No Panacea for the Firewood Crisis

With oil prices declining and cracks appearing in OPEC, the energy crisis has disappeared from the headlines. But for hundreds of millions of people in the Third World, it remains an everyday reality. Firewood, the cooking and heating fuel of the poor, is in short supply and getting scarcer in many regions.

A study just published by Earthscan, part of the London-based International Institute for Environment and Development, provides a grim reminder of this other energy crisis.* But it also tells a new story. Since the firewood problem was brought to public attention a decade ago, foreign aid agencies and some Third World governments have responded with an assortment of projects ranging from tree-planting schemes to efforts aimed at promoting the use of more efficient stoves. In financial terms, the response has been astonishing: about $100 million a year is now being spent by the World Bank and other aid agencies on community forestry alone. But much of this effort has gone awry, according to the Earthscan study.

Mark Edwards/Earthscan

Women's work

Firewood gathering is usually done by women, but many community projects are aimed at men. Crop residues, such as sugarcane in this picture, are often substituted for wood.

Many tree-planting projects have not benefited the poorest people, who are most severely affected by shortages, and "there have been no large-scale success stories" in encouraging use of woodstoves, says Erik Eckholm, one of the authors of the Earthscan report, Eckholm, who was instrumental in focusing public attention on the firewood crisis with a study published in 1975†, argues that the development agencies "deserve a lot of credit" for moving swiftly to deal with the problem. But the discouraging results so far say a great deal about the difficulties in tackling some of the basic problems of development.

The growing demand for firewood from a rapidly increasing rural population is frequently cited as a major cause of deforestation in the Third World. But the Earthscan study points out that the forests are disappearing because people need the land for farming; only in a few areas—such as zones around cities in the Sahel—is firewood demand the prime cause of deforestation.

When firewood becomes scarce, a vicious cycle begins. As local wood sources diminish, villagers—usually women and children—spend more and more time searching for fuel and hauling it over long distances. They also burn increasing amounts of cattle dung and crop residues instead of returning them to the soil, thereby depriving the fields of much-needed nutrient. In many areas where once it was a free good, firewood has become a valuable traded commodity and local industries can outbid villagers for it.

In the mid-1970's, when the dimensions of the firewood crisis first became evident, the general response was to encourage the planting of more trees. Aid agencies such as the World Bank, which had previously focused their forestry efforts entirely on industrial plantation projects began, to put resources into small-scale efforts on both private and communally owned land. The Earthscan study found that those on private land have often been highly successful, but not necessarily in the provision of firewood.

In these projects, farmers have been encouraged through various incentive schemes to grow trees as a cash crop. Frequently, however, the wood is sold for construction or for industrial uses such as paper manufacturing, a development that has helped increase the farmers' incomes and contributed to the rural economy, but it has not helped meet the fuel needs of the poorest villagers. Even when the wood is sold for fuel, it goes only to those who can afford it.

These commercial projects have at least been successful in stimulating the cultivation and use of trees. With some notable exceptions—especially in China and South Korea—efforts to encourage the cultivation of trees on communal land often have not even achieved this goal. The reasons are manifold. The Earthscan study notes that community projects are far more difficult to organize than those involving individual farmers. In many cases, institutional factors can also be serious obstacles. For example, forestry officials who carry out the projects are traditionally viewed by villagers as rural policemen. Moreover, the projects are frequently aimed at men when it is the village women who are responsible for gathering firewood supplies. Those projects that have been successful usually have involved painstaking planning with full involvement of the villagers themselves. Popular participation in community projects "is not just a cliché, it is an absolute necessity," says Eckholm.

The study points to calculations that have been made of the amount of tree planting that will be needed to bring supplies of firewood into balance with projected demand. "The results have been shocking, indicating a need from anywhere from a fivefold to, in some parts of Africa, a 20-fold or greater increase in the area planted. These increases are for many countries far beyond any realistic possibility," the report concludes.

More, and better-organized, tree-growing projects will therefore be required, but even if they are highly successful firewood scarcities will increase in many regions. As prices rise, alternative fuels such as kerosene will be substituted by people who can afford them, but "for those who are really poor, the depletion of formerly free firewood supplies means that fuel joins food, water, and housing on the list of basic needs that are satisfied inadequately and with great trouble."—**COLIN NORMAN**

*Erik Eckholm, Gerald Foley, Geoffrey Barnard, and Lloyd Timberlake, *Fuelwood: The Energy Crisis That Won't Go Away* (Earthscan, Washington, D.C. 1984).

†Erik Eckholm, *The Other Energy Crisis: Firewood* (Worldwatch Institute, Washington, D.C., 1975).