

EDITORIAL

Wood energy

Two decades have passed since *Unasylva* last dedicated an issue (No. 133, 1981) to wood energy. The central concern at that time was fuelwood shortage: in a report to the 1981 United Nations Conference on New and Renewable Sources of Energy, FAO forecast that almost 2.8 billion people in developing regions would experience a deficit of fuelwood by 2000, and that 356 million would suffer acute shortage. Other organizations were similarly alarmed.

Happily, these predictions have not come to pass (see page 7 of the current issue for the full story), and progress has certainly been made towards resolving some of the problems associated with wood energy use in developing countries.

Certain problems remain – including insufficient management of the resources, the labour involved in fuelwood collection (primarily carried out by women and children), the informality of trade, and pollution and health problems resulting from inefficient conversion of woodfuel. National capabilities for promoting and regulating wood energy systems (i.e. all the steps involved in the production, preparation, transportation, marketing, trade and utilization of woodfuels for their conversion into energy) are still weak in most places. Much remains to be done.

This issue begins with an overview, by M.A. Trossero, of both the problems and the opportunities facing the wood energy sector – not only for developing countries, which still depend on woodfuel to a large extent, but also for industrialized countries, which are adopting new energy and environmental policies emphasizing renewable fuels as an alternative to fossil fuels.

Next, E. Remedio examines livelihood patterns in relation to wood energy in the City and Province of Cebu, the Philippines – where the consumption, production and trade of woodfuel have a long tradition and continue to be important despite rapid urbanization. Remedio's article is complemented by shorter pieces on bioenergy and job generation (J. Domec) and issues of indoor air pollution and health problems related to the use of woodfuel, and ways to mitigate them (A. Koopmans).

Although subsidies and incentives are sometimes needed to promote woodfuel use, in some situations wood energy can be economical. G. Horgan examines the economics of the choice to use woodfuels for the different contexts of households and industries in developing and developed countries.

The use of charcoal has been a source of environmental concerns related to potential overexploitation of forest resources and deforestation. With increasing urbanization in Africa, P. Girard notes a shift towards greater use of charcoal rather than fuelwood for domestic cooking and heating. He suggests ways of avoiding problems that can be associated with charcoal,

including the use of residues from wood processing in charcoal making and implementation of proper forest management practices and regulations.

To identify locations where forest and tree resources are at risk of overexploitation for woodfuel, FAO has developed a new planning tool called Woodfuel Integrated Supply/Demand Overview Mapping (WISDOM). As described by R. Drigo, O.R. Masera and M.A. Trossero, WISDOM combines geographic information about woodfuel production and consumption to identify those areas where action to ensure the sustainability of woodfuel use is urgently needed.

For over five decades, FAO has been collecting and publishing statistics on the production and trade of forest products, including woodfuels. The woodfuel statistics in FAOSTAT, FAO's statistical database, have recently been revised based on improved methods for estimating missing data. A. Whiteman, J. Broadhead and J. Bahdon briefly describe the models used for the revision, and show how the changes influence the trends that emerge.

Short contributions dispersed through the issue look at such subjects as wood energy terminology (D. Thrän); wood energy and climate change; new charcoal-making technologies (H. Stassen); and the evolving international trade in woodfuel, particularly among industrialized countries (A. Faaij).

Finally, a non-thematic article by G. Kamwenda describes the *ngitili* agrosilvipastoral system in the United Republic of Tanzania, an indigenous system for alleviating dry-season fodder shortages and preventing environmental degradation. The system involves closing off an area of standing vegetation during the rainy season, and opening it up for grazing at the peak of the dry season.

Wood energy policies need to be holistic; they must take into account socio-economic, cultural and environmental factors, to avoid, for example, the deforestation and forest degradation problems that sometime resulted from incentives to promote woodfuel in the past. Wood energy programmes should be integrated into national forest programmes and coordinated with other sectors. They need to represent the full gamut of public and private stakeholders and to be tailored to the specific needs of the region, country or community involved.

The problems of woodfuel use are often interlinked with the problem of poverty. The mobilization of funding for wood energy initiatives remains the greatest challenge ahead. Investment is particularly needed in those rural areas where fuelwood and charcoal remain the main source of energy and can become a motor for economic development and improved livelihoods. ♦