
Supporting Government's Goal of Poverty Alleviation

Rural Energy Development Programme has adopted holistic approach to the renewable energy development. Through the promotion of renewable energy systems as the entry point, the programme aims to achieve improvements in the living standards of the rural people where possibilities of commercial energy supply do not exist.

Energy in itself is not the cause of poverty but the level of energy consumption is correlated to the poverty. The level of education, health care and opportunity for income generation are dismal in the areas where there is low energy consumption. Similarly, women and children in areas with low energy consumption face drudgery, which otherwise could be relieved through the operation of machines and tools run by electricity. Sustainable energy system, though not perceived easily as a basic human need, is essential in fulfilling all of the basic needs required to eradicate poverty.

Prime target of the dev. planning

Formal periodic development planning in Nepal started from 1956. Since then different development policy objectives have been laid down. Until the fifth five-year plan the development objectives were focussed mainly on physical infrastructure development and then onwards the policy priority has been

shifted to the productive sectors such as agriculture, forestry and human resources development. The eighth five-year plan took a drastic shift on development policy from a simple production policy to the supportive economic system that aims economic development through increased production involving private parties for overall economic development of the nation. In short, it has emphasized the free market economic policy.

As a continuation of the production and free market economic policy, the ninth plan set forth poverty alleviation as an over riding objective. It has targeted to decrease the poverty line from 42 to 32 percent. The plan has formulated several immediate objectives and strategies to achieve the main objective. The plan aims at improving living standard of the people who lack productive assets and income generating resources as well as those who are counted as the poorest, empowering socially and economically backward and weaker sections of society and lowering the high incidence of poverty by developing physical, social, and economic infrastructure in the underdeveloped and remote regions of the country.

Photo above: Community members of Chokati VDC of Sindhupalchok participating in a mass meeting

In the context of energy sector, the strategies include socio-economic development for the poverty alleviation through energy development and rural electrification, installation of modern energy technology system, water resources development for energy and agriculture, skill development, environment and natural resources management, women empowerment, development of agriculture and agro-based industries, forestry sectors, etc. Similarly, the ninth plan has a strategy of decentralized administrative management through good governance and transparency; people's participation and NGOs mobilization; women's involvement; etc. These are taken as principle to carry out the programme activities for the poverty alleviation.



Agroprocessing unit installed in Gumlekh VDC, Tanahu

REDP's Approach

Energy is an instrument for the eradication of poverty in rural areas only when it is directed towards the needs of the people. Although initial cost for the establishment of rural energy system sometime, is high, these systems can produce tremendous impact on improving living conditions in the rural areas, especially when they are combined with energy efficient end-use technologies and income generating initiatives. Realizing this, REDP has adopted holistic approach to the renewable energy development. Through the promotion of renewable energy systems as the entry point, the programme aims to achieve improvements in the living standards of the rural people where possibilities of commercial energy supply do not exist. REDP targets to have impact in the following areas: (1) promotion of efficient end-use technologies, including the non farm activities; (2) improved quality of life specially for women and children, (3) restoration of the natural environment and (4) rural capacity building.

Approach to Poverty Alleviation

As per the sustainable development paradigm, the programme believes on "for the people and by the people" development paradigm. The programme has formulated its own community mobilization process, which is being continuously refined on the basis of learnings. The REDP community mobilization process is based upon six basic principles, namely organization development, capital formation, skill enhancement, technology promotion, environment management and women's empowerment. Experience have shown that these principles are highly effective in developing strong social capital among community members to undertake different development initiatives both individually and collectively, including energy schemes.

The impacts of the social capital formed on the basis of these principles as discussed in the following paragraphs are far reaching not only in terms of local organization development but also on people's empowerment.

Organization Development

As of 31 December 1999, altogether 1557 Community Organizations (COs) have been formed in ten REDP districts covering 28,484 members. Of this total 784 COs are female COs with 14,589 members. These broad based and self-governing organizations have provided an institutional platform for the rural people to undertake initiatives relating to the development of their community as well as their individual living standard. The COs hold weekly meetings, carry out discussions and take decisions based on transparency and consensus through the articulation of their concerns, vision and commitments. Upon maturity, COs join together to form functional group (FGs) to undertake specific activity such as the installation and operation of micro hydro schemes and management of community forestry. As of 31 December 1999, 233 FGs have been formed, of which 45 are for micro hydro and 100 are for community forestry and 88 for other purposes.

Skill Enhancement

Each household is motivated and encouraged to engage in at least one income generating activity for making them able not only to pay for electricity not only to pay for electricity but also to meet other household chores like children's education and medicines. Required skills are imparted to the members for enhancing their capacities to maximize the benefits through the use of available scarce resources. REDP

has supported basically in three areas. 1. Skill to run community organizations and functional groups successfully. As of December 1999, 2500 community members have received training on organizational management, book keeping, saving and credit operation, etc. 2. Skill to implement, operate and manage MH schemes and other renewable energy technologies. A total of 348 people have been provided technical and managerial training on different rural energy technologies namely Micro Hydro, Solar, Bio-gas and Improved Cook Stove. 3. Skill to carry out various income generating activities. As of December 1999, 1655 community members have been trained to carry out various income generating activities based on agriculture, livestock, forestry, off-farm activities, marketing, etc.



Increased garlic production with the assured irrigation from tailrace of the MHDS in Pinthali, Managaltar VDC, Kavre

Capital Formation

Capital is an essential input for undertaking any development work. Without capital investment the subsistence trap in the rural livelihood can not be overcome. REDP thus has recognized capital formation at the local level as one of its basic thrust for breaking the vicious circle of poverty. Capital is developed through the mobilization of internal and external resources. In this regard, saving and credit among the community members have proved to be appropriate mechanism to mobilize the local fund for productive uses. Each CO member deposits a fixed amount ranging from Re 1 to Rs 5 in weekly CO meeting. As of 31 December 1999 the amount of capital mobilized through saving schemes has surpassed 3 million rupees. The amount thus saved is then loaned to the members for funding their consumptive as well as economic needs. Consumptive needs include medicine, children's education, marriage and clothings. Similarly, various income generating activities initiated by villagers include goat raising, poultry/ duck farming, fertilizer purchase, provision store operation, bee keeping, nanglo (a big wicker plate for winnowing grains) weaving and carpet weaving, incense stick making, etc. Initial results have shown that these activities have helped the rural household generate extra income to meet their cash needs for paying school fees of children as well as electricity bills.

Technology Promotion

The programme gives equal focus to the technology promotion for the sustained growth. Emphasis is given to the technologies that are deemed necessary to increase productivity, reduce drudgery of women and help in conservation of the natural environment in the

rural areas. Besides the installation of micro hydro schemes, efforts are being made to promote various other rural energy technologies to compliment and/ or supplement each other. They include solar photovoltaic, biogas and improved cook stoves as well. Depending upon the feasibility and willingness. Villagers are encouraged to adopt one or more rural technology so as to fulfil their total energy needs from the rural energy technologies. Altogether 25 micro hydro schemes with the generating capacity of more than 400 kW have been commissioned. This has enabled more than 18000 people of the rural areas to have access to electricity. Similarly 300 Solar PVs have enabled 1,500 people to have access to electricity. In addition, 300 bio-gas plants and 1000 improved cook stoves (ICS) have been installed. It has been observed that the ICSs are capable of reducing fuelwood consumption for cooking by around 30%. Similarly, appropriate technologies are promoted to establish and operate both agro-based and off-farm enterprises. Major technology oriented enterprises promoted by REDP include agro processing mill, rice huller, cereal grinder, oil expeller, battery charging machine, poultry farming, water pumping, sawmill, furniture making, cooking, paper making, milk chilling etc.

Environment Management

Sustainable operation and management of a micro-hydro system depend on the watershed condition and the management of natural resources. Since its operation, the programme has given due consideration for the environment management of the programme VDCs. Other related interventions supported by REDP include community forestry, tree plantation, land terracing, agro-forestry and other bio-engineering measures. Initiatives taken under environment management thus range from commercial community forestry to

micro watershed management and environment education to environmental health and sanitation.

By December 1999, 61 nurseries were established in ten REDP districts. Each of the nurseries have capacity to produce 100,000 tree seedlings annually. Upto December 1999, 38 environment education campaigns were organized in different programme VDCs and 330,071 seedlings of different trees including fruit trees were planted.

Notable development activities related to the health and sanitation undertaken by COs are toilet construction, garbage pit making, drinking water schemes renovations and so on. As of December 1999, 4012 toilets and 1503 waste disposal pit/ bin has been established. The numbers of new drinking water taps and rehabilitation of the existing have reached 200. Similarly, construction of new trails and renovation of existing trails have crossed 100 km.

Women's Empowerment

A sincere effort is needed to empower women as equal partners in the development process. It could be achieved by developing women's self-confidence and capability as a whole for participating in the mainstream of the development process, making decisions and undertaking independent action.

REDP has supported women by creating conducive environment to involve from planning to implementation to monitoring and evaluation. One of the bold steps taken by REDP is the mandatory requirement of one female from each household in all initiatives implemented at community level. Women form separate COs that have enabled them to develop leadership and confidence among themselves without being influenced by men. Members are trained to discuss about the specific problems faced by them in their communities and plan and implement remedial actions. Furthermore, the community mobilization process requires equal representation of both male and female CO to form functional groups (FGs). This has provided both men and women equal opportunity to participate in the development initiatives being implemented at the grassroots.

Experiences of REDP have started to reveal encouraging results. It is known to all that in the far western region of Nepal, due to strong cultural and traditional barrier, women rarely come out from their houses and participate in any activities in public function. However soon after the formation of female COs, they have vividly demonstrated the encouraging change in their self-confidence and decision making capability both inside and outside the household. Members of female COs have been found more motivated to undertake social and environmental activities such as



Poultry farming initiated in Gumlekh VDC, Tanahu

cleaning houses, trail road construction, water taps maintenance, pit latrines construction, expansion of the village road and plantation of trees. It is gratifying to note that because of their dedication and commitment, women have started to be chosen to hold the post of chairperson of some micro hydro functional groups.

Rural people are willing and motivated for their overall development. Community mobilization is a strong tool to motivate and involve people, both men and women, for participating and making decision that influence their socio-economic upliftment. Initial results have indicated that six basic principles of REDP community mobilization process have been effective in building social capital not only to operate the single grassroots organization called CO but also the complex organization like the functional groups. The implementation of multifarious initiatives in the villages equally by men and women have demonstrated that holistic development could be achieved through socio-economic enhancement. For this rural energy plays an important role in the holistic development deemed necessary for the poverty alleviation in the country.

"The holistic approach that REDP has undertaken in the promotion of micro hydro is exemplary."

**Dr. Shanker Sharma, Member
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