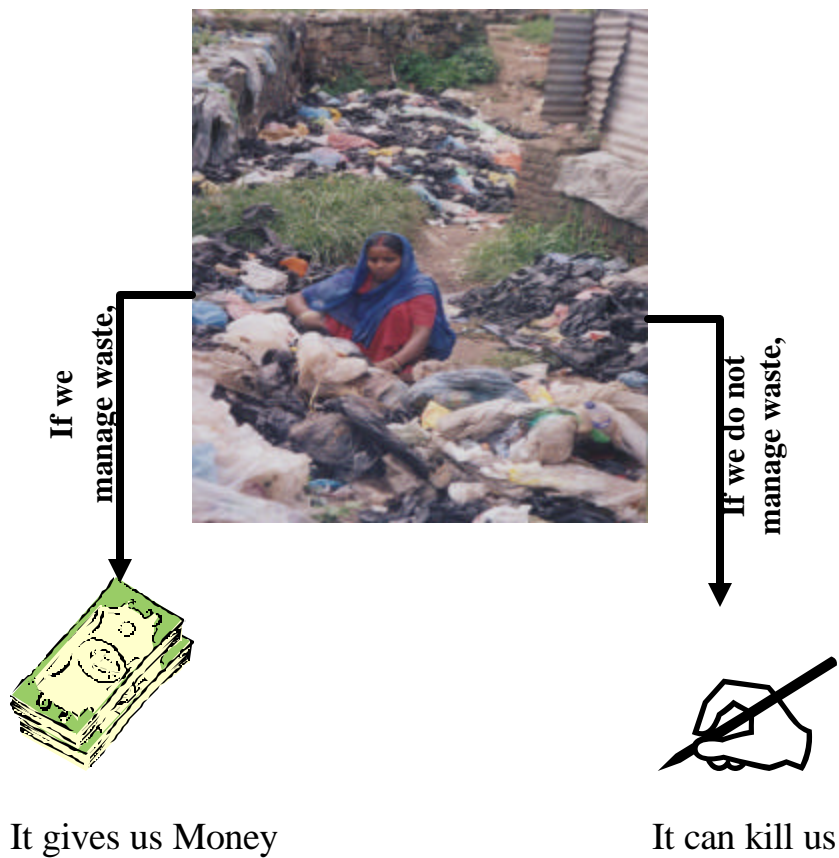


Education for Sustainable Development Initiatives in Communities for Waste Management

A Case Study



**Submitted to:
Asia Good ESD Practice Project (AGEPP)**

**National Resource Center for Non Formal Education
(NRC-NFE/LRC), Nepal
December 2006**

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ACRONYMS

ACCU	Asia/ Pacific Cultural Center for UNESCO
AGEPP	Asia Good ESD Practice Project
CBO	Community Based Organization
CERID	Research Center for Educational Innovation and Development
CLC	Community Learning Center
ENPHO	Environment and Public Health Organization
ESD	Education for Sustainable Development
GO	Government Organization
LRC	Literacy Resource Center
NFE	Non Formal Education
NGO	Non Government Organization
NRC-NFE	National Resource Center For Non Formal Education
OSP	Out of School Program
PLANET	Package Learning Materials on Environment
SOUP	Society For Urban Poor
VDC	Village Development Committee

Education for Sustainable Development Initiatives in Communities for Waste Management

Asia Good ESD Practice Project (AGEPP)

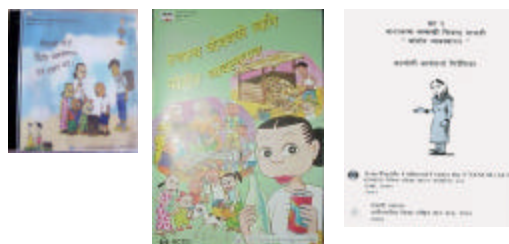
A. Executive Summary

National Resource Center for Non Formal Education (NRC-NFE), Nepal is dedicated to promote literacy and Non Formal Education (NFE) in Nepal. Realizing the importance of inclusion of environmental issues in literacy & NFE programs, NRC-NFE, Nepal has been working in cooperation with the Asia Pacific Cultural Centre for UNESCO (ACCU), Japan in the field of raising environmental awareness and promotion of behavioral changes on environmental issues by adapting and utilizing the ACCU PLANET materials. PLANET stands for Package Learning Materials on Environment. PLANET 1 is the first of its series and it deals with Water Pollution, PLANET 2 deals with Forest Conservation and PLANET 3 with Waste Management which are crucial issues in the world.

The NRC-NFE has adapted, utilized and distributed PLANET 1 on Water Pollution. PLANET 2 on Forest Conservation was adapted by the Tribhuvan University, Research Centre for Educational Innovation & Development (CERID) and its distribution & utilization was also made by NRC-NFE.

NRC-NFE had adapted PLANET 3 on Waste Management in Nepali language and produced in the form of poster, booklet, teacher's guide and video CD in 2004 which are given below:

1. Waste Management – Our Village Can Do It (Poster in Nepali)
2. Mina's Village Says – Yes to Waste Management (Video in Nepali)
3. Waste Management for Better Life (Booklet in Nepali)
4. Facilitators' Guidebook (Nepali)



The materials were disseminated and utilized in different literacy classes, schools and community to improve environmental situation through education for awareness raising and changing the behavior & attitude of the people under the Project on "Dissemination and Utilization of PLANET 3 Materials" implemented by NRC-NFE from July 2005 to January 2006.

The project areas were the places where the Community Learning Centers (CLCs) have been conducting the literacy programs and other community development activities. It covered 6 CLCs of Rupandehi and Kapilvastu districts, rural area; Khokana and

Siddhipur CLCs of Lalitpur district, semi urban area and Kumbhewor of Lalitpur Municipality, urban area. The socio-economic and educational situation of the sites varied accordingly. In the rural areas there were obviously more illiterates, low economic condition than in the semi urban and urban areas.

Major activities carried out under the project



1. Discussion with community people on project objectives.



2. Resource person showing the use of PLANET 3 booklet in training



Discussion in the class



Demonstration on compost preparation by facilitator



Evaluation team observing temporary compost pit in Siddhipur



Preparing compost manure from daily household wastes



Eco-San Toilet

The CLCs, schools and other functional/ women groups have been the effective delivery mechanism for the program which could come out with good achievements. Some points are given below:

- ? The learners broadened literacy skills and knowledge on waste related issues which are immediate concern of their day to day life. This is very effective strategy to integrate ESD component into the existing



Some products made by plastic wastes



Collection of plastics for reuse

literacy and NFE programs.

- ? Community people became aware of waste management and got knowledge and skill on proper waste management and brought it into daily practice such as compost making, segregation of waste, making handicraft goods from the plastic waste etc.
- ? The community people prepared compost pit, which resulted in the higher production of vegetable in vegetable farm leading to the satisfaction of the group members.
- ? The community people started making the area clean and protected from pollution from the waste.
- ? The CLCs established and managed by the community people for their benefit are very effective mechanism to deliver literacy and NFE with ESD in the communities.

In rural areas where nearly every household has at least one livestock, the excreta of the animals can be a big source to generate biogas power.



Biogas plant: Potential source of energy in rural areas.

The PLANET package materials have been the supplementary & complementary materials for the literacy classes which was successful to generate interest of community people in waste management and involve them in making the waste into wealth. So, education on waste leading to income from wastes has been a good practice for the promotion of sustainable development improving the environmental as well as economic situation of the community.



Use of compost for plants

[B] ATTRIBUTION

1. Implementing Bodies:

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[C] Project OVERVIEW

1. Project Title: Dissemination and Utilization of the Local Version of PLANET 3 "Waste Management" Materials

2. Project Overview:

I. Background

a) General Literacy Situation of Nepal

Nepal is a developing country with 2.27 million population in 2001 and 147,181 sq. km area. The country administratively divided into 75 districts, 58 municipalities and about 4000 Village Development Committees (VDCs). The literacy rate of Nepal was 53.74% according to the National Census Report of 2001. Among them the male literacy rate was 65.08% and the female literacy rate was 42.49%. It is impossible to address all illiterates through the formal education system only. So, Nepal has been conducting several literacy and non-formal education programs for a long time. But Nepal's literacy programs do not properly and effectively address the problem & issues of waste management.

b) Brief introduction of NRC-NFE

Since the establishment in 1995, the NRC-NFE, Nepal has been organizing different literacy and non-formal education program linking with income generating activities and other life skills promotion activities. It has also established network and coordination with different national and international agencies.

NRC-NFE has also set up a Literacy Resource Center (LRC) for Nepal working closely with ACCU. As the LRC, it has been developing/ adapting various literacy materials for neo-literates and also providing technical support to different agencies working in the field of literacy, material development and implementation of literacy and Non-Formal Education (NFE) programs.

c) Project Background:

Realizing the importance of inclusion of environmental issues, NRC-NFE has been working in cooperation with the ACCU in the field of raising environmental awareness by adapting and utilizing the ACCU PLANET materials. Series of PLANET materials includes poster, booklet, teacher's guide & video on specific environment issues.

The NRC-NFE has adapted, utilized and distributed PLANET 1 on Water Pollution. The PLANET 2 on Forest Conservation was adapted by the Tribhuvan University, Research Centre for Educational Innovation & Development (CERID) and its distribution & utilization was also made by NRC-NFE.

The Project on "Dissemination and Utilization of PLANET 3 Materials" was implemented from July 2005 to January 2006 after the first phase of "Local Adaptation of Package Learning Materials on Environment 3". NRC-NFE had adapted PLANET 3 on Waste Management in Nepali language and produced in the

form of poster, booklet, teacher's guide and video CD during October 2004 to February 2005.

The main purpose of the project was to adapt, disseminate and utilize the PLANET 3 materials in different literacy classes, schools and community. NRC-NFE chose the Community Learning Centers (CLCs), schools and other functional/women groups as the effective and efficient delivery mechanism.

II. Objectives of the Project

The major objectives of the project were:

- ? To adapt and utilize the PLANET 3 "Waste Management" materials in Nepali language based in Nepalese context.
- ? To disseminate the materials to central level GOs and NGOs to grassroots level NGOs, CBOs and CLCs.
- ? To implement environment projects at grassroots level.
- ? To utilize the materials in literacy, post literacy, out of school programs, formal school system and other awareness building programs in the grassroots level.
- ? To improve environmental situation through education program for awareness raising and changing the behavior & attitude of the people.

III. Project areas/ target beneficiaries:

Main target beneficiaries of the project were community people in general and particularly the literacy learners, students of schools, women & other functional group members etc. The project was implemented in the following areas:

S.N	District	VDCs/ CLCs	Areas
1	Rupandehi	1. Madhubani CLC 2. Tenuhawa CLC 3. Khudabagar CLC	Rural
2	Kapilvastu	1. Patariya CLC 2. Fulika CLC 3. Rajpur CLC	Rural
3	Lalitpur	1. Siddhipur CLC 2. Khokana CLC 3. Kumbheswor women groups	Semi urban Semi urban Urban

General Situation of the project sites

The project sites are of great historical importance and are the world heritage sites. Lumbini (Rupandehi and Kapilvastu) is Lord Buddha's birthplace hence it has great historical and cultural value. But sadly the Lumbini dwellers are living in abject poverty. They lack opportunities and information hence it is far behind in human development context.

Lalitpur also has great historical and cultural importance. Khokana and Siddhipur VDCs are the outskirts of Lalitpur city whereas Kumbheswor lies within the core region of the Patan city. Among the project sites, CLCs of Rupandehi and Kapilvastu

districts were rural, Khokana and Siddhipur were semi urban and Kumbheswor was urban area. The socio-economic and educational situation of the sites varied accordingly. In the rural areas there were obviously more illiterates, low economic condition than in the semi urban and urban areas. The project was implemented in the areas where the CLCs have been conducting the literacy programs and other community development activities.

A table of data shows the overall population and literacy situation of the project sites.

S. N	District	VDC	Population			House hold No.	Literacy Percentage		
			Male	Female	Total		Male	Female	Total
1.	Rupandehi	Madhubani	2670	2846	5516	824	59.64	32.43	46.49
		Khudabagar	2272	2321	4593	605	68.39	18.71	43.61
		Tenuhawa	4520	4731	9251	1193	44.04	24.35	34.58
2.	Kapilvastu	Phulika	2983	3255	6238	906	61.90	25.60	44.42
		Patariya	3333	3576	6909	964	35.12	18.39	27.28
		Rajpur	2041	2177	4218	604	31.91	16.95	24.30
3.	Lalitpur Municipality, Kumbheswor						88.37	72.87	80.9
		Siddhipur	2647	2919	5566	1193	75.19	55.86	64.98
		Khokana	2246	2296	4542	818	79.79	55.18	67.30

Source: Population Census Report 2001

Situations of waste in each of the areas were different accordingly. In the urban area like Kumbheswor, most of the waste generated by the local people were plastic waste, daily food waste etc., in the semi urban areas like Khokana and Siddhipur, most of the waste generated were straws, plastics, green waste from field etc., where as in the rural areas of Rupandehi and Kapilvastu, most of the waste generated were related to their livestock and agricultural wastes etc.

IV. Resource Inputs and Allocation

Before implementing the project activities, NRC-NFE developed a resource map of the communities with availability of human, physical and technical resources.

Human Resources:

The trainers/ experts/ resource persons, school teachers, CLC supervisors, literacy facilitators, group leaders were the major human resources, which were used for the implementation of the project.

Physical Resources:

During the implementation of the project, different trainings were conducted and the materials of schools and literacy classes were utilized. To conduct trainings and classes, CLC buildings, VDC buildings have been utilized. Also, community people provided rooms in their own houses for the conduction of classes.

Technical Resources:

The PLANET 3 materials were intensively used in the training programs. The package materials tried to promote knowledge, skill and proper attitude and behavioral change to promote 3 R's i.e. Reduce, Reuse and Recycle of the waste materials. The package included 4 materials as given below:

1. Waste Management – Our Village Can Do It (Poster in Nepali)
2. Mina's Village Says – Yes to Waste Management (Video in Nepali)
3. Waste Management for Better Life (Booklet in Nepali)
4. Facilitators' Guidebook (Nepali)



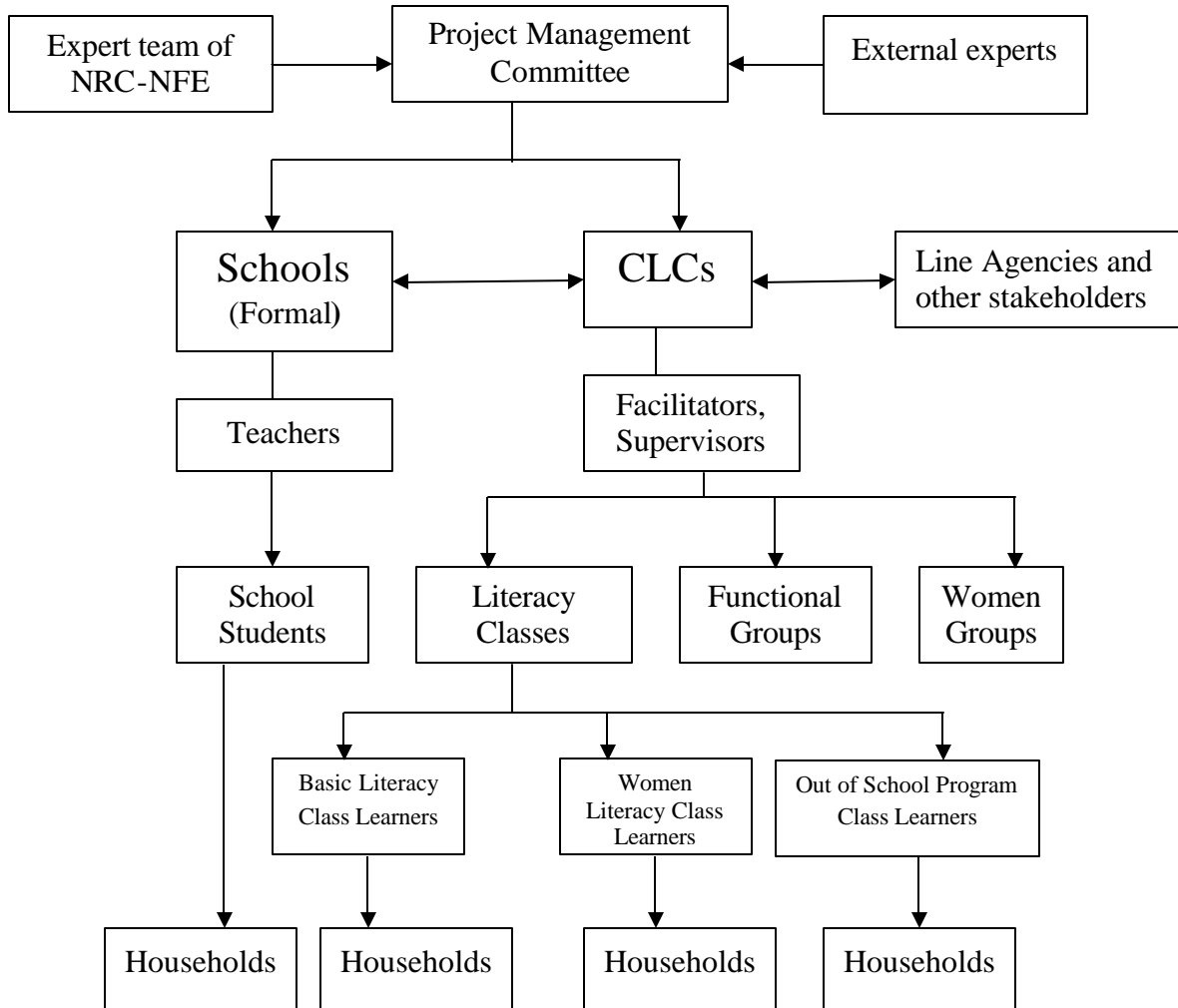
The materials were distributed to literacy classes and schools to be utilized in learning activities. Similarly, the materials produced by different agencies on waste management were also utilized in the training session. Similarly, the materials were also distributed to different national and international agencies working on the literacy and environment education areas.



V. Implementation Mechanism

In order to implement the project, implementation mechanism was designed as follows:

IMPLEMENTATION STRUCTURE OF THE PROJECT



Implemented Activities

In order to implement the project, a project implementation plan was prepared in consultation with ESD experts and stakeholders, CLC members, school teachers etc. The plan was as given below:

Implementation plan of the project

S.N.	Activities	Responsible Organization	Time frame
1.	Discussion with CLC members, school teachers, learners and community people a) Siddhipur b) Kumbheswor c) Lumbini	NRC-NFE, CLCs, Schools	July - August 2005 a) July 2005 b) July 2005 c) August 2005
2.	Conduction of training programs a) Siddhipur b) Kumbheswor c) Lumbini	NRC-NFE	a) 30 Aug- 1 Sept 2005 b) 5- 7 Sept 2005 c) 22 – 28 Sept 2005
3.	Distribution of PLANET 3 Packages	NRC-NFE	October 2005
4.	Organize environmental education classes in literacy and school classes	CLC, Schools	October - December 2005
5.	Integration of waste management issues in the literacy primers	NRC-NFE, CLC, Schools	
6.	Evaluation of the Project	NRC-NFE	January 2006
7.	Preparation and submission of final report to ACCU	NRC-NFE	January 2006

Based on the plan, following activities were undertaken to implement the project.

a) Discussion with CLC members, school teachers, learners and community people:

In order to generate the people's interest in environmental education classes and to brief on objectives of the project to the CLC and other community members, community meetings were held in each and every VDC with the representation of all sector of community. During the meeting the planet 3 materials were introduced and video program was shown to the participants. The general discussion was made. After that project objectives and its procedure were discussed openly and the role and responsibilities of the CLC, NRC-NFE and other stakeholders to implement the project were developed.



Discussion with community people on project objectives.

Role of CLC/ schools:

- ? Collection and selection of facilitators/ teachers for training.
- ? Utilize the PLANET 3 package in literacy classes/ formal classes.
- ? Application of knowledge & skills acquired from the training in their day to day life
- ? Supervise the project activities at grassroots level

b) Conduction of training programs:

Two types of training programs were conducted; one for literacy class facilitators and teachers on use of the materials in literacy classes and schools; and other one are directly to the community people. In the training programs, first of all video on PLANET 3 Waste Management was shown to the participants to make realize the negative impact of untreated & unmanaged waste. After the video show, there was lively discussion among the participants. Queries from the participants were clarified by the resource persons. During the training period, the participants were also trained on how to utilize the PLANET 3 – Poster, Video, Booklet and Facilitator's Guide in the literacy and school classes.

The contents discussed in the training programs are given below:

- Concept of waste materials and waste cycle.
- Problems created by untreated waste.
- Principle of 3Rs (Reduce, Reuse and Recycle)
- Sources of waste materials.
- Collection and segregation of waste materials.
- How to reduce and recycle the waste.
- Study of PLANET 3 materials.
- How to use PLANET 3 materials in the formal and non-formal classes by teachers and facilitators.
- Adult and child teaching methodologies.



Resource person showing the use of PLANET 3 booklet in training.



Training Participants busy in-group work

c) Distribution of PLANET 3 Packages:

The PLANET 3 Package was distributed to the schools, CLCs, literacy classes to be used in their classes.

d) Organize environmental education classes in literacy and school classes:

After the training the facilitators and school teachers organized environment education classes in their respective classes. All together 20 literacy classes and 8 schools used the PLANET 3 materials benefiting 500 literacy learners and 200 school students directly. The learners gained the knowledge and skill on



Learners discussing on issues of waste management

waste management together with related literacy skills. The classes helped the learners to change their attitude on waste - "**transferring unwanted things to productive things**". After the training the learners and school students including CLC personnel became able to think critically on how to manage household wastes. They prepared the plan to manage and utilize household wastes and implemented in the communities.



e) Integration of waste management issues in the literacy primers:

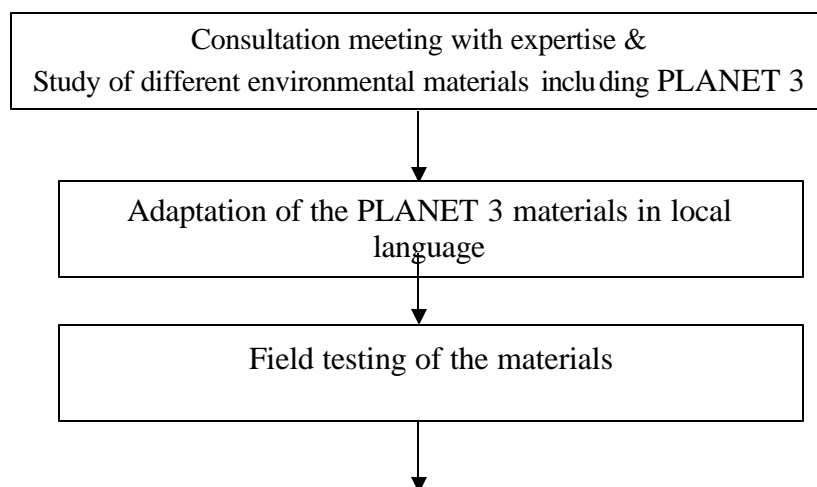
In order to implement the PLANET 3 materials effectively, it was felt necessary to integrate the materials into the curriculum of Non Formal Education in Out of School Program (OSP) I & II and Basic Adult Literacy of Nepal. To integrate such topics, discussions were conducted with the active participation of learners, facilitators and school students & teachers. The waste management booklet "Waste Management for Better Life" and the poster "Waste Management, Our Village Can Do It" could be introduced while teaching the text books of the existing Basic Adult Literacy, Post Literacy, OSP I and OSP II classes. In order to teach students on environment issues, the PLANET package were oriented and distributed to the formal schools in the project areas.

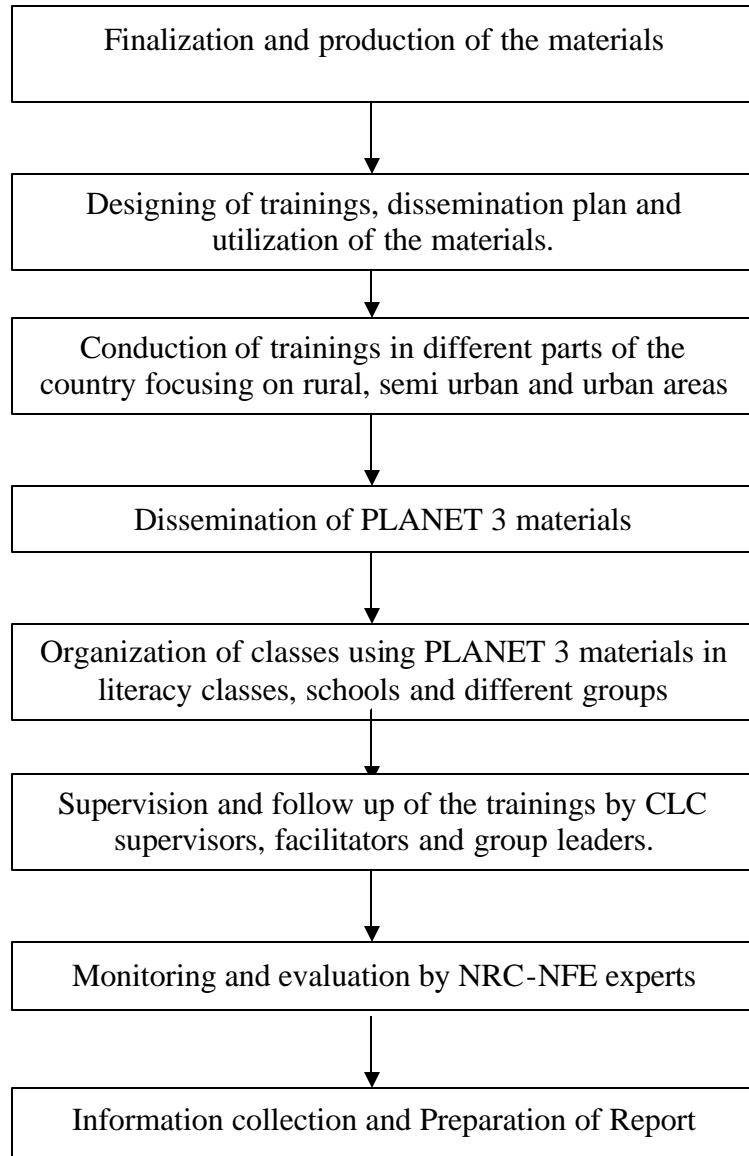


3. Process Documentation:

Before implementing the project, specific target groups were identified in the project areas, the literacy class learners, different functional groups, ethnic minority groups, formal schools etc. In Rupandehi and Kapilvastu, the program was focused to the literacy class learners and other functional groups, where as in Siddhipur and Kumbheswor the program was focused to the vegetable farming groups, women groups and the ethnic minority groups.

In order to implement the project, following steps were followed:





While implementing the project, numerous prospects and exciting resources were found. One of the major being the potential production of Biogas in Rupandehi and Kapilvastu areas. In such rural areas where nearly every household has at least one livestock, the excreta of the animals can be a big source to generate biogas power. The training program has created awareness in the community people about the potentiality of Bio-gas from their daily waste from the livestock. If given a little support, they will be able to utilize the waste to generate biogas power.



Biogas plant: Potential source of energy in rural areas.

[D] PROJECT REVIEW

One of the problems of literacy program in Nepal is the lack of materials on different issues. If there are any materials, they are more technical and not useful for illiterates and neo literates. So is the case with environment education. Realizing the fact, in order to improve the environmental situation through educational programs for raising the mass awareness and changing the attitude of the people of the country, the NRC-NFE adapted, disseminated and utilized the PLANET series particularly the PLANET 3 "Waste Management" materials in local version.

The first phase for the adaptation and production of the material in local language completed during 2004-2005. During this project phase, the adaptation of the PLANET 3 materials, consultation meetings with concerned agencies were done. Different field visits and thorough research on the waste management condition of Nepal was also carried out to help adapt the materials addressing the local context. After the adaptation and preparation of the draft version of the materials, they were field-tested for its practicability, reliability, understanding and language. After the field-testing, many corrections were made in the draft materials and materials were finalized then printed and published.

This project was implemented from July 2005 to January 2006 for the dissemination and utilization of the adapted PLANET 3 materials.

The project has been a success for the NRC-NFE part as well as for the ACCU part in obtaining expected outcomes of the project.

The implementation strategy followed by the NRC-NFE; giving trainings on PLANET 3 "Waste Management" materials and other environmental issues for the selected CLC personnel, teachers, facilitators, women groups and other functional group leaders have been very rewarding. The trained personnel in turn trained other group members and community people thereby helping in changing the habit/ attitude of community people as a whole toward the waste management.

From this project, changes in the local awareness on the waste management of the community people were found. To start with, the target groups and learners developed the basic knowledge, information on proper waste management. The participants were found taking concrete action for the proper waste management following the 3Rs principles. After the implementation of the project following major outcomes could be seen at community level:

- ? All together 18 literacy classes and 6 schools used the PLANET 3 materials benefiting 520 literacy learners and 180 school students directly. The learners broadened literacy skills and knowledge on waste related issues.
- ? 55 community people directly got the knowledge and skills on proper waste management and brought it into daily practice such as compost making, segregation of waste, making handicraft goods from the plastic waste etc.

- ? 24 literacy facilitators and school teachers were trained on utilization of the PLANET 3 materials, teaching methodologies, motivation and mobilization of local resources for waste management.
- ? The ideas of cooperation and living together for healthy living and maintaining better environment have been developed among the community people.

[E] Implication of the Project

The implications of the project from three different viewpoints, project management; delivery mechanism and impacts to the learners are given below:

1. Project Management:

While implementing the project, following major things were found in the management aspect:

- ? The project was managed in the participatory process. The community people, CLC members, school management were fully participated in the discussion and decision making process to prepare the roles and responsibilities of different stakeholders.
- ? At the central level, NRC-NFE had established coordination with SOUP, an NGO working on waste management to design and conduct the training program. The training programs were well combination of waste management knowledge, skills and the literacy skills.
- ? The project was able to mobilize the field staff of Literacy and Non-Formal Education Project to supervise and monitor the project activities.
- ? Because of the constant supervision from CLC, the facilitators were able to organize literacy classes in effective way. The materials were provided to each of the classes with the guidebook in time. The community people also helped to manage the literacy classes.

2. Delivery Mechanism:

The delivery mechanism followed by NRC-NFE; giving trainings on PLANET 3 "Waste Management" materials and other environmental issues for the selected CLC personnel, teachers, facilitators, women groups and other functional group leaders have been very rewarding. The trained personnel in turn trained other group members and community people thereby helping in changing the habit/ attitude of community people as a whole toward the waste management.

The implementation structure for the delivery mechanism designed by NRC-NFE by selecting the CLCs, schools and women groups as major organizations to conduct the activities was found very effective and efficient. The expert teams contributing the project management committee and then the project management committee advising the CLCs and schools for the implementation of the activities were found very effective. Then the CLCs and schools facilitating for the project activities were found very effective and efficient. From the CLC and the schools the intended message directly goes to each and every household of the learners, students and the group members.

3. Impacts of the Project:

To see the impact of the project in the target groups and the local community people, evaluation team from NRC-NFE visited all the project sites. In the evaluation mission, the expert team got many positive as well as constructive responses from the community people. The result obtained from the evaluation is given briefly as follows:

Effectiveness of the program:

As scheduled, the project implementation was focused mainly in 2 CLCs of Rupandehi district under Lumbini Project namely Madhubani CLC and Tenuhawa CLC and 1 CLC each in Siddhipur and Khokana and women groups in Kumbheswor in Lalitpur district being effectively conducted. The effectiveness of the project observed in individual project sites is given below:

a. Kumbheswor (Urban):

The project site in Kumbheswor community was mostly covered by dalits especially *Khadgi* and *Deula* people. The women group "Women Cooperative Active Group" initiated the program with great enthusiasm. The group used PLANET 3 booklet and poster in orientation program as well as in NFE classes. The participants collected and segregated waste materials and also sold the saleable waste materials and collected fund for the group. The participants of the training program made different types of materials like plastic rope, lady bags, cushion, flower, garland, key chain etc. in the limited way from the waste such as plastic bags, edible oil bags, and mineral water container and so on. Some of the members have produced compost manure in plastic container as they were trained in the training. As they don't have kitchen garden and field they are using the compost manure in flowerpots and distributing to other members who needed the manure. In addition to this, the women group have been conducting regular cleanliness campaign program once a month. For the campaign program, the group received materials from the municipality. Thus the community people realized the importance of environmental protection and are keeping their surroundings clean and safe.



Collection of plastics for reuse



Some products made by waste plastics

b. Siddhipur CLC (Semi urban):

Siddhipur is one of the focus areas of the project activities. The training participants and other members from this area are preparing compost manure as instructed. The compost manure preparation as instructed is not so much applicable in this area due to their agricultural business as they need more quantity for their field use. The participants are demanding the plastic compost bin in compensation from the project. They have used booklet and poster in the orientation and NFE program. As they were busy in straw mat knitting, they lack time to make different items from the waste materials. Even then, some of the members of the group produced cushion materials to use in taking bath and cleaning domestic utensils. The women group, saving group and facilitator are playing key role in project activities. Siddhipur community are presently interested in ecological sanitation program as they receive more qualitative manure for their field and they found the eco-san program more effective in keeping the surrounding clean and safe.



Evaluation team observing temporary compost pit in Siddhipur



Preparing compost manure from daily household wastes

c. Khokana CLC (Semi urban):

Khokana VDC was one of the dirty places in the Lalitpur district. Now the community people are making the area clean and protected from pollution from the waste. They managed to raise awareness on waste management in the community people by orientation program using PLANET 3 materials like booklet and poster, which were also used in NFE programs. The community people have not produced compost manure individually as instructed because of insufficiency of the product for the use in the field. At least they developed the habit of segregating the waste materials and put in different pits. At present the community people are interested in ecological sanitation program as they get more qualitative manure and helps to keep the locality clean and attractive. The ecological sanitation program was launched with the help of Environment and Public Health Organization (EnPHO). The program was initiated by Jan Kalyan Sangh in the VDC.



Eco-San Toilet

d. Madhubani CLC (Rural):

Madhubani CLC in western Nepal was found very interested in waste management activities. The CLC was successful in organizing mass awareness program in waste management in the community. The organization used PLANET 3 materials: video, booklet and posters in different activities. They considered orientation program, teaching in NFE programs, practical



Demonstration on compost preparation by facilitators

works etc. in effective implementation of program. They prepared community compost pit and used separate pit for segregation of waste materials in different wards of the VDC. In the CLC site, they prepared compost pit for demonstration. The poster and booklet were used for teaching in NFE classes in an integrated manner with NFE lessons. The CLC also launched cleanliness campaign in different villages.

e. Tenuhawa CLC (Rural):

Tenuhawa CLC is another CLC, which initiated the waste management in western Nepal. It emphasized in community waste management by collecting and segregating the waste materials, organizing various committees and arranging the pit systems for collection of materials. It prepared compost manure and used in vegetable farms. It introduced teaching in NFE classes as well as formal classroom situation using booklet and poster prepared under PLANET 3 materials. The CLC conducted orientation

program to raise awareness, the effect of which made the community people keep the surrounding clean and safe. The community people developed the habit of waste management and prepared compost pit, which resulted in the higher production of vegetable in vegetable farm leading to the satisfaction of the group members.



[F] FURTHER IMPLEMENTATION AND RECOMMENDATION

Lessons learnt:

- ? The problem of waste and its level in urban areas, semi urban areas and rural areas are quite different. So, designing training program these things should be considered.
- ? Preparation of Biogas and Eco san are some of the innovative and more productive activities that were visited during the implementation of the project. Integrating with such program with PLANET 3 was much more effective.
- ? Since CLC is directly accountable to the community, it is a very good delivery mechanism at proletariat level.
- ? Establishing coordination with different program and mobilizing the existing resources helped decreasing the cost of the project.

Major findings

Some of the major positive impacts observed in program activities at the project sites:

- ? Compost preparation from the daily household wastes.
- ? Organization of orientation programs.
- ? Cleanliness of surroundings in the community.
- ? Segregating waste materials.
- ? Waste materials used in making different items.
- ? Multiplier effect of the trainings.
- ? Introducing waste management lessons in NFE programs and schools.
- ? 24 facilitators and school teachers trained on utilization of the PLANET 3.

Future plan:

- ? To raise the awareness of the community people on waste management, it is planned to continue the use of the PLANET 3 materials in the literacy classes, schools and different functional and women groups.
- ? For better and wide dissemination of the PLANET 3's message, it is planned to broadcast the video "Mina's Village Says Yes to Waste Management" in national television.
- ? For wider dissemination & utilization of PLANET 3 materials, it is planned to distribute the materials to the CLCs and schools in different parts of the country.

Suggestions and Recommendations:

After the implementation of the project for last one and half year and based on the evaluation finding of the project, following suggestions and recommendations were made:

- ? Field based trainings should be provided at the project sites.
- ? Compost manure preparation container should be supplied to the group members to prepare compost manure from the daily waste.
- ? Constant supervision and monitoring is required and for this CLC members should be trained.
- ? Cleanliness campaign should be enforced to keep the surroundings clean and safe.
- ? Project activities should be strengthen and regularized by the local community. CLC should take the initiation to regularize the activities.
- ? The program should be expanded to other areas.

Though the program activities were focused in some of the selected CLCs and communities, chances were offered to other community people and CLCs as well to participate in the training programs. It was remarkable that most of the participating agencies in training programs developed compost preparation, orientation program, segregation of waste materials and also conducting cleanliness campaign. In general it was found that the community participants and CLC personnel emphasized the proper management of waste materials and developed the ideas of use of waste materials and also recycling the waste materials producing different interesting items from the waste. The difficulty is of producing of items in large quantity and selling of materials due to time consumption as well as cost strategy. As suggested by the participating CLCs and communities, the project has to supply the compost container in reduced price to regularize the project activities and also need monitoring and supervision constantly.

The PLANET package materials are of good quality and learners really liked it. It has tried to fulfill the lack of literacy materials for neo literate. The project was very much successful to generate interest of community people in waste management because it has also focused on how managing waste become their own good source of income.

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Process Documentation

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- c. Khokana CLC (Semi urban):**
- d. Madhubani CLC (Rural):**
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