

## 2. NATURE AND OBJECTIVES OF ACIAR PROJECT ASEM/2003/052: IMPROVING FINANCIAL RETURNS TO SMALLHOLDER TREE FARMERS IN THE PHILIPPINES

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This paper provides an overview of ASEM/2003/052 – *Improving Financial Returns to Smallholder Tree Farmers in the Philippines* funded by the Australian Centre for International Agricultural Research (ACIAR), which commenced on 1 January 2004 and ran until 31 December 2008. ASEM/2003/052 involved a series of interrelated research activities investigating measures to improve financial returns to smallholder tree farmers in the Philippines. This paper discusses the main drivers for current low returns to smallholders that have been identified from research and extensive consultations with stakeholders. In particular, the effects of regulations on market access and product quality appear to be the dominant constraints on smallholders receiving higher returns from their existing tree farms. The paper then outlines the general research strategy that was developed to address these constraints by improving the implementation of policy, helping smallholders access markets and through longer term policy initiatives.

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### INTRODUCTION

Most upland farmers in the Philippines have incomes below the poverty line. Timber production from smallholder tree farms provides a mechanism for income generation and capital accumulation. However, current returns to smallholder tree farmers are low, for a variety of reasons. Research conducted as part of a four-year project funded by the Australian Centre for International Agricultural Research suggests that tree farmers could receive much higher financial returns from their tree farms if they had better market access and knowledge of prices, produced greater volumes of timber per unit of cost, and could better produce timber of appropriate species, log size and quality as desired by the market. In order for smallholders to access markets they must first obtain log transport permits and sometimes harvest permits. In order to do this, they must first register their tree farms with the Department of Environment and Natural Resources. There are many institutional impediments restricting the ability of farmers to register trees, and hence these act as a barrier to them gaining access to markets, thus restricting timber sales to local markets, which are often thin and non-competitive. In addition, many smallholders lack information about how and where to market their trees, and also lack knowledge of the current market value of their trees. For these reasons, they often accept the first offered, and often low, price for their timber. Smallholders also lack knowledge about what the market requirements are for timber and as a result do not manage their tree farms to optimize the output of these desired products. This paper first discusses the factors that contribute to low returns to smallholder tree farmers and then discusses strategies that have been employed as part of the ACIAR Tree Farm Project.

ACIAR Project ASEM/2003/052 – *Improving Financial Returns to Smallholder Tree Farmers in the Philippines* – commenced on 1 January 2005 and ran for four years until December 2008, with an end of project workshop being held in February 2009. The project was designed to improve the livelihoods of smallholder farmers in Leyte Province through

investigating ways of improving financial returns from forestry, and promoting the adoption of these improved management methods.

Forest industry development for both economic and environmental reasons is a high priority for the Philippines, as indicated in the Revised Master Plan for Forest Development (Revised MPFD) issued by the Department of Environment and Natural Resources (DENR) in 2003. In particular, the role of forests and forestry in poverty eradication and support of sustainable livelihood has been recognised in the Revised MPFD as being one of the important new developments in forestry in the Philippines.

Currently in Leyte, the twin problems exist of shortage of timber hence reliance on imports from other provinces and countries, and slow uptake of forestry in spite of availability of underutilized sloping lands. Forest industry development warrants high priority in Leyte Province. Plantings are carried out for production forestry, limited harvest and conservation purposes, which are all considered important under the Revised MPFD. At the farm and community level, this generates a timber resource for on-farm use, sometimes provides a supplementary income, and creates opportunities for value-adding from log timber. At the wider community level, forestry expansion will provide environmental benefits, reduce pressure for logging of native forests and unnecessary cutting of mature coconut trees, and reduce reliance on timber imports from other regions or other countries.

This paper discusses the various strategies for improving financial returns to smallholders that were investigated under ACIAR project ASEM/2003/052. The context of this project is first outlined, including a discussion of how the results of past research and consultations with key stakeholders have guided the development of the project. The specified goals and objectives of ASEM/2003/052 are then outlined and the research strategy discussed. The three main areas of focus – policy implementation-related activities, helping smallholders access markets and longer term policy initiatives – are then discussed in detail.

## **PROJECT CONTEXT**

The current project follows from ASEM/2000/088, which identified the social, economic and policy requirements for the facilitation of smallholder and community forestry in Leyte Province. Research undertaken as part of ASEM/2000/088 suggested that Leyte tree farmers could receive much higher financial returns from their tree farms if they had better market access and knowledge of prices, produced greater volumes of timber per unit of cost, and could better produce timber of appropriate species, log size and quality as desired by the market. In order for smallholders to access markets they must first obtain log transport permits and sometimes harvest permits. In order to do this, they must first register their 'tree farms' (i.e. plantation areas) with the DENR. There are many institutional impediments restricting the ability of farmers to register trees, which act as a barrier to them gaining access to markets, thus restricting timber sales to local markets, which are often thin and non-competitive. In addition, many smallholders lack information about how and where to market their trees, and lack knowledge of the current market value of their trees. For these reasons, they often accept the first offer, often at a low price, for their timber. Smallholders also lack knowledge about what the market requirements are for timber and as result do not manage their tree farms to optimise the output of these desired products.

Findings of the survey of 200 households in four communities conducted as part of ASEM/2000/088 provide support for the developing need to facilitate tree farmer access to formal timber markets (Emtage 2004). In the Focus Group Discussions (FGDs), two of the four tree farmers present identified the 'poor market for tree products' as a major factor constraining their tree management activities (Emtage 2004). While 10% of respondents were growing trees with the intention of selling them, few of those respondents were able to name where they would market their trees beyond naming the nearest large town, and few

knew the price they were likely to receive. Most of the respondents who planned to sell some trees asked the enumerators where they could sell them and what price they could expect to receive. Only 2% of respondents had registered their trees, and just 16% reported they knew how to do so. Every time a DENR person accompanied the researchers to the communities, they were asked many questions about the regulations and their implications for farmers. At a policy workshop involving community and LGU representatives, none of the LGU representatives and few of the community representatives had any knowledge about the tenure and tree harvesting and transport regulations (Emtage *et al.* 2004). They strongly recommended the need for a comprehensive information, education and communication (IEC) program by the DENR, which was also recommended in the Revised Masterplan for Forestry (UNFAO and FMBDENR 2003). The household survey also revealed that of the 15 constraints to tree management presented to respondents, the most highly ranked constraints that relate to existing tree farms were 'policies related to tree harvesting' and 'risk of additional fees'.

All the available evidence including data from project ASEM/2000/088 and from extensive consultation with Filipino stakeholders points to the effects of regulations on market access and product quality being the dominant constraints on smallholders receiving higher returns for timber from their *existing* tree farms. The four highest ranked impediments from the four-community survey (i.e. 'lack of access to land for tree planting', 'lack of finance to pay for tree growing needs', 'concern over security of tenure', and 'low availability of seedlings') apply to establishment of new tree farms. Because the new project focuses on existing tree farms, these constraints have not prevented landholders from planting trees - they apply to an earlier stage of the process of making the decision to plant trees – and so are not addressed in this project.

A number of large research projects have been undertaken in the Philippines concerning both forestry regulatory reforms (including on harvesting and transport regulations) and improving tree farming techniques<sup>1</sup>, and these have been considered in the design of the current project. Further identification of the desirable project directions has been generated by a meeting of the Project Advisory Committee (PAC) for ASEM/2000/088 held in conjunction with the end-of-project workshop in Ormoc, Leyte, in August 2004. Recommendations of the PAC included:

- Investigation of harvesting and transport permit issues be done by working with a community and investigating actual experiences in obtaining permits.
- Attention be placed on sawn timber value in addition to stumpage value in financial analysis of smallholder forestry (with implications for on-farm value adding).
- Any consideration of timber prices take into account timber quality and hence the way in which it is produced.
- The returns from mixed-species plantings and agroforestry (timber with other crops) be investigated, to provide information needed by DENR.

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<sup>1</sup> These projects include the Sector Adjustment Loan (SECAL) Program funded by the World Bank (e.g. see de Los Angeles 2000, Guiang 2001a and b), the Natural Resource Management Program (NRMP) funded by USAID, and various forestry development projects funded by ADB. De los Angeles (2000) critically reviewed the present extent of tenure arrangements, the lack of management plans for most forest areas and the lack of best management practices in public forestlands. Comprehensive examinations of the NRMP-sponsored CBFMAs have been provided by Bisson *et al.* (1997), Hyde *et al.* (1999) and Nasayao and Zara (1997), the latter reporting a survey of farmers' attitudes to agroforestry. These projects have provided valuable insights into the potential for management of forestlands in the Philippines, and constraints to successful management. Points raised in them are covered in the more recent review in the revised master plan for forestry (UNFAO FMBDENR 2003), as well as the ITTO review by Cassells *et al.* (2002) and the doctoral dissertation of Emtage (2004).

- The project investigates 'What would make tree farming in Leyte profitable'. In this context, there is a need to evaluate non-wood benefits of smallholder forestry, because these may be what are required to raise the financial performance from marginal to acceptable.
- Efforts be made to overcome the critical lack of information amongst smallholders about tree growing.
- Industry logistics and timber flows be investigated for Leyte.

Land tenure has also been identified as a major constraint to greater uptake of smallholder and community forestry. The Land Administration and Management Project (LAMP) project, partly funded by AusAID, is already examining measures to facilitate land titling in Leyte Province. Discussions with AusAID staff in Manila have indicated that key land tenure issues that affect smallholders are being addressed under LAMP 2 activities, which includes large scale land titling activities in three Leyte towns. As reported in Samar News.com (2008),

Consistent with President Gloria Macapagal-Arroyo's poverty reduction program, constituents from the three municipalities of Hilongos, Hindang and Matalom all in Leyte can now avail of the titling services of the Department of Environment and Natural Resources (DENR) 8 under Phase 2 of its Land Administration and Management Project (LAMP) implementation.

## **PROJECT GOAL, OBJECTIVES AND RESEARCH STRATEGY**

The goal of the project is to improve financial returns to existing tree farmers and intending smallholder tree farmers. The research strategy is reflected in the following objectives.

- Objective 1: Assist DENR to overcome policy implementation constraints to tree registration and log transport currently restricting access to markets
- Objective 2: Assist smallholder tree growers to satisfy market requirements and improve productivity
- Objective 3: Identify and promote livelihood systems and policies which incorporate forestry and which recognise the socio-economic circumstances of smallholders

In designing the project, a systems approach has been used, which has been applied at a number of levels. At a broad scale, a systems approach has been applied in the conceptualization of the project. That is, the issues associated with improving financial returns to smallholders have been conceptualized as being interrelated such that they cannot be addressed in isolation (as would be the case in a reductionist approach). At a finer or operational level, systems thinking is embedded in supply or value chain management which is the framework on which many of the activities falling under Objective 2 were based. In particular, a systems approach has been used to design the tree farm inventory research in order to ensure that it produced results that could be directly applied in other research activities relating to social and economic aspects of improving returns to smallholder tree farmers. Also, a systems approach is embedded in the investigation of livelihood systems in Objective 3; this approach recognizes that forestry cannot be undertaken by (or recommended to) smallholders in isolation without consideration of the broader context (or livelihood system) of which it will form a part.

The research strategy to address the project aim had three components. First, the university researchers collaborated with DENR officers and smallholders to identify and remedy impediments to timber market access. Many of the current problems with DENR regulations arise from the way in which these regulations are implemented, rather than the nature of the regulations per se. The focus was to work with DENR Region 8 to make the existing regulations work more effectively. This resulted in immediate short-term benefits to tree farmers wishing to register trees and obtain permits to transport logs. It is anticipated that in

the longer term the project outputs will influence national level DENR policy and regulations, and meetings have already been held with senior DENR officers in an attempt to influence policy. The research first identified why there are large differences in the rates of tree registration between Community Environment and Natural Resource (CENR) offices and how higher rates of tree registration can be facilitated. Mechanisms were developed to improve the flow of information about regulations affecting tree harvest and about transport approval, from DENR to LGUs and smallholders. Subsequent papers in these Proceedings outline these activities, especially related to the development and testing of the primer for tree registration, and harvesting and log transport approval. In addition, a 'School of the Air' radio program on tree farming policies was broadcast, with formal enrolment of 'students' and with active participation of Department of Environment and Natural Resources personnel, municipal mayors, councillors and municipal agricultural officers.

Research was also undertaken to identify the market requirements for timber in terms of species, type, quantity and quality of timber required by processors. A survey of timber processors on Leyte Island (including Biliran), Samar and Cebu has been undertaken. The market potential from existing tree farms in Leyte Province has also been assessed. This assessment involved four interrelated activities: (i) an assessment of timber quality and likely yield per product class, (ii) further financial analysis including on mixed-species agroforestry systems, (iii) modelling of timber supply and demand, and (iv) an investigation of the social and economic factors that affect the management of plantations and the types of outputs produced. The assessment of timber quality and yield was based on data collected on 5664 trees from 532 plots established on 119 tree farms. Socio-economic data have been collected from 81 of these tree farmers.

An extension program was developed and trialled, which tested mechanisms to improve the silviculture skills of farmers. As part of this program, 'bus tours' were conducted, taking smallholder tree farmers to demonstration sites in order to deliver key information about silviculture. During 2005 and 2006, four pilot tours were undertaken and the lessons learnt from each tour were then used to improve the subsequent tour. The effectiveness of bus tours as extension activities has been finalised and indicates that these 'tours' provide an effective and cost-efficient means of delivering extension advice to smallholders but their success is constrained by a number of factors. In addition, a pilot program involving cost-effective ways of linking buyers and sellers of timber has been conducted which involved the installing two large whiteboards outside a DENR office. One board provided details of smallholders and the woodlots (species, area, location and plot registration number) they had available. The other board provided details about processors including timber species they wanted to purchase and purchase prices according to sawn timber dimensions. Initial reports have been positive but problems were found with the information quickly becoming outdated, especially in respect to information about available timber. Plantation trials have been established on farms that demonstrate to farmers the benefits of early-age silviculture and late age thinning treatments. We also established other field trials to provide information for improved design of tree farm systems.

An analysis has been undertaken of livelihood strategies adopted by various types of smallholders and recommendations made on appropriate farming systems that incorporate forestry and that recognize the socio-economic circumstances of smallholders. University researchers have actively collaborated with DENR to develop policy recommendations based on the findings from the various project activities, which have been presented to senior DENR staff in Manila. These efforts are continuing.

## **SOME CONCLUDING COMMENTS**

The project has been highly successful from a number of perspectives. The research undertaken has been of the highest international standard and there have already been

many publications arising from the project. Many more publications are expected over the coming months and next two years. The project was fortunate to have an excellent team of researchers from both Australia and the Philippines, with the skills of the local collaborators complementing the skills of the Australian team. The result has been research of world class and one of the most highly integrated forestry projects ever conducted. The lessons that have been learnt as part of the project are relevant not only in the Philippines but in many other tropical countries.

The project has also been highly successful from a capacity building perspective. It was fortuitous that excellent staff could be hired at the start of the project. Two of these staff (Edwin Cedamon and Sammy Bernaldez) were awarded John Allright scholarships to study in Australia. During the project, Dr Nestor Gregorio completed his PhD at The University of Queensland which was also funded by a John Allright Fellowship, and returned to the Philippines to take a leading role in the project. Two other staff members have gone on to positions with an international forestry company in the Solomon Islands. In addition, there has been active participation in the project by many staff at VSU. A focus of the project has been to improve the publication skills of Filipino collaborators. This capacity building endeavour has been highly successful, with a resulting large number of publications by Filipino collaborators.

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