

TOWARDS THE FRAMEWORK FOR COMMERCIALIZATION OF ICS IN NEPAL

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Abstract:

Improved Cooking Stoves (ICS) Program was initiated in Nepal during 1950s with the introduction of "Hyderabad and Magan Stoves" models, which gained momentum during 1970s and took a larger form during early 1980s with the ICS dissemination efforts of the Government of Nepal and few other institutions. Till date, approximately more than 125,000 ICS have been disseminated in various districts of the country with the involvement of more than 40 different organizations so far.

Since 1990, new initiatives of ICS dissemination have been introduced with the locally built user-friendly models of ICS. At present, the policies and strategies are guided by demand driven and sustainable approach without any direct subsidy to the ICS users. The consistent government policy has led to the no direct subsidy but market approach for ICS dissemination.

Though this may be termed as non-commercial approach where in the program implementers are responsible for awareness creation, capacity development of the Promoters as well as monitoring of the ICS installed by these Promoters. However, this can be asserted that the approach is geared towards commercialization of ICS. Sample surveys have shown that there is still a need for the promotion of ICS through awareness creation, training in building user friendly and appropriate models to cater the diverse need of different ethnic groups and geographical variations of the country.

Further the "Action Program for Strengthening ICS Networks in Nepal" implemented by CRT/N with support from ARECOP has been complimenting the effort of the member organizations in commercialization of ICS through its regular publication, documentation, training programs etc. Through R&D programs, the network has tried to fill the identified gaps in the field of research on various aspects of ICS.

1. Background:

Nepal, with a per capita energy consumption of about 15 GJ, is among the least energy consuming countries in the world. Nepal lacks proven deposit of fossil fuel and hence relies heavily (90%) on traditional energy resources such as fuelwood, agricultural residues and animal waste. Per capita annual fuel wood consumption is estimated to be approximately 3000-4000 in the hills and 1500–2000 kg in the plains. This requirement of fuel wood is met

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through public forests (66%), private farms (19%), and from community forests (12%). Due to heavy dependency on fuel wood, forest of Nepal is depleting at the faster rate causing ecological and environmental degradation.

Realizing the need to alleviate the pressure from the forest, His Majesty's Government of Nepal (HMG/N) has provided policy guidelines to encourage development and application of energy saving devices as well as promotion and dissemination of alternate energy technologies from its 9th Plan (1997–2002). HMG/N has given emphasis to further development of alternative energy sources in particular the improved cook stove in the 10th Plan (2003-2007). Within the plan period, HMG/N plans for 2,50,000 ICS to be installed. These initiatives will be supported by efforts to involve Research and development Institutions to develop cost effective appropriate models and designs, which could be disseminated in a larger scale in mountains and plains also, besides the hilly regions.

This paper highlights various concept/approaches and the experiences towards sustainability. The paper further examines various approaches, strengths and opportunities geared towards establishing a solid framework for commercialization of ICS in Nepal.

2. History:

History of ICS dates back to early 1950s with an introduction of some Indian models "Hyderabad and Magan Stoves". In the 1960s mould-based stove model developed by Department of Agriculture was disseminated. A number of institutions such as Peace Corps, UNICEF, Women Training Centre and RECAST¹ etc. have integrated ICS dissemination in their other development activities during 1970s.

During 1980s to address the pressing fuelwood problem, the government massively disseminated prefabricated ceramic ICS through FAO and UNDP assisted Community Forestry Development Project (CFDP). This effort was further complimented with the ICS field-testing and design modification by RECAST in 1982. Consequently Insert stoves came into picture.

Later in early 1990s, RECAST developed "Improved *Tamang* Stove" a mud stove model, which is cheap and could be produced at the local level by trained local person using locally available materials. This model was disseminated with new initiative, and with demand-driven, bottom up, participatory and need based approach. Emphasis was given on mass awareness creation and sensitization, for creating demand for ICS in this approach.

3. Present Approaches of ICS Programs in Nepal

Improved Cooking Stove (ICS) has been the priority sector of the Government as well as donor agencies in Nepal. The government has laid emphasis to the large- scale promotion of ICS in the country. It was therefore the government initiated national ICS program in mid

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1999 at a time when national and international organizations were rather reluctant and accorded low priority to enhance ICS programmes.

Various organizations were promoting ICS with different strategies and approaches. Some ICS programs were integrated with other development activities such as community mobilization, saving and credit, health, integrated rural technologies, environment etc.

Various ICS programs have not only introduced the ICS technology but also have intensified mass awareness campaign and technology transfer, by number of demonstrations, training and workshops, which has greatly enhanced awareness and increased demands.

Implementing strategies of different ICS programs may not match exactly with each other but the major objective is similar i.e. sustainable approaches of ICS dissemination. Most of the ICS programs are implemented at present are without direct subsidy to the end users. This strategy has helped to develop ownership and continued maintenance and use of ICS.

The National ICS program of the government supported by ESAP/DANIDA and implemented through various NGOs, is taking the lead towards sustainable and commercialized ICS dissemination in Nepal.

4. National ICS Program

National ICS Program is one of the five components under Alternate Energy Promotion Centre (AEPC) of HMG/N and DANIDA funded Energy Support Assistance Program (ESAP). Centre for Rural Technology Nepal (CRT/N), Department of Women Development, other National NGOs and CBOs are implementing the Program. The program was initiated in May 1999 with an objective to disseminate 40,000 ICS primarily in middle hills and to develop appropriate strategies and flexible approaches in the country involving more and more rural women.

The main focus of the program is capacity building of the local partners, communities and the individuals (Promoters) to enable ICS Promotion on their own without any external support. This is being achieved through various training programs, awareness campaign, and social mobilizations. Besides, the Program has been emphasizing on close monitoring to ensure quality and technical standard of the ICS promoted in the area.

5. ICS Promotion Through Other Agencies:

A considerable number of I/NGOs, CBOs, bi-and multilateral donor organizations and local governing bodies have over the years been involved in stove dissemination with varying strategies and with lesser scales as compared to the national programme. There are about 20 such organizations promoting ICS on varying scale and contribute about 5000 ICS per year (ICS Inventory 2001).

The main thrust of these programs is to:

(a) Promote/disseminate suitable and qualitative ICS for efficient utilization of the fuel wood/biomass and health improvement through smoke reduction in the kitchen.

(b) Develop and strengthen local skills and capabilities of stove promoters including that of users to undertake ICS dissemination activities in a sustainable manner and without external input.

These programmes although scattered are apparently successful in promoting ICS without direct subsidy to the end user which seems promising to create mass awareness and contribute towards embarking upon commercialization of ICS in the country in the near future.

6. Framework Towards Commercialization:

6.1 Right Strategies and Approaches:

By and large the present ICS dissemination efforts in Nepal is guided by need based, no subsidy, demand driven, effective and appropriate technology and flexible approach focused to women. National ICS program have been to some extent able to advocate on this right strategy to all the stakeholders involved in ICS promotion in the country. In this context most organizations have phased out their user's subsidy and giving due importance to quality dissemination.

In recent years a common thoughts has been established among different organisations promoting ICS to contribute to a national strategy for ICS promotion and dissemination, which would be sustainable in the sense, that quality ICS promotion and dissemination could continue to take place in rural (and semi rural) areas, primarily in the middle hills, by the local people themselves without external inputs.

6.2 Training, Information and Awareness Activities:

Effective Information, Education and Awareness programs, which are adopted, help to increase the interest and willingness of the users to pay for the ICS. Information materials, Regional and local media reach the wider mass and play a paramount role in creating awareness at district and community level.

National ICS Program since it's initiation has focused on production and dissemination of promotional materials for different target groups, intermediaries and beneficiaries. Other institutions involved in ICS promotion also share these products.

Besides the above-mentioned promotional materials, during the course of implementation, different local awareness programs are being regularly organized at the district level.

6.3 Technical Standards and Quality:

Strong Technical backup and monitoring is the prerequisite of any ICS intervention to ensure quality. Only quality ICS could yield intended benefits to the users and have a demonstrative effect for creating market.

6.4 Appropriate and Effective Technology:

The National ICS Program has so far promoted about 35,000 ICS in the last three years in 11 mid-hill districts of Nepal. About 15000 ICS have been promoted by various other organizations in the same period. Sample surveys have shown that 95% of the ICS are in use and 90% of the users seem to be satisfied with the stoves. The driving force behind the

successful promotion is the trained and skilled local manpower (Promoters) and local partners to mobilize the communities. Besides, appropriate stove models, which are affordable and based on users needs and preferences, are other determining factors.

6.5 Capacity Building at Local Level

Technology transfer suited to local community's needs is considered as part and parcel of the sustainable development efforts. It is therefore, of utmost importance to build the capacity of the local partner organizations, VDCs, DDCs and local community. National ICS Program emphasizes on approaches such as information and awareness campaign training, orientation and demonstration, exposure visit in order to develop the capacity of the above mentioned actors having important role in large-scale decentralized ICS dissemination.

Till date, the National ICS Program has trained more than 850 local Promoters, more than 150 staff members representing about 90 local partner organizations. About equal numbers of local Promoters has been estimated to be trained by various organizations on top of the national program in the last few years.

6.7 ICS Networking:

ICS Network in Nepal has been established in 1995 with an objective of bringing the organizations working in the field of ICS under one umbrella and to facilitate the sharing of information and experiences. Since its establishment, ICS network has been serving as a forum for sharing issues, ideas and experiences relating to ICS activities promoted by various organizations and addresses ICS related issues and options.

Many I/NGOs and CBOs who are now involved in ICS dissemination, participate in the ICS network facilitated by CRT/N². So far, more than 35 institutions (GO/NGO/INGOs) have joined ICS-Network. (Inventory and Assessment of ICS, September 2001)

The Asia Regional Cookstove Program (ARECOP) has been assisting strengthening ICS Network in Nepal.

Since August 2000, "Action Program for Strengthening Improved Cooking Stove (ICS) Networks in Nepal" has been initiated with an objective to establish an efficient and effective NGO network in Nepal to improve the health of the cooking stove users and to prevent ecological degradation through popularization of ICS and strengthening of collaboration among NGOs, INGOs, GOs and other institutions.

Regular meeting of the members, publications, newsletters, posters and other relevant promotional materials have indeed boosted up the information flow and sharing. Besides, establishment of district level ICS-Network, research and training activities as well as complementing efforts of the government seem to be promising for the wider dissemination of ICS in Nepal in the future.

Commercialization of ICS is possible only when the ICS programs are decentralized with more direct involvement of communities. ICS Network is assisting in the process by

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providing a forum for exchange and interaction among the ICS related National and International organizations, district level NGOs, CBOs and local governing bodies. The network, with its information channel and programs has boosted the sustainable and non-subsidy approach towards ICS.

Conclusion:

In spite of long history of ICS programs in Nepal and efforts of the Government and development organizations towards mass dissemination of ICS, broad coverage of ICS still remains a challenge. Many rural communities are still reluctant to pay for ICS installation because of the past subsidy based approach for a long period.

Lack of awareness on impact of traditional stoves on their health, workload as well as environment and low-income rate of the people are probably the major factors behind the slower rate of ICS spread. The limited success of past ICS program has also contributed towards building negative attitude for ICS.

Despite this however, there are ample strengths and opportunities based on which suitable approaches and modalities could be built upon towards commercialization of ICS in Nepal.

Therefore, at this juncture it is of paramount importance to devise appropriate and effective policies and approaches towards a sustainable commercialized ICS dissemination in the country to achieve the desired objectives of better health and living conditions of the millions of rural disadvantaged people and protecting ecological and environmental degradation.

The "Regional Workshop on Sustainable ICS Dissemination with Special Emphasis on Commercialization" to be held in Cebu, Philippines would provide synergistic effect to the Sustainable ICS dissemination efforts and initiatives of the nations in this region.

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