
Environment and Natural Resources Management

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Rural Energy Development Programme (REDP) has integrated the Environment and Natural Resources Management (ENRM) to make the programme sustainable through capability enhancement of the rural people to combat environment related problems in the community level. ENRM component aims to make the programme more sustainable by achieving an ecologically sustainable development (ESD), where the development of the society, environment and economy would be balanced. ESD applies a sustainable use of natural resources, cost effective and environmentally friendly technology and optimum involvement of society.

Under ENRM component of REDP, primarily, local level institutions such as the Forest Functional Groups (FFGs) are established with a long-term perspective. Appropriate training to increase skill of local people have been provided. One major achievement is the

Photo above : A female CO member planting seedling of a tree in Guaslung VDC, Tanahu

involvement of the local people in the ENRM from the very beginning of the programme identification and development. The ENRM component is focused to four areas: management of natural environment related to the micro hydro development which includes forest management, watershed management in micro level; rural environment management which includes public health and sanitation, open space management, cleaning of streets; reduction of fuel wood through the promotion of bio-gas and ICS technology and encouragement of forest based income generation.

Establishment of Institutions

Environment and natural resources management related activities have been carried out through different functional groups. Forest functional groups (FFGs), improved cooking functional groups (ICSGs) and soil conservation functional groups (SCFGs) have been formulated through REDP's initiation in all programme village development committees (VDCs) for carrying out specific functions. The functional groups will have

an executive committee that will conduct meetings and decide upon the actions. The FFGs, which are responsible for sustainable use of forest and its products are most effective and have already got maturity in many cases. They can now handle all forest related management activities.

The FFGs identify the area, tree species and scale of plantation. In case of the Forest Users Groups (FUGs) established before the REDP's operation in the programme VDCs, the ENRM activities have facilitated to streamline and develop the linkages of FUGs with the community organizations. This is a big achievement in terms of people empowerment for sustainable forest management. To date 119 FFGs have already established and approximately 300ha of land has been planted.



Nursery established in Katujebeshi VDC, Kavre

Skill Development

REDP has envisaged the skill development of the local people as an indispensable tool for making the ENRM sustainable. Awareness and enhancement of knowledge on environment and natural resources management are the two activities encompassed by REDP.

Skill development of the local people varies from one purpose to another. For forest resources management, community has been provided training on nursery establishment, plantation site selection and plantation. For watershed management they have been given

training on identification of appropriate protection and conservation measures including bio-engineering. For biogas and ICS installation, the villagers have been given training on construction, installation and operation. For these training, REDP has coordinated with the external resources persons whenever required to give a comprehensive training to the community level. REDP has successfully mobilized resource persons from District Forest Office, District Soil Conservation Office, District Public Health Office and District Agriculture Office.

The awareness development in the community level has been carried out continuously during the community mobilization process. Every year on the world environment day (5 June) both community and school children take part in the celebration by planting trees and conducting essay competition on environment related topics.

Approximately 7050 households from 70 programme VDCs have developed their capability for environmental management. Besides REDP has launched environment education programme and essay competition programme to the school children to improve their knowledge and understanding on the environmental and natural resources management. In ten programme districts, a total 130 number of classes including awareness programme have been conducted.

Forest Management

This activity aims at the micro level management of the natural resources. The Forest Restoration and Management paradigm embodies nurseries establishment, seedling plantation, watershed management and conservation activities, which is a complete process of forest restoration and management in the micro level.

Environment and Natural Resource Management Training

District	Nos.	Participants
Kavre	5	131
Tanhau	2	17
Dadeldhura	3	34
Baitadi	1	8
Baglung	5	102
Myagdi	3	25
Parbat	5	109
Sindupalchok	5	41
Dolkha	3	26
Achham	1	8

Nursery Management

REDP has supported the nursery establishment and management programme under ENRM. This activity has carried out to build local level capacity in producing the required number and species of seedlings in the local level on one hand and enhancing forest based micro level entrepreneurs on the other. For this REDP provides nursery establishment training coordinating with different experts. Furthermore, REDP helps FFGs to establish linkages with relevant government organizations like District Forest Office and District Soil Conservation Office. Till now REDP has trained 69 local people and they have successfully established 44 nurseries. For the development of nursery entrepreneur the Forest Functional Groups (FFGs) provides seed money of amount Rs.15000/- to the Nursery Naik selected by themselves. As of 31 December 1999, these naikes have established 44 nurseries.

Private Plantation

Private plantation has been encouraged from two aspects; one, to properly utilize privately owned uncultivated marginal land and two, to meet own forest product demand as far as possible so that the pressure on the community forest can be reduced. Private plantations are carried out for timber, fuel and fodder, fruit, bamboo, etc. in the lands like gullies, farm boundaries, stream banks, etc. Till now total private plantation has been carried out approximately in 140 hectares with the plantation of 330,071 trees for fruits, timber, fodder, bamboo, etc. in ten districts. The highest private plantation completed under is Kavre, which has approximately planted 11,100 including 2877 fruit plantation.

Watershed Management

REDP has undertaken a watershed conservation activity mainly for the land slide and gullies protection and soil erosion control through soil stabilization with the application of bio-engineering, grass sowing, establishing hedge and bushes, etc. The activity aims to the sustainable operation of micro hydro from the continued and assured availability of water from protected watershed and also improves safety and minimize hazards incurred by the landslides. For this, REDP has developed awareness and enhanced skills of the local people to combat the possible micro level



Toilet constructed in Ramaroshan VDC, Achham

landslide and soil erosion problems. A district level coordination has been developed with district soil conservation office. Plant species and grasses mostly planted in watershed management are bamboo, Utis, Bakeno, Khanyu, Painyu, Tanki, Khirro, Napier, etc.

Health and Sanitation

This programme focuses on the health and sanitation aspect of the community. Community mobilizers facilitate in developing awareness among the community on proper health and sanitation. It ranges from personal level activities to family health as a whole. Activities like, toilet construction, establishment of waste pits, cleaning of surroundings and street yards Chowk, repairing and cleaning of public and private taps, installment of toilet attached bio-gas plant, improved cooking stoves are the key activities under this programme. Notable outputs includes establishment of approximately 4012 toilets, 1671 waste pits, 300 biogas plants, 1000 ICS and improved sanitation practices in small children, etc. in the programme areas.

Environmental Assessment

In order to make micro hydro demonstration scheme more sustainable, environmental assessment (EA) of each MHDS is carried out, though Nepal's environmental policy has not made mandatory of environmental impact assessment for micro hydro. The EA identifies the environmentally sensitive areas potential impacts and mitigation measures. As of 31 December 1999 a total of 25 EAs have been completed.