

The Evolving Forest Regime and Domestic Actors: Strategic or Normative Adaptation?

LARS H. GULBRANDSEN

How have forest-related international environmental agreements (IEAs) affected domestic policy and forest owners in industrialised, forest-rich countries? This question is investigated by identifying and explaining the effects of IEAs on Norwegian forest policy and forestry. The analysis shows that international commitments and recommendations have had little effect on domestic forest policy. While environmental certification of forest owners by private initiative is in compliance with international recommendations and European criteria and indicators of sustainable forest management, competitiveness concerns and pressures from environmental organisations and the marketplace have been more important for this initiative than IEAs. Although environmental certification can be explained as strategic adaptation to market demands, this mechanism is dependent upon actors valuing and having internalised certain norms and principles. It is argued that IEAs have contributed to establish, strengthen and disseminate norms and principles regarding conservation of old-growth forests and biodiversity. The interplay between rational calculative and cognitive processes is thus important for understanding domestic adaptations to forest-related agreements.

Introduction

Deforestation and loss of biodiversity in tropical forests have been a serious issue of concern in the international arena for some time. Following the United Nations Conference on Environment and Development (UNCED) in 1992, conservation and sustainable use of temperate and boreal forests have received increased attention. During the last decade, states have agreed on international instruments to promote sustainable forest management and protect biodiversity in *all types* of forests. By using Norwegian forest policy and forestry as a case study, this article explores how forest-related international environmental agreements (IEAs) have affected domestic actors in industrialised, forest-rich countries.

Lars H. Gulbrandsen is Research Fellow based at the Fridtjof Nansen Institute in Norway. The author gratefully acknowledges guidance from G. Kristin Rosendal and Arild Underdal in preparing this article, as well as the very useful comments from Christopher Rootes, Olav Schram Stokke, Steinar Andresen and the anonymous reviewers.

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Norway has large forested areas and a substantial forest industry, which means that IEAs may have considerable impact on national forest policy and forestry practices. The number and size of undisturbed natural areas have decreased dramatically during the last century.¹ It is estimated that more than half of the diversity of species and about half of the threatened and vulnerable species are forest-related [*MoE, 2001a: 118*]. On the other hand, forestry industry is one of Norway's most important export industries and, unlike agriculture, it is exposed to serious international competition. Consequently, the choice between environmental and industrial considerations may be difficult. This conflict is evident in most or all forested countries.

In the first part of this article, I develop some theoretical propositions about how IEAs may affect domestic actors. In the second part, I briefly account for some of the most important agreements pertaining to forestry in European countries. In the third and main part, I identify adaptations to IEAs in Norwegian forest policy and forestry and explore how these adaptations can be explained. Finally, I discuss whether IEAs really have made a difference and I explore other explanations for domestic developments.

Theoretical Propositions

How can domestic actors' adaptations to IEAs be explained? Here, I apply two approaches from the study of regimes and compliance with IEAs [*Hasenclever et al., 1997; Underdal, 1998, 2000*]: the interest-based and the cognitive model. Based on propositions derived from these models, adaptations in public forest policy and among forest owners are analysed. *Adaptations* are defined as all domestic measures that are causally linked to commitments and recommendations in IEAs.

According to the neoliberal approach to international relations [*e.g., Keohane, 1984*] and models of the state as a unitary, rational actor [*Underdal, 1998: 7–12*], it is assumed that states will adapt strategically to norms and rules in an IEA. By *strategic adaptation* is meant actors' adaptation to norms and rules on the basis of calculations of net costs and benefits. An actor can be expected to comply with certain norms and rules 'if, and only as long as, its expected marginal costs of compliance are lower than (or at most equal to) the marginal benefits it expects to receive from fulfilling its obligations' [*Underdal, 1998: 8*]. This is the main proposition of the interest-based model.²

The cognitive model builds on elements from what are often called constructivist and cognitive approaches [*e.g., Adler, 1997; Ruggie, 1998; Wendt, 1999*]. For the purpose of this study, the most important difference

between an interest-based and a cognitive analysis lies in the mechanisms explaining adaptations that can be derived from each perspective. While we would expect strategic adaptation to occur from the point of view of the interest-based model, the cognitive model would lead us to expect the *internalisation* of norms and rules to be the most important mechanism underlying adaptations. Internalisation of norms and rules means that actors learn and accept them, and then use them to guide their behaviour [*March and Olsen, 1989; Underdal, 2000*]. Actors that have internalised certain norms and rules can be expected to follow these without regard to whether they are compatible with their material interest, or not. Based on the cognitive model, we would thus expect actors to comply with certain learnt and accepted norms, even when compliance implies net costs for the actors. I will name this kind of mechanism *normative adaptation*.

I divide adaptations into two distinct categories. *Positive* adaptations are defined as measures carried out with the purpose of complying with commitments in an international agreement. Second, *negative* adaptations are defined as measures carried out with the purpose of evading or circumventing commitments in an agreement.³ The distinction between positive and negative adaptations makes it possible to study not only desirable and planned effects of IEAs, but also undesirable and unplanned effects.

The propositions (P) that can be derived from the interest-based perspective are:

P_{A1}: *Strategic positive adaptation* will occur if compliance with commitments in an international agreement is expected to generate net benefits.

P_{A2}: *Strategic negative adaptation* will occur if actors expect that they can avoid costs or gain benefits by evading or circumventing commitments.

P_{A3}: No adaptation will result if actors expect that adaptations, either positive or negative, are more costly than no adaptation.

Based on the cognitive model it is proposed that:

P_{B1}: *Normative positive adaptation* will occur if actors have internalised crucial norms and principles in an international agreement, or if actors' norms and principles are compatible with those in the agreement.

P_{B2}: No adaptation or negative adaptation will result if actors have not internalised or reject norms and principles in an agreement.

It follows by necessity that internalisation of certain norms and principles cannot result in actions to evade or circumvent complying with these norms and principles. *Normative negative adaptation* is thus an invalid category. However, no adaptation is expected to be the result of actors' lack of internalisation *or* rejection of norms and principles in the IEAs, their expectation that adaptations, either positive or negative, will be more costly than no adaptations, or a combination of these factors.

A weakness of the strategic/normative adaptations dichotomy is the fact that it simplifies the actual processes that shape actors' motives considerably. According to the cognitive model, actors' perceptions, knowledge or commonsense may be restructured so that certain claims are taken as unarguable facts – for example, that clear-felling old-growth forests has damaging environmental effects. Such effects may then be interpreted normatively ('unacceptable/bad') or strategically ('bad for business'). Hence, the cognitive model does not simply reduce to the normative, but also, and probably more commonly, to the strategic.⁴ In this study of outcomes, rather than processes, it is difficult to reveal such kinds of interplay between cognitive and rational calculative processes, but it is important to keep this possibility in mind.

In order to explore which of the mechanisms can explain the identified adaptations, we need to analyse the *argumentation* for complying with certain principles and norms in IEAs. Based on the interest-based approach, we would expect arguments in support of Sustainable Forest Management (SFM) to refer to concerns for competitive strength, expectations in the marketplace and the forest industry's environmental profile. Based on the cognitive approach, we might expect arguments for SFM to relate to norms and principles regarding protection of forests and values associated with undisturbed nature and biological diversity. A genuine normative argumentation is expected to be characterised by a lack of arguments relating to material and economic calculations. Overall, then, we would expect the indicated norms and principles to coincide with those found in IEAs pertaining to forests. In addition to the analysis of the argumentation for adaptations, I explore initiatives from the forest owners to promote SFM. These initiatives are analysed in their context, that is, in relation to market conditions, pressure from non-governmental organisations (NGOs), and governmental processes.

International Commitments and Recommendations

There are commitments and recommendations in several IEAs that relate to forestry in European countries. Although proposals for starting negotiations on a forest convention have failed, there is still talk of an evolving forest

regime [e.g., *Humphreys, 1999*]. In this section, I briefly examine UNCED and post-UNCED agreements with a forest related mandate. Agreements that do not relate to forestry in Europe, such as the International Tropical Timber Agreement (1994), and regional processes elsewhere in the world are not dealt with here.⁵

The Convention on Biological Diversity (CBD) was signed at UNCED in June 1992 and came into force in December 1993. The parties to the Convention shall, *inter alia*, develop national strategies for the conservation and sustainable use of biological diversity and integrate the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies (Article 6). Further, the CBD has established the normative principle of in situ conservation, namely “the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings” (Article 8d, quoted in *Humphreys, [1999: 252]*). A serious weakness of the Convention is that commitments are very general, leaving states considerable leeway in deciding how to implement or adopt the convention. In 1998, a working programme for forestry was adopted, aiming at integrating conservation and sustainable use of biodiversity in national forest policies. Efforts have mostly been devoted to research and knowledge building, but the parties have recently, at the sixth meeting of the Conference of the Parties in April 2002, agreed on some more specific commitments.

The Statement of Forest Principles from UNCED can be regarded as guidelines for the management and use of forests, relating to both environmental and developmental concerns.⁶ The Principles recommend that national policies should include increased efforts to develop and strengthen institutions and programmes for the management, conservation and sustainable development of forest and forestland. Policies for sustainable forest management should take into account ‘relevant internationally agreed methodologies and criteria’ (Principle 8d). Being the first global agreement regarding the management, utilisation and development of *all types* of forests, the Statement of Forest Principles is important. On the other hand, the agreement is both legally and politically weak. The Statement is not legally binding and is impossible to implement as long as it is merely a collection of principles [*De Sa, 1998: 28*]. Moreover, the Forest Principles do not clarify how conservation and utilisation of forests should be balanced.

The global follow-up of the Forest Principles was organised under the Intergovernmental Panel on Forests (IPF) from 1995 to 1997 and the following Intergovernmental Forum on Forests (IFF) from 1997 to 2000. The results of the work of IPF and IFF are a number of recommendations and proposals for action, aiming to clarify and expand on the Forest Principles.

States are, *inter alia*, encouraged to develop national forest programmes to promote sustainable forestry and stimulate the development of criteria and indicators (C & I) of SFM.⁷ The major problems with the recommendations from the IPF and IFF are, in common with the Forest Principles, that they are not legally binding and that difficult questions regarding financial assistance, transfer of technologies, trade-related matters and the prospects for negotiations on a forest convention are not solved [Rosendal, 2001].⁸ There have also been considerable *regional* efforts to ensure follow-up of the UN cooperation on forest issues. In Europe, the pan-European ministerial conferences on the protection of forests in 1993 (Helsinki) and 1998 (Lisbon) agreed on C & I for sustainable forestry.

IEAs pertaining to forestry are legally weak and many important questions remain unresolved. None the less, states have agreed on several recommendations and principles for SFM and the conservation of forests. Thus, IEAs, in this case predominantly 'soft', have established a *normative* benchmark for domestic forest policy and forestry.

Domestic Adaptations

In the following, I examine how Norwegian forest policy and forestry are influenced by commitments and recommendations in IEAs and how adaptations can be explained. The Ministry of the Environment (hereafter MoE) is responsible for conservation of forests under the Nature Conservation Act (1970), whereas the Ministry of Agriculture (hereafter MoA) has a sectoral responsibility to promote environmental concerns in forestry. Here, I examine whether initiatives from the two ministries to protect forests and promote SFM are causally linked to IEAs and I explore the ministries' arguments for forest protection and SFM. I also examine initiatives by the forest industry to promote SFM.

Protection of Forests

The initiative to develop a plan for strictly protected forestland was taken several years before UNCED. Hence, the so-called *Protection Plan for Coniferous Forests* cannot be regarded as a result of commitments in IEAs. However, it would be interesting to investigate whether any IEAs have influenced the further development of the Protection Plan.

Prior to the Protection Plan, about 125 km² of forest was protected within nature protection areas. The governmental initiative to develop a specific plan for protection of forests was taken in 1981 [MoE, 1981]. In 1990, the *Protection Plan for Coniferous Forests* added a further 250 km² of forestland in addition to areas protected prior to the Plan. Following UNCED, the only amendment to the Protection Plan was a further extension

of the Plan in 1995, comprising 120 km² of forestland. This extension means that roughly one per cent of the productive forestland in Norway is protected under the Plan.

It is difficult to assess the effect of IEAs on the decision to extend the Protection Plan. In White Paper 40 [MoE, 1995], in which the extension was proposed, commitments under the CBD are given considerable attention. The report states that by ratifying the CBD, Norway is obliged to establish mechanisms to ensure the conservation and sustainable use of biological diversity. In the White Paper, relevant articles in the biodiversity convention are mentioned. Article 8 on in-situ conservation is quoted explicitly [*ibid.*: 7]. Recommendations about forest conservation in the Statement of Forest Principles and from the Helsinki Ministerial Conference on the Protection of Forest in Europe (1993) are also mentioned in the report. As a legally binding agreement, it is reasonable to assume that the CBD, in particular, has contributed to the extension of the Protection Plan. However, it cannot be ruled out that it would have happened without the biodiversity convention.

An examination of the argumentation for the Protection Plan in the White Paper reveals that normative arguments are more important than strategic ones. The arguments of the MoE are based on the same norms and principles as those found in the CBD. However, these arguments were used by the Ministry and the Directorate for Nature Management even before the negotiations on the biodiversity convention commenced.⁹ In the *Advisory Panel for Protection of Coniferous Forests*' report from 1988, motives for the conservation of forests are exclusively based on normative arguments [*Norwegian Directorate for Nature Management, 1988*]. The argumentation for protection of forests is generally characterised by a lack of strategic arguments. This evidence suggests that the authorities had internalised norms and principles associated with the conservation of biological diversity before the initiative to develop a 'convention for the species' was adopted. This coincides with the Norwegian chief negotiator's claim that Norway, together with the other Nordic countries, played an important part in the negotiations on the biodiversity convention and gained acceptance for most of the Norwegian principles and positions [*Schei, 1997: 249*].

We may conclude that Norwegian environmental authorities' norms and principles coincide with those in the CBD. The extension of the Protection Plan can be regarded as a normative positive adaptation to commitments in the CBD, thus supporting proposition PB1 of the cognitive model. The biodiversity convention has given the MoE new arguments for the protection of forests, in particular with regard to Norway's international commitments and credibility as an environmentally friendly nation. In this way, the convention has also strengthened the Ministry's 'old' normative

arguments for protection of forestland. Thus, the CBD seems to have empowered the Ministry's bargaining position *vis-à-vis* other branches of the government [cf. *Underdal, 1998: 19*].

Forest Policy: Legal and Economic Instruments

In 1976, the Forestry Act (1965) was renewed to include environmental and recreational concerns in its provisions. After UNCED, the Act was given a face-lift by incorporating principles regarding conservation of biodiversity and environmental qualities into the legislation. None the less, the legal framework leaves forest owners with little responsibility to take account of environmental concerns. Requirements to conserve biological diversity in forestry practice are weak and, to a large extent, non-enforceable. For example, §16 in the Act states that forest owners shall take 'reasonable' environmental and recreational consideration in forestry practices. If activities that do not show such consideration are planned or carried out, the MoA can forbid or limit cutting for a certain period of time. This provision has hardly ever been enforced [*Framstad, 1996: 293*]. Thus, we should not expect revisions of the Forestry Act to have had any significant implications for forestry practices.

The economic instruments in the forest sector consist of forest taxation and grants. Allocation of grants to promote certain forestry-related activities is a controversial issue. After UNCED, regulations for the allocation of forest grants have been amended, requiring forest owners to take steps to meet certain environmental and multiple-use criteria before becoming eligible for grants. None the less, the scheme may still encourage activities harmful to biodiversity and other environmental values in forests. The grants encourage forestry in areas that, in a no-grant situation, would not be profitable to exploit and thus would have been conserved. Grants that are particularly contested are those for forest road construction, harvesting in difficult terrain, and use of non-native tree species in silviculture and afforestation. The MoE claims that these grants may have adverse effects on the environment [*MoE, 2001a*]. However, as long as the MoA is responsible for the forest sector, the environmental authorities can do very little.

Let us turn to the arguments for sustainable forestry. The MoA stress that the main objective of the forest policy is to combine increased profits with environmentally friendly forest practices [*MoA, 1999*]. The need for conserving forests and biodiversity is emphasised in the Forestry Report [*ibid.*]. Likewise, the importance of implementing measures to promote SFM is stressed as crucial for the forest industry's competitiveness. On the whole, the Forestry Report stresses both normative and tactical aspects in the argumentation for SFM and forest conservation. According to the cognitive perspective, a genuine normative argumentation would be characterised by a lack of strategic arguments. Hence, we may assume that

civil servants in the Ministry have not internalised norms and principles concerning conservation of forest biodiversity and old-growth forest.

There is obviously a possibility that the Ministry is arguing strategically to convince the forestry industry of the need for environmental adaptations, even though civil servants in the Ministry themselves have internalised norms and values regarding SFM and forest protection. An analysis of documents provides no evidence either for or against this possibility. Interviews with informants in the MoA support the main finding from the examination of the documents, but reveals an important finding: the informants acknowledge that certain forestry practices have damaging environmental effect, but such effects are subjected to cost-benefit calculations.¹⁰ Thus, we may conclude that civil servants in the MoA acknowledge certain norms and principles for SFM and forest conservation. IEAs and/or shifts in expert and public opinion may have contributed to a cognitive restructuring of civil servants' perceptions and knowledge, such that they acknowledge that certain forestry practices have damaging environmental effects, but these effects are interpreted strategically, as 'bad for business', and not normatively.

Environmental Registrations in Forestry

A project called *Environmental Registrations in Forestry – Biological Diversity* (hereafter ERF), initiated by the MoA, deserves special attention, as this is the most visible initiative to implement commitments in the CBD in forestry practices [Gulbrandsen, 2001]. The pre-history of the project can be traced back to 1992, when a group of biology students founded *Last Chance*, a subgroup of Friends of the Earth (FoE) in Norway. The group developed a method for identifying and registering old-growth forestland, as well as threatened and vulnerable species in forests. *Last Chance* launched the concept 'key biotopes', which is now also used by the MoE, to denote forestland with particular environmental qualities. With the CBD, governmental concern for loss of biodiversity in forests increased, and the group achieved greater appreciation of their work and method.¹¹ In 1996, the group published *Key-biotopes and diversity of species in forests* [Haugset et al., 1996], as a kind of reference for identifying forestland with valuable biological qualities.

In this situation, the MoA initiated the ERF project in 1997. According to the Ministry, the ERF can be regarded as an implementation of the articles in the CBD on identification and monitoring and in-situ conservation of biological diversity. In the Ministry, the attitude towards the work carried out by *Last Chance* is that it is 'rather vague and unscientific' and that 'the method should not be allowed to impact on forestry practices'.¹² The Ministry claims that it is necessary to use a *scientific*

method for registration of biological diversity in forests, which is why the ERF method was developed.

The informants in the environmental movement and a key informant in the MoE tell another story.¹³ According to these informants, the ERF project was partly a tactical manoeuvre by the MoA to regain control over an issue where environmental interests had the initiative. The Ministry had realised that by being passive, it had sacrificed the lead in developing a method for identification of valuable biological forestland to NGOs. The consequence could be loss of control by the Ministry over an issue of growing importance in forestry planning.

According to the ERF method, responsibility for registrations lies with forestry planners, usually employed in forest-owners' associations, or companies owned by these associations. Forestry planners are most often educated as forestry technicians. This means that forestry technicians will now be doing work previously done by biologists. Control of the registrations of biodiversity in forests is largely left to the forest industry itself.¹⁴ By proposing a grant to stimulate environmental incentives in forests, the MoA has tried to monopolise the ERF method. A prerequisite for dispensing the grant is in practice that forest owners use the ERF method to identify forest types on their property [*MoA, 2001*]. The Ministry states that the ERF 'or similar scientifically documented methods' must be used (*ibid.*, my translation), but in reality it dismisses all other methods because they are not scientifically valid.¹⁵ On this issue, the MoE disagrees, claiming that 'there is no reason to conclude that the ERF method is the only one that is scientifically founded' [*MoE, 2001, my translation*]. The MoE claims that forestry technicians are not necessarily competent to carry out biological registrations and that it is unfortunate that a prerequisite for assigning the forest grant is use of the ERF method.

Development of the ERF method and delegation of control to forest owners may be regarded as a strategic positive adaptation to commitments in the CBD, supporting proposition PA1 of the interest-based model. By implementing commitments on identification, monitoring and conservation of biodiversity, the ERF method is a positive adaptation, and by offering forest owners a cost-efficient method that replaces more expensive methods, it is a strategic adaptation. The reason why the Ministry wished to transfer authority from biologists to forest technicians may be sectoral affiliations and organisational culture. An organisational culture is influenced by traditions and members', as well as clients', professional and social background [*Egeberg, 1989*]. The culture partly defines good and bad behaviour in the organisation. All informants in the environmental movement and in the MoE confirm, to some extent, the existence of an organisational culture in the Forestry Department in the MoA in which

members tend to identify with their clients.¹⁶ Prior studies of forest administrations at *regional* and *local* levels have also found that civil servants in the forestry sector tend to identify with their clients in the forestry trade [Hørstad, 1995; Framstad and Hofstad, 1997].

Environmental Certification of Forest Owners: ISO or FSC?

The most important initiative the forest owners have taken to promote environmental interests is the *Living Forests* project. It was established in 1995 to secure Norwegian and international credence in the claim that forestry practices are sustainable [Living Forest, 1997: 1]. The environmental movement, represented by FoE and the WWF, asked and were allowed to take part in the project. The forest owners and the NGOs managed to agree on 23 standards for sustainable forestry. These standards were used to develop C & I for certification of forests owners in Norway.

There were two certification schemes available to forest owners: the International Organisation for Standardisation (ISO) environmental *management system* standard ISO 14001 and the Forest Stewardship Council (FSC) environmental *performance* standard. An undertaking certified by ISO is required to have an environmental policy and goals in place, but can to a large extent decide for itself the environmental performance level. ISO certification essentially meant that forest associations could set their own goals and be evaluated only against these goals. Furthermore, ISO is process-oriented, meaning that an organisation can be certified *before* it fulfils certain criteria, as long as it can demonstrate improvements from one assessment to the next [Clapp, 1998].

The alternative to ISO was the environmental performance standard developed by FSC. With the WWF playing a leading role, environmental NGOs, forest companies and other stakeholders founded FSC in 1993, shortly after the UNCED conference. This certification system was specifically developed to ensure sustainable forestry and conservation of valuable forestland. The environmental organisations participating in *Living Forests* favoured FSC certification, but the forest owners preferred ISO. In 1998, the first forest association in Norway was certified to ISO 14001. Development of national standards as an alternative to FSC has occurred in most European countries. In 1999, the Pan European Forest Certification (PEFC) Council was officially launched to provide an umbrella certification scheme to accredit national certification schemes. PEFC is a private sector initiative, providing certification criteria based on the resolutions of the Helsinki and Lisbon ministerial conferences (Pan-European forest process). Norwegian forest owners were at the forefront in establishing PEFC, and PEFC endorsed the Finnish and Norwegian Forest Certification Schemes as well as the Swedish Family Forestry Schemes in May 2000.

There are at least three explanations for why forest owners preferred ISO to the FSC. First, the FSC was originally created to certify large-scale tropical forestry [Lillandt, 1998: 265]. It was suitable for certifying large-scale forestry elsewhere in the world too, but for the type of small family forestry predominant in Norway and several other European countries, the scheme was, according to the forest owners, not appropriate [*ibid.*]. At the time, the FSC had realised the problem and was developing a group certification solution for small forest owners, but the process was still not completed.

Second, ISO 14000 standards are recognised by the World Trade Organisation (WTO) as legitimate public standards and guidelines [Clapp, 1998]. The privileged status that ISO has gained with the WTO has contributed to ISO 14001's strong market position and, consequently, forest owners' preference for this scheme.

Third, ISO certification gave forest owners greater influence over the certification process. The forest owners were afraid that FSC certification would give environmental NGOs too much influence in the further development of the *Living Forest* standards. By choosing ISO certification, forest owners could apply the standards almost without further elaboration, and at the same time satisfy customers' demand for independent verification of compliance with the standards. The choice of ISO over FSC may be regarded as a utility maximising solution, giving forest owners the most benefit at the lowest cost. Thus, ISO certification is a strategic positive adaptation to recommendations in the Statement of Forest Principles and the following global and European forest agreements, supporting proposition PA1 of the interest-based model.

It could be argued that, with respect to the stronger environmental standards of the FSC, forest owners opted for a negative adaptation by choosing ISO. The support of the forest owners for ISO and the formation of PEFC may be seen as efforts to deflect forest owners away from the environmental standards of the FSC. However, the object of ISO certification is after all to comply with certain standards, not circumvent them, meaning that the choice of ISO in this context is regarded as a *positive* and *strategic* adaptation.¹⁷

Sustainable Forestry: Only 'on Paper'?

In implementation studies it is possible to go one step further, from an examination of *output*, defined as legislation and national programmes and measures to implement commitment, to a study of *outcome*, that is, actual behavioural changes in target groups [Easton, 1965; Underdal, 2001]. The ambition here is not to conduct a systematic study of behavioural changes among forest owners, but rather to indicate to what extent measures to promote sustainable forestry have resulted in new forestry practices.

Several violations of the *Living Forests* standards were unveiled in the Norwegian press in February 2000 [Jensen, 2000a]. It was revealed that the largest forest association in Norway did not comply with the standards. The association had no plans for identifying key biotopes and an internal report showed that the association knew that members were not complying. These disclosures resulted in a provisional withdrawal of the forest association's ISO certificate [Jensen, 2000b]. Does this example imply that *Living Forests* and certification have not resulted in behaviour change? Informants in the environmental movement and an informant in the Norwegian Forest Owners' Association point out that practices among forest owners vary considerably.¹⁸ Some have made real progress in improving forestry practices, while others try to exploit the fact that some standards are vague and thus are avoidable. The standard about registration and handling of old-growth forest is, according to environmental organisations, particularly unclear, meaning that forest owners can avoid complying with the intention of the standard without formally being in breach of the standard.¹⁹ Several cases have been reported where key biotopes have been logged before proper registrations have been made, with the result that forest owners escape possible conservation of forestland.²⁰ Paradoxically, felling has thus repeatedly been the result of planned registrations of forests.

Similarly, in the implementation of the *Protection Plan for Coniferous Forests*, several incidences have been reported where forest owners have logged forestland designated for protection. Here, the MoA had to initiate a special arrangement, giving forest owners economic compensation in the time period used to evaluate whether forestland should be included in the Protection Plan or not [MoA, 1999]. Despite this arrangement, logging of forestland forest owners believe to be under consideration for protection is still reported in the media [e.g., Haugstad, 2001]. Even though certification probably has resulted in progress in sustainable forestry, examples of forest owners taking steps to omit complying with standards abound. Hence, behavioural changes in forestry practices can be described as both strategic positive and negative adaptations, supporting propositions PA1 and PA2 of the interest-based model.

The analysis has shown that IEAs may work through strategic and normative adaptation to commitments and that adaptations may be positive and negative. A stylised typology of *possible* relationships between IEAs and domestic adaptations is set out in Table 1. It is not pretended to present verified causal relationships, but rather to illustrate how the concepts strategic/normative and positive/negative adaptations may be used to identify different effects of IEAs.

TABLE 1
 STYLISED TYPOLOGY OF THE POSSIBLE RELATIONSHIP BETWEEN
 IEAS AND DOMESTIC ADAPTATIONS.

IEAs	Mechanism	Form	Domestic adaptations	Actors
CBD	Strategic	Positive	Environmental Registrations in Forestry (ERF project)	Ministry of Agriculture
		Negative	Logging of forestland under consideration for protection	Some forest owners
	Normative	Positive	Extension of the Protection Plan for Coniferous Forests	Ministry of the Environment
		Negative	<i>Not applicable</i>	
Forest Principles IPF/IFF Pan-European process	Strategic	Positive	Living Forests and certification	Forest owners' associations
		Negative	Certification without compliance with commitments	Some forest owners' associations
	Normative	Positive	(no examples from the analysis)	
		Negative	<i>Not applicable</i>	

Have IEAs Mattered?

The question that begs an answer is whether IEAs really have made a difference for domestic initiatives to promote sustainable forest management (SFM). An alternative explanation would be that expert and public concern for loss of old-growth forests and forest biodiversity caused consumer and NGO pressure for SFM, as well as international co-operation on forests and biodiversity. Thus, both domestic governmental policy and private sector initiatives to promote sustainable forestry have evolved in parallel with the evolution of international cooperation on forestry. In fact, the growing importance of certification and eco-labelling in the forestry sector may be evidence of 'the privatisation of global environmental governance', that is, the increasing importance of private authorities at the expense of public environmental governance [Clapp, 1998]. A considerable gap in the forest regime is the absence of multilateral rules for SFM [Humphreys, 1999: 253]. It has partly been filled with FSC certification based on principles and criteria for 'well managed forests' [*ibid.*]. This certification scheme was originally developed because the International Tropical Timber Organisation (ITTO) refused to take action on forest

certification [Humphreys, 1996: 74–5]. To discuss the independent effect of market and NGO pressure, let us consider the backcloth for the establishment of *Living Forests* and certification of forest associations.

The environmental movement has worked to protect old-growth forest for more than 20 years. The environmentalist's strategy has mainly been to influence government, dispatching letters of protest whenever valuable forestland was threatened. Encouraged by a successful campaign in the late 1980s to stop the use of elementary chlorine in paper bleaching, Greenpeace in 1993 launched a campaign in Germany, criticising forest owners in the Nordic countries for not conserving old-growth forests and threatened species [Sæther, 1998: 190]. The new and successful strategy was to not only target industry or the government, but also consumers. The German magazine *Der Spiegel* replied by publishing a critical article about Finnish forestry. Springer Verlag, the largest publishing house in Europe, also responded, and asked its paper suppliers to document what was done to protect threatened species in forests and whether old growth forest was set aside [*ibid.*].

In Norway, FoE used market pressure as a means to promote protection of forests in 1994.²¹ Forestland in Oppland county was threatened by local authorities' allocation of logging permits, even though there was documentation that the area contained valuable old-growth forest.²² FoE wanted protection of the whole area and wrote to Springer, urging the publishing house not to buy paper from Norske Skog, Norway's largest exporter of paper, originating from this particular area.²³ For Springer it was important not to use paper that originated from biologically valuable areas because of the serious concern among German consumers about *Waldsterben* (forest death) and loss of biological diversity. Germany is the largest market for Norske Skog and loss of contracts with German customers like Springer would have severe consequences. The company and forest owners first reacted with anger to the letter from FoE, accusing individuals within the organisation of betraying their country.²⁴ However, they had to admit that forestry practices in Norway could be improved [Sæther, 1998: 190–91]. Traditionally, there have been close ties between forest owners' associations and Norske Skog.²⁵ This relationship probably partly explains the resentment in the company towards calls for new forestry practices. This notwithstanding, the forest owners and Norske Skog soon realised that they had to change tactics in order to reassure customers that Norwegian forestry was sustainable. The response to new market pressures and competitiveness concerns was the establishment of *Living Forests* in 1995.

The growing role of certification and eco-labelling in the marketplace, prompted by the establishment of the FSC, created pressure for

certification of the Norwegian forest owners' associations, either by the FSC scheme, or by ISO. As an incentive to stimulate certification of forest associations, Norske Skog pays a bonus for certified timber. In return, Norske Skog and its customers are supposed to have a guarantee that timber and paper originate from sustainable forestry practices. There is little doubt that certification could be a *win-win situation* for forest owners. On the one hand, they obtain a considerable bonus income for their timber, and on the other hand they avoid troublesome demands from environmental organisations by complying with standards the organisations themselves have taken part in developing. In this situation, certification was undoubtedly a strategic *market* adaptation by forest owners.

There is also another important influence on Norwegian forestry, namely the co-operation between the forest sector in the Nordic countries through the Nordic Council of Ministers, the forest owners' associations and environmental NGOs. In particular, there has been substantial policy diffusion between Sweden and Norway, exemplified with *Living Forest* and the environmentalists *Last Chance* – which in Sweden is called *Richer Forests* and *One Step Ahead*. These initiatives surely reflect shifts in expert, consumer and public opinion, but it is more difficult to identify the effects of IEAs.

None the less, it appears that international cooperation most probably has mattered. The development of C & I for sustainable forestry is a follow-up of recommendations in the Forest Principles, elaborated by the IPF and IFF and the pan-European ministerial conferences. The MoA, which has been actively involved in the pan-European forest process from its beginning, demanded that European C & I should play a leading role in the development of standards under the *Living Forest* project.²⁶ Hence, the ministerial conferences on forests in Europe have been important in the elaboration of systems for sustainable forest management in Norway.

The focus on sustainable forestry in the marketplace is, at least partly, a response to the increased concern for forest management in temperate and boreal forests following the UNCED conference in 1992. The conference probably elevated consumer awareness about the necessity of conserving biological diversity and old-growth forests. Furthermore, the CBD undoubtedly gave environmental organisations and environmental authorities new arguments, as well as strengthened 'old' arguments, in their struggle to protect valuable forestland. In this way, IEAs have contributed to establish, strengthen and disseminate norms and principles regarding conservation of old-growth forests and biodiversity. IEAs may thus have had an indirect effect through environmental organisations' pressure for sustainable forestry, through market pressures, to incentives in the forest

industry to promote sustainable forestry. In conclusion, international co-operation seems to have made a difference for developments in the Norwegian forestry sector, although it cannot be ruled out that changes in the last decade are caused by the independent effects of shifts in expert, consumer and public opinion, as well as the growing role of private authorities in global environmental governance.

Concluding Remarks

In this case study, strategic adaptation has *seemingly* been the most important mechanism behind efforts to promote SFM. The analysis has demonstrated that to the extent progress towards sustainable forestry is the result of IEAs, the agreements have worked most effectively indirectly, through influencing market demands and competitive terms for forestry. This may have validity not only for the Norwegian case study, but also for explanations of forest certification processes world-wide. This finding indicates that international agreements affecting target groups' calculations of utility, such that positive adaptation is associated with net gain, and negative adaptation is associated with net costs, have the potential to be effective. On the other hand, the study has demonstrated the problem with strategic adaptations; when actors adapt strategically, not only positive, but also negative adaptations are likely to result.

However, a precondition for the effective working of strategic adaptation to an IEA is that someone values certain norms and principles in the agreement. This means that the *interplay* between cognitive and rational calculative processes is important for understanding domestic adaptations to agreements. In this study, we see that experts and consumers have internalised norms and principles associated with conservation of forests and biodiversity. We also see that actors that have internalised central norms and principles in IEAs have used the agreements to promote these norms and principles. The MoE has used normative arguments to promote conservation and sustainable use of forests, *and* the Ministry has gradually made use of the CBD and other agreements to substantiate its arguments. Most importantly, the environmental movement has succeeded in influencing market actors and raising awareness among environmentally concerned consumers, so that the forestry trade itself realised that environmental adaptations would result in net benefits. Thus, the most significant effect of IEAs on domestic forestry may in fact have been to provide environmentalists with a new means by which to promote sustainable forestry and protection of forests.

NOTES

1. In 1900, 48 per cent of the land in Norway was more than five kilometres from man-made installations (for example, roads, houses, industry), whereas, by 1994 the figure had shrunk to a mere 12 per cent and to only five per cent in Southern Norway (St meld no 58, 1996–97: 116).
2. For a thorough analysis of conditions under which rational actors will co-operate and comply with certain norms and rules, see Axelrod [1984], Keohane [1984], and Underdal [1998].
3. Arild Underdal has pointed out this distinction to me (personal communication).
4. Christopher Rootes has clarified this argument to me (personal communication).
5. Neither are provisions regarding forests as CO₂ sinks under the Framework Convention on Climate Change [1992] and the Kyoto Protocol [1997].
6. Full title: 'Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests'.
7. The purpose of a criterion is to define an essential feature of sustainable forest management, while the indicators measure changes over time for a given criterion [Humphreys, 1999: 252].
8. The UN Forum on Forests (UNFF) was established in 2000 to continue working with these issues.
9. The Directorate for Nature Management is the MoE's advisory and executive body in the area of nature management.
10. MoA1 and MoA2: Interviews with senior advisers, MoA [2001].
11. Interview with Rune Aadneraa, 2001.
12. MoA1: Interview with senior adviser, MoA, 2001 (my translation).
13. Interviews with MoE2 (senior adviser, MoE), Gjermund Andersen and Arnodd Håpnes, 2001.
14. MoE2: Interview with senior adviser, MoE [2001].
15. MoA1: Interview with senior adviser, MoA [2001].
16. Interviews, 2001.
17. Remembering that 'positive' in this context does not necessarily mean positive in a literal sense.
18. Interviews with Gjermund Andersen, Arnodd Håpnes and Nils Bøhn, 2001.
19. Ibid.
20. Interview with Rune Aadneraa, 2001.
21. Interview with Gjermund Andersen, 2001.
22. The area, called *Skotjernfjell*, was originally included in the *Protection Plan for Coniferous Forests*, but it had fallen out of the Plan. The MoE later admitted that this was a mistake [MoE, 1995: 18].
23. Norske Skog is one of the world's largest producers of paper and the second largest supplier of newsprint [Norske Skog, 2001a].
24. Interview with Gjermund Andersen, 2001.
25. Until recently, forest owners controlled more than one third of the shares in Norske Skog. However, after a share issue in 2001, forest owners' percentage of shares in the company sunk from 37 per cent to less than 21 [Bjørngaas and Hellstrøm, 2001; Norske Skog, 2001b].
26. MoA2: Interview with senior adviser, MoA, 2001.

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