

Micro Finance and Income Generation Practice in Energy Sector in Nepal

Nepal is one of the poorest countries in the world where 1/3 of the population lives below the poverty line. The income inequality in Nepal is highest in South Asia. The difficult terrain, lack of awareness, political conflict and poverty are the major reasons that rural communities could not change its status. The infrastructures like road, electricity, communications, health facilities are basic requirement for development of any societies but rural societies are deprived of all the facilities. The expansion of central grid is very costly due to remoteness and difficult terrain, the investment cost on modern forms of technologies (renewable) is very expensive which the poor community can not afford. Even the energy facility and consumption gap between urban and rural community is very high. The rural community has to pay the cost before they get the access to the technologies where as urban pay the cost after getting the facilities.

There are more women than men living in poverty and they have difficult time compared to men due to their socio-cultural roles. They spent more hours in collecting fuelwood and doing other unproductive works. This limits their ability to engage in productive and income generating activities. Poor health condition, lack of awareness, work burden are the problems that most women faces.

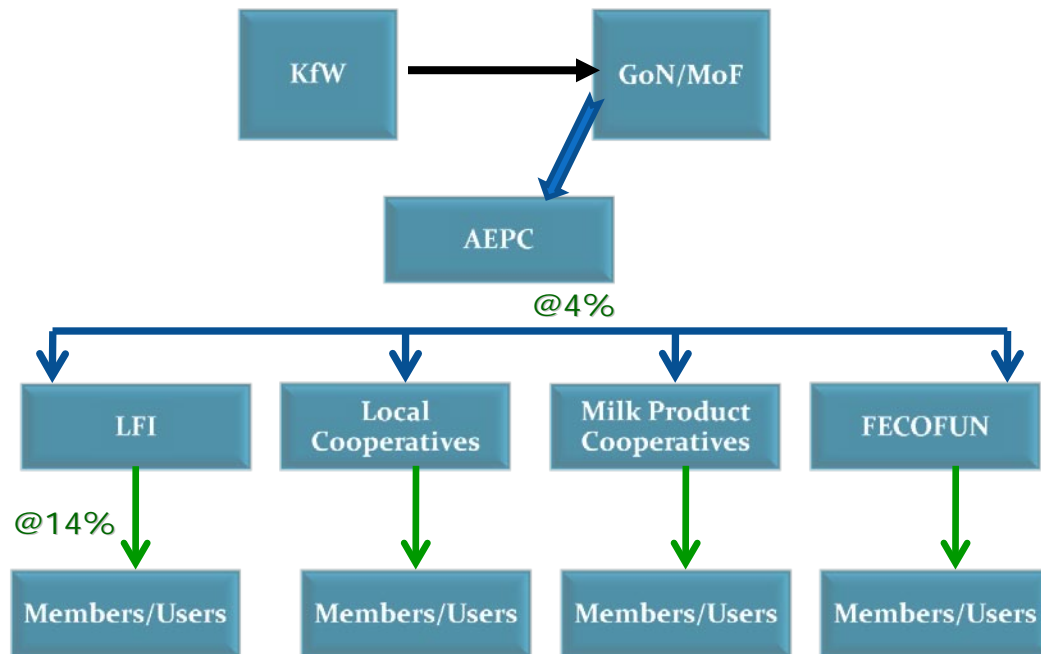
The exploitation of various sources of renewable energy sources like biogas, micro hydro, solar, wind, improved water mills etc has great potentiality in Nepal. Therefore Government of Nepal has established Alternative Energy Promotion Center (AEPC) in 1996 with an objective of environment conservation and sustainable development of rural areas by promoting different sources of renewable energy. GoN is already providing subsidy to all RETs to deliver energy services in rural area.

The subsidy provision on micro hydro covers almost 50% of the total cost, rest of the investment has to manage by community or private sector entrepreneur, on biogas almost covers 40%, rest has to manage by users, on solar subsidy covers 30-50%, rest has to manage by user. Due to the high investment cost of the RE technologies, the real poor community is still far behind to get the facility given by the Government, only the well of families are able to get it.

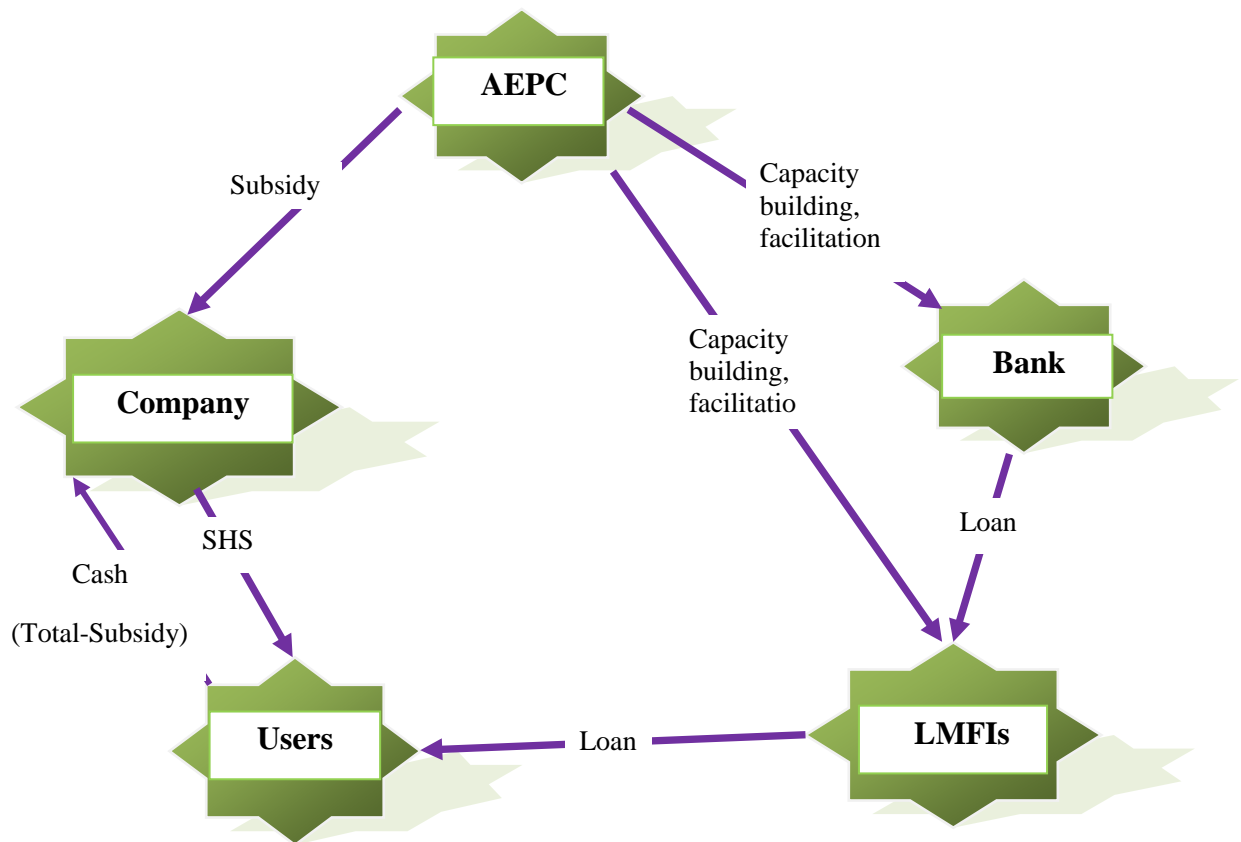
Beside the subsidy provision of GoN, the concept of micro financing (MF) has been introduced for wide dissemination of RETs to the real poor. With the aim of increase employment, better health, knowledge and awareness and access to basic infrastructure like telephone, photocopy, radio station, computer and internet and gender balance and women empowerment.

The implementation of MF practice has been started from 2000 in case of biogas. Some 232 MFI are involved in providing the loan facility to rural household and till date more than 18000 biogas plants has been successfully implemented. kfW is the financial supporter for biogas. GoN/ministry of finance (MoF) has signed MOU with kfW in November 2000 and MoF has MoU with AEPC for return of the investment within the

time frame of 25 years. AEPC provides loan to local MFI @4% interest rate where as local MFI can add the interest upto 14%. The fund channeling model is shown below. This practice is going successfully and till date, this model is implementing in 40 districts.



The implementation of solar home system through local MFI has been started from 2009 in order to fill the fund gap for upfront investment. Considering the inability of poor community to purchase the system, providing the access to isolated society and replace the kerosene, involvement of local MF institutions has been introduced by AEPC/ESAP. Compared to biogas, the introduction of MFI approach for SHS remained a bit tough. The availability of cattle for agriculture purpose in most of the households, selling of milk products, having some cash in hand, are some factors that local financiers feel safe and secure in investing biogas whereas in case of SHS, the approach is just beginning so hard to find local financing institutions, financiers know very little about technology and AEPC procedure and find risky job for investment. After several meetings and workshop to the local financiers on AEPC, financial procedures and technology itself, the approach given below has been implemented. AEPC/ESAP supports in capacity building of banks and banks provides loan to their respective local financing institutions. The private companies supplies the technologies, they ensure quality, continuous supply of technology and provides after sales service, whereas bank support for loan to the users. There is mutual understanding between company and local financiers so that there is cooperation in between for lending the loan and supply of technologies. It is also compulsory that every user should be the member of local financier. Till date 1200 SHS has been distributed through this approach through 25 local micro financing institutions.



GoN is also trying to extend the credit for income generation activities. Promotion of technologies without incorporating other benefits that it can bring in the society would not be so effective. There is no doubt that renewable technologies reduces the work load, saves the time, develops the infrastructure, this opportunity should be maximum used to change the social status, gender balance and women's empowerment.

The best practice of Rural Energy Development Programme (REDP) to support Rs 10000/kW but not exceeding Rs 250000.00 has been replicated by GoN/AEPC for all micro hydro systems. Before, it was practiced only for micro hydro implemented by REDP. This fund provided to committee formed within the village for implementation of micro hydro. After completion of micro hydro, the fund is used for promotion of electric based enduses. The establishment of rural communication centre, photocopy, FM station, extension of bank services to rural areas, electric based shops, agro-processing mills are now becoming very popular business in rural societies after rural electrification through micro hydro.

Despite the practice of Government or projects, the progress on ownership of women entrepreneurship is still very minimum. Reason may be due to lack of access and control on resources. Mostly women do not have property right, so they are always on financial burdens and can not approach for credit. Therefore it is very essential that women shall starts micro enterprise to have a cash income. Capacity building through trainings and aware them on small business and approach them on credit facility should be on high

priority for sustainable livelihood. Formation of women's group, practice them saving and credit scheme and mobilize the fund raised within the members to start micro enterprise is the best way to financial sustainability of women. REDP is doing this practice since 1996 for empowerment of women in the rural society.

Conclusion

- Local NGO or MF institutions are effective means to operate micro finance
- Operation of saving and credit schemes is the reliable solutions at local level to generate micro enterprise
- Every project should have income generation package programme for sustainability of the project and livelihood enhancement of the community
- Micro financing institutions are gradually increasing in RE sector
- Income generation activities should targeted to women

The women of South Asia faces the common problem of heavy work burden, adverse health condition, indoor air pollution and missed productive employment. The establishment of Women in Sustainable Energy Research (WISER) can play a vital role to cope with the common problems of South Asian women. Some recommendations are given below:

Recommendations

- Facilitate for regional technology and information transfer
- Use WISER expertise (human resource) for RE promotion in south Asia countries
- Support to increase skill sets among policy makers (aware and capacity building)
- Support in increasing political will within region
- Support in technology improvement (R and D)-Innovative funding mechanism
- Expansion of local expertise
- Build trust and collaboration for regional cooperation
- Develop a long term vision of energy supply network system
- Act as regional hub for policy dialogues and consultation with stakeholders
- Establish a regular forum on energy

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