



FINAL REPORT

Phase 2 - Utilization of PLANET

3 →

(Package Learning Materials
on Environment 3)
WASTE MANAGEMENT



Bureau of Alternative Learning System
Department of Education
Philippines

FINAL REPORT

Phase 2 - Utilization of PLANET 3 (Package Learning Materials on Environment 3) WASTE MANAGEMENT



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I. INTRODUCTION

The Bureau of Alternative Learning System (BALS), formerly known as Bureau of Nonformal Education (BNFE) of the Department of Education (DepED) is a parallel learning system that provides a viable alternative to the existing formal instruction. It encompasses both the nonformal and informal sources of knowledge and skills.

In line with this, its vision is “*to empower the learners through more responsive quality ALS Program*”; and “*empowerment of the Filipino with desirable knowledge, attitudes, values and skills (KAVS) that will enable him to think critically, and creatively, act innovatively and humanly in improving the quality of his life and that of his family, community and country*” as its mission.

Currently, BALS implements the following major programs:

- ② *Basic Literacy Program* (for illiterates) - a community-based education program for illiterate out-of-school youth and adults to develop basic literacy skills namely: reading, writing and numeracy
- ② *Accreditation and Equivalency Program* (for literates who have not completed ten years of basic education) - a certification of learning for out-of-school youth and adults aged 15 years old and above, who are unable to avail of the formal school system, or who have dropped out of formal elementary or secondary education
- ② *Indigenous Peoples Education Program* - a program that aims to develop an IP culture-sensitive core curriculum, learning materials and assessment tools/instruments.

The target learners of the ALS are the following:

- ② Out-of-school children (OSC);
- ② Out-of-school (OSY) and adults who lack the basic literacy skills;
- ② OSY and adults who are literate but unable to finish basic education; and
- ② OSY and adults with special needs.

To further develop the learning needs of all OSY and adults and provide equitable access to appropriate learning and life skills programs and materials, the Bureau of Alternative Learning System - Department of Education, Philippines collaborated with Asia/Pacific Cultural Centre for UNESCO (ACCU) in the localization and adaptation of third set of Package Learning Materials on Environment or PLANET 3 which focuses on waste management.

Relative to this, the Philippines through its Department of Education implemented the project in two municipalities with three selected barangays each in Regions IVB and VI.

The pilot barangays are as follows:

| | |
|--|---|
| Region IVB Province of Oriental Mindoro Municipality of Naujan | Region VI Province of Iloilo Municipality of Oton |
| Barangays: Poblacion I, Poblacion III Estrella; | Barangays: Buray Poblacion East Poblacion West. |

During the implementation, the ACCU team together with the selected BALS staff and representatives from the Philippine Department of Environment and Natural Resources (DENR) conducted summative evaluation in the pilot sites. They conducted interviews with the different stakeholders, observed facilitators on how they utilize the PLANET 3 materials and gave post “Word Association Survey” to the learners to determine if there is improvement in the level of knowledge after the conduct of the learning sessions.

The monitoring team authenticated the veracity of the claims for PLANET 3 compliance through ocular inspection of the pilot barangays.

II. OBJECTIVES AND EXPECTED OUTCOMES

The undertaking of the project was guided by the following objectives:

- ② Promote public participation on solid waste management through the use of PLANET 3 materials in the target project sites;
- ② Promote proper waste segregation and disposal at the household level;
- ② Set-up community waste recycling system; and
- ② Reduce waste generation in the target project sites.

Based on the abovementioned objectives, the following were the expected project outcomes:

- ② Community participation/involvement on solid waste management through the use of PLANET 3 materials in the target sites strengthened;

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- ② Waste segregation and disposal at the barangay and household level in the target sites improved;
 - ② Effective community waste recycling system in the target sites in place, operational and sustained;
 - ② Material Recovery Facilities (MRF) in target barangays established; and
 - ② ALS Mobile Library containing the PLANET 3 materials set up, operationalized, circulated in the community.

III. BACKGROUND INFORMATION AND CONDITIONS

In the Philippines, Naujan, Oriental Mindoro and Oton, Iloilo are the target municipalities in Regions IVB and VI. Barangays Poblacion I, Poblacion III and Estrella in Naujan and Barangays Buray, Poblacion East and Poblacion West in Oton are the identified pilot sites for the implementation of the project. The following are the profiles of the pilot sites:

Naujan, Oriental Mindoro

② Barangay Poblacion I

Formerly called “Dulongbayan”, Poblacion I was created under P.D. No. 86 series of 1973 with an area of approximately 75.78 hectares. As a barangay, Mrs. Lily M. Ylagan was designated Chairman by the late Mayor Amando Melgar. Chairman Ylagan initiated water system projects, drainage construction and installed wooden-made street names. According to the census conducted by the barangay, there are still few residents in the area as evidenced by presence of many vacant lots and the presence of domesticated large cattle. Later, the people started exodus. Poblacion is an ideal community settlement as various institutions are located in the territory of the barangay namely: Catholic church, town plaza, elementary and secondary private schools.

The establishment of RMCTC, a local telecommunication network, catalyzed the growth of the Poblacion. Soon various institution started among others, a lying-n maternity clinic, a pulmonary clinic, a dental clinic, Xerox machine and other similar establishments. It only proves that commercial activity is alive in Poblacion I. Poblacion I is a quiet, peaceful and orderly barangay and therefore an ideal settlement area.

In 1988, civic organizations were founded like Women’s Club which mobilized the women sector into engaging in various activities geared towards progress. Specifically, the organization promoted sisterhood, cooperation and unity.

Corollary, CARD, a non-government organization also offered providential assistance with the same women sector as beneficiaries.

Population density is maintained in view of the new births and the out-migration of some residents for greener pasture. Economic life is on the average since majority of the residents are gainfully employed, however, there are still inadequate job opportunities.

Poblacion I is located in the eastern part of Naujan. Poblacion I is bounded in the north by barangay San Antonio, south by barangay Santiago, west by barangay Andres Ylagan and east by Barangay Poblacion III.

Most of the people in this barangay are generally literate. They finished elementary, secondary and college levels.

② Barangay Poblacion III

Originally, Poblacion III was only a part of the Poblacion proper. The eastern part of the town proper used to be a swampy mangrove area with few inhabitants as the center is in the central portion. As years passed, the number of residents increased gradually and later almost all of the corners of the town proper were already inhabited, until such time that it became more popular which gave birth to the barangays, namely: Poblacion , Poblacion II and Poblacion III.

When the late Manuel R. Marcos took over the reins of government in 1968, he appointed the late Jose Rodriguez as Chairman of the barangay. Since then, official records of Barangay Poblacion III started.

Poblacion III has an area of approximately 24.9469 hectares and is located adjacent to Poblacion I and Poblacion II. It has seven (7) sitios, namely: Sitio 1, Sitio 2, Sitio 3, Sitio 4, Sitio 5, Sitio 6 and Sitio 7.

Based on the latest survey, most of the residents are literates, ranging from elementary to college level.

② Barangay Estrella

According to reliable data gathered, Estrella once used to be characterized with big trees and heavy forest where birds conveniently live. The coastlines are clean including the small creek that traverse the barangay. The Bulwagan River is as blue as the sky. The first families who came to Estrella were that of Luis Mortel, Ramon Mortel and Gregorio Manalo. Like any other fishermen they use the hook and line for their livelihood and later they use small fishing nets. Soon people's

exodus started. Everyone clean a portion of the area and later claim ownership of it in as much as there are still few residents and the territory is still available.

Estrella was named after Martin Estrella, a foreigner. It was Sotero Orlina who became the first known leader and was called “Teniente del Bario”. He was an example of the true spirit of the leader of the barangay extending help and/or assistance physically and financially. As time goes by, people started to cut trees for their shelter needs and for agriculture purposes. Hence, the once forested area was cleaned and a young settlement was established.

Later, a public elementary school was opened and named Estrella Elementary School (now Leon Garong Memorial School). An access road was constructed connecting to the provincial road and now, another access road (by the seashore) connecting the neighboring barangay Sta. Cruz.

At present, Estrella is still considered one of the depressed barangays being a coastal barangay. But their leaders are strongly and enthusiastically doing everything to improve their lot. During the Marcos era, a big Human Settlement building was constructed but with the change of administration, the building and the office was abolished.

Estrella is located adjacent to Tablas Street and in the Southern part of Naujan. The coastline is separated from a neighboring Barangay of San Antonio by Bulwagan River extending up to Poblacion II and Poblacion III. Gong North, the neighboring barangay is Sta. Cruz. Estrella has seven (7) Sitios and has an area of approximately 500 hectares.

Generally, the people in the barangay are literate, 424 out of 1,944 are uneducated.

Environmental Management

In Naujan, the actual situations of waste management are the following:

- ② Solid waste remains a municipal concern.
- ② Garbage collection is done daily in the public market and twice a week (Tuesdays and Thursdays) in Poblacion I, II and III.
- ② Collected garbage is dumped and burned in a half-hectare site in barangay Andres Ylagan.
- ② Burning of domestic garbage causes air pollution and could pose respiratory health problems to residents downwind from the site.
- ② Burning of plastic (polyethylene-based) materials could produce and emit hazardous substances called “dioxins” in the atmosphere.

Oton, Iloilo**2 Barangay Buray**

Barangay Buray is one of the barangays in the Municipality of Oton with a biggest population due to existence of five subdivisions in its political territory. It is also the biggest garbage generator. The barangay generated about twenty-eight (28) cu.m. of garbage weekly. The Municipal Government of Oton scheduled the garbage truck to collect their garbage twice a week, Tuesday and Friday. Unlike other barangays being catered by the garbage truck, Brgy. Buray has two (2) days schedule in a week. Residents in the subdivisions are not practicing composting due to a limited open space in their property and the houses are too close with each other that make it impossible for them to practice composting.

Brgy. Buray Officials shall introduce solid waste management program to their residents. Funding must be allocated for the establishment of their Barangay Materials Recovery Facility. Recycling and waste minimization must be practiced by the resident especially those living in the subdivisions.

2 Barangay Poblacion East

Brgy. Poblacion East is one of the barangays out of four (4) barangays situated in the Poblacion in the Municipality of Oton. It is also, one of the barangays with the biggest population and considered as one of the biggest garbage generator in Oton. The Municipal Government of Oton did not schedule the garbage truck in Brgy. Poblacion East because it is in this barangay, that Municipal MRF is situated. The usual practice of the residents is to bring their garbage to the MRF every morning. The garbage were not segregated, the eco-aides in the MRF are the one doing the segregation. Other barangays being catered by the garbage truck, are mandated to practice the waste segregation, but for Brgy. Poblacion East, the Municipal Government of Oton cannot monitor their garbage whether it is segregated or not, because residents are the ones dropping their waste in the MRF. Several IEC on waste management were already conducted in this barangay. They were required also to conduct regular coastal clean-up. Even with the presence of the Municipal MRF in this barangay, the LCE required them to put up their own Barangay MRF.

2 Barangay Poblacion West

Brgy. Poblacion West is one of the barangays in the Municipality of Oton with a biggest population because it is purely a residential area. It is also one of the biggest garbage generator. It generated about twelve (12) cu.m. of garbage weekly. The Municipal Government of Oton scheduled the garbage truck to collect their garbage once a week, every Monday. Development of Residential subdivision is ongoing in this barangay. Soon, it will again be an additional burden to the municipal government in terms of garbage collection. Increase in number of households will be an increase in garbage. The SWM Board of Oton already practicing waste segregation but very few are practicing the composting maybe due to limited open space in their property and maybe others are just too lazy to bother doing the composting or waste minimization. No MRF established in this barangay because of no lot is available for this purpose, a residential area.

Below are the details of waste management in Oton.

| Existing Volume of Solid Waste Generations by Source | |
|---|---|
| <u>Area of Collection</u> | <u>Estimated Weekly Volume (cu. m.)</u> |
| Poblacion West | 12 |
| Barangay Cagbang | |
| Sto. Nino Subd. | 12 |
| Brgy Proper | 4 |
| Brgy Buray | |
| Florvel Homes I | 16 |
| Florvel Homes II | 4 |
| UP Village | 4 |
| Sta. Filomena Subd. | 4 |
| Poblacion South | 12 |
| Poblacion North | 4 |
| Brgy San Nicolas | 4 |
| Brgy San Antonio | 4 |
| Brgy Trapiche | 4 |
| Oton Public Market | <u>28</u> |
| Total | 112 |

Solid Waste characterization by Type and by Source

| <u>Type</u> | <u>Source</u> | <u>Volume</u> | <u>% Total</u> | |
|--------------------------------|---------------|---------------|-----------------|-------|
| Total Garbage (Market Day) | Market | 555kgs. | 100% | |
| Compostable (Biodegradable) | -do- | 504 kgs. | 91% | |
| Non-recyclable | -do- | 50 kgs. | 7% | |
| Recyclable | -do- | 1 kg. | 2% (negligible) | |
| Total Garbage (Non-Market Day) | Market | 251 kgs. | 100% | |
| Compostable (Biodegradable) | -do- | 47 kgs. | 20% | |
| Non-recyclable | -do- | 182 kgs. | 78% | |
| Recyclable | -do- | 2 kgs. | 2% (negligible) | Total |
| Garbage | Res'l | 84 cu.m. | 100% | |
| Compostable (Biodegradable) | -do- | 72 cu.m. | 8 | |
| Non-recyclable | -do- | 11 cu.m. | 14% | |
| Recyclable | -do- | 1 cu.m. | 1% (negligible) | |

Existing methods of collection and disposal – being picked-up by garbage truck

Existing waste disposal facilities – None (a dumpsite of a nearby-city is being used temporarily)

Existing equipment used in garbage collection and disposal – 2 units garbage truck

Existing number of office personnel involved in Solid Waste Management

(SWM) – 2 garbage truck drivers, market laborers for market garbage

Garbage fees collected – Average of Php 47,800.00 annually

Note: Only commercial establishments are charged of garbage fee

Existing ordinance related to garbage collection – Ordinance No. 2001-89:

“The Comprehensive Solid Waste Ordinance of the Municipality of Oton”

Educational areas and levels

Each pilot site was composed of ten learners. In Oton town, barangay officials participated as learners instead of their constituents because they believe that they could disseminate the project information and benefits and the activities regarding waste management. A total of 60 learners from the two municipalities participated actively during learning sessions.

Constraints

The learners are expected to perform the tasks reflected in their barangay action plan without funds, e.g., establishments of MRF, sack hangers, composting, community garden. However, the learners found it difficult to convince the community members on the proper implementation of waste management which resulted to the pilot barangays’ inability to comply with the provisions stated in their barangay action plan.

IV. INPUTS OF RESOURCES

The inputs in forms of materials, human, financial and technical resources are important factors in the successful implementation of any project like the utilization of PLANET 3 learning materials.

A. Materials utilized

All the PLANET 3 learning materials were utilized during the pilot sites implementation. The following were the number of copies produced and distributed to the ALS implementers in the field.

- ② 800 copies each of the poster, booklets and facilitator’s guide printed and distributed to 600 ALS Mobile Teachers, 17 Regional Offices, pilot sites in Naujan, Oriental Mindoro and Oton, Iloilo and the DENR
- ② 160 VHS tapes of the video produced and distributed to the ALS Mobile Teachers
- ② CD form of the video because VHS player is not commonly used in some parts of the country anymore
- ② 600 CDs burned and distributed to ALS Mobile Teachers, District ALS Coordinators and facilitators

| Distribution List | | | | |
|--------------------------|--------------------------------|-----------------------------|---|----------------------|
| Region | # of set for the Region | # of Mobile Teachers | # of set for the Mobile Teachers | Total of Sets |
| I | 1 | 30 | 30 | 31 |
| II | 1 | 22 | 22 | 23 |
| III | 1 | 48 | 48 | 49 |
| IVA | 1 | 49 | 49 | 50 |
| IVB | 1 | 32 | 32 | 33 |
| V | 1 | 56 | 56 | 57 |
| VI | 1 | 48 | 48 | 49 |
| VII | 1 | 40 | 40 | 41 |
| VIII | 1 | 46 | 46 | 47 |
| IX | 1 | 22 | 22 | 23 |
| X | 1 | 35 | 35 | 36 |
| XI | 1 | 27 | 27 | 28 |
| XII | 1 | 30 | 30 | 31 |
| CARAGA | 1 | 29 | 29 | 30 |
| CAR | 1 | 28 | 28 | 29 |
| NCR | 1 | 26 | 26 | 27 |
| ARMM | 1 | 32 | 32 | 33 |
| BALS | 183 | | | 183 |
| Total | 200 | 600 | 600 | 800 |

B. Human Resources

To have clear understanding in the concept of PLANET 3 and its utilization, an orientation-training was conducted and participated in by the following:

- ② DENR Representative: Engr. Ma. Socorro A. Abu served as the resource speaker during the orientation in both municipalities. She was one of the Philippine representatives in India during the preparation of PLANET 3 materials sponsored by ACCU.
- ② Facilitators: In Naujan, two (2) ALS Mobile Teachers from other municipalities and two (2) School ALS Coordinators and the District ALS Coordinator in Oton volunteered to become the facilitators. They are formal school teachers who handled ALS learning sessions outside their official time.
- ② Trainers: BALS staff served as the trainers during the Training of Facilitators on the Utilization of PLANET 3 materials.
- ② Local DepED Officials: The Schools Division Superintendent, the Assistant Schools Division Superintendent, the ALS Education Supervisor II, ALS Education Supervisor I, District Supervisor, and the School Principal participated actively during the orientation and monitoring visit of the ACCU team.
- ② Local Government Units (LGU): In Naujan, the Mayor himself participated actively on the implementation of the project. He assigned a permanent representative to the sessions aside from the on-and-off participation of the solid waste management board members and monitoring team to ensure that the project was really working. He was deeply involved in the realization of the Republic Act 9003 of 2000 known as the Philippine Ecological Solid Waste Management (ESWM), which states in Section 3 that “every barangay must establish their own Material Recovery Facilities (MRF) that will follow the 3Rs (reuse, reduce, recycle).
- ② In Oton, one of the councilors attended the orientation on behalf of the Mayor who was out of the country at that time together with Municipal Planning Development Officer (MPDO) in charged of the solid waste management in the municipality.

C. Financial Resources

Considering the limited funds for the project, there was no financial assistance given to the pilot sites to implement the project. They were only provided with

PLANET 3 materials and needed supplies for the learners and facilitators such as notebooks, pencils/ball pens, pentel pens, brown paper, masking tapes, envelopes, and other supplies for their learning sessions.

To augment the limited budget, however, the BALS shouldered the expenses for meals of the 70 participants from the five (5) barangays in Naujan and 90 from the six (6) barangays in Oton during the orientation and for training of facilitators.

Extra-duty allowances of P5,000.00 each and a certificate of appreciation were provided to the facilitators; the same amount was provided to the DENR representative who served as the resource speaker; P2,000.00 for the Regional Representative, Schools Division Superintendent, and Assistant School Division Superintendent; P1,000.00 for the Division ALS Supervisors, District Supervisor, School Principal, the staff of other agencies involved in the implementation of the project in the target areas.

Furthermore, the Mayor of Naujan, Hon. Norberto “Bert” Mendoza, provided two streamers that were used in Naujan and Oton during the orientation and training workshop. He also provided meals during the monitoring of the ACCU team.

D. Technical Resources

The venues including facilities such as lightings and sounds, computer set, television set, VCD player, OHP, and other equipment were provided free of charge by the Municipal Mayor of Naujan and the officials of Oton Central Elementary School during the orientation, training and actual conduct of learning sessions.

V. IMPLEMENTATION

A. Implementation structure of the project

The implementation of the second phase of the project that was focused on the utilization of the adapted and localized materials (PLANET 3) took place in three stages. Annex A shows the Flow Chart of Project Activities.

B. Brief description of the stages of project development over time

The flow of activities under Phase 2 - Utilization of PLANET was broken down into three phases.

1. Pre-Implementation

The BALS initially prepared the baseline data in coordination with the two Philippine representatives from the Department of Environment and Natural Resources (DENR) who were involved in the development of the PLANET 3 prototype materials in India that was sponsored by ACCU. They were requested to identify the pilot sites in the municipality of Naujan in Oriental Mindoro and in Oton, Iloilo where they are from.

Orientation-training was conducted for the Barangay officials of the target sites as well as two (2) more barangays in Naujan, Oriental Mindoro and three (3) more in Oton, Iloilo separately. A total of 70 in Naujan and 90 in Oton participated in the said orientations. The orientation meetings were also participated in by the Department of Education field officials such as the Assistant Schools Division Superintendent, Division Alternative Learning System (ALS) Supervisors, District Supervisors, Principals, District ALS Coordinators, ALS Mobile Teachers, Schools ALS Coordinators and others. Officials from the Local Government Units also showed support in the meetings. The Mayor of Naujan came while the Councilor with the Municipal Planning Development Council (MPDC) in Oton graced the activities.

The highlights of the orientation-training in the two municipalities were as follows:

- ② Dr. Edel B. Carag, Senior Program Specialist of the Literacy Division, BALS presented the statement of purpose so that the participants would understand why they were attending the orientation. She also discussed the guidelines on conducting the evaluation and final report preparation.
- ② Ms. Carmelita S. Coronado, Education Program Specialist II of the Literacy Division, BALS and the anchorperson of the project, gave the overview about the Package Learning Materials on Environment (PLANET) 3. She presented the objectives and summary of each

learning material such as the video, poster, booklet and the facilitator's guide.

- ② Engineer Ma. Socorro A. Abu, Regional Coordinator, Environmental Management Bureau of the Department of Environment and Natural Resources (DENR), Region IVB-MIMAROPA, who was the Resource Speaker during the orientation, discussed fully the Republic Act 9003 which is the legal basis relative to solid waste management. She presented the said act which is also known as the Philippine Ecological Solid Waste Management (ESWM). In her discussion, she stressed section 3 of the Act which states that “*every barangay must establish its own Material Recovery Facilities (MRF)*” which will follow for the implementation of the “3Rs” or the “reuse, reduce and recycle” strategy in solid waste management. The implementation of solid waste management program requires the four parameters of ESWM, to wit:
 - Segregation at source
 - Segregated collection
 - Composting facilities
 - Establishment of MRF
- ② As the major output in the orientation, an action plan was prepared by each barangay representatives. The plan focused on ways how to realize and fully implement the Republic Act on solid waste management. Copies of the action plans are attached as Appendix B.
- ② Scheduling of the learning sessions was also discussed and agreed upon between the facilitators and learners.
- ② During the training, the trainers integrated the different strategies/approaches on life skills to make the learning sessions participatory.
- ② After the training, copies of the PLANET 3 learning materials and the needed supplies and materials of learners and facilitators for the learning sessions were distributed to the barangay officials and ALS coordinators.
- ② The project team composed of the BALS and the DENR visited the target pilot barangays in order for them to meet the people in the community and observe the situations where the learning intervention will take place.

2. Implementation

In Naujan

Learning sessions were conducted in a gymnasium during Thursdays for seven weeks as agreed upon between the facilitators and the learners. The use of the gymnasium as the learning center was made possible through the generosity of the town mayor of Naujan. The learners from the three barangays assembled themselves for the learning sessions and the facilitators took turns in facilitating using the PLANET 3 materials. The PLANET 3 materials were utilized as supplementary to the Basic Literacy Learning Materials (BLLM). For example, the module, “*May Tungkulin Ako sa Kapaligiran*” (I have a role to play for my environment) could be best enriched by the PLANET 3 materials in order for the learners to fully understand their roles and put them into action.

The municipal mayor assigned a permanent representative to monitor the conduct of the learning sessions. This is in addition to the participation of the solid waste management board members of the municipality. Although the session was conducted once a week only, the other days of the week were spent by the learners actively applying the knowledge they gained from the learning sessions.

A major output expected in the action plan of the municipality is the establishment of a Materials Recovery Facilities or MRF which would support the objective of the Republic Act on waste management.

The learners were also encouraged to work on small projects in groups or teams to promote the 3Rs. Communal gardens were built with the help of the barangay officials where the learners were able to showcase the “reuse, reduce and recycle” scheme. The technology of composting was introduced to produce organic fertilizer for the learners’ vegetable garden.

Recycling was also practiced. Learners made lanterns out of empty plastic bottles and old tires. The lanterns were hanged and displayed on every post of the barangay ready for the Christmas season. Some old tires were also made into flower and plant pots. Meanwhile, hard plastic wares were cut into halves and used as plant pots in the communal gardens.

To practice waste segregation, sack hangers were provided by the municipal office. Separate container was designated for each type of waste. To continuously advocate the effort on solid waste management, street slogans were displayed to remind the community of what they are supposed to do with their waste and surroundings. A very common slogan

displayed in the community was in Filipino that reads: “*Tapat Ko Linis Ko*” which literally means “I am responsible in cleaning the area in front of my house or property.” This pertains to public or common areas and avenues where no private owners claim responsibility of keeping clean and safe. The slogan encourages a member of the community to take the initiative to tidy-up whatever unclaimed area is near or in front of his/her property.

In Oton

Learning sessions were conducted here in different schedules at the learners’ respective barangay meeting hall. Some facilitators conducted their learning sessions during the whole day of Saturdays and Sundays. Similarly, they started establishing MRF but it was not made fully operational as of this reporting. Waste segregation drums were made available but not labeled properly yet. Sack hangers for every barangay were put in place but were not maximized.

Despite these, there was a significant and observed change in the cleanliness of the barangay premises as compared to the times prior the introduction of PLANET 3 materials though the learning interventions in the target areas.

3. Post Implementation

During the monitoring by the ACCU team in Naujan, they observed actual learning session using the PLANET 3 materials conducted by the ALS Mobile Teacher, Cyril Evora. Based on the impressive comment of the ACCU team, each barangay was asked to write down and read their statement of commitment or covenant to sustain the PLANET 3 project.

Similarly, the facilitators conducted actual learning session on how the materials, posters and booklets were used during the learning sessions in Oton. It was more of a facilitator-driven activity rather that participatory.

The ACCU team went around the target sites, barangay halls and the community for an ocular visit.

C. *Partner agencies, major stakeholders and their functions*

The project was made possible through strong collaboration with other government and people's organizations. The following agencies played very important roles in the implementation of the PLANET 3 in the Philippines.

- ② The Department of Education (DepEd) local or field officials served as overseers and monitors in the day-to-day implementation of the project
- ② The Department of Environment and Natural Resources (DENR) served as DepEd's partner particularly in the conduct of training workshops on the utilization of PLANET 3 materials. Particularly, DENR introduced the establishment of the Materials Recovery Facility or MRF and its implementation in all the target areas/communities in the two project municipalities.
- ② The Local Government Units (LGUs). Aside from close monitoring of the project implementation, the LGUs were instrumental in the provision of various financial and technical resources to the project such as the learning session venues, supplies and materials, and other small and incidental expenses. Some barangay officials even volunteered to sit as learners in some of the learning sessions.
- ② The Department of Interior and Local Government (DILG). In addition to their monitoring role, the DILG took the lead in facilitating the establishment of the MRF and the communal gardens in the target communities.

D. Time-scale, phases, locations, methods

- ② Naujan – learning sessions were conducted at ABC Hall every Thursday morning for 7 weeks from October 7 – November 18, 2005
- ② Oton – learning sessions were conducted in their respective barangay hall the whole day of Saturdays or Sundays from November 6-27, 2005

VI. EVALUATION

A. Project Management

- ② Effectiveness and efficiency

The kind of management manifested by the Department of Education and other partner agencies at all levels (national, regional, division, district) to set-up and implement the project has been tremendous. Although it is a fact that there were minor lapses in some areas of the project implementation, it can be concluded that the project was handled and implemented very well.

② Relevance of the plan

The action plans laid out by the target barangays in the two project municipalities for the PLANET 3 provided substantial back-up to put into practice what is being advocated by the localized and adapted supplementary materials. The introduction of PLANET 3 materials to the target sites was timely considering that the community at that time was starting to implement waste management program.

Although some of the timetables in the plans were not realistic, the plan of Naujan town included specific output indicators. Everyone had a role to play in the action plan; and monitoring was made a separate component that was conducted by the local government officials themselves. The desire for values formation was a key aspect that was included in the plan and is worth the commendation.

- introduction of PLANET 3 materials to the target sites is timely considering that the community is starting to implement waste management
- PLANET 3 materials were found very useful for the campaign of RA 9003 (establishment of MRF) and the need to implement the project realized

On the other hand, the Oton action plan was more comprehensive because they included plans for the conduct of actual learning sessions. Community needs assessment was a very good aspect of the action plan of Oton.

② Sustainability of the project and its social impact

There is a big chance to sustain the project in the two project municipalities based on the shown performance and commitment of the stakeholders. The local government unit leaders in Naujan pledged to

expand and replicate the project in all other barangays in the town including communities where the indigenous people dwell.

There was an expressed intention to continue and improve the Materials Recovery Facility (MRF) and promote use of sack hangers in order to maintain cleanliness of the environment. Furthermore, the local government officials intend to use the PLANET 3 materials in their community campaigns on waste management, e.g. YES (Youth for Environment in School) campaign.

With this strong support from the local government units, the use of PLANET 3 supplementary materials may be extended to the formal school system; and even reach other towns in the province of Oriental Mindoro.

The implementation of the PLANET 3 project has fostered unity, cooperation and camaraderie among the people in the respective communities and among the local government unit officials. The partnership between and among the DepEd and other involved agencies and organizations was also improved.

Considering the immediate impact of the project which was the improved status of the community in terms of cleanliness and orderliness, the residents of the respective barangays were likewise influenced to do better to keep their surrounding clean and safe for them and their own families.

② Involvement of communities and degree of satisfaction of the beneficiaries

Community members, especially in Naujan, were excited about and were motivated to participate in waste segregation using the Materials Recovery Facility introduced through the project. Team spirit was alive and manifested by the residents in the communities.

General feedback about the project implementation included high level of satisfaction on the part of the learners and those agencies who were involved in the project. Particularly, barangay officials were very happy to help their constituents to manage solid waste in their areas of assignment. Manifestations of this involvement and degree of satisfaction included the following:

- community members gave importance to the 3Rs (reduce, reuse and recycle)

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- community garden with composting was started wherein the barangay officials and community members worked as a team
 - simple project (using the materials) that helped solve community problems e.g. health and sanitation; waste segregation; income generation
 - Barangay Officials are happy helping their constituents on waste management

② Dialogue with stakeholders

Sufficient dialogues and discussions with the stakeholders was one of the features of the project implementation that led to its success. Other efforts were:

- interviewed the learners, Barangay officials, facilitators, mayors, DENR representatives, BALS staff
- observed learning sessions on how the facilitators use the PLANET 3 materials
- ocular visits to the pilot sites

② Analysis of process documentation

- wrote the responses of the respondents during interviews
- consolidated the reports submitted by the implementers from the pilot sites
- categorized the reports based on the guidelines provided by ACCU
- prepared the final report for submission to ACCU

② Internal Evaluation by implementing agencies

- In Naujan, the first monitoring activity of the Municipal Project Monitoring Team on October 21, 2005 revealed that the pilot barangays did not religiously comply with the provisions stated in their action plan due to lack of cooperation among the members of the community. Based on the result of the monitoring, the Municipal Project Monitoring Committee that is composed of the Municipal Planning and Development Coordinator, the local Government Operations Officer IV, the permanent representative of the Mayor and the ALS Coordinator, enjoined the barangay leaders to comply with their plan.
- Aside from the team visit, Ms. Lolit Padrilan did her personal visit to the pilot barangays to ensure that all stakeholders are doing their share of the program.

- Then, another monitoring committee composed of the LGOO IV, MPDC staff, District ALS Coordinator and the representative from the Department of Interior and Local Government (DILG) monitored the project
- Although the BALS was not able to conduct monitoring during the implementation of the project because of overlapping of activities in the bureau and lack of funds to do so it was done through telephone calls and text messages by the anchor person.

② Participatory evaluation with ACCU, partner organizations, stakeholders and the target learners

- During the visit of ACCU team in the Philippines from December 12-17, 2005 to monitor and evaluate the implementation of the project, they interviewed the different stakeholders, observed the learning sessions and went around the pilot sites. The monitoring team aside from the ACCU is composed of the BALS staff, DENR representatives, ES II, ASDS, ES I, District Supervisor, District ALS Coordinators, representatives from LGU and other agencies.
- The team found out that the project implemented properly in the sense that there's a lot of improvement in the community particularly on solid waste management.

B. *Delivery Mechanism*

② Process of material dissemination

The sets of adapted and localized PLANET 3 materials were delivered directly to the facilitators during the orientation-training organized by BALS and its partner agency, DENR for the project stakeholders a month before the conduct of learning session.

Each facilitator was given ten booklets (which are enough for their learners in the target sites), a video, at least five posters to be posted in their community hall and a facilitator's guide.

Meanwhile, copies of the materials were also provided to the 600 mobile teachers nationwide during their annual training-workshop organized by BALS in 2005.

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- ② Functions of communication channels such as individuals, organizations, mass media, inter-personal relationship, inter-institutional relationship, etc.

The implementers had coordinated with the media to surely include the rural areas in the project. The Department of Education through the BALS had also showed great concern in the success of the program through the integration of waste management in every learning areas.

- ② Training environment and opportunities (Facilitators' training, etc.)

A 2_-day live-out training workshop for the facilitators was conducted by Dr. Edel B. Carag and Ms. Carmelita S. Coronado, BALS staff in Bahay Tuklasan, Naujan and Oton Central Elementary School, Oton. The focus of the training was on the utilization and familiarization of the PLANET 3 materials. Below is the schedule on the training of facilitators:

Training Workshop on Phase 2 – Utilization of PLANET 3
Naujan, Oriental Mindoro and Oton, Iloilo

| <i>Time</i> | <i>Day 01</i> | <i>Day 02</i> |
|-------------|--|--|
| 8:00-8:30 | Opening Program | Energizer/Recap |
| 8:30-10:00 | Presentation of PLANET 3 materials: <ul style="list-style-type: none"> ② Video ② Booklet ② Poster ② Facilitator's Guide | Workshop 4: <ul style="list-style-type: none"> ② Action Planning ② Points to be considered for evaluation |
| 10:00-10:15 | Snacks | |
| 10:15-12:00 | Workshop 1: <ul style="list-style-type: none"> ② Video viewing ② Using the FG ② Demonstration | Continuation of Workshop 4 Presentation of Outputs |
| 12:00-1:30 | Lunch | |
| 1:30-3:00 | Workshop 2: <ul style="list-style-type: none"> ② Walking through the booklet ② Using the FG ② Demonstration | Closing Program |
| 3:00-3:15 | Snacks | |
| 3:15-5:00 | Workshop 3: <ul style="list-style-type: none"> ② Walking through the poster ② Using the FG ② Demonstration | Home Sweet Home |

② Actual utilization of the local version of PLANET 3

Posters were posted not only in the barangay hall but as well as the established MRF in the pilot barangays, booklets are displayed in the hall for others to read while waiting for their transactions and the video was being viewed by the people who has the player sharing to other members of the community.

② Constrains and lessons learnt

- There was no financial assistance provided by the DepED-BALS except for the supplies and materials needed in the conduct of learning sessions.
- Lukewarm attitude of the members of the community to participate in the project.
- The problem on waste management will be lessen and gradually resolve through the joint efforts of the LGUs, NGOs, other GOs and most especially through the people in the community.

1.) Methodologies (HOW)

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- ② Semi-structured interview to the communication channels
 - Survey/interview of Barangay Officials and health workers
 - Recruitment of clientele
 - Linkages with the agencies involved

 - ② Observation
 - Ocular visit to the improvement of the target barangays

 - ② Analysis of process documentation on material delivery
 - writing the responses of the respondents during interviews
 - consolidate the reports submitted by the implementers from the pilot sites
 - prepare the report for submission to BALS

 - ② Analysis of teaching logs and educational guidelines
 - Familiarize the facilitator's guide and the PLANET 3 materials
 - Try-out the materials following the suggested activities from the facilitator's guide
 - Apply life skills strategies/approaches for a more participatory activities
 - Conduct learning sessions using the different teaching techniques
 - Evaluate learners' gain

 - ② Analysis of educational programmes
 - Conduct community survey or community needs assessment
 - Categorize and prioritize the needs or problems of the community
 - Prepare baseline data collection
 - Prepare learning materials to address the needs of the community
 - Prepare training design for training of facilitators
 - Conduct orientation and training on the utilization of materials
 - Implementation of the project
 - Monitoring and evaluation of the on-going project in the pilot sites
 - Summative evaluation
 - Replication and expansion to other sites

2.) Evaluation Types

- ② Internal Evaluation by implementing agencies

Monitoring was not conducted during the implementation of the project by the BALS staff because of overlapping of schedules. It was only conducted during the visit of Dr. SATO Masahisa, Senior Program Specialist and Ms. ZAHA Tamami, Education Specialist of Asia/Pacific Cultural Centre for UNESCO (ACCU). They visited the pilot sites in Naujan and Oton for six days.

- ② Participatory evaluation with ACCU, partner organizations, stakeholders and the target learners

In Naujan, one of the facilitators demonstrated the actual utilization of PLANET 3 materials particularly the poster during the ACCU team visits. It was participatory in nature because the facilitators used the life skills approaches and strategies in their sessions. Ocular visits followed to observe the improvement of the barangay. The posters were hanged in the MRF established by the barangay; cleanliness was observed in all the barangays and the most important was the closeness and cooperation between and among the members were manifested in their outputs.

In Oton, the three (3) facilitators conducted learning sessions using the poster and booklet. It was focused more on the facilitator's activities using their own language as the medium of instruction. Word Association Survey was given to the learners, however, responses showed that the learners have the same words written on the paper. Similarly, ocular visits followed.

C. *Impact to the learners*

- 1.) Points to be evaluated (WHAT)

- ② Learner's knowledge, skills, attitude/behaviors, values

At first, the learners who were the barangay leaders did not religiously comply with their barangay action plan because the community was not cooperative. It seemed that the learners found it difficult to convince the community to accept the project. However, upon knowing the importance of the project, they worked hand-in-hand for the success of their activities.

② Learning environment and opportunities

The utilization of the PLANET 3 materials in the learning sessions conducted gave the barangay officials a chance to enhance their efforts in the implementation of the RA 9003.

② Impacts in terms of social, cultural, environmental aspects

There are lots of innovative approaches to consider for the success of the project. The most important to consider was the people not only the barangay officials became closer to work as one for the improvement of their own community. They realized the importance of the project so that each pilot sites enjoined to write a commitment to sustain the project, e.g., they will continue the cleanliness of the barangay after the project ends; they will try to segregate the waste properly; they will try to disseminate to their constituents what they had learned from the PLANET 3 materials.

2.) Methodologies (HOW)

② Word Association Survey

The monitoring team asked the learners to give five (5) words which they could think of regarding waste management. Below are sample responses on “Word Association Survey”.

| <i>(Pre) Waste Management</i> | <i>(Post) Waste Management</i> |
|-------------------------------|--------------------------------|
| 1. odorous | 1. segregation |
| 2. smoke | 2. recycle |
| 3. waste | 3. cleanliness |
| 4. dig/hole | 4. composting |
| 5. hard to do | 5. money |

| | |
|----------------------|---------------------|
| 6. biodegradable | 6. prevent sickness |
| 7. non-biodegradable | 7. unity |
| 8. diseases | 8. MRF |
| 9. poisonous | 9. cooperation |
| 10. headache | 10. orderliness |

The table shows that before the utilization of PLANET 3 materials, some of the learners wrote of negative words associated with “waste management”. After the implementation of the project and utilizing the PLANET 3 materials, there was a cognitive change among the learners. They could think more appropriate, relevant and positive words regarding waste management. Please see other samples in Appendix C.

- ② Semi-structured Interview to the learners, observation and focus group discussion

During the ocular visits to the pilot barangays, interviews were conducted to the learners on how they started to put up a community garden and how they established the MRF and sack hangers. They proudly informed that the vacant/idle lots they produced as community garden were owned by the relatives of their colleagues. Further, they stressed that some of the materials needed for the MRF and sack hangers were provided by the LGU.

3.) Evaluation Types

- ② Evaluation with facilitators

Interviews, observation of learning sessions and ocular visits to the sites were conducted to evaluate the facilitators as initiator of the project which focus on waste management.

The learners were also asked to give comments/feedbacks about their respective facilitators. According to them, the learning sessions conducted using the materials made them realized the importance of waste management.

VII. LESSONS LEARNT AND FUTURE WORK PLAN

In general, the conduct and implementation of the project was successful. However, there were circumstances that should have been done better for improved performance. Although the level of success of the implementation was influenced

by decisions made by DepEd as lead project proponent, some areas of the implementation can still be further improved.

Among the insights and learning that the team learned from the project included the following:

- ❖ **Decision on selection of target sites** – The decision as to which region, municipality and barangays should receive the pilot implementation of the project was left with the Department of Environment and Natural Resources (DENR) officials in consideration of their prior involvement in the preparation of the PLANET 3 materials with ACCU and other country representatives. This freedom of choice, at some extent, had unpromising effect to the implementation of the project since DepEd (the lead project proponent) did not have the chance to lay down its own selection criteria. Important considerations for optimum gain from the project such as geographical location, availability of ALS mobile teachers in the area, active ALS implementation, strong support from the local government officials were not considered anymore.
- ❖ **Involvement of both DepED and DENR in all stages of the project** – Only the DENR was involved in the preparation of PLANET 3 prototype materials. Meanwhile, DepEd took the lead in the adaptation and localization. It could have been more beneficial if DepEd had been involved in the first stage which was the material preparation. In this case, DepEd would have the necessary background on how the materials were prepared and other considerations which would serve as helpful benchmark in the adaptation and localization effort.
- ❖ **ALS Mobile Teachers as facilitators** – In Naujan town, mobile teachers were tapped to serve as facilitators in the conduct of learning sessions using the PLANET 3 learning materials. Meanwhile in Oton, new facilitators were recruited to handle the conduct of learning sessions because mobile teachers in the town are assigned in areas that are far from the selected project sites. Comparing the experiences in both towns, it was observed that the mobile teachers fit better in the role as facilitators considering their experiences in the alternative learning system particularly in the integration of life skills.
- ❖ **Advocacy for ACCU** – ACCU should be introduced to the field thoroughly for them to understand the nature of the organization’s functions and support limitations, thus, avoiding the misconception that ACCU is a project funding agency.

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- ❖ **Project extension/expansion to formal schools** – Considering the influence of children and their significance as members of the family and the community, there is a need to involve them in the intervention (e.g. segregation and collection of waste) to further the impact of the PLANET 3 learning materials. Therefore, it may be necessary to introduce the learning materials in the formal schools.

The Schools Division Superintendent of Oriental Mindoro expressed willingness to expand the PLANET 3 materials in the formal schools in her division provided that BALS provides the materials to them. Also, the PLANET 3 materials are being planned to be used in campaign efforts of the local government for other environment-cause movements and activities such as the Youth for Environment campaign in the formal schools.

In Naujan town, a replication of the project is set in the barangays not covered by the pilot implementation, particularly among indigenous communities. The mobile teacher deployed in the area will be tapped to serve as facilitator.

- ❖ **Frequency of project monitoring** - Monitoring of the project should be conducted regularly and not only once to provide immediate feedback and technical assistance, thus, ensuring the effective use of the materials.
- ❖ **Recognition and reward system** – In similar initiatives in the future, it may be more encouraging for stakeholders if DepEd provides incentives and awards to deserving implementers as a form of recognition for outstanding efforts and outputs.

VIII. CONCLUSION

The introduction of the PLANET 3 materials of ACCU is a very timely intervention considering the current problem of the Philippine government in terms of solid waste management in many parts of the country.

Although not a big-scale initiative compared to other national programs of the national government on waste management, the project has assisted the nation's efforts to fully implement RA 9003, particularly in the selected PLANET 3 project municipalities.

However, at this point in time, allow us also to share some development insights which if considered favorably will certainly redound to the best interest of our people or any target community.

First, there must a period of extensive ground working activities to prepare the people to accept the program. We believe that in general, people are reluctant to change and therefore ample social preparations is a must.

There are lots of innovative approaches to consider for these success stories.



APPENDICES

01/28/2005

PHASE 2 – UTILIZATION OF PLANET 3

Flow Chart of Project Activities

I. Pre-Implementation

- A. Overall Project Designing and Preparation
BALS Task Force Preparation
1. Preparation of Baseline Data Collection
 2. Coordination with DENR, LGU and other stakeholders
 3. Selection of Sites
 4. Designation of Key Personnel in-charge of the Program per site

- B. Orientation/Training Workshop
1. National Level
 - ② Overview of PLANET 3
 - ② Advocacy, linkage, networking
 - ② Distribution of materials
 2. Regional/Division/District Levels
 - ② Promoting partnership
 - ② Selection of Facilitators per pilot site
 - ② Action Plan preparation per target site
 3. Capability Building
 - ② Familiarization of the materials
 - ② Utilization of PLANET 3 materials
 - ② Integration of life skills strategies and approaches

II. Implementation

Monitoring and Evaluation

D. Utilization of PLANET 3

- C. Pilot Sites
1. Three (3) barangays per municipality
 2. Organization of learning groups
 - ② 10 Barangay Officials as learners per site
 3. Implementation
 - ② Actual use of the video, poster and booklet
 - ② Following the suggested activities in the facilitator's guide
 - ② Establishment of MRF, sack hangers, community garden, compost pit, etc.
 - ② Practice of the 3Rs (reduce, reuse, recycle)

III. Post-Implementation

- E. Summative Review
1. Monitoring and evaluation of ACCU team and BALS
 2. Post evaluation on Word Association Survey re: waste management
 3. discussion on problems, issues, concerns and other matters
 4. Observation, Interviews with different stakeholders
 5. Observing actual conduct of learning session using the materials
 6. Actual observation of good practices on waste management in the pilot sites
 7. Recommendations

- F. Sustainability Measure
1. Expand and replicate to other barangays and municipalities
 2. Introduce the materials to formal system

