

## 2001 - A Year of Achievement

### **DECENTRALIZED RURAL ENERGY SYSTEMS FOR HOLISTIC DEVELOPMENT IN RURAL NEPAL**

It is our great pleasure to state on the onset that the Rural Energy Development Programme (REDP) has made a history of its own by supporting the communities for generating more than one megawatt (1111.5 kW) electricity through the installation of decentralized micro hydro schemes at remote locations of 15 hill districts of the country. These schemes which are commissioned by the villagers in the five years of REDP operation have made possible to have access to electricity by more than 60,000 people from those areas which are not likely to be connected to the national grid in at least next five years. This achievement is highly impressive in our situation where only about six percent of the rural population has access to the electricity. More than 90 years of hydro power development efforts have shown that despite the existence of huge potential for the hydropower development in the country, the centralized energy generation is not the feasible option to electrify remote rural areas where more than 85% of the country's population reside because of the high cost of transmission and distribution to the rugged and scattered settlements as well as the poor economic conditions of the rural population.

Started on 16 August 1996, the REDP has demonstrated that with proper social guidance and appropriate institutions, the villagers, both men and women are capable of exploiting all available local resources for developing rural energy systems for holistic development in the rural areas. A total of 76 micro hydro schemes have been installed. Works are underway to install additional 35 schemes that would generate about 500 kW benefiting approximately 25,000 people. The programme has supported villagers to install 1,167 solar home systems, 1,183 biogas plants with toilets and 5,847 improved cooking stoves. Similarly, villagers have planted more than 1,403,305 saplings of different species, managed 181 community forests, constructed 7,934 toilets, renovated 410 drinking water taps and ponds, extended 587 km of trail roads. For this, they have organized into 2,626 community organizations and 580 functional groups. These community organizations have mobilized about a total of Rs. 15 million as weekly saving, which they are using to provide loans to members for undertaking various income generating activities and micro enterprises thereby creating employment and income generation at the local levels. The additional income thus earned from these newer economic initiatives have helped villagers to pay for the electricity, meet the expenses of children for school fees, books and stationeries and other household chores. Most importantly, the villagers have been able to mobilize more than Rs.160 millions in the form of cash, local construction materials and labor for commissioning of rural energy systems and undertaking of various social, economic and environmental activities.

The rural energy systems have helped to improve the social, economic and environmental conditions of the rural areas. Now, women have to travel less for collecting fuelwood for cooking and use negligible quantity of kerosene for lighting. Similarly, women have to spend less time and money for cleaning clothes and medicines for the diseases caused by smoke that comes from burning of fuelwood and kerosene. Among others, the villages have witnessed the drastic reduction in the incidence of diarrhoea, which used to be the annual phenomenon. In the same manner, though yet to be quantified, villagers have reported the marked reduction in the asthma, bronchitis and itching and rashes. Similarly, the modern mills run by electricity have helped to reduce the drudgery of women considerably as they do not have to work any more on the arduous manual grinding units. All these have helped them to engage in productive activities, childcare and leisure of their own. Furthermore, children can read two to three hours longer every day under bright electric bulb without causing strains to eyes. Evidences have shown that the performances of children in classes have improved considerably. The micro hydro has further helped rural people for multipurpose use of water for employment and income generation. The integration

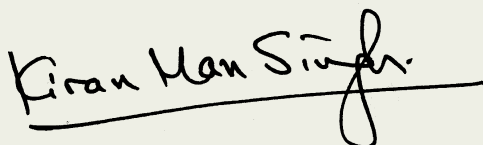
of environmental initiatives such as micro watershed management, community afforestation, and health and sanitation with rural energy systems have further helped to restore the natural resources which would reduce the occurrence of floods and land slides in the future. In the social front, the strong social capital developed out of community mobilization have enhanced the people's awareness and capability for undertaking numerous communal and individual activities following the participatory, transparent and consensus decision making process. These include the construction of toilets, renovation of water tap/pond, extension of trail roads, construction of temple and so on. It is gratifying to note that most of the women, who could not read and write before the initiation of programme activities, are now able to read books, write letters and sign the documents. The REDP community mobilization package consists of six basic principles, namely organization development, capital formation, skill enhancement, technology promotion, environment management and women's empowerment.

The institutionalization of District Development Committee (DDC) for rural energy planning and management, non governmental organization (NGO) for implementing community mobilization and private sector for technical support services have created an enabling environment for the promotion of rural energy systems in the districts. Now the decentralized planning and programming of rural energy systems is done at district level through the Rural Energy Development Section (REDS) established as the first ever sectoral unit of DDC in line with the Local Self Governance Act 1999.

The REDP has been recognized as a successful programme in the national and international arenas. The REDP is registered as the "Best Practice" programme by SURF, United Nations Development Programme (UNDP). The programme was featured as a "projects around the world" in EXPO 2000 in Hannover, Germany and awarded the Second Prize under the Public Investment Category of the Energy Globe Award 2000 in Linz, Austria.

At the national level, the government has recognized the REDP's holistic approach of promoting sustainable rural energy systems through community mobilization as an appropriate rural development model for achieving the overriding goal of poverty alleviation in the country. Accordingly, the National Planning Commission (NPC) has adapted the "best practice" lesson learned of the REDP in the Tenth Five Year Plan (2002-2006).

Finally, we would like to express our sincere appreciation and thanks to all stakeholders without whose cooperation, support and participation the programme would not be able to achieve the impressive results. The important stakeholders include the government agencies, elected bodies (DDCs and VDCs), private sectors, NGOs, academic institutes and communities. Our special thanks goes to men and women of the programme areas, who have demonstrated the courage and ability to plan, install and operate the micro hydro schemes in an integrated manner for their social, economic and environmental empowerment for enhanced livelihoods and the poverty alleviation.



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