

Case Study of

KITCHEN IMPROVEMENT ACTIVITIES

IN WEERAKETIYA, SRI LANKA

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Many kitchen improvement programs are implemented in Sri Lanka. It is an important activity in many of the agendas of NGOs and GOs. The primary objective of these programs are to maintain a clean and an ergonomically efficient kitchen. Smoke pollution and ventilation improvements are not addressed properly probably due to high cost and lack of technical know how. The author is not aware of any serious study done in Sri Lanka to monitor or assess smoke pollution levels in kitchen or personal exposure levels. However the following studies in Sri Lanka give indication of high smoke levels in kitchens and related impact on health which warrants serious focus on the need for interventions.

The IDEA/ITDG study (1994)
in 16 plantation houses in the Waltrim Estate

Tests	Average CO Level ppm	Average RSP Micro grams ³ m
Cooking tests (12 Nos)	28.6 (1 Hr)	1192 (1 Hr)
All day monitoring	111.7 (6 Hrs)	989 (12 Hrs)

Range of average CO levels 8.3 - 47.5; Range of RSP levels 56 to 1450
Source : Peter Young *et al*

The Department of Community Medicine of the University of Colombo has carried out a survey to find the prevalence of recurrent respiratory symptoms and its association with environmental factors. The survey report prepared by K.N. Lankatilake *et al* states: "In 187 households (48.7%) there was at least one sick person (a child or a woman) with a history of recurrent respiratory

symptoms during the past six months. Such households associated significantly with firewood as cooking fuel and inadequately ventilated sleeping area. Cooking with firewood showed a 1.61 fold increase compared to other fuels (OR 1.61 (0.3 - 2.53)) and sleeping in inadequately ventilated rooms OR 2.8 (1.01 - 8.7)."

The need for holistic approaches to kitchen improvement.

The kitchen performs many functions, some of which contributes positively, and some negatively to the development of society. Therefore a deep understanding of the factors which influence the multifunctional role of the kitchen and the interactions of these factors are

necessary to enhance the positive impacts and mitigate the negative impacts. These factors cover a range of development issues and the complexity of interactions requires a holistic approach to avoid contradictions and maximize the beneficial impacts. Therefore, any project interventions should necessarily address gender, energy, health and other socio economic

concerns.

The first effort in proper kitchen improvement was made by IDEA in establishing a demonstration kitchen in Kudagampaha village in Hambantota District following a training conducted in Nepal by ARECOP in 1996 for which a staff member of IDEA participated. However, this program did not continue until a program of ARECOP Phase II was implemented when IDEA again concentrated on this aspect.

After creating awareness on kitchen improvement, IDEA, in association with the Ruhunu Rural Ladies Society, which is the District Focal Point of the ICS National Network for Hambantota District, launched a pilot project targeting low-income households in two villages namely Katuwewa and Kumbukmulla in the Weeraketiya District Secretaries Division. The social mobilization program conducted at an earlier stage in relation to the introduction of Anagi Stoves had created a conducive atmosphere to initiate this program. The target group consisted of low-income 13 households.

Characteristics of the households

- Education level: majority O/L
- Average monthly income: Rs 2500 (USD 25)
- 8 male and 5 female headed households
- All government welfare beneficiaries.
- Average kitchen floor area 100 sq ft

- (64 - 140 sqft)
- All families use biomass only for cooking

Project interventions.

The initial activity was awareness creation and social mobilisation to secure community participation. These activities created considerable interest among the women to improve their kitchens. At the beginning men did not participate in the activity but after few kitchens were improved men took a leading role in construction activities. Every effort was taken to secure the participation of all the family members. Cooking was done in a small enclosure separated from the main house or under an eave.

Characteristics of the kitchens.

Walls		Roofs		Floor	
Mud Clay	2	Thatched cadjan	10	Mud	10
Fired bricks	3	Tiles	1	Cement	2
Unfired bricks	5	Cdjan and GI sheets	1	Bricks	1
Mud and bricks	2	Cadjan & Tiles	1		
Wattle and Daub	1				

- 4 kitchens were already exist
- 6 kitchens modified to provide improvements
- 3 kitchens were newly constructed.

The kitchen design was left to be decided by the beneficiaries depending on their socio economic and cultural needs. The project interventions consisted of:

- Construction of a chimney hood.
- Providing an improved stove either Anagi clay stove or Anagi Mud stove
- Ventilation improvements
- Providing shelves to store bottles and plates
- Shelves for vegetables
- Storage of firewood and water
- Lighting improvement
- Waste disposal
- Platform to place pots and pans and for working
- Platform to place the grinding stone

The major challenge was to improvise low cost technical interventions to evacuate smoke and improve ventilation. With the long years of experience in stove activities, IDEA has an opinion that providing chimney hoods were more effective than providing chimney stoves. In most cases chimney stoves were found to be poorly maintained due to practical reasons leading to poor performance, thus making it worse than traditional stoves. Many houses use the smoke to dry food. Therefore the chimney hoods were found to be more practical and acceptable to many households.

Strategies adopted in disseminating kitchen improvement

Strategies adopted in disseminating the technology were creating

awareness, training, monitoring and evaluation. These were conducted at organizational level as well as rural levels. In extending these programmes at organizational level in other districts, IDEA used the national network member organizations. In implementing kitchen improvement programs at rural level, IDEA had to intervene in providing technical support at the beginning although training was provided to network NGOs. However the network NGOs provided their fullest assistance in implementing these programs and are very keen to continue their capacity building. Since kitchen improvement is a more social act than a technical act and where community is concerned, they have to be motivated and awareness should be created from time to time and also should be conducted through local organizations. Kitchen improvement should be treated as a social mobilization program rather than a technical program as the effect of

kitchen improvement has reflected on the improvement of the whole house resulting in enhancing the beneficiary's quality of life.

Lessons learned

There were many experiences encountered when implementing the program and they were:

- Awareness programs should be followed by practical exercises for the same group.
- Demonstration kitchens should be established within the areas of the target groups.
- It is desirable to take target groups to visit field activities to create awareness.
- The motivation of the families can be developed by the visits of external groups and persons to their houses and sharing experiences.
- Implementation would be successful if participation of all family members is obtained.
- When making each component in the kitchen, it should be done with the consultation and participation of the housewife and family members according to their wishes.
- Improvements should be carried out gradually by giving priority to activities which provide immediate benefits.
- The field officers implementing the programs should have a practical and theoretical knowledge about activities of a kitchen.
- The field staff implementing programs should always act as social mobilizers.

Outputs of the Programme

After implementation of the program it was observed that unexpected direct outputs had been obtained. Previously, it was expected that an efficient kitchen with healthy environment was the only output, but it was realized then that there were additional outputs expected. These outputs could be categorized into two and they are:

- Family unit wise.

- Community development wise.

The family wise outputs were:

- Through a healthy kitchen with proper ventilation, there was an increase in the participation of other family members in activities which were earlier limited to the housewife.
- Family unity increased.
- Because of the increasing of the cleanliness of the kitchen, other sections such as inside the house, outside the house, and even family member's cleanliness also increased.
- Coordination between families of the village increased.

Community wise outputs were:

- It made easier for the local organization to obtain participation of the community in group activities and other gatherings due to trust established after benefits of kitchen

improvement.

- This program has become an entry point for new programs.
- The capability of working with other organizations within the local area or the district has increased.
- It can be easily introduced to the community as the program gives direct benefits.
- Motivation of the field officers of the organizations increased.

Problems encountered during implementation

- Adequate participation of men was not satisfactory during the inception of the program.
- The housewives were too busy to find time to participate in the program.
- Lack of expertise among field officers within organizations.
- Lack of staff within organizations.
- Lack of financial resources within rural communities and

organizations.

Some strategies adopted to encounter above problems

- Kitchen improvement was conducted in one place with participation of every body during community group meetings and other meetings.
- While improving kitchens, the activities to be done by women should be completed first in order to obtain the participation of men.
- Obtain participation of other societies in the village.
- Motivating family members by implementing kitchen improvement activities in their presence.
- Creating awareness of men should be done gradually to obtain their participation in activities which women are not capable to do.
- Establish micro credit schemes to meet small financial needs. **glow**

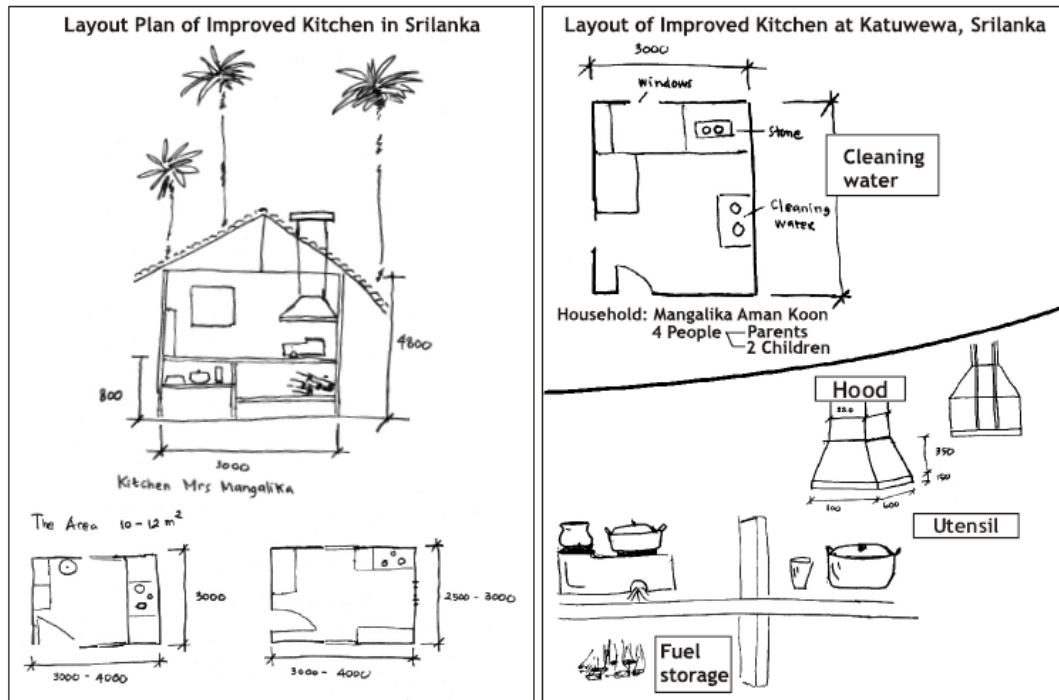


Illustration by Prof. S.K. Sharma