

Property Rights Issues in Small-scale Forestry in the Philippines

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ABSTRACT

Weak or inappropriate property rights can be a major impediment to efficient and sustainable use of natural resources. The system of property rights governs what landholders can do with their land and other resources and the incentives which exist to undertake tree growing activities. In the forest sector, the property rights regime is conditioned largely by the forest administration infrastructure, forestry funding arrangements and environmental policy. Often measures to make forestry more sustainable have unintended adverse impacts on the property rights of tree growers. In the Philippines (as in other countries, both developed and developing), various anomalies in property rights in forestry are often noted. These tend to discriminate against plantation forestry and, in particular, small-scale forestry. Reform of property rights in forestry is a challenging task.

Keywords: concept of property; tenure security; harvest and transport rights; transferability.

INTRODUCTION

Last-resort ownership of natural resources, or radical title, is typically retained by government, but private agents are given property rights to make beneficial use of these resources. Resource access is subject to payments to government to allow the community to share in resource rents, and to controls that limit adverse environmental and social externalities.

The forest sector is traditionally one where major environmental issues arise. This is because of the importance of forests as suppliers of ecosystem services, such as biodiversity conservation, watershed protection and carbon sequestration, but also as generators of employment, income and foreign exchange. A large number of stakeholders are involved in the forestry sector, in particular, tree growers, regulators, input suppliers (including providers of finance) and processors. In the Philippines, tree-grower stakeholders comprise government, public utilities, private companies, communities, farmers and tribal people. The property rights regime determines what forest owners are allowed to do with their land and trees, and has a major impact on the uptake and management of

forestry. Inadequate property rights are a serious impediment to non-industrial forestry.

Open-access (non-excludable but rivalrous) natural assets tend to be overexploited, since individual users do not have an incentive to conserve these resources for later use. This has sometimes been referred to as the 'tragedy of the commons' (but more precisely is a tragedy of open-access resources). Conversely, strong property rights can be expected to lead to greater attachment to and care of resources. Long-term property rights encourage investment to improve assets or their management, so as to enjoy increased benefits in the future. In other words, strengthening property rights can be expected to lead to more efficient and more sustainable use of natural resources. At the same time, stronger property rights for particular individuals will mean weaker property rights for others, and reduced ability of government to influence the way in which resources are used.

This paper examines the impacts of inadequate or inappropriate property rights on small-scale forestry and some means by which these could be rectified, with particular reference to farm and community forestry in the Philippines. The next section briefly outlines the characteristics of property rights to natural resources such as land and forests. Reasons why limitations are imposed on property rights in forestry are briefly reviewed. The impact of property rights on forestry activities is then examined. Comments are made about the commonality of property rights issues in various countries. Measures which may be introduced to improve the property rights regime in forestry are then discussed. Concluding comments follow.

THE CONCEPTS OF PROPERTY AND PROPERTY RIGHTS

The concept of *property* has wide meaning, and is applied, for example, to personal goods and chattels, vehicles and land, as well as intellectual property. In terms of land resources, property is sometimes considered equivalent to 'real estate', meaning land, improvements, plant, stock and so on. People acquire title to land property through purchase, gift, inheritance, squatting or other means. In practice, the concept of ownership is rather vague, since it usually does not specify the range of activities which the owner may conduct on the property, and often the use of property can be gained without ownership. Also, government typically has 'radical' ownership of property – *i.e.* the ultimate control on behalf of the community – retaining the right to grant or withdraw beneficial use of property to individuals, firms or communities.

With regard to property management, it is not a certificate of title that is important, but what can be done with the property, *i.e.* the property rights and responsibilities. Schwindt (1992, p. 17, quoting Cooter and Ulen, 1988) noted that property rights

describe what a person may or may not do with the resources . . . the extent to which he may possess, use, transform, bequeath, transfer or exclude others from his property.

Schwindt (1992, p. 17) went on to say that

Property is a bundle of legally defined, mutable rights. The owner is free to exercise those rights and is free from the interference of others in their exercise. These rights range from strong to weak, and even the strongest are subject to restrictions.

Various classifications of property rights characteristics are to be found in the literature (e.g. Scott and Johnson, 1985; Pearse, 1990; Schwindt, 1992). Some differences in terminology exist; however, they may generally be summarized by their physical extent, comprehensiveness, exclusivity, duration, transferability, divisibility, and the responsibilities of property owners.

Physical extent refers to where the borders of a property lie, including the perimeter or boundary and the distance above and below the land surface which are included in the bounds to the property. For example, occupants may not have rights to minerals or water beneath the land surface.

Comprehensiveness relates to the scope of the interest holder's right to the benefits generated by the resource or asset. A comprehensive right to land would imply entitlements to all benefits, including timber, minerals, water, wildlife and so on.

Exclusivity or excludability refers to the right to deny others benefits generated by the property. The holder of a timber harvesting right can prevent others from harvesting the resource. Under the Wik ruling of the High Court in Australia, native title may coexist with pastoral leases, so that the leaseholder cannot exclude traditional occupants from camping and hunting on the land. It is, of course, of little use to have exclusive rights to a property if one is unable to enforce these rights, e.g. prevent squatters from occupying land. For this reason, the exclusivity characteristic is sometimes divided into *degree of exclusivity* and *degree of right to enforce exclusive use*.

Duration refers to the time period over which the holder may derive benefits from the resource. Freehold title confers benefits from land in perpetuity (subject to meeting obligations and to the power of government to resume land); leases operate for a specified period though, typically with a high likelihood of renewal.

Transferability refers to the ability of the property holder to transfer the asset or beneficial use of the asset to another agent through sale, gift, bequest or loan. Landholders with freehold title can, in general, dispose of their property as they wish, though there may be barriers against sale to foreign nationals. More restrictions usually apply to sale of land under leasehold or indigenous title.

Divisibility refers to the right to divide the property and transfer parts of it or the beneficial use thereof to multiple recipients. Strict controls often exist over land subdivision, to prevent urban sprawl and high cost in providing services.

Property responsibilities include payment of charges (e.g. rates paid to local government) and prevention of adverse externalities (e.g. pest control), as conditions for retaining beneficial use of the property.

THE NEED FOR LIMITS ON PROPERTY RIGHTS

In any country, a balance must be struck between providing a high level of freedoms for individuals, and restricting actions of individuals for the common good. These trade-offs are particularly important with regard to exploitation of natural resources. On the one hand, a permissive rights regime provides incentive for production of goods and services; on the other, there is a potential for individuals and firms to capture large resource rents. In the Philippines, there are strong imperatives to prevent illegal logging and protect native forests for the environmental services these provide. There is also considerable international pressure, for example from funding agencies and NGOs, to prevent illegal logging. The Philippine Department of Natural Resources and Environment (DENR) is charged with managing native forests and environmental protection, but has limited resources and a large territory, including inaccessible areas, to monitor. A regulatory structure has been established which aims to discharge this responsibility in a cost-effective manner. Unfortunately, the regulatory role of the DENR means that this agency is seen to be more concerned with forest protection than production forestry (Lawrence, 1998).

PROPERTY RIGHT ISSUES AND THEIR IMPACT ON FORESTRY ACTIVITIES

Table 1 lists a number of property rights issues relevant to management of Philippine non-industrial forestry.

Land Tenure Security and Forest Access Rights

Timber licenses to log native forests have been a property right which has generated many millions of dollars for timber companies. The high volumes of timber produced and low royalties charged have tended to depress timber prices and make farm and community forestry less profitable.

In terms of plantation forestry, larger landholdings, which have the potential for gaining economies of scale in timber production, tend to have lower tenure certainty. In the Philippines this applies to both ancestral domain and agrarian reform (the latter applies to properties of larger than 14 ha). Ancestral domain claims can lead to land rights for indigenous populations, but presents a threat to tree growers, particularly industrial foresters, who utilize large areas of land and would not want to incur the expense of establishing plantations and then lose

control of the land.

Table 1. Property rights categories, specific issues and relevant characteristics

Property rights group	Specific rights issue	Primary characteristic affected
Land tenure security and access	Timber licenses by industrial foresters	Duration
	Land rights for traditional owners	Excludability
	Squatting on disposable land	Duration
	Squatting on farm land	Enforcability of rights
	Property rights for settlers	Duration
	Impact of agrarian reform	Duration
Planting rights	Forestry as an enterprise	Comprehensiveness
	Removal of existing vegetation	Comprehensiveness
	Timber vs fruit trees	Comprehensiveness
	Seedling availability	Comprehensiveness
Tree ownership and protection	Tenant farming	Duration
	Land disposal	Divisibility, transferability
	Timber theft and wildfire	Enforcement of rights
Harvest rights	Logging in degraded catchment areas	Transferability
	Logging of native species	Transferability
	Delays in logging approvals	Duration
Timber transport	Taxing (esp. of log transport)	Transferability
	Delays in approvals	Duration
Rights of timber processors	Value-adding by producers	Comprehensiveness
	Resource security of processors	Duration
	Export rights (logs, furniture)	Transferability

Squatters and tribal groups face particularly high insecurity with regard to duration of land tenure. Even when a Certificate of Stewardship Contract is awarded, the duration initially is only for 25 years though with potential for renewal of another 25 years. This duration provides harvest security for one forest crop, or perhaps two crops with fast growing species such as gmelina on favourable sites, but could be an impediment to forestry. Slower growing species including mahogany are likely to take 20 or more years to reach harvestable age, as would eucalypts if grown for large sawlogs. It could be that longer tenure duration would give greater incentive for farm and community forestry in the Philippines.

Notably, insecure property rights are also, in some cases, an incentive to establish plantations. Anecdotal evidence from Mindanao suggests that some absentee landholders with relatively large properties plant trees to demonstrate

that the land is not idle, so as to discourage squatters.

Planting Rights

In some areas, production forestry is not permitted, e.g. in degraded watersheds, where it is considered that conservation plantings make a greater contribution to the common good. Similarly, removal of existing vegetation to prepare a site for forestry may be disallowed on environmental grounds. Landholders may choose exotic species because they fear prosecution from harvesting native species. Choice of species may also be directed by what seedlings are made available in government or private nurseries.

Tree Ownership and Protection

Particularly in the case of tenanted holdings, the ownership of trees may be uncertain, which can provide a disincentive for both the landlord and the tenant to invest in forestry (Venn *et al.*, 2001). Disputes over ownership of trees can arise between tenant and owner, or between multiple owners, when land is sold. Tree growers may be unable to enforce protection of their tree ownership rights from theft and wildfire. There is anecdotal evidence of the planting of *Acacia mangium* because of its high density and, therefore, low floatation properties, which make pilfering by river transport difficult.

Harvest Rights

It is through controls of harvesting that much of the environmental control over forestry operations is achieved. These controls typically arise from a desire to prevent illegal or undesirable logging of a declining native forest resource. A difficulty arises when native and plantation forests or timber cannot be clearly distinguished, or when broad control measures introduced fail to distinguish between them. Delays in obtaining permits to harvest timber can also be a disincentive and signal lack of support for forestry by the bureaucracy. Sometimes there is uncertainty about whether a harvest will be allowed, either through lack of information, or because the government may change the rules and disallow harvesting (a case of 'sovereign risk'). This is most likely to occur when a catchment is declared a protected area. Reports of farmers being imprisoned for felling trees which they themselves planted on their own land provide extremely negative signals for farm forestry.

Transport Rights

If impediments are placed in the way of log transport, the attractiveness of growing timber as a revenue-generating activity will be reduced. If logging is allowed, or can be carried out without detection, landholders may still choose to grow timber for on-farm use. There may still be opportunities for sale of forest products, e.g. sawing the timber into boards may overcome transport difficulties. However, this is an activity which probably would be more efficiently done off-farm. There have been reports of landholders converting highly valuable Narra

timber into charcoal to avoid transport impediments. If a landholder is not confident they will be allowed to either log or transport the timber, then they will have little incentive to engage in forestry.

Stories abound of the obstacles faced in log transport, with 'taxes' imposed by police, local government, NGOs, the church and rebels. These 'cash points' can impose considerable additional cost on tree growers, and reduce the profitability of forestry as a farm enterprise. In some cases, it would appear that rather than a cash payment there is a requirement for 'payment in kind' of some of the timber before vehicles can continue. Delays in provision of permits are also an obstacle to timber transport. These obstacles apparently do not arise in areas where little timber is now available, such as in Leyte.

Rights of Timber Processors

As the number of community forestry projects grows in the Philippines, there will be increasing interest in local processing of timber, and sale of value-added items. For example, a CBFM group visited at Alcoy in Cebu have plans for training of young people in woodcrafts, purchase of tools, and production within the community of furniture items for local sale or even export. Value-adding at the site of production introduces concerns about control of illegal logging, since it is difficult to determine the input source of the transformed products. For this reason, constraints may be imposed on timber processing at the community level.

The demand for timber is a 'derived demand', linked to the demand for timber products and the profitability of processing. Hence, a viable timber processing sector will, in general, lead to greater revenue for growers, although it can also be at the expense of growers. Lack of resource security for timber millers and processors is a major disincentive for investment in new plant equipment, and leads to inefficient, high-cost processing. On the other hand, strict controls over log exports (as exist in the Philippines and Australia), while ostensibly to encourage value adding, usually depress domestic log prices and ensure low-priced inputs for processors.

Uncertainty and availability of information about property rights

Landholders sometimes have poor information about their property rights, and may believe impediments exist when they do not. In general, the requirement to obtain written approval from government to carry out operations on farm forestry gives rise to uncertainty about property rights, and sometimes the suspicion by landholders of weak property rights.

Property Rights in Relation to Community Forestry

CBFM, CBRM and forestry joint ventures between landholders and government or the private sector all involve elements of common property resources. There is divisibility of property rights within the community and between and the community and the outside investor. Most of the property rights issues discussed above arise in this case. Land access and tenure are again issues,

as is the right to sell timber. Equity sharing of forest products or revenues between the government or private providers of capital, and within the community, will normally be agreed to before planting, though potential for disputes exists. Issues of divisibility can arise with respect to product (non-timber products, thinnings, final harvest) and revenue. The duration of CBFMA could become a disincentive, particularly when a community wishes to grow high-value but slow maturing species such as Narra. As well, lack of security of tenure would appear to be a perceived concern in CBFM; the comment was made at a Leyte site visit that a wealthy person might be able to obtain control of the common property resource, before the timber is ready for harvest.

FORESTRY PROPERTY RIGHTS IN THE PHILIPPINES VERSUS THOSE IN OTHER COUNTRIES

It is not the intention of this paper to imply that property rights in forestry are a greater problem in the Philippines than in other developing or developed countries. Experience indicates that the kinds of issues discussed above occur throughout the world. For example, similar transport impediments have been reported in India, with the consequence that tree farmers are less inclined to make arrangements for sale and marketing themselves, and rely heavily on village agents who purchase trees at low prices (Deweese and Saxena, 1997). These authors note that sometimes, state agencies are the only organizations authorized to purchase forest products.

In India and Thailand, planting of industrial forests on what was (or was perceived to be) common-property land has led to bitter disputes between local communities and governments. In this context, Australian eucalypts have been an unpopular tree species, and have been referred to as 'the tree that causes riots' (Harrison and Roy, 2001). Interestingly, large-scale planting of blue gums has caused a major dispute in South Australia, where irrigators claim groundwater stocks are being depleted, groundwater in these cases being a scarce common-property resource.

In developed countries, environmental groups can have substantial political power which may lead to the introduction of many new property rights constraints on tree planting (e.g. planning approval denied on agricultural land and no planting of production forests on moderate to steep slopes), and harvesting (e.g. not near watercourses and restrictions on road development) have arisen. Under the National Forest Policy Statement signed by the federal and all state governments in Australia, clearing of native vegetation to establish plantations is not permitted. The spotted owl controversy in the USA had a major impact on the area of harvestable forest and appears to have been a contributing factor to the high international timber prices in the early 1990s. Social constraints are also common, such as embargos on log exports, even though the experience in New Zealand showed that removing the embargo on log exports raised timber prices to international levels, which contributed to a rapid increase in tree

planting. The issue of indigenous domain or native title has been critical in forest policy in many countries, including Canada, Australia and New Zealand.

OVERCOMING PROPERTY RIGHTS LIMITATIONS

Property rights regimes are conditioned by historical factors, the system of forest administration, pressure groups in industry and the community, agency goals within government, terms of loan and aid finance, and various other factors. Studies have identified a large number of forestry stakeholder groups with conflicting goals. A complex web of legislation and regulations is usually present. The emphasis of resource managers tends to be towards preventing what is regarded as undesirable management, rather than facilitating desirable change. Consequently, it is not a simple task to make changes towards a more supportive property rights regime for non-industrial forestry.

Forest administrations in developing countries usually have a huge area to cover, with limited staff and funding. As the nature of forest industries change – for example from monitoring logging of native forests to developing plantation forestry – the desirable management regime also changes, and sometimes it is not possible to adapt property rights quickly.

There are no simple solutions for improving the property rights regime for forestry; however, considerable experience has been gained around the world. In several Australian states, *harvest security* legislation has been introduced to overcome a complex and discouraging web of legislation and regulations, and protect landholders who plant trees for timber production from being prevented from harvesting their trees (Herbohn and Harrison, in process). Notably, experts in farm forestry are skeptical about harvest rights legislation, believing that confidence can only be gained over time through various test cases. A measure to overcome uncertain property rights with respect to ownership of trees, say in the case of owner-tenant situations, is to legally separate ownership of the trees from the land. For example, in Australia, governments have introduced the legal structure of *profit à prendre*, which separates this ownership (Underhill, 2000).

Weak property rights may be compensated to some extent by strong compensation provisions for landholders for situations when ‘takings’ (or attenuation) of property rights occur. However, there appear to be few cases where such compensation arrangements have been introduced, and they probably would not be affordable in developing countries.

Various innovations have been introduced in the Philippines in an attempt to encourage reforestation and provide secure property rights to timber. Notable amongst these are Community Based Forest Management or CBFM (which has subsumed various previous forestry support programs), Community Based Resource Management (CBRM), and Certificate of Stewardship Contracts (CSC). A property rights regime is associated with each of these programs.

PROPERTY RIGHTS RESEARCH REQUIREMENTS IN THE PHILIPPINES

Given the uncertainties concerning property rights and the disincentives these can create for timber production, there is a clear case for research into ways in which the property rights regime for forestry in the Philippines can be improved. Such research might take a social cost-benefit perspective on the impacts of changes in rights. Relevant in this context would be the costs of changing the legislation or regulations, and the benefits which would arise. The current property rights arrangements impose some costs on DENR, e.g. the very large task of 100% inventorying to establish a registry of plantations in which harvest rights can be permitted.

Research opportunities might involve a review of the array of regulations and practices restricting property rights, in collaboration with DENR, and identifying areas in which changes could be made. It may be that rights could be varied spatially, i.e. greater restrictions and enforcement applied in areas where forest conservation is most critical, with more relaxed policies in areas where there is greatest potential for timber production. Also, surveys could be conducted of landholders and communities to examine how more liberal or more assured property rights might affect their tree planting activities. It might also be possible in some instances to make estimates of the cost imposed on timber producers by restrictive property rights.

CONCLUSION

Property rights to the use of natural resources may be examined in terms of their characteristics, including comprehensiveness, transferability, divisibility, excludability and duration. Lack of secure property rights can be a major disincentive to forestry, and tend to discriminate against plantation forestry and, in particular, small-scale forestry. Governments can sometimes take major steps in support of small-scale forestry by making improvements to the property rights regime. 'Getting the property rights correct' is generally considered a vital step in encouraging forestry. Ideally, property rights for timber producers and processors will be designed to ensure that incentives exist to use the resource profitably but sustainably.

Limitations on the security of land tenure and on harvest and transport rights can be critical impediments for development of industrial and non-industrial plantation forestry. This is certainly not unique to the Philippines – timber harvesting is a major source of social conflict in many countries. Long duration of property rights is critical for timber production because there is little return until the end of the rotation. Improving the property rights regime requires careful identification of the critical property rights issues, formulation of strategies for improvement, and strong commitment of government to carry these through.

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