

Forestry Projects: How Women Can Help — and Help Themselves

As the principal gatherers and users of fuelwood, rural women in developing countries are greatly affected by its increasing scarcity. Although most development agencies are responding to dwindling wood supplies by initiating forestry programmes of various types, women are seldom significantly involved in all the phases of a project; yet their participation can often be vital to its success. This article, taken from a paper by Gloria Scott, discusses why this situation should be remedied and how it can be done.*

In many developing countries, 90 per cent of the wood consumed is burnt as fuel, with a significant proportion being used as household fuel for cooking and heating. The repercussions of the wood shortage affect rural women more than any other group, for not only do they have a major responsibility for using the wood for cooking; they also collect and transport it. The scarcity of firewood also has adverse effects on family nutrition in a number of ways: faster-cooking and often less-nutritious foods are cooked; money which has been allocated to buy food is used instead to buy wood and the use of animal dung and agricultural residues as fuel reduces soil fertility and consequently crop yields.

There has been an increase in forestry projects undertaken by international agencies in recent years and the scope of these has been widened to ensure the involvement of local people at the village level. However, although quite a few projects relate to women — in that women are implicitly included where projects refer to the 'people', 'household needs and uses' or the 'foresters' — only very rarely are they specifically referred to. Yet forestry projects could benefit greatly from recognizing women as the principal gatherers and users of domestic fuel and therefore the group with the greatest interest in improving and ensuring its supply.

FUEL CONSERVATION

Stoves: how to improve them

Energy is often wasted in traditional forms of cooking, and, as a result, several forestry projects have been directed at developing and introducing

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more fuel-efficient stoves, along with tree-planting programmes. The main beneficiaries from stove improvement are women and children, whose wood-collecting burden would be lessened, and stove-builders.

A World Bank Project in Nepal set down some interesting criteria for stove improvement, stating that upgraded devices should be:

- More efficient than those to be replaced.
- Low-cost in terms of both cash and time required for construction, maintenance, and materials used.
- Made from local materials wherever possible.
- Simple to construct and maintain so that knowledge can be easily transferred.
- Accommodate behavioural patterns and systems.

By providing for improved stoves to be built and demonstrated in villages which establish self-help woodlots, the World Bank Gujarat Project links wood production and consumption. An important aspect of this Project is the provision for communication units to be headed by female social workers whose task will be to determine and encourage the use of the most appropriate stove for the locality. The stove-builders assigned to each social worker will probably be men; even so, male artisans are usually more free to work with groups of women if a woman leader is supervising. Another interesting feature of this Project is its investigation into cooking behaviour, information which only women can supply. For instance, women accustomed to cooking in a squatting position are unlikely to accept an innovation such as a raised stove; the introduction of the female social workers will avoid such problems.

Women as stove builders

In Bengal, women traditionally build stoves¹ and in many parts of the world, women are skilled pottery-makers,² working in clay and sand. Stove-building might well become an extension of this craft, and to encourage the acceptance and diffusion of fuel-



Loads like this are not unusual — even after 10 hours in the field.

Who photo by E. Mandelmann

efficient stoves, more attention should be given to the training of women as stove-builders. Where it is socially appropriate for women to build stoves, they will obviously require training. Such training need not be limited to technical factors but might also include entrepreneurial skills, such as management, bookkeeping, marketing, establishing credit, etc.

The inclusion of women amongst the first group from Honduras to be trained in Guatemala in the construction of Lorena stoves undoubtedly contributed to the rapid adoption of the stoves in Honduras. In one low-cost Honduran project, these women masons were able to interact with the female heads of household who make up over 60 per cent of the families in this particular community. The ready acceptance of the stoves was due also to the credit facilities offered through the co-operative which meant that a household could have a stove built and a kitchen area framed and roofed at a monthly cost which was approximately the same amount as their fuel saving.³

The acceptance in Honduras of the Lorena stove from Guatemala gives a clear indication of the roles which can be successfully played by women; the need to involve women in the design, evaluation, building and dissemination of the new stove technology should be obvious. Hopefully, the poor record of dissemination in Africa and Asia can be overcome with the greater involvement of women.

Alternative fuels

Some World Bank projects propose to

encourage the greater use of charcoal and the introduction of alternative fuels. The projects aim to improve the inefficient burning of charcoal and reduce its cost, thus absorbing less of women's household budget. A major disadvantage of charcoal use is that a different method of cooking is required. A report of the World Bank Upper Volta Project notes that the charcoal stoves available are too expensive to be widely affordable, and that they are not suited to prevalent methods of food preparation.

The use of peat, too, poses problems. In the World Bank Burundi Peat Project, even when offered free, peat proved unpopular with the local women as a domestic fuel because of the heavy smoke produced: houses in Burundi are usually windowless. It also requires a special stove.

Where the collection of solar energy is being introduced, as in the Bolivian Alti Plano, action-oriented research with women would facilitate the choice among alternative uses. For instance, women might be interested in community solar ovens for dehydrating foods for more efficient storage than traditional methods, or for precooking traditional foods, such as beans, which could later be reheated and served at home. In addition to conserving fuel and improving nutrition, such uses would reduce the time spent collecting fuel and cooking, allowing women extra time to care for their animals and to make and market their handicrafts, thus increasing household resources.

FUEL AVAILABILITY

Women's participation

In country after country, the same lesson has been learned: tree-planting programmes are most successful when a majority of the local community is involved in planning and implementation. Projects must include



World Bank photo by Ray Wilkin

Women must be involved in stoves projects — at all levels.

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Mary M. Hill for World Bank

Women are often responsible for the care of plants and seedlings.

provisions for studies into how to motivate the local community to ensure their participation and support for the Project's aims. These studies and motivation and training efforts should give careful attention to women's perceptions and priorities.

After all, in many cultures it is the women who start the seed beds, care for the young plants and protect the trees in their homesteads and villages. In Senegal, for instance, this is already a significant industry for women, who also make containers for seedlings. The importance of including women in any training should be obvious.

Projects have frequently failed to take account of the important roles of women in decision making and implementation of village-level activities. Increasing the numbers of women trainees as change agents would serve to increase women's involvement in project activities and thus improve the chances of achieving project objectives. Community-level research in which women are an integral part of the design, as interviewers and interviewed, not only broadens the data base, but also increases the awareness of local women and of others about the problems of finding fuel for cooking.

Village woodlots

The World Bank has a number of woodlot projects; some of these provide for studies and research on which to base the selection of the most appropriate species for introduction. This is an area where women can make vitally important contributions. Valuable information about indigenous trees, medicinal and herbal use of leaves and roots, as well as constraints to the introduction of new species are all in the realm of women's knowledge. In particular, women can contribute to information on the uses of various species of trees as food, so that the decision on the types of trees to be planted can take into account their nutritional value to families in the project area.

How else women can help

The right to use wood as fuel and the right to scavenge for other alternatives varies widely, depending upon tradition and culture, inter-mixed with concepts of private and communal ownership of land. Land tenure systems can adversely affect the supply of firewood resources in widely differing ways: in cases where local women are denied access to the timber, they cannot collect firewood — and in cases where the landlord cannot refuse access uncontrolled wood collection can seriously affect the owner's willingness to plant for the future. These questions of land access are another important aspect of project design to which women could contribute useful information.

Women supplement their family resources by many fuel-using activities in the informal sector. Frequently, their earnings from these activities are constrained because of the scarcity of fuel at the very time when they need cash to purchase fuel for food preparation. Information obtained on the cyclical aspects of demand and supply for fuel related to women's food chain activities, to nutrition, and income levels would help to demonstrate the cost-effectiveness of various alternative sources of energy and promote better planning of energy use. Innovations which women introduce at the household level to cope with shortages may suggest directions for research.

Some recommendations

This article has attempted to explain why policy-makers, project designers and project managers should make more explicit reference to women in forestry projects which would better assure their participation in the phases of a project cycle which directly or indirectly involve them.

Among the recommendations which emerge is that given that conserving and using available fuel supplies more efficiently is a priority for the whole society, in which women's contribution can be significant:

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- Women should be fully involved in efforts to design, build and evaluate more efficient stoves;
- Alternative fuels, especially for domestic use, and small-scale food processing activities, should be relevant to women's interests and fit into their user habits;
- Women should be trained to demonstrate these fuel-conserving alternatives and, where culturally appropriate, they should be trained for their manufacture.

Women's interest and motivation is critical to community support and participation in planting, tending and managing woodlots, thus efforts should be made to involve them. This can be achieved in a number of ways:

- Studies of practical actions to promote community support should give careful attention to women's perceptions and priorities;
- New tenure and management systems should take account of women's roles in pre-existing systems;
- Proposals for nurseries, planting and care of trees, should be built on the

traditions and practices of nursery-women;

- Women should be afforded opportunities for training, including training as motivators, and training as trainers which would facilitate approaching other women.

As a significant portion of fuelwood is used in the domestic sphere of women's responsibility, women should be trained as interviewers for forestry-related surveys and approached for information on:

- The cultural preferences for using certain species,
- Rights of access to collect and use wood and agricultural residues;
- Costs of fuel, amounts used, who collects it and time taken;
- Variations in diet according to availability or cost of fuel and season;
- Uses of indigenous trees, including as food;
- Subsistence food-growing patterns;
- Traditional management practices in available forests;

- Local women's groups which could support the project in various ways.

Information on World Bank projects has confirmed that a major portion of the energy consumption among the poor in both rural and urban areas is for household and subsistence activities and that by and large the detailed information on its usage is inadequate. Women are the principal actors in this domain and the successful introduction of innovations to conserve or increase the supply of fuel depend to a significant extent on women's collaboration in their planning, adaptation and diffusion. ●

Footnotes and references

1. Briscoe, J., *The Political Economy of Energy Use in Rural Bangladesh*. 1979.
2. It is interesting to note that upgrading of production equipment frequently alters sex assignment of tasks: pottery is often made by men when a wheel is available.
3. Elmendorf, M., 'The Human Dimension: Energy Survey Methodology'. National Academy of Science International Workshop. 1980.
4. Wood, D., et al. *Fuelwood Use and Rural Community Fuelwood Programmes* Devres, AID. 1980.

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The Training in Alternative Energy Technologies program provides a thorough and comprehensive understanding of the alternative energy technologies for selected technically oriented participants from the developing countries. Two training sessions are conducted each year. Each of the fifteen-week sessions consists of two integral parts: a self-contained, two-week short course at the beginning of the program, followed by the extended session. The short course, which serves as an introduction to the extended session, will be of interest to government officials, executives and other persons unable to attend the complete program.

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