



# seeking solutions

by Frances Seymour

Imagine a world in which forests remain high on the world's political agenda, and people recognize their real value in maintaining rural livelihoods and the flow of ecosystem goods and services to society. In that vision, decision making affecting forests is based on solid science and principles of good governance, and reflects the perspectives of developing countries and forest-dependent peoples. Policy makers have access to the best possible information and analysis, while forest managers in government, industry, and forest communities have the most appropriate tools and methods at their disposal.

Research can help make that vision a reality in at least four ways.

The first is by challenging the conventional wisdom on which policy and management are based. As in many areas of human endeavour, commonly accepted ideas are not always supported by the facts on the ground. Consider a number of questions important to forest management in the tropics: Do forests control flooding? Is shifting cultivation sustainable? Is poverty the main cause of deforestation? Does deforestation always make the poor worse off? Does commercialization of non-timber forest products protect biodiversity? Does decentralization lead to improved forest management?

Conventional wisdom provides a simple yes or no answer for each of these questions, but research has demonstrated that such answers can be profoundly misleading as guides to forest policy and practice in particular circumstances.

Research has shown, for example, that the relationship between forest cover and hydrology is complex, depending on soil, slope, rainfall intensity and other variables. Forest vegetation certainly helps moderate small-scale flooding, but there is less evidence to support the presumed ability of forests to prevent the kinds of massive floods that have precipitated logging bans in some countries. And planting trees can have a wide range of impacts on both the timing and the volume of water yield.

The relationship between forests and poverty is also not a simple one. Poor households play a role in converting forest margins to agriculture (and in so doing are often made better off). But research has illuminated how the underlying causes of deforestation include government policies that provide access to forests through road-building, and reward forest clearance with land tenure. In many cases, the main agents of deforestation aren't poor people at all, but corporations that clear natural forests to establish commercial agriculture, ranching or tree crop plantations.

The correct answer to most important forest management questions is thus: "it depends". Research can help elaborate the factors that give rise to the right answers, and help decision makers and practitioners to craft responses that are appropriate to each situation.

Secondly, research can illuminate winners and losers. Crucially, it can bring to light the implications of alternative forest policies and practices for equity. As forests are important to the livelihoods of hundreds of millions of poor people, any change in forest management risks making some of the world's most vulnerable communities even worse off. Conversely, changes in the way forest resources are managed can improve those communities' rights and welfare, and ensure that public assets are managed for the public good rather than private gain.

Studies have shown, for example, that many regulations designed to control the harvest and transport of forest products have the unintended consequence of making it harder for smallholders to make a living from sustainable forestry. No one stops a farmer bringing rice or corn to market, but he or she may be stopped multiple times — to be checked for permits and/or asked for bribes — when transporting wood, charcoal or other forest products. Research has also revealed how high-profile "crackdowns" on illegal

logging tend to be focussed on the little guy with the chainsaw rather than the big guy with the bank account.

The implications are that forest regulations need to be reformed to tilt the playing field back towards the poor. Research can help identify which enforcement methods are most effective in achieving policy objectives without unnecessary costs, and which regulations may not be necessary at all.

A third role for research is to generate forest assessment, decision making, and management tools that can be adapted by practitioners to a wide range of circumstances: management of natural forests for production or conservation, development of plantations for industrial feedstock, or rehabilitation of degraded forests.

One example is what research has done in developing best practices for "Reduced Impact Logging" and beyond. It has shown how relatively simple changes in planning, harvest techniques, and post-harvest management can make a significant difference in the collateral damage caused to soils, vegetation and wildlife during timber extraction. Such results can inform policies governing timber concessions, and the practices of timber companies.

Research can also help government agencies, non-governmental organizations, and private companies to adopt the most effective and equitable ways of engaging with communities as partners in forest management. It has shown, for example, how forest management approaches can have unintended negative consequences for women if policies allocate decision making roles, land or credit to "heads of households" (assumed to be men). Even the timing and structure of community meetings can make a big difference in whether or not women have a meaningful voice.

The incredible diversity of forest ecosystems and forest communities makes it even more important that managers know the right questions to ask, rather than implement specific answers that have worked elsewhere. Research can help organize those questions into "toolkits" to support inclusive decision making.

Last but not least, research can help forest policy makers and managers prepare for changed future conditions. Economic globalization and climate change are just two of the forces ensuring that tomorrow's forest management challenges will be quite different from yesterday's.

In an era of globalized trade and investment, decisions made on the other side of the world can both affect markets for forest products and the prices of commodities that compete with forests for land. Research can help us anticipate how trade and investment trends will put new pressures on forests, and what policy levers are available to mitigate them. Scenario analysis, for example, can help inform decisions about whether and where to invest in new wood processing capacity, based on the likely availability of legally and sustainably produced feedstock.

Climate change is the next big challenge on the horizon, and forest research is urgently needed to inform management for both mitigation and adaptation. Interest from forest countries and potential investors in Reducing Emissions from Deforestation and Degradation (REDD) must be accompanied by understanding of the most effective, efficient, and equitable ways to turn international financial transfers into change on the ground. Research can also help inform what should be done now to strengthen forests' resilience to the impacts of climate change, and ensure the continuing flow of forest-based goods and services to communities, national economies and the world.

Research across many disciplines is necessary to help us realize a new vision for forests. It's not just about silviculture any more. 