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FORESTRY LEGISLATION – STIMULATING OR DISCOURAGING FOREST OWNERS?

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Abstract

All legislation implies compromises between conflicting interests. In forestry, the stakeholder groups can be defined as forest owners, timber users, general public and ideological interests groups such as conservationists. Furthermore, a single actor may have ties to more than one group. Forestry legislation in its narrow sense usually has the owners as their primary target group, by issuing prohibitions, restrictions and mandatory actions, as well as in some cases incentives such as subsidy and advisory services. In many countries, forest owners are poorly organized, or there may be a strong polarity between the interests of family, corporate and public owners. Legislators tend to take law compliance for granted, but the process of making laws and regulations operative involves many steps, including communicative and value-based process. These aspects are frequently dealt with in forest policy research. Yet, forest owners can also be seen as economically rational actors. Much well intended legislation may never be effective, as the cost of law compliance is high to the owners. We examine three cases: Sweden in the 17th century, and in the first half of the 20th century, and Argentina today, and discuss the current situation in (mainly) Europe, where broadened societal targets such as sustainability and multifunctionality have to match the interests of family foresters.

Key words: goal conflicts, law compliance, rational choice.

Introduction

The elaboration of National Forestry Plans (NFP) or other corresponding instruments has been an important component in European forest policy, both under the MCPFE and EU umbrellas. A key for making this planning socially legitimate and not only ecologically sustainable, public participation has been emphasized as an indispensable component of the planning process (eg. Appelstrand 2002). Yet, regardless whether a set of normative regulation

(laws, administrative regulation, market driven rules such as certification) is imposed from above or created in a truly discursive process (cf. Schanz 2002), is has to be implemented by those who control the forestry operations, normally the forest owners. Our principal message in this paper is that these owners' own preferential behaviour follows a normal rational-choice logic, and that the regulation has the best chances of being successful if the owners self-interests can be made to coincide with the objectives of that regulation. The alternative is coercion, which is resource-intensive, creates a spirit of resistance, may lead to outright sabotage, and in all cases foster corruption. In our paper, we discuss four cases out of a simple model found useful in environmental policy analysis (Gunningham et al. 1998).

Laws and regulations as steering instruments

Legislators and policy makers normally assume that their prescripts will be implemented and that concerned citizens will obey existing regulations. Active law enforcement is seen as a special measure to use against particularly recalcitrant individuals. This applies above all to criminal law, the purpose of which is to *conserve* social order. But with modern times, legislation has come to be seen as a toll to *change* peoples' behaviour. This applies particularly to forestry and environmental legislation, a discussion opened by Per Stjernquist (1973), writing about introducing modern or 'scientific' forestry, and more recently by one of his disciples, Marie Appelstrand (2002, 2007), writing about introducing enhanced environmental ambitions in private forestry in Sweden. Changing behaviour requires more active efforts, a reason for advisory and educational services being part of forest governance systems in many countries; in Sweden from the very beginning in 1903. Yet, as briefly argued above, if the forest owners see the totality of policies as directly negative to their interests, they may seek ways to evade the unwelcome regulation, or search for even more radical options.

Gunningham et al. (1998), discussing "smart regulation" for implementing environmental policies, identify three criteria of functional regulation.

– Effectiveness: the policy contributes to reaching the politically defined objectives

– Efficiency: the effect is brought about at lowest possible cost, (including administration overheads and transaction costs.

– Equity: the burdens and gains are equitably distributed among stakeholders.

Appelstrand (2007) comments, that effectiveness and efficiency are the two most basic characteristics policies leading to desired performance. But she adds that equity probably would be ranked highest by, in her case, environmentalists, who claim that no conservation policies will be sustainable without environmental justice. It is easy to extrapolate that argument to our field of study:

The four cases

Case 1: 17th century Sweden (cf. Nylund, 2009)

In 1647, Sweden was a leading power in northern Europe, and its navy dominated the Baltic. Navies are built from oak. Its armies controlled the main ports of the Northern rivers mouths. Arms are made from iron. The country had recently introduced a modern style central administration that tried to stimulate economic development. This year Sweden got its first set of forestry legislation, properly prepared by a parliamentary committee. It was in many respects a very enlightened piece of legislation, calling for regeneration measures when 'carrying' trees and valuable hardwoods were felled. It reserved oak and coniferous mast trees for the Crown, even when growing in private land, to serve the Navy's needs. It forbade the wide-scale shifting cultivation in the forest, threatening the supply of charcoal to the mining industry. To enforce the law, forest guards were required to approve all felling on private land and village commons.

However, the results were disastrous. Villagers started uprooting oak saplings, as the Crown rights blocked rational land use and the timber oak extraction involved compulsory assistance in the transport of the heavy logs to the shipyards and castles. Settlers in the forested areas with little tillable soil had no way of feeding themselves or of producing for the markets if excluded from burn beating. The forest guards became rapidly corrupt, the forest continued to be "wasted", and the popular loathing of any regulation of forest use was so strong, that the whole system had to be abandoned during a constitutional crisis in the late 1700s to ensure political support for the Crown. New legislation was delayed until 1903 in spite of half a century's lobbying by forestry professionals, and a complete set of laws was accepted only in 1923.

Case 2: Present-day Sweden

Before final cutting, called regeneration cutting by the law, a forest owner must notify the local Forest Agency office. The Agency has a possibility to inspect the intended logging site and to issue compelling instructions. Under the present green policy, in theory applauded by all, it is likely that the Agency will take an extra look in areas rich in "key biotopes" with high conservation values. The authorities may in that case mark out areas for protection, reducing or forbidding logging, or even expropriate them for conservation, alternatives not to be discussed further here. In any case, in some regions the key biotope areas may cover a sizeable part of a property, reducing income substantially or at least making management more difficult. Until 1993, there was an obligation to log "over-age" forest, but presently, old growth is to be conserved. So, an owner seeing large environmental values on his land does not go for regeneration, but makes instead repeated thinnings, which require no notification to the Forest Agency. In the end, the stand cannot be thinned more without another clause coming into force, 'too low stocking', but during a prolonged transition time, possible many decades,

the owner can keep out the intrusive Agency forester.

Case 3: Early 20th century Finland (cf. Siiskonen 2007)

Finland accepted a corresponding legislation on private forestry in 1917 (updated in 1928), but where Sweden chose a (too?) soft way of implementing the ambitions of 'scientific forestry', Finland chose to challenge the prevailing perceptions of the predominant owner group, family farmers with associated forest. Several cases were taken to court. These owners saw the forest as a bank account to be used only for investments or as a safeguard against failing crops. The inherited wisdom told them that hard times could return any time; the stocking of the forestland should be as high as possible, implying a high portion of old age classes. This contrasted sharply with the 'new' concepts of sustainable timber supply and the associated ideal of an even age class distribution. As a result, numerous cases of recalcitrant farmers were brought to court for refusing to accept the legal vision of proper management.

Case 4: Present day Argentina (cf. Nylund and Gowda 2009)

Argentina has currently revised its legislation regarding the natural forest (Law 26.331, 2007). The guiding principle is the preservation of remaining forest, including biomes of very high conservation value, such as the Andine cloud forest (*yunga*) and the mixed *Austrocedrus-Nothofagus* forest along the Patagonian Cordillera. The forest (not the forest land!) is divided into three categories:

1. Full protection, no human activity permitted. The owner is invited to apply for compensation, but over two years since passing the law, the administration and the funding are still not set up. From the owner's point of view, the forest has no economic value whatsoever.

2. Sustainably managed forest. The owner should prepare a detailed management plan and apply for compensation for losses caused by restriction on his free use, but no framework for plans exists yet, nor even documented knowledge how to use these forests sustainably. Future land value can presently not be determined.

3. Forest of low value possible to convert to more profitable uses (farming, animal husbandry). The owner should present a conversion plan comparing the economic return of the alternative uses, and show how the timber would be disposed of. Deforestation is thus encouraged.

The law is a clear improvement of traditional legislation in large parts of South America, where land titles could be won through deforestation of 'public' natural forest. Yet, even now, and assuming that yet to be implemented arrangements will become functional, the law reduces the value of owning forest compared to other uses. Wildfires, natural or not, can easily destroy *Austrocedrus* forest classified for protection, after which cattle ranching would be permitted.

Analysis: Lessons learned?

We will examine the four cases using the criteria of Gunningham et al. (1998), and other the above stated assumption

of users making rational choices – based on their own rationality.

Case 1 can serve as a model for much well-meant green policy making today. The goals – if we look away from the historical setting – protection of common good, sustainable use of valuable trees, protection of threatened species. Yet, from the view of the rural population, the logic is perverse. They have no incentive at all to comply with the law. Not only that, they see the law as a step towards further encroachment on their age-old land use rights: next time, the mines and iron works may forbid them all access to the forest to safeguard the supply of charcoal and firewood. The equity criterion is clearly not served: the villagers pay the bill, the Crown and the ironworks reap the benefit. The policy was only partly effective: the Crown got its ship timber, but forest devastation went on unchecked. Efficiency was definitely bad: for 150 years, a totally corrupt forest authority was maintained to no real benefit for anybody. Only total deregulation in 1783 brought an end to a situation which could not deteriorate further. As for stakeholder participation, the Crown and mining industry had had their voice heard; there is no research showing how the Estate of Peasants in the Parliament had argued during the preparation of the 1647 bill (The peasants never lost their political freedom in Sweden-Finland, Norway and Iceland). There is no way proposing a policy which would have worked better, given the times, but parallels to modern well meant legislation with little chance to succeed are obvious.

Case 2 provides a less clear lesson. From the forest owners' view, the main issue at stake is fairness in the application of the law. Even if the national policy has been elaborated in relative political unanimity, there are special cases where large parts of small private properties would be put under compulsory protection. A farmer whose family has been using the forest for generations suddenly finds its property rights set aside. Furthermore, there have been a number of cases where the owner for a long time has promoted environmental values, for example actively creating old stands dominated by oak and other hardwoods, only to see them expropriated for total protection. Again, the equity perspective dominates: the policies should not hurt some much harder than others. From an effect point of view, on the other hand, the evasion by the owners is not very negative: Old forest generally is in short supply in the southern part of the country, and the key biotopes are not clear cut, which would be the normal procedure on such fertile sites. The only damage is a deviation from standard management prescriptions. However, this type of conservation conflicts are quite common and may foster a negative attitude which in the long time will be negative, as owners will avoid creating or even erode possible key biotopes and other desirable features. The example calls for policies where the land owner's role in the management is more active but also the need for flexibility in relation to the owners needs is recognised. Current schemes for voluntary conservation in both Sweden and Finland seem to be encouraging.

Case 3 is dealing with conflicts between management objectives, and in a

way the reverse of Case 2: the farmers want to be conservative in their management, the professionals to change the whole way of looking at the forest as an asset to be actively managed. Seen from the professional's point of view, the deal offered the farmer-landowner was certainly fair: continuous and even growing income from the forest. The long term development proved the policy to be effective and efficient; Finland and Sweden have been very successful introducing the principles of 'scientific forest management' and will continue to increase both potential cut and stand stock from today's already high level. But why then a conflict? The farmers behaved in an economically rational way, but out of their own rationality, not that of the professionals or greater society. With centuries of war, crop failures and starvation in memory, the farmer's rationale was security, not income maximization. To that came a 'social rationality'. In local society, logging, except for household or investment needs, was seen as a sign of insolvency. A farmer converting his forest into clearcuts was suspected of profligacy. It took two generations of patient extension work, and a societal change from subsistence to cash economy, for farmer-owners to accept the 'new rationality'.

In **case 4**, we in a way return to the situation in case1, but even more perverse. Firstly, the forest owner has the option of alternative land uses with better rewards under alternative 3, encouraging deforestation of all land not earmarked for conservation or sustainable management. By linking the protection to the forest, not to the land, 'calamities' destroying the conservation value of the stands to be protected offer an escape route to conversion into other land uses. But furthermore, by not having the administrative and financial arrangements in place when the law comes into force, the owner of land classified for protection or sustainable management finds a dead hand over his land, providing further incentives for destroying the values the law was meant to protect.

Conclusions

In line with our argumentation in Nylund and Gowda (2009), the lawmaker is frequently blinded by his own objectives or tied up by political compromises necessary to get the particular legislation approved, and tends to ignore the reality and concrete interests of those stakeholders on whom the success of the reform depends, in our case small family forest owners, which in Sweden and Finland account for over half of the land area and even more of the logging volume. The voice of these people may not be strong enough to make other participants in the policy making process attend to them, or the consequences may not be obvious before the regulation is in place. However, without ensuring fairness as seen from their horizon, their active support of the actual policy will not be obtained, and the intended target group behaviour, the goal of most forestry and environmental legislation (Stjernquist 1973), will not be reached. This obliges the principal institutional actors – politicians, professionals, pressure groups) to out of their way and even compromise high principles, to

ensure that the policy in its totality offers advantages to the forest owners.

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