

INSTITUTIONAL AND POLITICAL FACTORS AFFECTING THE DEVELOPMENT OF SMALLHOLDER FORESTRY IN LEYTE PROVINCE

Steve Harrison

The institutional system defines the roles of public and private agencies and the property rights and responsibilities of landholders, and hence has major implications for forestry management. This paper approaches the topic in terms of theoretical perspectives, and applies these to forestry in Leyte Province, drawing on findings of the ACIAR UQ/LSU Smallholder Forestry Project. CBFM and forestry, which have evolved particularly during the last decade, are found to have a number of positive features. At the same time, some limitations and weaknesses in the institutional environment for smallholder forestry are apparent, and potential measures to improve the regulatory environment are examined.

INTRODUCTION

Inefficient or ineffective institutional structures and policies are international phenomena, certainly not limited to developing countries. Rent seeking, taxation avoidance and political manipulation are prevalent, if more sophisticated, in developed countries. The topics of 'market failure' and 'regulatory failure' and their causes, effects and remedies have been analysed widely, and some useful principles can be drawn for identifying market imperfections. When analysing the management of any natural resource, it is in general necessary to identify the relevant stakeholder groups and the property rights regime and incentive system under which the stakeholders operate.

In Leyte, as in other Philippine provinces, many small plantation areas have been established, but in general it could be said that the progress of plantation forestry has been limited and less than desirable. A series of ACIAR-supported socio-economic studies of smallholder forestry on Leyte Island has revealed various constraints on forestry expansion, and provided insights into market and regulatory failure. This paper initially examines some theoretical socio-economic perspectives on institutional and political factors, and then examines issues arising in Leyte smallholder forestry, and potential institutional measures to promote smallholder forestry.

THE OPTIMAL LEVEL OF TREE PLANTING IN LEYTE PROVINCE

A first question to ask in relation to forest policy is whether there is less than an optimal amount of forestry in Leyte. This can be addressed in terms of the timber market. Is there a shortage of wood supply, or supply of non-wood forest products and services? Can it be taken as an article of faith that a greater rate of forestry tree planting would be socially desirable? Clearly, a shortage of timber exists, such that timber is imported from Cebu, Mindanao and other sources. Increased planting would:

- create a revenue source for smallholders and a resource for manufacturing timber products;

- have watershed protection, flood mitigation and carbon sequestration benefits; and
- reduce logging pressure on native forests.

On the other hand, there would be

- opportunity costs for smallholders in growing forestry (where a tradeoff exists particularly between labour time and land devoted to forestry and to food production);
- increased costs to government for promoting forestry; and
- possibly increased conflict between environmental protection and timber production.

Promoting plantation forestry does not automatically lead to less illegal logging. For example, there is evidence of timber theft in Community Based Forest Management (CBFM) plantings (Acay 2005). Policy instruments to control illegal logging of native forests can be undermined by smallholder growing of native tree species and of value-adding timber processing, in that it is difficult to determine log sources. The observations raise the question of whether government policy should be to promote forestry or whether the low rate of planting and partial reliance on timber imports is socially optimal.

If we take the view that much more forestry should be established, then the policy question is how is this to be achieved in the most cost-effective and welfare-enhancing way, and how negative conservation outcomes are to be avoided.

FORESTRY STAKEHOLDERS

'Stakeholder analysis' seeks to identify the groups within a community which are affected by particular resource management policies, and the nature of these impacts. In the case of Leyte forestry, relevant stakeholder groups would include:

- timber producers – industrial growers; communities; individual smallholders; agencies (e.g. those involved in school-ground and roadside planting);
- timber merchants and processors – loggers; transporters; millers; lumber merchants and timber resellers and retailers; charcoal merchants;
- timber consumers – builders, households;
- regulatory agencies, including the Department of Environment and Natural Resources (DENR), other national government departments (Department of Agriculture, Department of Land Reform, Department of Trade and Industry, Philippines National Police), and local government units (LGUs);
- community organisations and community organisers involved in the CBFM program;
- other community groups, e.g. the religious sector and the Citizens Crime Watch; and
- international and domestic forestry finance and training providers

MARKET FAILURE IN FARM AND COMMUNITY FORESTRY

If markets are functioning efficiently, then socially optimal levels of production of the various goods and services required by the community should be produced. Unfortunately, this is not normally the case; rather both market and regulatory failure occur, as a result of various causes, and a number of adverse effects can be identified, some of which can be remedied.

Causes of Market Failure

Weak property rights

A smallholder who has weak property rights (e.g. insecure land tenure) may not undertake a socially efficient level of production. If land and tree tenure are uncertain, this will discourage forestry.

Uncompensated external benefits

In that there are positive spillover benefits or externalities of forestry, the market willingness-to-pay (WTP) understates the social WTP. Farm forestry provides external services including watershed protection, carbon sequestration, wildlife habitat and visual amenity, but the landholder does not have any income from these forest services.

Imperfect market structures

Effective timber markets may not exist for smallholders, or timber buyers may be able to exercise an inordinate amount of power over the market outcome. That is, the grower receives a low stumpage price, the buyer capturing most of the resource rent. This can happen when there are many growers but only a single buyer in the particular market area (i.e. a monopsony market structure). It can also happen when growers lack information or financial resources to obtain harvest approval or arrange harvest operations. If growers are forced to accept an unrealistically low price, they are unlikely to be interested in establishing plantations, although if timber prices are high they will have an incentive to grow trees for timber use on-farm.

Lack of information by producers

A less than optimal amount of forestry may be grown because of lack of information by smallholders about financial returns from forestry, site-species matching, desirable silvicultural practices, tree registration requirements, and marketing opportunities. In general, high uncertainty discourages investment.

Causes of Regulatory Failure

The above discussion assumes a 'market failure government fix' model. But it is now a widely accepted view in institutional economics that government itself can be a major cause of market distortion, with consequent reduced investment in desirable activities. Economic literature suggests a number of sources for regulatory failure, some of which are listed below.

Government subsidies provided to competing industries. The government has a role to support industry, but this can favour some industries at the expense of others. For example, subsidies for producing food crops which compete for farm land and labour will indirectly discourage forestry.

Unanticipated and unintended adverse impacts of government environmental policies. Sometimes government policies to protect the environment turn out to have some severe negative effects.

Unclear government rules. When regulations lack transparency, the confusion to producers can have a major disincentive effect. For example, smallholders may believe it is permissible to sell timber in their local area but not to outside markets, which will result in low timber prices.

Inconsistency of regulations between government agencies. Where regulations are not well synchronised between departments and levels of government, this can cause uncertainty for producers.

Frequent changes in government policies. Governments have a short election cycle, and change their policies frequently, which tends to be inconsistent with sensible industry planning, since this involves taking a long-term perspective. Frequent changes in rules and regulations make it difficult for stakeholders to maintain up-to-date knowledge, and create uncertainty and unintended illegal activities.

Sovereign risk as a disincentive for investments with favourable environmental externalities. Some changes in government rules impose costs on producers. Situations sometimes arise where trees have been planted for timber production, but new government rules have been introduced prohibiting logging for environmental purposes, without compensation for the expenditure incurred in plantation development. Farm forestry surveys in Australia indicate that insecure harvest rights is one of the most important disincentives for farm forestry. Another form of sovereign risk concerns the introduction of new charges, e.g. timber harvest taxes by local government.

Agency goals. Government agencies and influential individuals within them cannot be expected to be selfless servants of the public good. Globally, an agency goal is often to increase the size and influence of the agency, and to justify higher executive salaries. Individuals have preferences for particular types of work; policing illegal logging (dangerous work in uncomfortable surroundings) may have low priority, cf. confiscating timber loads from uncertain origins.

ISSUES IN RELATION TO MARKET AND REGULATORY FAILURE IN LEYTE FORESTRY

It would be expected that at least some of these forms of market and regulatory failure would exist in Leyte forestry. Certainly, they exist in forest industries elsewhere (including Queensland, Australia).

Some specific problems exist in Leyte:

- Conflicting objectives of an agency responsible for resource protection (native forests, biodiversity, wildlife) and resource extraction (timber, non-wood products, minerals).
- The limitations of government power – scarce government finance and large area to control, including many islands, with a difficult law and order situation in remote areas.
- Traditional political and economic power of large-scale operators in the timber industry.
- Incentives for illegal logging, for low-income farmers.
- Devolution or government responsibilities, and lack of finance for LGUs.
- Highly bureaucratic approval and reporting systems, designed to ensure proper process, but leading to high compliance cost and time requirements.

SPECIFIC INSTITUTIONAL AND POLICY ISSUES FOR LEYTE FORESTRY

Land and Tree Property Rights Security

Lack of formal land titling and hence insecure tenure is of primary concern to farmers who manage 'public forestlands'. Under current regulations rural households are allowed to produce agricultural crops in some of these areas by paying taxes to the government on the value of the crops they produce. The payment of taxes does not, however, provide the household with tenurial security over the land farmed, in that the tax declaration certificates

do not provide the same legal status as a formal land title. An additional constraint to the development of commercial tree farming by individual rural households managing land within public forestland areas is that the harvesting of trees in these areas is banned under national regulations, even if the trees were planted and managed by the household. The great majority of the 35% of the area in Leyte Province classified as forestland is on steep slopes of the central mountain range (Table 1). Much of this area is, in fact, cleared farming land.

Table 1. Land areas and percentages of total land area in Region 8 and Leyte classified as various types by the national government

| Land classification | Region 8 | Leyte | Southern Leyte |
|---|-----------|---------|----------------|
| Total land area (ha) | 2,143,169 | 626,826 | 173,480 |
| Alienable and disposable (A&D) land (%) | 48 | 65 | 73 |
| Total forestland (%) | 52 | 35 | 27 |
| Breakdown of forestland areas: | | | |
| Classified forestland (%) | 50 | 31 | 16 |
| Timberland (%) | 48 | 28 | 6 |
| Unclassified forestland (%) | 2 | 3 | 11 |
| Forest reserves (%) | 2 | 3 | 10 |
| National parks (%) | 0 | 1 | - |
| Military reservation (%) | 0 | 0 | - |
| Civil reservation (%) | 0 | 0 | - |
| Fishpond development (%) | 0 | 0 | - |

Source: National Mapping and Resources Information Authority (2003).

The issue of land tenure security in the Philippines is closely related to the issue of land-use planning. Leading Filipino researchers in the field of natural resource management, including de los Angeles (2000) and Guiang (2001a), have identified the lack of land-use planning as a major constraint to the development of forestry in the Philippines. While CBFMA Agreements can be used to provide access to public forestlands to community organisations for forestry activities, the lack of land-use planning means that barangay officials and LGUs are not aware of which parts of the areas under their jurisdiction are available for community forestry agreements and which may be classed as 'alienable and disposable' and available to private individuals for land titling.

Tree Harvest and Log Transport Rights

Slow and costly approval processes for tree registration, stand harvest and log transport, frequent changes to these processes and regulations, and occasional unwarranted timber confiscations all serve to increase the perceived level of transactions costs and sovereign risk associated with forestry development. The DENR has sought to reduce the complexity of these requirements over the past 10 years, yet the log harvest and transport permit system is still described by some authors as inappropriate for smallholders (e.g. Donoghue 1999, Guiang 2001a, and UNFAO and FMBDENR 2003). The difficulties of dealing with these issues arise for a number of reasons. One problem is the lack of resources available to government agencies to explain the stand harvest and log transport registration process to households and community groups. This lack of resources available to government agencies also serves to reduce the ability of their personnel to carry out the field visits needed to verify tree plantation registrations and tree harvest permits, thereby placing the onus for supporting the travel of the agency personnel on the permit applicant.

The lack of stability of the regulations relating to commercial tree farming is a further hindrance to the development of confidence in tree farming ventures by potential investors.

The forestry sector has been described as the most regulated sector in the Philippines by Guiang (2001a), with each change in national administration leading to changes to the regulation of the sector. Several authors have called for greater leadership to be provided by the national government in terms of rationalising the regulation of the forest sector, including Utting (2000) and the UNFAO FMBDENR (2003). These authors have stressed the difficulty of interpreting and administering forest management regulations that have been formulated in an *ad hoc* manner using a series of executive and administrative orders rather than a single and comprehensive piece of legislation.

The national government is in a difficult position in relation to the regulation of forestry activities. On the one hand, they are under pressure from international lending and aid agencies as well as groups within the Philippines to address the problems of environmental degradation that have arisen from the inappropriate clearing of forests in the past. This, together with flood disasters, has led to the banning of logging in remaining areas of natural forests and controls over timber transport between provinces. On the other hand, the national government has been lobbied to allow forestry activities by community organisations as a means to help address the problems of rural poverty. It is a classic example of the potential for conflict between environmental protection and economic development. Lack of development of secondary industries in rural areas of the Philippines means that forest resources are one of the few assets available for rural communities to improve their livelihood status, yet the danger is that inappropriate forest management practices could further degrade the environment with the potential for exacerbating natural disasters and destruction of the resource base that could provide greater livelihood security in the future. The national government has attempted to allow community organisations to log areas of natural forests through a system of 'resource use' permits once the community provides a management plan for their forest area. On occasions, these resource use permits have been unilaterally cancelled following the discovery of irregularities by some community groups.

Limitations of Forestry Support Programs

CBFM has evolved over many years of forestry support programs as a model likely to overcome deficiencies of earlier programs and promote forestry. However, the CBFM process and supporting community organising (CO) system still has some identified limitations. Community organisations are viewed as central to the operation and potential success of community-based forest management agreements, yet they are also viewed as the weakest stakeholder involved due to their lack of experience in both managing projects and operating cooperatively (Donoghue 1999, Utting 2000, Guiang 2001b). As discussed above, the lack of resources available to national and local government agencies limits the ability of these agencies to provide information to community organisations about forestry regulations. Lack of resources also limits the ability of government agencies to employ 'community organisers' that can assist community organisations to prepare applications and management plans that will satisfy the bureaucratic requirements for forestry development. Where community organisers have been available a common problem is that their contracts are not long enough to enable them to unite the members of community organisations in purpose and practice (Bisson *et al.* 1997, Donoghue 1999, Astoria 2004).

The need to 'empower' community members and their organisations is generally agreed upon by researchers who have examined the operation of community forestry programs since the 1980s (e.g. Aguilar 1982, 1986, Angeles-Reyes 1987, Bisson *et al.* 1997, Utting 2000, Guiang 2001, 2002). There is agreement about the need to provide alternative sources of livelihood (i.e. those not reliant on using materials from public forestlands) and generally lift the standard of living for rural households to enable them to participate in activities that, like forestry, take time to generate income. There is, however, continuing debate about how best to do this. How much resources should forestry programs dedicate to development of non-forestry activities? How are the alternative enterprises selected?

Whether this means training the community members in analysing the viability of potential enterprises or whether they would be better served by utilising the services of 'experts' in this field is unclear. The LGUs are supposed to provide the primary support for community-based forest management programs and yet they are constrained in their ability to do this for a number of reasons as described in the following section.

Lack of Communication and Coordination between National and Local Government

The decentralisation of decision making in regard to natural resource management under the *Local Government Code* (1991) has been undertaken in an effort to 'democratise' the management of natural resources and provide for local 'ownership' of natural resource management issues (Banerjee 1996). The LGUs have gained increased responsibility for environmental management but their activities are still subject to approval of the DENR, which retain primary responsibility for ensuring that natural resources are sustainably managed (Lu 1998, La Vina 1999). The LGUs are expected to initiate CBFMAs, support CBFMAs financially and technically, incorporate CBFMAs into local land-use planning schemes, maintain protected areas, and catch and charge those who violate forest protection laws (La Vina 1999). They also have a role to play in developing partnerships between communities and private industries. Some DENR staff have been transferred to LGUs to provide support for community forestry programs. Unfortunately, the increased responsibilities of LGUs have not been matched by increased budgetary allocations. Where logging activities are permitted by the DENR the LGUs are supposed to receive taxes on the harvested volume. The LGUs' ability to draft their own policies is strictly limited, and the DENR still retains control over key decisions such as the issuance of harvesting permits (Lu 1998, La Vina 1999).

LGUs are supposed to be consulted in the preparation of applications for CBFMAs. They have the responsibility to check the boundaries of proposed areas and recommend areas for agreements to the DENR. The lack of tenure mapping in many areas and boundary markers for national parks, forest reserves and wildlife sanctuaries increases the difficulties of this task (De los Angeles 2000).

Problems arise in inconsistencies in the regulation of forestry and agriculture, lack of formal IEC programs, lack of understanding about land tenure regulations among LGUs, and lack of regular meetings between agency personnel involved in forestry development.

Lack of Information for Growers

Tree growers (individual and community) would benefit from greater silvicultural, marketing and regulatory information.

SOME POTENTIAL MEASURES TO IMPROVE THE INSTITUTIONAL AND POLICY ENVIRONMENT FOR LEYTE FORESTRY

It is difficult for an outsider to make critical comments about forest administration, because of the difficulty of obtaining a comprehensive picture of the complex system which exists. Further, negative comments are, in general, unhelpful in generating improvements in the processes. Nevertheless, it is a responsibility of the project team to convey our impressions on what measures could potentially improve forest management in Leyte, based on our research in the province and research and observations in other countries.

Comprehensive Land-use Planning (including Further Land Titling)

There is a need to determine which areas should be made available for community forestry programs, which areas are critical to protect, and which should be available for classification

as alienable and disposable. This requires multi-sectoral negotiations involving all the stakeholders, a process which could stimulate better communication between them, and resolve the types of information and resources that are required to operationalise the plans. The municipality of Isabel has been involved in preparing such a document. It would be interesting to examine their experiences in a case study to assess if supporting such a process has merit for the following project and see how this may be achieved. In regards to land titling, there is a need to review the accomplishments of the agrarian reform programs to date.

Changes in Application of Regulations

There is a need for simpler and more transparent tree registration, stand harvest and log transport approval regulations and procedures. This topic implies the need to examine the merits of moving the responsibility for tree registration to LGUs, as well as the role of the national government in providing a stable regulatory environment. The regulations currently permit agricultural activities in public forestlands if a tax declaration is made (i.e. taxes are paid), but the harvesting of trees in these areas is banned. In other words, if a farmer cannot produce a land title certificate then it is not possible to obtain a tree harvesting or log transportation permit. It is argued by Emtage (2004) that the tree registration process is not working, and that it may be removed altogether if comprehensive land management plans could be established. The idea of scrapping the tree registration and harvest permit scheme may be perceived as radical. Once land management plans are in place, the resources of the DENR may be better spent delineating the boundaries of areas of forest that have been identified as critical conservation zones. The rest of the lands that are classified as 'public forestland' could then be available for community forestry programs or in some cases for classification as alienable and disposable.

Introduction of IED Programs

Information, education and communication programs would appear to have a role in increasing the understanding of regulations by both LGUs and growers. There appears to be a clear need for expanded forestry extension for smallholders.

Transferring Greater Responsibilities to LGUs

There is a strong argument for giving greater responsibility to LGUs, with accompanying finance. As the LGUs now have the on-the-ground responsibility for the initiation and management of Community-Based Forest Management Programs, but are subject to supervision and approval processes by DENR, it is vital that effective communications are established between the organisations. Byron (1996), Utting (2000) and others argue that the LGUs are not the appropriate agency to manage forestlands because they are potentially open to domination by local elites, they lack personnel with forest management expertise, and their planning horizons are typically short and subject to revision with every change in administration. On the other hand, their proximity to the rural communities and their knowledge of local biophysical and of social conditions would be of benefit in developing small-scale and community forestry. At present they are expected to carry-out much of the management of public forestlands but do not have the supporting funds.

Greater Separation of Regulator Powers

It may be that greater separation of administrative units responsible for environmental protection and for timber production would lead to greater encouragement for forestry. An interesting contrast is the Australian system where environment and forestry are generally found in separate state government departments, and an adversarial system operates within government where these departments compete for funds, influence and community support.

Striking a balance between protection of natural forests and promoting tree planting presents a policy challenge. Complex tree registration procedures impose costs for growers and can be expected to act as a disincentive to tree planting for commercial purposes. Particular problems can arise when farm-grown trees include premium native species, for which more strict approval procedures apply. These are the most desirable species to be encouraged, in terms of environmental objective, but may be the most discouraged by harvest approval policies. Table 2. provides a tentative list of institutional measures which may have positive or negative incentive effects on smallholder timber production.

Table 2. Measures which might be predicted to have positive and negative impacts on smallholder tree growing

| Measures likely to have positive effects | Measures likely to have negative effects |
|---|--|
| Simplifying the approval process for timber harvesting | Enforcing tree registration processes which are complex, time consuming and costly for tree growers – will act as a disincentive for commercial forestry |
| Providing demonstrations of improved silviculture so as to achieve higher quality timber | Standardisation of procedures for approvals in CENRO districts – stifles incentive for innovation and local effort |
| Funding seedling production at the CENRO district level | Costly efforts to encourage early tree registration – information on plantings might be better obtained from surveys conducted by say a university forestry department |
| Funding provision of information to current and potential tree growers at the CENRO and LGU level | |
| Encouraging development of grower associations | |
| Supporting timber value-adding activities at the barangay level | |

Experience indicates that availability of free seedlings has a strong effect on the rate of tree planting. Also, lack of information by smallholders about harvest approval regulations has been identified as a critical issue. Measures to overcome these problems could be relatively inexpensive.

The benefits of policy (and expenditure) to encourage tree registration at planting warrant careful consideration. Early registration would provide greater security of tree tenure for farmers, perhaps allow extension information to be provided to them, and assist in planning of future timber supply and marketing. However, it is unlikely that the DENR would ever be able to afford comprehensive extension assistance to individual growers. Also, even a doubling or trebling of the rate of early tree registration may not provide much detail about future timber supplies. A more effective mechanism of obtaining supply forecasts might be through periodic sample surveys of barangay plantings, perhaps carried out by a university forestry department.

CONCLUDING COMMENTS

Market and regulatory failure are widely studied topics in institutional economics, and are prevalent in both developing and developed countries, leading to distortions in incentive systems and departure from socially optimal outcomes. Particularly difficulties are faced by the DENR in promoting forestry in the Philippines. Further research is needed into creating a more favourable environment for CBFM and tree farming. Indications are that a simpler

harvest approval system and some relatively inexpensive support measures at the CENRO district level could lead to greater encouragement in tree planting.

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