

## CHAPTER SIXTEEN

### MAJOR OBSERVATIONS AND SOME CONCLUSIONS

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#### INTRODUCTION

Smallholder tree growing is increasingly recognized by rural development workers, policy-makers, and planners as an essential component of rural development, sustainable land use, and reforestation and its associated environmental services. Although fairly extensive in some countries, the information on trees grown outside forested areas is still fragmented and often presented by sector. Inventories and assessments of trees in agricultural areas are generally lacking, jeopardizing the development of databases on various tree-related statistics, such as plant densities, types of species, growing and planting techniques, economic value, and social demands of tree products.

#### MAJOR OBSERVATIONS

During the panel session in April 2005, two major observations were brought forward. First, spontaneous tree planting (in home gardens, on-farm and through natural regeneration) occurs in various parts of the Philippines and also elsewhere in Southeast Asia. In Isabela Province (Northeast Luzon) there is even a tendency towards an increase in tree growing among smallholders. Yet, there is insufficient attention for it and facts and numbers are lacking. Second, in case of project-based tree planting, there is too much focus on short-term goals and consequently too little time and attention for the follow up activities, which results in low adoption of proposed technologies.

Other observations that were made during panel discussions refer to ecological, economic, management and policy aspects of smallholder tree growing, and these are outlined below.

#### Ecological aspects

Trees in agricultural landscapes are particularly associated with long-term environmental services, like water purification, soil conservation, habitats for flora and fauna, and carbon sequestration. However, when promoting the integration of trees in smallholder farms through research, projects and programs, various ecological and technical aspects tend to be overlooked. Aspects forming a clear barrier to tree integration include: (1) the lack of tree diversity and availability of high quality seeds and germplasm, (2) the lack of silvicultural knowledge particularly about indigenous species and their inclusion in seasonal crop and tree mixtures, (3) the lack of knowledge on

trees, and their integration in farm systems, among farmers and little attention to farmers' knowledge, and (4) inadequate technology generation, dissemination and extension.

### **Economic aspects**

Financial instruments to promote tree integration among smallholders are insufficiently addressed by donor organizations, government and non-government institutions. Attention should be given to questions about the role of tree-based micro-credits, risk insurance and the debt-for-nature-swaps.

Another important limitation is the absence of a third-party certification of tree products generated by smallholders. Such a certification could generate many benefits if set up, for example, in the form of a sustainable forestry certification for international markets. The latter will give production insurance and ensure harvesting takes place under environmentally sustainable and socially acceptable conditions. The benefits of certification systems like those of the Forest Stewardship Council (FSC), active since 1993, and those operating at national levels are diverse and not only related to consumers but also to producers, retailers and manufacturers. For example, for the final consumers, it creates the choice for sustainable behavior. For retailers and manufacturers, it will generally lead to an improvement of their image and create resource assurance (e.g. Unilever). Producers will benefit from having access to markets and long-term agreements, and they may receive a price premium on their products (10 to 30 percent).

Public-private partnerships also have potential, linking, for example, smallholder tree growers with branches of tree processing and marketing in the private sector, but are not widely established. There is generally a lack of knowledge of the requirements and problems in such partnerships. Yet, long-term and sustainable partnerships are important, also with regards to the fluctuations in prices.

### **Management and extension aspects**

Donor-funded projects often focus on short-term (three years) rather than long-term activities (five to ten years), which may hamper the success of such projects depending on the lifecycle of the products produced in the project. In addition, many forestry projects and programs lack a more holistic approach and sustainable strategy for reforestation. The reforestation value chain (Lasco this volume) presents such an approach and serves as a guide for reforestation projects from design to implementation to evaluation. It includes a chain of key activities that add value to reforestation, with reforestation referring to all tree planting activities.

### **Policy aspects**

There are various policy constraints to the harvesting and transportation of wood and other tree products grown on-farm. In addition, the costs and efforts associated with the harvest and

transport of protected indigenous tree species are even more limiting. Likewise, in countries such as Indonesia, land tenure policies like those referring to limited or no land rights constrain tree growing by smallholders.

## CONCLUSIONS

There is clearly a need for more attention to, and support for, spontaneous smallholder tree planting (and natural regeneration) from scientists, foresters, development workers, policy makers and planners. Moreover, reorientation towards more ecologically sound (on-farm) systems of tree growing is crucial, avoiding the sole emphasis on economics and emphasizing environmental services of trees in agricultural landscapes.

One way to shift towards more ecologically sound systems is to put (more) emphasis on indigenous species rather than exotic ones. We know too little of the economic and ecological potential of indigenous species and, hence, investigations of implementation avenues are required.

Another way to enhance the implementation of ecologically sound tree growing systems is to address technical barriers to tree integration and enhance extension services. Some of these barriers (i.e. those related to inadequate marketing channels) could be dealt with by linking smallholder farmers with actors in the private sector and fostering long-term, sustainable partnerships between the public and the private sectors in support of tree integration.

For donor-funded projects it is imperative that they be reoriented towards long-term rather than short-term duration and take into account the whole chain of activities from planting to marketing.

There is further a need to review and revise policy barriers to tree integration, including policies on land and tree tenure (in Indonesia and the Philippines), harvesting of trees and tree products (so that all trees planted by farmers in farms can be harvested) and transportation (e.g. elimination of fees for transportation of farm-grown trees). Farmers often face high costs, when applying for harvesting permits and certifications. Hence, a minimal or no-cost option for the issuance of permits and certifications can be explored.

Finally, more research on various instruments addressing environmental services, such as, tree-based micro-credits, risk insurance and debt-for-nature swaps is required. Likewise, the third party certification needs more investigation, in terms of the potential of different certification schemes for tree products (national and international, high and low requirements) and its role in reforestation and smallholder farm-grown timber and non-timber products.

It is obvious from the conclusions listed above that advances are needed in practical approaches to assess the true contribution of smallholder tree growing to economic needs, social demands, and ecosystem maintenance using both local and scientific knowledge. Such assessments will be instrumental in evolving and implementing effective policies in sustainable development and reforestation programs.