revenue on garbage collection; Conduct or initiate trainings, seminars & other vital linkages in adopting appropriate technologies on solid waste management; Lobby for the passage of ordinances which are vital for the implementation of the solid waste management; Monitor the solid waste management activities. 	Barangay Kagawad (Chairperson on Environment), SK Chairman, Presidents of Home Owners Association, School Principals or representatives of ECCS & LNHS, PTCA presidents or representatives, business sector, NGO's, President of Market Vendors, President of Vegetable Dealers Association & Junkshop owner	January-December '06 Once a Month



ANNEX C Additional Photographs of the ISWM Activities



Sweeping the Away



The Stakeholders



The Allotment Garden



The Compost



A Clean Street



IEC Drive



United Clean Up



Coastal Dirt Search



Collecting Waste



ISWM Orientation at the Brgy. Hall



Fruit of Labor



Harvesting the Garden

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