EXTRACT FROM :

REGIONAL WOOD ENERGY DEVELOPMENT PROGRAMME IN ASIA

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REPORT

SUB-REGIONAL EXPERT CONSULTATION
IMPROVED COOKSTOVE DEVELOPMENT PROGRAMME
IN
SOUTH ASIAN COUNTRIES

Udaipur, Rajasthan
INDIA

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

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SRI LANKA

Sri Lanka Stove Programme
Progress, Issues and Future Directions

by

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1. PROGRESS

During the period 1975-1985 the Sarvodaya Sangamaya, The Ceylon Institute of Scientific and Industrial Research (CISIR) and the Industrial Development Board (IDB) took a lead role in carrying out R&D work to develop suitable stove designs.

This pioneering work resulted in large scale dissemination efforts after 1985, the major involvement coming from the Ministry of Power and Energy (MPE) and the Ceylon Electricity Board (CEB) with the focus on energy conservation. Since then almost 180,000 stoves in the rural areas and 150,000 stoves in the urban areas have been disseminated reaching a penetration level of over 10% of the households at the national level. Stove models and dissemination strategies adopted in each case were based on the respective socio-economic situations.

The rural stove model is a mud covered two-pot stove with a standard pottery insert. The installation requires the service of a trained stove installer. The stove is provided at a subsidized cost. The subsidy is covered with funds coming from the Government of Sri Lanka and donor Agencies. The programme is coordinated and managed by a project team from the Alternative Energy Division of the Ceylon Electricity Board with extension services provided by village level Govt. Officers and Voluntary Organizations. The decentralized production of pottery inserts are done by rural potters which are distributed to the extension officers by the project staff.

The urban stove is a portable two pot stove produced in tile factories and marketed through the private sector at commercial prices. Training and limited promotional support has been provided by the project.

A dissemination rate covering 10% of the households within a period of 10 years is certainly a satisfactory achievement. The reasons for this success can be due to:

1) Methodological R&D work carried out by Sarvodaya, IDB, CISIR and the ITDG at the initial stages of development.

2) Commitment, Policy and infra-structural support extended by the MPE and the CEB for widespread dissemination at the national level.

3) Technical and financial support provided by the Donor Agencies.
4) Exposure to international experience through training and network facilitated by the ITDG and RWEDP/FAO.
5) Commitment and devotion of the project staff.

However, within the framework of this success a number of questions remain unanswered and important issues have evolved for which no easy solutions can be found.

If sustainability of stove programme activities is desired these have to be clearly understood and action need to be taken accordingly.

2. LESSONS

1. Rural Experience

With regard to the rural population despite the fuelwood scarce situation at macro level, majority of the people still have free access to plantation residues, namely coconut, rubber and tea and other free firewood producing resources such as wayside trees, forests and home gardens. It is clearly seen that rural people adopt improved stoves for reasons other than fuel saving which has influenced the programme to move toward a broader spectrum of objectives covering gender issues, health, social welfare improvement in quality of life etc.

It is also seen that in most districts where stoves have been disseminated in large number, there is a trend to reach saturation after about 30% penetration level thus showing that 70% of population are either unconcerned about adopting improved stoves or are isolated from the programme for reasons such as:

1) Price too high for the poorest despite the subsidy.
2) Fuelwood is not a serious problem as compared to other priorities.
3) Stove model is inappropriate. May be too bulky to be used in small or temporary houses.
4) May be the strategy is not flexible enough to reach the majority.
5) Limited manpower and financial resources and limited period of operation.

The major weakness in the rural strategy is that the continuity of the programme ceases when the project support is withdrawn. In fact this has happened in the Hambantota District where almost 25,000 stoves have been disseminated within the project period of 3 years. The strategy adopted does not facilitate institution building to take over stove activities after the project support is withdrawn. At present there is no intermediary organization between the national coordinator namely the Ceylon Electricity Board and the village level organizations carrying out the extension activities. It is therefore necessary to provide financial, management, and technical inputs to provincial level organizations to build up their resource base to continue and maintain the activities and the links developed by the national coordinator in the process of implementation. Lack of concern at the provincial levels for stove programme was found very common.

The provision of a subsidy is yet another necessary evil for the sustenance of the rural programme. Without the subsidy poor cannot afford to bear the total cost of the stove. But as several evaluations carried out have revealed that as far as energy is concerned, a stove is a low priority intervention which questions the justification for subsidy. Nevertheless with the broadening

of objectives of programmes to cover a broad spectrum of issues faced by poor people, stove has a better role to play in the long process of struggle to overcome the plight of the poor.

While continuing the subsidy, it also makes it difficult for local entrepreneurs to compete if commercialization is intended after the project support is withdrawn. The other major weakness is in the stove model itself, which necessitates the installation to be done by a trained stove builder and a complicated co-ordination effort associated with the installation. This not only makes large scale dissemination difficult but also the commercial marketing through shops due to limited access to trained stove builders and thus the stove becomes very costly. A model which the user can install or used directly is therefore desirable.

2. Urban Experience

The urban programme differed from the rural programme in several ways.

1) The model is a portable two pot ceramic stove.
2) Centralized commercial production using the tile factories (formal sector) as compared to decentralized production using the rural potters (informal sector).
3) Distribution and retailing arranged through existing private marketing mechanism.
4) Price of stove open to market responses, no subsidy provided.
5) Only training, promotion and monitoring cost borne by the project.

During the project period of two years annual production capability was built up to 100,000 stoves utilizing the infrastructure available in seven tile factories. New employment avenues were generated. Nearly 60,000 stoves were distributed using commercial channels and sold in the market through retail shops.

Post project evaluation has indicated that the urban poor was isolated from the benefits of the programme due to high price of stoves.

Some degree of quality control was achieved. But often production went on regardlessly without adhering to quality control methods recommended. Project officials were helpless as there was a demand for every stove produced.

Initially there was a high rate of cracking in usage. This was arrested but could not be completely stopped, due to the producers not interested in improvements despite the technical advice provided. Certain project activities could not be carried out as planned or delays causing frustrations to project personnel due to bureaucratic attitudes, rigid administrative and financial regulations which did not accommodate the demands of the project. Perhaps, a NGO would have been able to administer the programme more effectively, provided adequate manpower resources and infrastructural facilities were available.

3. Post Project Experience

Production and sale of stoves continue without project support although at a lower rate. Stoves are reaching new markets through small scale distributors.

Emergence of private producers is seen and as a result large number of substandard stoves are available in the market at lower prices which to certain degree is a good indication. Prices varied from Rs. 55 to 90. Substandard stoves produced by trained and authorized producers are also seen in the market.

It is also observed that a less efficient traditional U shape chulhas produced by rural potters are sold in the open market at very low prices, ca. one fourth of the price of an improved "ANAGI" stove promoted by the project. This probably is catering to the demand of the urban poor.

Production of the U shape chulha is not complicated as the "ANAGI" stove and does not require much skills. Perhaps the promotion of U shape chulhas with slight modifications to improve combustion efficiency may solve some of the problems faced by the poor urban users and the project in the fields of both production and marketing. However this may not have the same benefits provided by the 2 pot Anagi stove with regard to cooking time and consumption of boiled water for drinking, thus depriving the users of two major benefits of 2 pot stoves. However this can be contradictory to the objectives, if energy conservation is of the primary concern.

4. Funding, Objectives and Strategies

The stove programme in Sri Lanka is to a great degree supported by or through the energy sector, making it mandatory to focus on energy conservation.

However, except in certain limited regions and localized areas, shortage of biomass is not very widespread. Rural population still has access to free biomass either from home gardens, shrubs and forests from nearby and is supplemented through crop residues. It is therefore inevitable that this population places a low value on an intervention which neither has a high priority in their opinion nor provides them a cash benefit by saving biomass and other benefits which has no monetary value.

This is not so with the urban population where certain amount of priority exists for firewood saving and there is a substantial cash benefit by adopting improved stoves.

This situation influences the energy sector to review their commitment and support for rural programmes and to shift their focus from the rural to the more urban and fuelwood deficit areas for which there is reasonable justification from the energy point of view.

On the other hand with years of global experience and the improved knowledge available, the scope of introducing improved woodstoves is broadening beyond the arena of energy conservation encompassing a wide range of needs and issues at global, regional, national, community and household levels. These include environment, energy, health, hygiene, income generation, improving quality of life, reducing indoor pollution, environment pollution, gender issues etc. In this context quite contrary to the former view of shifting the focus to the more urban areas, there still is good justification for stove programmes to address these problems for the most needy group, the rural poor.

Yet it is a daunting task to convince and influence the energy sector and some of the donor agencies, to accommodate a broader outlook on stove intervention without necessarily confining to narrow objectives and perspectives.

It has to be understood that macro level objectives which encompass global and national issues cannot be achieved without addressing the micro level issues and concerns taken in totality for which appropriate micro level strategies need to be made use of. This also infers that means of achieving an objective or target is equally or more important than the target itself.

If the energy sector is not made to understand these realities and complexities of stove programmes pertaining to the objectives, the methodologies and strategies of implementation, it is bound to loose the sponsorship from the energy sector whose support is considered vital to the survival of stove activities in Sri Lanka.

Another problem that need to be carefully looked into is how the success of a stove programme can be assessed. Could the Sri Lankan programme be called a success merely because it was able to achieve 10% penetration level which amounts to almost over 300,000 stoves within a period of 5 years. Or on the other hand, could it be called a failure because this programme is not self sustainable. Should there be a time frame to achieve a certain target? On what basis should these be selected?

Taking into consideration the total number of stoves disseminated and the expenditure incurred during the last five years, the approximate per-stove cost is around two US$. How can a cost benefit analysis be done taking into consideration of all tangible and intangible benefits accrued at global, national, community, household and user levels. How can these benefits be measured? Are these the same throughout the life span of the stove or do they depend on user or the period of use? What are the quantitative and qualitative indicators to measure success of the programme? On what basis can they be identified? These are few of the several questions that need to be answered before determining the indicators of success.

However what is required is not a blue print to measure success but a broad framework of indicators to suit a wide spectrum of scenarios or local situations with the objective of facilitating the success rather its measurement.

3. FUTURE DIRECTIONS

There are still twelve districts with nearly one million families where the stove programme has been implemented at all. As an introductory phase, the rural programme will be continued in these areas with subsidy till a penetration level of 25% is reached.

In urban areas, the urban model will be promoted at unsubsidized prices making use of local commercial network. Eventually it is envisaged that the rural subsidized model will be phased out giving way to the unsubsidized urban model over a period of time.

Action will be taken to decentralize stove activities so that provincial and district levels to be responsible to carry out certain activities with the participation of village level organizations.

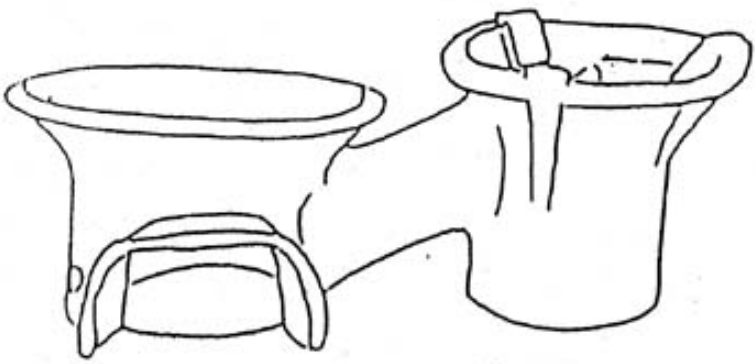
R&D work will be continued to develop a range of stoves to suit the particular need of the users with special emphasis on a low cost model affordable by the poor.

In view of the rigidness of the Government administration and financial procedures it is recommended to promote and support NGO's and small community Groups to independently carry out stove activities.

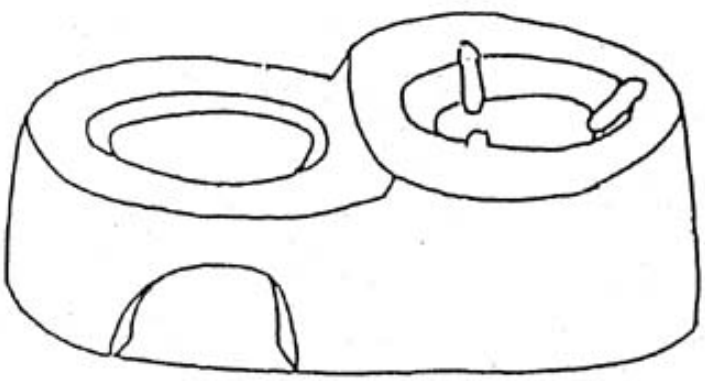
STOVES DISSEMINATED IN SRILANKA

1983 - 1987

C.I.S.I.R. STOVE (URBAN)



C.E.B. 2 POT STOVE (URBAN)



SARVODAYA MUD INSULATED STOVE (RURAL)