

Characterizing the Forestry-Related Science and Technology Demands of the Poor in Developing Countries over the Next Two Decades

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Introduction

The forestry sector worldwide is ‘in transition’. In most developing countries the fundamental structure of the forestry sector has been largely static since the colonial period. This is now changing: dramatic shifts are underway in forest tenure, industry, government policy, governance structures (e.g. decentralization), and even the focus of ‘forestry’ – from managing closed canopy forests to managing forest resources in landscapes mosaics. These shifts are driven by local and domestic demands for democratization, by globalization, by the dismantling (quite late, relative to other sectors) of central government-dominated forest management and marketing systems, and by shifts in markets for forest products and services.

In parallel with these transitions there is an emerging global consensus on the end goals of forestry activity--conservation, poverty reduction, modernized governments, and resilient enterprises that serve both domestic and global markets--but little experience in how to ‘manage these transitions’. Over the next few decades, the basic problem for leaders in governments, NGOs, donors, forward-looking industry, and rural communities will not be ‘what is our end goal?’ but rather ‘how do we get there?’ Substantive policy reforms are often either stymied or sidetracked by entrenched political constituencies and weak leadership.

Thus, in forestry, unlike agriculture, the most urgent research demands and issues will be of an institutional rather than a technological nature. In most developing countries the key constraints to forestry making stronger contributions to people’s livelihoods pertain to their rights to access and use forest resources, and to their ability to compete with large (often subsidized) industry. The bulk of international public goods forestry research should focus on how to implement changes needed to achieve poverty and conservation impacts to scale, i.e., how to transform tenure, how to make markets work for the poor, how to position technical research institutionally to serve forest community and smallholder agroforestry producers, how to reward provision of forest ecosystem services in ways that recognize potentials of poor producers and the needs of poor users.

Key Trends Creating Opportunities for Low-Income Producers

- Increased local control of forests: Nearly one-fourth of the forest estate in the most forested developing countries is now owned (14%) or officially administered (8%) by indigenous and rural communities, as a result of recent government recognition of local claims and devolution, which are ongoing. These percentages have roughly doubled in the last 15 years and are likely to double again in the next. Local ownership offers opportunities to capitalize on forest assets.
- Growing forest product demand: Though demand for forest products in developed countries is growing slowly, demand in developing countries is growing rapidly--and this demand will have to be met mainly by domestic production. New processing technologies are creating demand for small-diameter, lower-quality wood which communities can and do produce.

- Increasing scarcity raises the value of natural forests: The supply of tropical hardwoods from natural forest has declined greatly, due to deforestation, over-harvesting, establishment of protected areas, and civil disturbance. Prices for higher grade hardwoods are one of the few segments that show positive price trends. Remaining stands of natural tropical hardwoods are becoming more valuable and local people hold a substantial and increasing share of these stands.
- Growing demand for ecosystem services: Environmental concerns are creating new markets for certified forest products and ecosystem services. Recognition of critical roles for ecosystem services of forests are increasing attention to management of forest resources in more populated and mixed use landscape mosaics. Socially and environmentally aware investors are exploring opportunities to invest in sustainable forest management and local forest owners.
- Forest intensification: Demand has prompted intensified forest management. Forest scarcity, increased prices of timber relative to those for grain, expansion of farming into marginal lands, tree domestication and out-grower arrangements have stimulated extensive tree-growing and commercialization on small farms.
- Globalization: While market globalization often favours highly efficient, lower-cost producers, it is also opening opportunities to non-traditional suppliers, as new niche markets arise and buyers become more proactive in seeking and securing reliable sources of scarce forest commodities. Meanwhile, globalization of ideas and standards, the spread of the Internet and non-conventional partnerships have facilitated the sharing of innovations among regions and producer groups.
- More democratic governance: Community, investor and consumer demands for socially responsible forestry are beginning to drive improved social protections for forest communities. Democratization is fostering reforms in forest governance that give greater voice to local people. International norms support indigenous land rights.
- More community-oriented research: NARS and NGOs have greatly increased their capacity to do technical research on forestry and agroforestry issues relevant to community producers and smallholders, and to link research with conservation and development. Yet they remain weak on policy research and have a limited understanding of global trends and lessons being learned in other countries.

Key Challenges to Realizing Opportunities

Across the developing world low-income people are struggling to enhance their incomes, achieve greater social and economic security, and to play a larger role in the forces that govern their lives. The new, global trends are providing local people new opportunities to improve their lives. In the forestry sector, capturing these opportunities on a globally significant scale requires removing policy barriers and developing forest enterprises.

Removing policy barriers

Currently, uncertainties about forest tenure and restricted forest access are the most binding constraints to development and expansion of local forest businesses and conservation initiatives. More secure forest access and ownership rights for local people must be pursued aggressively, including the establishment of property rights for ecosystem services. Reducing the excessive regulatory burden on local forest producers is essential for them to utilize their own forests or public forests to improve livelihoods. Complex, poorly understood and contradictory regulations from multiple agencies make compliance difficult, encouraging selective enforcement, corruption and forcing millions of people to operate illegally. Requirements of forest management plans and

certification need to be radically simplified for small-scale producers to comply. Meanwhile, reforms to “level the playing field” in forest product markets are essential. Most governments still have a plethora of rules that distort markets and burden small-scale producers, establish official monopoly buyers and set excessive taxes and forest agency service charges. As international and domestic ecosystem service markets develop, it is essential that the rules put in place to protect and enhance local interests. Local producers’ active involvement in forest policy negotiations is needed for more practical realistic and lower-cost laws, market regulations and development plans. Mechanisms must meanwhile be reinforced to protect the “safety net” functions of forests for the poorest forest users.

Developing forest enterprises

Local forest enterprises will need assistance to improve their market position. Supply networks must be built that link low-income producers to markets and increase production efficiency. Producers must learn how to respond to consumer preferences and have good marketing strategies. Low-income producers will need to manage risks through a portfolio of products in different income/risk categories, maintaining the capacity to switch products as demand changes. Commercial development requires strong local producer organizations to make capital investments, undertake processing activities, organize marketing deals and establish product quality and conservation controls. Groups of producers will need to work together to overcome “gaps” in the value chain. Low-income producers will need to seek strategic partnerships with industrial firms to access high-quality planting materials, technical assistance, quality control, investment resources and marketing and business expertise, and with conservation organization to tap resource management expertise. How to develop and maintain such partnerships is a key challenge. Local business success will depend on access to essential business services tailored to meet the special requirements of lower-income producers for management services, organizational support, technical assistance for production, conservation and processing, market information, insurance, marketing and finance. Viable community-based forest production and conservation sectors will require new production, processing and management systems, whose development will require changes in the focus of education, training and research institutions.

Implications for Research

Although the key elements of an action agenda are becoming clearer, unfortunately decision makers lack the most basic information regarding the local implication of the global trends, the local character of these opportunities, the lessons from experiences in other countries and their own policy options. For this reason key challenge to the international research community will be informing policy, industry and community leaders in making more informed choices on these ‘transition’ issues. This will call for new types of policy research including:

- comparative studies on the range of ‘transitional’ policy issues and approaches in different countries and land-use systems;
- studies to understand what can be learned regarding the implementation of new initiatives (e.g. sequencing, coalition building, financing, budgeting, etc);
- rigorous analyses of markets, market opportunities, and enterprise development to identify viable market options for low-income forestry and agroforestry producers;
- development and analysis of alternative institutional models for community-based conservation in both forested regions and forest resources in landscape mosaics;
- analyses documenting institutional and policy interconnections of conservation, markets and policy;

- studies that analyze forest production and conservation in relation to the broader agricultural and working landscapes and production systems;
- research undertaken in partnership with forest community and smallholder producer and conservation organizations and federations.

Important technical challenges clearly require international attention, such as: domestication of tree and under-story species for more sustainable commercial use in tropical farming systems, industrial processing and utilization of new species for new types of products, forest resource management for biodiversity conservation in both high and low forest cover landscapes in the context of ecological and climate change, and measurement of ecosystem services of diverse forest resources. But appropriate design and effective utilization of such technical research will be contingent on progress on policies and institutions, and should be implemented primarily in the context of applied policy and institutional research and development initiatives. This may increasingly be led by NARS, although resource and political constraints make it likely that international input will continue to be important in shaping pro-poor research agendas.

Overall, researchers will need to break out of traditional research mindsets and approaches to be more influential in the next few decades. Effectiveness will be defined and measured in new ways – not whether you had a conference or published a report – but whether policy shifts were more informed and headed in a ‘pro-poor’ direction. Forestry researchers will need to intersect with actors at much higher levels of the policy formulation and implementation, and be much more strategic in their approach to identifying priorities, methodologies, and products. Research institutions will need to become more politically astute and operationally nimble, as well as develop the capacity to identify strategic leverage points and exploit windows of political opportunity.

References

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