IRISH TIMBER GROWERS ASSOCIATION

COFORD
NATIONAL COUNCIL FOR FOREST RESEARCH & DEVELOPMENT

FOREST REGULATION - A threat to production forestry?

Proceedings of the ITGA/COFORD Seminar
held on 14 November 2002
at the UCD Industry Centre, Dublin

Edited by Eugene Hendrick

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COFORD, National Council for Forest Research and Development
Agriculture Building
Belfield, Dublin 4
Ireland
Tel: + 353 1 7167700
Fax: + 353 1 7161180

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Foreword

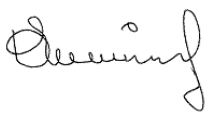
The growth of the forestry sector in Ireland over the past decade has been matched by an increasing number of regulations that directly impact on day-to-day operations. These range from guidelines to new consent procedures recently announced by the Forest Service.

Compliance with regulations comes at a cost, both in changing the way business is conducted on the ground and in setting up new procedures and processes to track where and how forest operations are carried out. While these regulations are in place for good reasons, there is a need to consult with stakeholders in their formulation and implementation. This will help not only to ultimately improve compliance but will reduce uncertainty and risk taking, and costs all round. In many cases, clear communication will go a long way in alleviating concerns.

In order to address these issues, COFORD and the Irish Timber Growers' Association (ITGA) organised the seminar *Forest Regulation – a threat to production forestry?* in November 2002. The proceedings which are presented here are a useful insight into current thinking. Contributors from the Irish industry sector have clearly set out their concerns about current regulations and the regulatory environment, and similar concerns are expressed from the United States industry side. We also have a clear and well presented paper on the forest regulation situation across Europe. The Forest Service has described the set of regulations that exist, at the same time giving context and background to those most recently introduced. Finally, as the EC is increasingly the source of much new regulation, the paper from the Commission is useful in seeing their perspective.

The issues raised in the seminar support the need for the current review of forest legislation that is being undertaken by the Forest Service, in order to give better focus and coherence to the current regulatory framework. Current primary legislation is more than fifty years old, and forest policy, both nationally and internationally, has changed beyond recognition since the time it was framed. This publication contains information that will be of value to the review, dealing as it does with overall principles of forest regulation and procedural matters. It will also be useful to practitioners as it sets out the current regulatory framework in a comprehensive way, gives the background, and raises issues and questions that will stimulate further thought and discussion.

In conclusion, I want to thank the speakers, now authors, who made the seminar more than worthwhile and, of course, our colleagues in the Irish Timber Growers' Association for their close co-operation in organising the event.



David Nevins

Chairman

June 2003

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Welcoming Address

Charles Colthurst[1]

I would like to thank Minister John Browne for taking the time to open our joint Irish Timber Growers' Association/COFORD seminar and I am delighted to welcome you all here today. This is the second seminar that ITGA has co-hosted with COFORD and given the topic and speakers, I anticipate that it will be as successful as last year's event.

There have been some very serious recent developments in our industry which the Minister has referred to and which I would like to address. I would first say, however, that the topic of today's seminar 'Forest Regulation - a threat to production forestry?' is very timely, particularly in light of the Government's intention to redraft and review current forestry legislation.

It would be no exaggeration to say that more demanding forestry grant conditions, environmental procedures and forestry regulations put Irish forestry at risk of being over regulated. Public consultation is also now required for many forestry operations and the time and costs involved in complying with all the current demands pose a very real threat to economically sustainable forestry. Indeed, excessive regulation threatens to smother the enterprise and initiative required to build a successful forest industry.

It would appear that forestry is a target for environmentalists and ultimately the vehicle for their aspirations in relation to biodiversity, landscape and various associated environmental issues. The forest industry as a whole must take a more active role in informing the public of the very real environmental benefits of our forest resource and the advantages in expanding our woodland area. This seminar, I would hope, will act as a catalyst for more informed debate on our industry in the general media that will more accurately reflect the benefits of growing woodlands to our nation.

There have been many rumours circulating in our industry since Friday last in relation to potential Government cutbacks to forestry funding for next year and the potential effects of these proposed cuts. Our industry has been struggling to meet the Government's afforestation targets since they were set in 1996 in the Strategic Plan for the Development of the Forestry Sector in Ireland. In endeavouring to achieve these Government targets our industry has invested heavily and has developed an infrastructure to achieve the many objectives specified in the Government's Strategic Plan. Forestry is a long-term industry and it took time and considerable investment to put the current infrastructure in place. For example, it takes four years or more for our nursery sector to plan, source seed and produce the standard 3-year-old transplants that the industry requires before a forest rotation even begins. It is unthinkable that this considerable infrastructure, employment both direct and indirect and significant investment, much of it personal investment by individuals, can be effectively wiped out overnight. If the various forestry grant schemes are suspended for any length of time, make no mistake, this will be the end result. Our industry will lose investment because who will then have the confidence to invest, employment will be lost and who will have the confidence to return to an industry that is subject to such vagaries and contractors and sub-contractors will be put out of business. Forestry is a long-term industry and simply cannot sustain such unpredictability.

Minister, I am aware of your recent meeting with the Irish Forest Industry Chain and would ask that you work closely with our industry to help prevent the serious long-term damage that could be caused by any proposed funding cutbacks. It is vital that no forestry grant schemes are suspended and that the

[1] Chairman, Irish Timber Growers' Association, The Plunkett House, 84 Merrion Square, Dublin 2. Email: itga@icos.ie

importance of our industry is acknowledged around the Cabinet table. Given the degree of EU co-funding of forestry grants, if a detailed cost : benefit analysis is undertaken on our various forestry grant schemes, I believe, that the benefits accruing to the State and national exchequer through employment, VAT returns and knock on benefits to our rural communities may prove that the forestry schemes are effectively self financing. This is without taking into account the environmental benefits of forestry and their positive carbon fixing role and contribution to the National Climate Change Strategy.

In the ITGA we have undertaken a great deal of work over the years to find real solutions to the many challenges facing the Association and its membership, but much more needs to be done. We do have the potential to be a successful industry, contributing enormously to the economic, social and environmental well-being of rural areas, but we need to free up this potential, and ensure that this industry continues to grow and thrive into the future.

I will conclude my address by thanking all those who have contributed to the organisation of this seminar. In particular, I would like to thank our speakers for the time and effort they have put into preparing their presentations and especially our international speakers who have travelled some distance to be with us today.

I look forward to the various presentations and expect that they will engender considerable discussion.

The impact of new and planned environmental procedures and regulations on afforestation and forest management in Ireland

Kevin Hutchinson[2]

Introduction

Forest cover in the Republic of Ireland extends to approximately 660,000 ha or 9.5% of the land surface. Plantations account for the vast majority of the forest area – more than 95%. These have been established over the past century with the majority planted in the last 50 years.

Until the mid 1980s almost all of these plantations were established by the state. Private planting was almost exclusively confined to estates and never exceeded 600 ha/year. This all changed with the introduction of various EU-supported grant and premium schemes designed to remove land from agriculture and convert it to production forestry. The result has been dramatic, with almost 180,000 ha being planted by private landowners in the last 20 years. Private planting peaked in 1995 at just over 17,000 ha.

Importance of forestry in Ireland

Forestry is now a major industry in Ireland. Annual turnover is in the order of €450 million, with approximately 16000 people now employed in the industry. The industry ranges from plant production in nurseries through plantation establishment and management to the production of sawn timber and wood-based panels.

Most of this employment is decentralised from Dublin and is based in rural communities throughout the country. It is highly important locally with significant downstream benefits. Annual Forest Service/EU forestry premium payments to landowners now exceed €40 million. The expansion and development of the forest industry in Ireland is fundamentally dependant on a continued vibrant afforestation programme.

Forestry as an industry/business

The attributes of any successful business are a product or service, a market and a strategy for delivering that product or service to the market at a profit, and a detailed business plan or framework within which the activity can take place. Delivering a demanding afforestation programme is no different - the additional constraints and characteristics of afforestation emphasise rather than negate the need for good planning.

Business only takes place within a regulatory framework of legislation and compliance with stated industry standards. The characteristics of such legislation and standards in so for as they apply to general business, are that they are made over time after careful consideration, discussion and debate and input by expert and trade groups. Only rarely is what might be called emergency legislation required, and then only to deal with a serious crisis or very abnormal set of circumstances.

Thus it was that in 1996, after extensive consultation, the government launched its plan for the future development of forestry in Ireland *Growing for the Future – a Strategic Plan for the Development of the Forestry Sector in Ireland*. It set out its stall very clearly. To quote:

> *It is now time to build on our achievements to date. The future for Irish forestry is bright and its possibilities are many. In order that it can realise its full potential to contribute to our economic and social well-being, it is, however, vital that future forestry development take place within a framework which not only sets targets and ensures cohesion within the sector in working towards meeting them, but also reflects the inter-action between forestry and many other areas. That is the role and*

[2] Manager: Sales and Marketing, Coillte Forestry Services, Portlaoise, Co Laois. Email: kevin.hutchinson@coillte.ie

importance of this Plan. It has as a central feature the achievement of a specified level of timber output but is directed also to ensuring that in developing Irish forestry over the years to come we generate the widest possible range of complementary economic, social and environmental benefits.

Forestry is primarily but not only about the production of timber. It must be compatible with the environment, enhancing it wherever possible, and should provide a context within which leisure and recreational pursuits can be enjoyed by our own people and visitors to Ireland alike. It should be an agent of rural development, providing farmers, those living in rural Ireland and rural economies with an attractive land-use option and an increasingly significant source of earnings and employment. It is also another area in which quality product, produced from the land of Ireland, can be increasingly supplied into export markets. This Plan seeks to secure all of these benefits.

The strategic plan had a specific chapter (17) on legislation. It included a policy statement which was to ensure the development of a modern, multi faceted and high quality forest sector is supported by legislation which is up-to-date and comprehensive.

That, I my view, and in the view of many I have spoken to, is the context in which developments over the last five years must be considered. The context must also take account of:

1. government policy as it evolved since the 1980s
2. the vision of forestry as a significant agent of rural development and employment going forward and
3. existing forest practice and practitioners.

Up to the late 1980s forestry practitioners were employees/agents of the state forestry service, and since that time employees of Coillte and, to an increasing extent, the private sector.

What we now appear to have is a series of forces impacting on afforestation and forest management, most of which do not have their origins in the Government's strategic plan. These include Brussels, usually mentioned as the cause, various government departments, authorities and agencies as well as very vocal and well-organised (if small and usually self-appointed) lobby groups within Ireland.

Statutory and other regulations

Regulation of forestry in Ireland is governed by a large number of legislative provisions. The main ones are:

- Forestry Act 1946.
- Forestry Act 1956.
- Forestry Act 1988.
- Local Government (Planning and Development) Acts 1963-1996.
- Local Government (Water Pollution) Acts 1977-1990.
- Environmental Protection Agency Act 1992.
- National Monuments Acts and Amendments 1930-1994.
- Wildlife Act 1976.
- Roads Act 1993.
- Safety, Health and Welfare at Work Act 1989 and the Safety, Health and Welfare at Work (General Application) Regulations 1993.
- Safety, Health and Welfare at Work (Construction) Regulations 1995.
- Occupiers Liability Act 1995.
- Waste Management Act 1996.
- Litter Pollution Act 1997.
- Local Government (Planning Development) Regulations – Environmental Impact Assessment – Statutory Instrument No. 100 of 1996.
- European Communities (Environmental Impact Assessment) (Amendment) Regulations – Statutory Instrument No. 101 of 1996.
- Employment legislation.
- Transport legislation.
- Planning and Development Bill 1999.
- Wildlife (Amendment) Bill 1999.

EU Legislation

- Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.
- Council Directive 79/409/EEC on the conservation of wild birds.
- European Communities (Natural Habitats) Regulations 1997.
- Council Directive 66/404 EEC on the marketing of forest reproductive material and Council Directive 71/161/EEC on external quality standards for forest

reproductive material marketed within the Community on the marketing of forest reproductive material (these Directives were recently superseded by Council Directive 1999/105/EC).

- Council Directive 77/93/EEC on protective measures against the introduction to the Community of organisms harmful to plants of plant products and against their spread within the Community.
- ∑ EU Environmental Impact Assessment (EIA) Directive 85/337/EEC.
- EU Environmental Impact Assessment (EIA) Directive 97/11/EEC.
- EU scheme on the protection of forests against atmospheric pollution (Council Regulation EEC 3528/86).

International Protocols

- OECD Scheme for the Control of Forest Reproductive Material moving in International Trade.
- Protection of the World Cultural and Natural Heritage (1972).
- UN Convention on Biological Diversity (1992).
- UN Framework Convention Climate Change (1992) and its Kyoto Protocol 1997.
- Helsinki Protocols arising form the Ministerial Conference on the Protection of Forests in Europe, Helsinki 1993.
- Lisbon Protocols arising form the Ministerial Conference on the Protection of Forests in Europe, Helsinki, 1998.

In addition many environmental regulations/controls, not all of which are statute-based, have been introduced over the past five years. It is this area that I now wish to focus on in my presentation.

Impact of environmental procedures and regulations

The impact of environmental procedures and regulations can be dated back to late 1997 when, as I understand it, in response to the mid-term review of the programme, the Forest Service introduced at short notice changes in species requirements – the introduction of the 20% diverse species requirement in all grant-aided afforestation and so on.

These changes were introduced without consultation with the nursery sector which had to produce the planting stock, without consultation with the contracting sector which had to try to implement the revised requirements at short notice and, it seemed to many, without reference to the strategic plan. The impact has been to dilute, perhaps remove entirely, the possibility of achieving the critical mass set out as the mainstay of that document. This has enormous implications for the industry as a whole and indeed for the country in terms of meeting its Kyoto obligations. Therefore within eighteen months of its launch, the strategic plan had been effectively rewritten, without the consultative process which characterised its formulation. In the following five years, change after change was introduced. We have had:

- Mandatory guidelines including
  - o Forest Biodiversity Guidelines
  - o Forestry and Archaeology Guidelines
  - o Forestry and the Landscape Guidelines
  - o Forestry and Water Quality Guidelines
  - o Forestry and Aerial Fertiliser Guidelines
  - o Forestry Harvesting and the Environment Guidelines
  - o Irish National Forest Standard
  - o Code of Best Forest Practice
- Revised Environmental Procedures including in particular the Forestry Strategic Management and Environmental Procedures.

The intention is not to criticise all of these regulations. It is, however, worth focussing for a moment on the impact of some of them.

The cumulative effect of the requirements for diverse species and biodiversity is to allow a maximum of 60% of any area to be planted with the main species. The requirement for 15% biodiversity and 10% broadleaves effectively means that a maximum of 75% of the site is productive. There is a strong possibility, if not probability, that this figure may be further reduced by the imposition of an additional increase in broadleaf requirements. This has a major impact on the financial viability of any afforestation project. Timber volume production is reduced by more than 25% and the tradability of plantations is significantly less than those established before the introduction of this regulation. It is therefore a negative pressure for those interested in investing in forestry.

The requirement to have 15% biodiversity on all sites over 10 ha is a very restrictive regulation and often impractical. A much better and more realistic proposal would be to achieve the required 15% biodiversity on a landscape basis. Large areas of land (approximately 800,000 ha) are effectively sterilised by regulations governing NHAs, SACs etc. Subjective landscape impact assessment by County Councils has also become a major constraint in recent times. Donegal is a good example of this, where large areas of the country are considered no go areas as far as afforestation is concerned. Over recent weeks Coillte Forestry Services has had three planting applications totalling 83 ha rejected because of interpretation of this regulation.

The recently introduced regulations/protocols dealing with acid sensitive areas have effectively sterilised large areas of Donegal, Kerry, Clare, Wicklow, the Ox mountains and the Slieve Bloom mountains where little or no conifer afforestation is likely to be allowed. In total approximately 775,000 ha have been so designated. This is equivalent to 117% of the total forest area, both state and private, already in this country. An illustration of the effect of this regulation is the situation as it affects clients of Coillte Forestry Services.

Approximately 646 ha of clients' unplanted land have been affected by the criteria since it was introduced in February 2002. This represents 42 privately owned sites that have been submitted or are awaiting submission to the Forest Service for planting approval. The expectation is that most, or possibly all, of these sites will not be approved.. Before the introduction of the current criteria most, or possibly all, of these sites would have been approved. The potential premium income that will be lost to the private landowners of these sites is estimated at €3,680,000 at today's rates (based on 646 ha over a 20-year period). The potential timber income lost to landowners (excluding broadleaf areas) could amount to €31,204,000 (based on average annual timber price inflation of 3%).

Other economic benefits lost to the rural economy include:

- reduction in downstream activity,
- land price reduction,
- jobs lost,
- asset build-up reduced and
- a loss of carbon sequestration.

These are Coillte data only. National data would be much higher.

There is an urgent need to review this regulation and examine the possibility of using the Scottish model which allows a threshold of afforestation in such areas.

The requirement for environmental impact assessments (EIAs) on sites of 50 ha or greater is cumbersome, time-consuming and expensive, and has no doubt taken many large potential planting sites out of the market. The increased requirement for consultation, with prescribed bodies, and public consultation, is a further source of serious delay in having planting applications processed. Furthermore it has the potential, particularly in the area of public consultation, to create serious log jams and render the process almost unworkable.

On a macro scale we are falling well short of achieving the government afforestation target with its attendant consequences for attainment of critical mass and the future of the forest industry. The species mix has changed dramatically over the last five years with enormous consequences for forest management and harvesting and marketing of timber due to differing rotation lengths, silvicultural requirements and so on. The question of developing markets for a plethora of minor species of mixed quality is likely to be at least difficult and perhaps impossible.

I have been asked to speak on the impact of new and planned environmental procedures and regulations. The only new regulation that I am aware of is the proposed sterilising of additional areas of the country to aid the conservation of the hen harrier. It appears that environmental considerations are being given a significantly higher level of priority over social and economic considerations. This is not at all in keeping with the principles of Sustainable Forest Management.

In conclusion what we are witnessing is an evolving situation where the perceived need for environmental regulation (often without scientific back-up) is dictating silvicultural practices. The end result is fast approaching strangulation by regulation.

The way forward

In order to develop a framework of regulations which allow for the orderly development of commercial forestry in Ireland while at the same time recognising the need to protect the environment, I am proposing the following way forward:

- We need a real participatory process and not just meetings and workshops where information is disseminated on decisions already taken.
- We need a true commitment from the Forest Service to listen to what stakeholders are saying and to fully understand their needs before introducing new regulations. In other words, we need an open, transparent and fair method of introducing new procedures. To do that, we need a structured form of real discussion and debate.
- We need to readjust the balance to create a more favourable environment for commercial forestry.
- We need an introduction period of at least two years for species changes.
- We need a process whereby pressure for new procedures and regulations must be supported by real scientific evidence before their introduction is considered.
- We need a process whereby proposed procedures and regulations are tested against the Strategic Plan and the consequences clearly set out. If the procedures or regulations have implications for the achievement of the plan then let us set out very clearly what the implications are and let everyone be in a position to evaluate these.

We all recognise, and accept, the role of the Forest Service as the agent of the state in regulating forestry in Ireland. However, the Forest Service also has a role in promoting forestry in Ireland and it is in that context that a true balance must be maintained if regulation is not to stagnate the industry

That, in my view, ladies and gentlemen is the only way forward for Irish forestry.

Forest regulations in other European countries – possible lessons for Ireland

Henry Phillips[3]

Introduction

The paper introduces the concept of forest regulatory framework and identifies underlying causes for its increasing complexity in recent years. The major trends in European forest legislation are summarized. Based on a review of the literature and on the author's own experience, important lessons for Ireland in both the drafting of the regulatory framework and in its provisions are identified. These include (a) avoidance of legislative over-reaching, (b) avoidance of cumbersome licensing and approval procedures and (c) transparency and accountability of decision-making. On a more practical level, legislation should include provisions for (a) forest management planning, (b) regional forest plans as the basis for development, (c) national forest inventory and statistics collation and dissemination and (d) the financing of forest activities.

It is perhaps prudent at the beginning of any presentation to define what is meant by the title. So what do I mean by Forest Regulations? For the purpose of this presentation a Forest Regulatory Framework includes any or all of the following:

- Forest law,
- Other legal acts which impact on the practice of forestry,
- Regulations and ordnances,
- National forest policies and strategies,
- National policies and strategies that impact on forestry,
- Legally binding international conventions/accords,
- Government decisions and
- EC Directives and Regulations.

However, as a discussion on all of the above would be rather lengthy and take days, if not weeks, I will focus my presentation on the requirements relating to the practice of forestry under forest law and accompanying regulations. I will not refer to environmental laws or regulations as the previous presentation has covered that topic.

Regulatory framework

The regulatory framework for forestry is becoming increasingly complex. It is changing on an almost annual basis. This is a simple and undisputable fact. Complexity is due to a variety of reasons but principally a combination of:

- global, regional and international agreements that impact on forestry,
- increased recognition in national forest policies and strategies (NFPS) of the multiple functions of forests,
- interaction between forestry and related sectors,
- changes in how society perceives and values forests and
- the diminishing ownership role of the state following restitution to former owners.

Until the middle of the twentieth century, forest law existed more or less as stand-alone legislation with little interaction with other laws apart from hunting, game management and perhaps agriculture. The situation today is quite different with forest law having to interact and harmonise with laws relating to nature protection, environment, planning and many other areas.

Over the past 15 years, the majority of countries in Europe have either amended, as is the case in EU countries, or rewritten their forest legislation, as is the case for transition countries. Within the EU, the following countries have revised their forest legislation:

- Austria (1987)
- Belgium (1990)

[3] Forest Industry Expert, Irish Forest Industry Chain (IFIC), Cloot na Bare, Rathonoragh, Sligo. Email: hphillip@indigo.ie

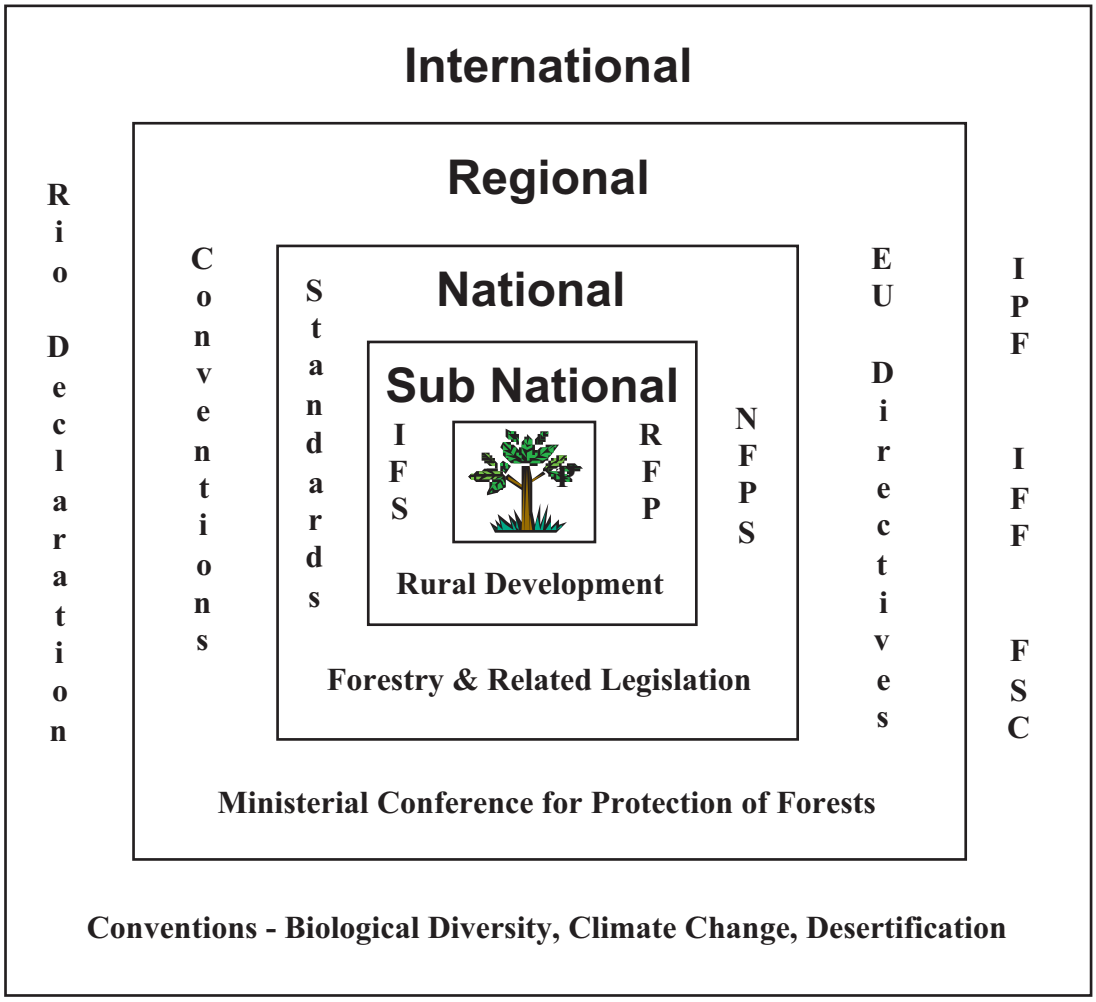

Figure 1: Forest Regulatory Framework – International, Regional, National and Sub-National.

- Denmark (1996)
- Finland (1996)
- France (1998)
- Germany (1990, 1992-94)
- Greece (1987)
- Italy (1985)
- Portugal (1996)
- Spain (1989)
- Sweden (1994).

The forest laws of Europe have been adopted over more than a century, ranging from the Belgian Code Forestier of 1854, to the Italian law of 1923, to the recent laws of Scandinavian countries. Where the principal forestry legislation has not been replaced or amended, new developments have come from laws adopted separately, such as legislation on the protection of the environment or nature, rural or mountain area development, subsidies or other forms of support to economic activities (Cirelli and Schmithüsen 2000). Significant innovations have also been introduced in laws adopted at the sub-national level, or in subsidiary legislation as for example in Germany and Spain. The legislative framework applicable to forestry in Western European countries tends to be particularly complex compared with other regions of the world, as, for example, Central and Eastern Europe, where there has been a tendency to replace all former legislation with comprehensive new texts (Schmithüsen and Iselin 1999). This, however, may be regarded as somewhat of a simplification.

Trends in Legislation

The following general trends can be identified in more recent forest legislation:

- institutional aspects not covered in detail in legislation,
- increased emphasis on forest management

planning,

- increasingly legislation becoming more enabling rather than prescriptive,
- recognition of the economic, social and environmental functions of forests,
- sustainable utilisation of forest resources and
- role of the state divided between different ministries.

Lessons Learned

In addressing the lessons to be learned for Ireland, I have divided them into two aspects relating to (a) the drafting of laws and regulations and (b) the provisions contained within the forest laws and regulations. This distinction is, I believe, of especial importance in view of the current intention of the Forest Service to introduce new forest legislation in 2003.

Drafting Legislation/Regulations

Many forest laws throughout the world lie un-utilised or under-utilised due to failures in political will, institutional capacity, overall disregard for the rule of law and similar reasons. The problem may indeed be implementation, but the scope and severity of the problem can be affected, for better or for worse, by the text of the law itself (Lindsay *et al.* 2002).

History has demonstrated the fallacy of focusing on the control functions contained in legislation and not just forest legislation. A law's ability to influence behaviour depends less on the strength of the punitive provisions than the extent to which it enables and encourages positive behaviour.

The following lessons for Ireland in the drafting of forest laws and regulations is based on the work of Lindsay *et al.* (2002) and my own experience in Eastern Europe.

LESSON 1 ***Avoid legislative over-reaching***

This is perhaps the most important lesson and serves as the basis for the other lessons that flow from it. Legislative provisions that over-reach can be broken down under two headings:

1. Provisions that exceed national capacities for implementation

This at first sight seems obvious. However, there are numerous examples of forest laws that are technically unrealistic and as a consequence remain

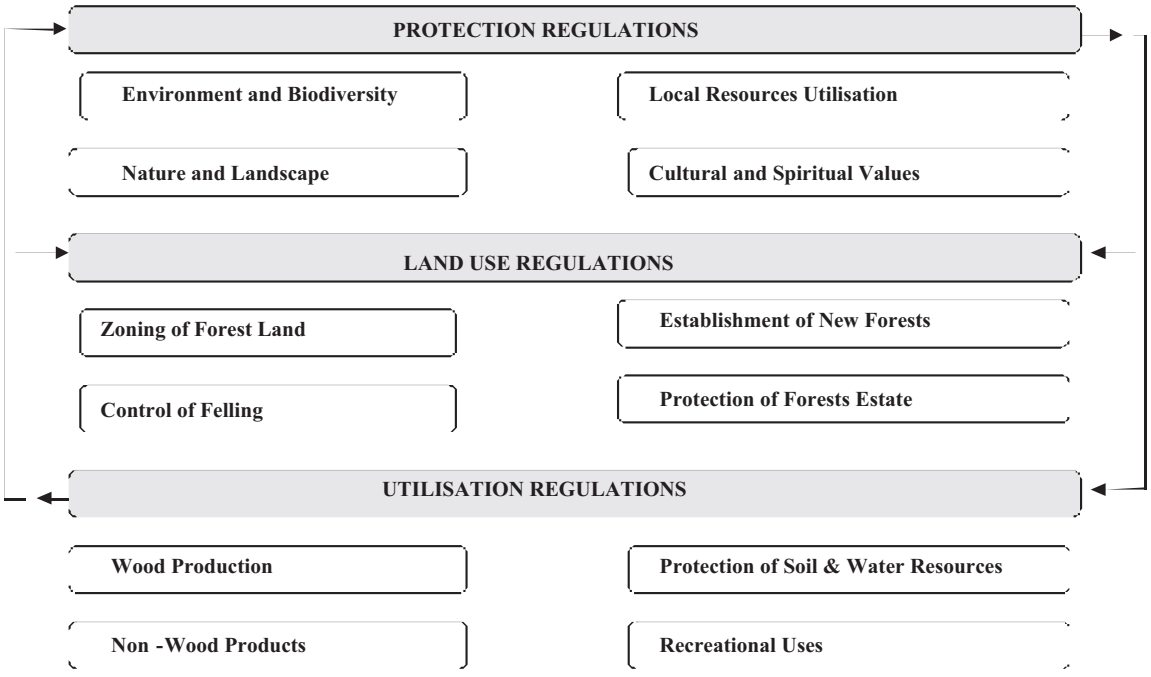

Figure 2: Elements of Regulatory Framework.

unimplemented. The problem is the imbalance between what the law prescribes in terms of activities, procedures and institutional arrangements and the financial and human resources available for implementation.

2. Provisions that exceed what is necessary to achieve reasonable and legitimate objectives

This is where the legislators adopt a catch-all approach in their zeal to cover everything and every possible situation. The result is that the law ends up either prohibiting or obliging activities that have little to do with the goals they are trying to achieve.

LESSON 2 ***Avoid unnecessary, superfluous or cumbersome licensing and approval requirements/procedures***

This lesson overlaps with the previous one. Forest laws frequently set out burdensome approval requirements for many types of actions by forest owners. The cutting/harvesting of trees is a case in point.

In the context of drafting legislation, the addition of another permission, approval or consultation process may seem the height of prudence. However, quite often little attention is given to the likely costs, consequences or long term impacts of additional approval processes.

The primary question to ask is: What is the purpose of regulating this activity and is the rationale sound? By asking this, many like to have rather than need to have approval processes can be avoided.

LESSON 3 ***Include provisions that enhance the transparency and accountability of forest decision-making process***

At first sight, this may not seem to have relevance for Ireland as we live in a democratic society. However, the deluge of tribunals in recent years tells us otherwise. The measures that can be taken here include:

1. establishment of an oversight body, as for example a Forestry Forum which would review major decisions, establish policy guidelines, facilitate public debate, provide advice and input to Ministerial decisions.
2. provision of basic criteria for decision making, as for example approval for projects, which are transparent and accountable.

LESSON 4 ***Use a participatory process in drafting law***

The drafting of sound and workable law requires genuine involvement of all categories of stakeholders. Without this involvement, there is little hope of passing laws that reflect reality. Legislators perceived reality can be different from that of the real world.

By participation, I do not simply mean the holding of a number of meetings or posting of drafts on web pages for comment. Participation requires a true commitment to listen and understand the needs, objectives and capacities of the intended users of the law and to finding ways to accommodate the multiple interests at stake.

One could add an additional lesson, although it goes against my natural philosophy, and that is to increase the effectiveness of direct law enforcement mechanisms elaborated in the forest legislation. Simply put, this can be restated as If you are going to use a stick make sure it is big enough so that its impact or threat of impact is sufficient to warrant a change in behaviour of the offender or potential offender. This relates to:

1. penalties that fit the crime being severe enough and related to the damage and
2. ensuring that officers authorized under the legislation have sufficient powers to follow up on offences or alleged offences and can deal directly with minor offences.

Up until the last decade or two of the twentieth century, forest laws were drafted in isolation. There was little or no opportunity for stakeholders to have their views listened to, yet alone included in what was being drafted.

Provisions in Laws and Regulations

LESSON 1 ***Requirement for forest management planning and plans***

There is an almost universal requirement under forest law in Europe for a forest management plan. From a forestry perspective, this is simply common sense. Plans are generally valid for a period of ten years and can only be prepared by qualified people. Approval of the plan imparts approval of the activities under the plan, as for example harvesting. In the case of small-scale forests, the requirement is often for a simpler version.

LESSON 2 ***Regional forest plans as basis for development***

Many countries have a requirement for the preparation of regional forest plans as a basis for the development and monitoring of the forest sector. The regional basis reflects either the federal status of the country in question, e.g. Germany or Switzerland, or, perhaps more importantly for Ireland, the recognition that forestry should be developed in collaboration with regional development plans relating to infrastructure, rural development etc. The Forest Service has adopted a course of preparing Indicative Forest Strategies at local authority level.

LESSON 3 ***Responsibility for inventory and national statistics***

Anybody who has attempted to find out the answer to such simple questions as what volumes are available over the next ten years, or what is the area by species, or what is the volume of growing stock by age class and species, will end up cobbling together imperfect data held together by varying assumptions. I can get answers to these questions for what we may consider as less developed countries as the law and its accompanying regulations places the responsibility for their formulation on the relevant state institution/organization.

Inventory and forecast data are necessary for planning the development of the sector and the necessary infrastructure and attraction of capital investment.

LESSON 4 ***Provenance and genetic resources for regeneration***

Regeneration includes both afforestation and reforestation. Countries with a long tradition and history of forest culture, have included in the regulations relating to regeneration, the requirement for specific seed origin for planting in different regions. Thus if you are in south-east Romania, and wish to plant oak, the seed source must come from a specific area, reflecting local adaptation. In this way genetic resources are conserved and local adaptation facilitated. This may seem at first sight overly restrictive but its basis is a century of experience.

We have embarked on a course of planting 30% broadleaves by 2006 without the necessary genetic resources in place. The first warning signs have already been given, as for example in relation to ash. Far better to learn from our more experienced neighbours and put in place the genetic resources. In this way we will have broadleaves in forests and not just on paper.

LESSON 5 ***Financing of forest operations***

Although Ireland is envied by most other European countries for the scope and generosity of grants and premiums available to private owners, there is a basic lesson that we should recognize and put into practice. That is, if we require either through law or regulations that actors within the sector should alter their behaviour or support national policies or strategies, then where this incurs a cost, the state should go some way to underwriting the costs incurred.

A case in point is how do we ensure that plantations established over the past ten years are properly tended and managed after the premiums run out. Finland has led the way in this regard through its Act on Financing of Sustainable Forestry and National Forest Programme 2010. This sets out provisions for:

1. subsidy for securing sustainability of wood production,
2. loans for securing the sustainability of wood production and
3. subsidy for forest ecosystem management.

Other countries e.g. the Czech Republic, provide for reimbursement of costs where owners are required to undertake or limit their operations in compliance with regulations.

Conclusions

Many countries have either revised or rewritten their forest legislation over the past decade. This provides Ireland with an opportunity to avail of their experience and to incorporate the lessons learned into the new proposed forest legislation. The lessons for Ireland relate not only to the provisions in the law but also as to how it is drafted.

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Regulating our forest resource - current and developing processes

Gerry Cody[4]

Introduction

A wide range of legal and policy instruments impact on the forest sector in Ireland. Since the formation of the State, forestry and ancillary matters have been directly regulated by the Forestry Acts. In recent years the amount of international legislation that impacts on forestry has greatly increased as a result of EU Directives and developments under the various international processes on forestry.

The current framework includes:

1. Forestry Acts
2. *Growing for the Future – A Strategic Plan for the Development of the Forestry Sector in Ireland*
3. The Irish National Forest Standard
4. Code of Best Forest Practice
5. Forest Service Guidelines
6. Planning and Development Act 2000
7. Statutory Instrument No. 538 of 2001 Forest Consent System
8. Statutory Instrument No. 539 of 2001 Removal of Initial Afforestation from Planning Control System
9. Council Regulation 1257/1999
10. Commission Regulation No. 1750/1999
11. Structural Funds, Council Regulation No. 1260/1999
12. Commission Regulation 2419/2001
13. CAP Rural Development Plan
14. Comar Directive 92/43/EEC, The Habitats Directive
15. Council Directive 79/409/EEC, The Birds Directive
16. EC (Forest Reproductive Material) Regulations, 1973 and 1982
17. EC (Introduction of Organisms Harmful to Plants or Plant Products) (Prohibition) Regulations, 1980 to 1998
18. Forest health
19. EPA/Forest Service Protocol on acid sensitive areas
20. UN processes

The National Forest Regulatory Framework

1. Forestry Acts

Forestry Act 1946

The 1946 Act contains provisions *inter alia* for the promotion of forestry, the development of afforestation, and the production and supply of wood. Its provisions also cover the licensing of felling, the compulsory acquisition of land, the extinguishment of easements, the creation of rights of way and the introduction of restrictions on cutting down and injuring trees.

Forestry Act 1956

The 1956 Act amends some sections of the 1946 Act in relation to acquisitions and easements.

Forestry Act 1988

The 1988 Act provides for the establishment of Coillte Teoranta.

2. Growing for the Future – A Strategic Plan for the Development of the Forestry Sector in Ireland

The overall aim of the plan is: *to develop forestry to a scale and in a manner which maximises its contribution to national economic and social well-being on a sustainable basis and which is compatible with the protection of the environment*.

[4] Forest Service, Department of Communications, Marine and Natural Resources, johnstown Castle Estate, Co Wexford.
Email: gerry.cody@dcmnr.gov.ie

The key elements in forestry development are considered individually in the strategy.

These are:

- planting,
- species,
- environment,
- farm forestry,
- forest management,
- amenity and recreation,
- forest protection and health,
- harvesting and transport,
- sawmilling,
- forest products industries,
- quality and standards,
- research,
- inventory and planning,
- education and training,
- Coillte,
- finance and,
- legislation.

For each of the key elements the important current features are first set out, including identification of the key developments to date, an assessment of the present status and a commentary on strengths and weaknesses. A section on policy considerations identifies the issues relevant to future development of the sub-sector under consideration within the context of the overall Strategic Plan. A policy statement is then included and specific strategic actions to be undertaken are summarised for each of the key elements.

3. The Irish National Forest Standard (first edition 2000)

At the Third Ministerial Conference on the Protection of Forests in Europe in Lisbon (1998), a set of six criteria and accompanying indicators for the sustainable management of forests was adopted. The adoption of these formally recognised the need to enhance the ecological, productive and social functions of forests and to rectify trends away from the maximisation of these values.

The National Forest Standard is the result of a consultative process initiated in 1999 and involving the key interest groups in Irish forestry. The process involved the establishment of a steering committee chaired by the Forest Service with representatives from growers, wood users, government departments and statutory bodies, farmers' organisations and NGOs. Working parties were set up to consider environmental, economic, social and legal aspects of forestry and sustainable forest management. The groups were charged with developing indicators relating to the six criteria of sustainable forest management agreed at Lisbon.

The Irish National Forest Standard applies to all forests in Ireland. It is the framework within which the development and evaluation of sustainable forest management will take place and its underlying principles and key processes are outlined.

The Standard identifies:

1. criteria that define the essential elements of sustainable forest management (the six Lisbon criteria),
2. indicators that provide a basis for assessing forest or forest industry conditions for each criterion and
3. measures that describe the type of information needed to valuate how indicators change over time.

The Standard is not a stand alone document nor is it a set of operational prescriptions, to be understood it needs to be seen in the context of its supporting instruments, The Code of Best Forest Practice and the full suite of forestry guidelines. The adoption of the Irish National Forest Standard by the forestry sector demonstrates its commitment to developing the conditions that will encourage and facilitate sustainable forest management.

4. Code of Best Forest Practice – Ireland (first edition 2000)

The Code of Best Forest Practice is designed to ensure that forest operations in Ireland are carried out in a way that meets high environmental, social and economic standards.

Certain features distinguish Irish forestry from forestry practised elsewhere in the world, these features are reflected in the Code of Best Forest Practice.

The lack of native conifer species with any significant commercial potential has meant that introduced species from Continental Europe, North America and Japan predominate. These species have been grown in Ireland for a considerable period amounting to several rotations, frequently undergo natural regeneration and have not succumbed to major pests or diseases.

The range of native broadleaved species with commercial potential is somewhat limited and is

confined to oak and ash and, to a lesser extent, birch, alder, cherry and aspen. Introduced broadleaves such as beech and sycamore can now be considered as naturalised. Conifers suit a wide range of forest soils, from brown earths to peaty gleys and podsols. Broadleaves demand more fertile sites.

Ireland is a wet country traversed by streams and rivers, and this water resource is of major significance. In addition, Ireland has had an open landscape for centuries, and this factor has shaped cultural and social attitudes that must be respected in a period of change.

In Ireland the establishment, management and harvesting of plantation forests for wood production dominate the forestry sector. The Code of Best Forest Practice therefore focuses on the achievement of viable forests which conform to the principles of sustainable production and which are managed in a safe and environmentally acceptable manner, respectful of society's expectations.

Forest products cover a range far wider than wood alone, e.g. carbon sequestration, biodiversity, water quality and recreation. Material products should be produced to high quality standards. Other products should also attain high quality.

5. Forest Service Guidelines

Forestry and Aerial Fertilisation (first edition 2001)

The application of fertiliser to forest plantations practised on certain sites as an integral part of sustainable forest management. Best practice dictates correct application rates, methods, procedures, and site and weather conditions during application. It ensures that, in conjunction with other operations, optimum yield is achieved while providing full protection of the terrestrial and aquatic environment.

The guidelines set forth procedures for aerial fertilisation in Irish forests, based on current best practice and knowledge. It details the consultation and approval procedures, operational requirements and water quality monitoring protocols. They describe a range of measures intended to cover all situations relating to forestry and aerial fertilisation. They were developed through extensive consultation with a wide range of relevant parties.

Forestry and Archaeology (first edition 2000)

It is the policy of the Forest Service that forest development should not disturb sites of archaeological importance. Forest development should ensure their preservation and protection and enable access for further study.

Archaeological sites and monuments are part of our national heritage. They provide valuable information about our history and represent an important educational and recreational resource. There is a wealth of information to be gathered form such sites, both those visible above the ground and those that leave no surface trace but remain buried.

Ireland has been inhabited since approximately 7,000 BC. The countryside is rich in the physical remains of human activity over the millennia, from the more obvious stone tombs, crannogs, standing stones and medieval castles, to the less well known toghers (ancient timber roadways), fulachta fiadh (ancient cooking places) and house sites occasionally uncovered during ploughing, drainage, road making or turf cutting. Other ancient sites are only visible from the air as crop marks or low earthworks.

The Forestry and Archaeology Guidelines have been compiled to assist non-archaeologists involved in forest development to identify archaeological sites and set out the procedures that should be followed to avoid site disturbance.

Forest Biodiversity (first edition 2000)

Biodiversity describes the variability among living organisms and the ecosystems of which they are part. Three conceptual levels of biodiversity are recognised – ecosystem, species and genetic.

Forests are among the most diverse and complex ecosystems in the world, providing a habitat for a multitude of flora and fauna. Ireland's forests represent an important opportunity to conserve and enhance biodiversity at both local and national level. The guidelines focus on how best to conserve and enhance biodiversity in Irish forests, through appropriate planning, conservation and management.

Forest Harvesting and the Environment (first edition 2000)

As Ireland's forest estate continues to expand and mature, the amount of timber harvesting will increase. Forest harvesting and forest road construction and usage have the potential to impact adversely upon the environment. The guidelines address soil conservation, the protection of water quality, archaeological sites, biodiversity and the

visual landscape, and the maintenance of forest health and productivity. They are presented in the context of timber harvesting and forest road construction and maintenance. They recognise the commercial nature of forestry in Ireland and the need for cost-effectiveness in harvesting operations.

Forestry and the Landscape (first edition 2000)
Forests should be planned and managed in a way that enhances the landscape. Given the impact of forestry on the landscape, in terms of aesthetics, environment and culture, measures are required that ensure overall positive results and avoidance of damage.

Ireland's landscape character varies considerably in regard to both landform and landcover. Any approach to forest landscape planning and design should therefore deal with the forest in the context of the surrounding landscape, and aim at achieving a sympathetic response to the distinctive landscape character of that given location. The Forestry and the Landscape Guidelines provide recommendations for various forest development scenarios and for four distinct landscape character types commonly found in Ireland:

1. rolling moorland,
2. rolling fertile farmland,
3. drumlins and
4. mountain and farmland complex.

While the guidelines set out a wide range of measures forest owners can employ in relation to the landscape, it is recognised that some may be impractical for individual forests, due to land ownership pattern, location and other factors. However, where a degree of flexibility exists, forest owners are required to implement those landscape measures that can be applied effectively to their property.

Forest Protection (first edition 2002)
Healthy, vigorous trees growing in conditions suited to their needs are generally very resilient. Forests can survive the loss of some trees to pests, disease or competition when they are well established. However, when trees are small and newly planted, they are most vulnerable to competition from vegetation as well as to grazing and bark stripping by animals, both domestic and wild. Young trees usually require protection from the large pine weevil on reforestation or replanted sites, while butt rot can spread by root contact from infected trees. Forests may be at risk from fire during all stages of growth.

Forest owners must ensure that the forest is protected and that control measures are in place to prevent and control significant damage. In doing so they must take cognisance of economic, environmental, health and safety issues (both of operators and the wider public).

Forestry and Water Quality (first edition 2000)
Maintenance and enhancement of water quality is of the utmost importance in Ireland today. Forestry has taken a proactive role in addressing how it interacts with aquatic resources by devising and implementing the Forestry and Fisheries Guidelines in 1992. The guidelines are underpinned by the Code of Best Forest Practice, the National Forest Standard, principles of sustainable forest management, and the other guidelines, particularly those relating to harvesting.

Implementation of the guidelines relies on close co-operation between the forest owner, contractor and government departments and agencies. Underpinning the success of water quality management is a consultation process where all stakeholders are included.

Forestry activities have the potential to react both positively and negatively with aquatic resources. Planning of operations is essential to militate against potential negative impacts, which can cause erosion, siltation or nutrient enhancement and maximise the positive aspects of forestry such as biodiversity enhancement and the creation of appropriate ecosystems.

The guidelines apply to all forest and woodland activities and development.

6. Planning and Development Act 2000

The Act contains *inter alia* provisions covering EIA requirements and thresholds in the felling area, in particular for the replacement of high broadleaf forest by conifers and for deforestation operations.

7. Statutory Instrument No. 538 of 2001 – Forest Consent System

The purpose of these Regulations is to facilitate compliance with the European Court of Justice ruling of 21 September 1999 (Case C-392/96). This stated that the EIA thresholds adopted by Ireland in relation to initial afforestation (70 ha) exceeded the discretion available to Ireland under Directive 85/337/EEC on

Environmental Impact Assessment in that they did not take account of the nature, location or cumulative effect of projects below these thresholds.

With regard to initial afforestation, the Regulations provide for the introduction of a statutory consent system by the Minister (to coincide with initial afforestation being taken out of the planning control system under the Local Government (Planning and Development) (Amendment) Regulations, 2001 (Statutory Instrument No. 539 of 2001)). The forest consent system provides for mandatory EIA above the reduced 50 ha threshold and provides for the possibility of sub-threshold EIA, where a project is likely to have significant effects on the environment.

8. Statutory Instrument No.539 of 2001 – Removal of Initial Afforestation from Planning Control System

The purpose of these regulations is, first, to remove initial afforestation from the planning control system, to coincide with the introduction of a separate statutory consent system by the Minister under the European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001 (Statutory Instrument No. 538 of 2001). The second objective is to reduce the planning threshold for peat extraction from 50 to 10 ha.

9. Council Regulation No 1257/1999

This regulation provides support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF). The regulation outlines the specific areas that are eligible for support, namely Investment in Agricultural Holdings, Setting up Young Farmers, Training, Early Retirement, REPS, and Forestry.

Support for forestry is defined in Articles 29-32 inclusive. Support is available from both the Guidance and Guarantee parts of the EAGGF. The Woodland Improvement, Reconstitution, Native Woodland, NeighbourWood and Harvesting Schemes are funded from the Guidance element of the Fund. The Afforestation Grant and Premium Schemes are funded from the Guarantee element.

The Regulation highlights that funding for the forestry measures from EAGGF must contribute to the maintenance and development of the economic, ecological and social functions of forests in rural areas.

10. Commission Regulation No. 1750/1999

This regulation lays down detailed rules for the implementation of Council Regulation 1257/1999. In respect of forestry the regulation outlines:

- forests owned by the state are not eligible for funding,
- a definition for agricultural land eligible for the afforestation grant and premium scheme,
- the requirement that farmers must devote an essential part of their working time to and derive a significant part of his income from agricultural activities,
- a definition of *force majeure** in the context of continued payment.

11. Structural Funds, Council Regulation No. 1260/1999

This regulation lays down general provision on the EU Structural Funding regime. The forestry schemes funded from the Guidance element of the EAGGF are structural funds. The regulation outlines the requirements for:

- operational programmes,
- programme complements,
- publicity and
- financial management and monitoring of programmes.

Forestry covered by structural funds is subject the provisions of this regulation and are included in the relevant Operational Programmes submitted by Ireland for the South & East and Border, Midlands & West regions.

12. Commission Regulation No. 2419/2001

This regulation lays down rules for applying the integrated administration and control system (IACS) for agricultural aid schemes. The regulation provides for cross-checking of applications made in different agricultural schemes and provides for on the spot checking of applications.

13. CAP Rural Development Plan

This plan sets out Ireland's integrated rural policy. Council Regulation 1257/1999 provides the framework for the plan. There are four measures within the plan:

1.Early Retirement,

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* *Typically, force majeure covers natural disasters or other 'Acts of God', war, that may cause a party not to perform their obligations to a contracting party. Force majeure clauses are intended to excuse a party only if the failure to perform could not be avoided by the exercise of due care by that party.*

2. Compensatory Allowances,
3. Agri-Environment (REPS) and
4. Forestry.

The plan is part of the National Development Plan 2000-2006. The measures aim to improve agricultural structures, support farm incomes and enhance the environment. The plan sets out the aims and eligibility conditions for each of the four measures. The aims of the forestry measure are:

- the promotion of sustainable forest management and the development of forestry which is compatible with the protection of the environment,
- the maintenance and improvement of forest resources,
- the extension of woodland area and
- the maintenance of a viable rural community.

The plan provides for afforestation grants, which range from €2731 to €6730/ha and forest premiums for farmers ranging from €337 to €474/ha. The eligibility conditions for afforestation grants and premiums include:

- afforestation must take place on agricultural land,
- the applicant's must own the land to be afforested,
- the land must be capable of producing a commercial crop of wood,
- grant-aid is subject to compliance with Forest Service environmental guidelines,
- the trees must be suited to the site,
- the plantation must have a minimum size of least 0.1 hectare or 0.05 ha conifers and broadleaves respectively, and must be at least 40 m wide,
- applicants must be 18 years of age or over and
- the farmer rate of premium covers a period of 20 years, while the non-farmer rate covers a period of 15 years.

14. Comar Directive 92/43/EEC, The Habitats Directive

The Habitats Directive was transposed into Irish law by The European Natural Habitats Regulations, 1997 and covers the designation of Special Areas of Conservation (SACs).

The regulations require the planning authorities, when considering an application for a development that is likely to have a significant effect on the SAC, to ensure that an appropriate assessment of the implications of the development for the conservation status of the site is undertaken.

Sites may contain priority or non-priority habitats and species. Priority habitats include sand dunes, machair, limestone pavement, raised bog and turloughs.

15. Council Directive 79/409/EEC, The Birds Directive

The Birds Directive covers the designation of Special Protected Areas (SPAs) in order to preserve and maintain a sufficient area and diversity of habitats.

The regulations require planning authorities when considering an application for a development that is likely to have a significant effect on the SAC to ensure that an appropriate assessment of the implications of the development for the conservation status of the site is undertaken.

16. EC (Forest Reproductive Material) Regulations, Council Directive 1999/105/EC

The regulations provide for the establishment of a national catalogue of approved basic forest material. This material has to be either tested or selected. Under these regulations no reproductive material may be marketed in the state unless derived from such basic material, nor may reproductive material be imported unless in accordance with the directives.

17. EC (Introduction of Organisms Harmful to Plants or Plant Products) (Prohibition) Regulations, 1980 to 1998

The regulations provide for protective measures against the introduction of harmful diseases and pests into the country.

18. Forest health

Council Regulations (EEC) No. 3528/86 on the protection of the Community's forests against atmospheric pollution and (EEC) No. 2158/92 on the protection of the Community's forests against fire were due to expire on 31 December 2001. However, both regulations were recently the subject of prolongation proposals.

Regulations No. 3528/86 and 2158/92 are scheduled to be replaced by the more expansive Regulation cited above with effect from 1 January

2003, which will increase the focus on biodiversity, carbon sequestration and climate change in addition to atmospheric pollution and forest fires.

Following the introduction of Regulation 3528/86 each Member State designated what are referred to as ICP Forest Plots (International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests). Approximately 6,000 Level 1 plots are located across the community – there are 22 such plots in Ireland, established in 1987 based on a 16 km grid of the national forest estate, which was largely representative at the particular time.

A new Forest Focus initiative will replace the current system and has obvious interactions with ICP Forest Plots, save for the expanded nature of the Regulation and the shift in administration from DG Agriculture to DG Environment.

The proposed monitoring activity could assist substantially the monitoring requirements deriving from European Climate Change Programme, the EU Biodiversity Strategy and corresponding Biodiversity Action Plans, the Soil Strategy and the forthcoming scheduled work on the Soil Monitoring Directive and could contribute to Global Monitoring of Environment and Security (GMES) activities.

19. EPA/Forest Service Protocol on acid sensitive areas

As agreed at EC level, the Forest Service has adopted a protocol agreed by COFORD and the Environmental Protection Agency (EPA) to determine the acid sensitivity of surface water in the context of afforestation. This protocol has been in place since February 2002.

Applications for grant aid for afforestation where the relevant site is in a highly acid sensitive area have to comply with the agreed protocol. The protocol sets out the method and time of collection of the water samples and specifies the laboratory method to be used in testing samples. The protocol also specifies the minimum alkalinity of the sampled run-off water.

20. UN processes

Climate change

Climate change is recognised as the most significant and threatening global environmental problem. The international community responded to this problem by the establishment of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. At the third Conference of the Parties to the convention in Kyoto, Japan, in 1997 the Kyoto Protocol was agreed. The protocol sets out emission reduction targets for the industrialised world. Ireland's target is to limit emissions to 13% above 1990 levels over the five-year period 2008 to 2012, within an overall EU target to reduce emissions by 8% over the same period.

The National Climate Change Strategy (NCCS), published in November 2000, sets out how Ireland will meet our Kyoto commitments. Forestry is recognised in the NCCS as having a significant role to play. A target for forests to contribute 6.7% (one million tonnes of carbon dioxide per annum) to the proposed reductions in emissions has been set.

Measures to enhance carbon sinks will be supported by:

- review of the forestry programme to ensure full achievement of the planting target and the intensification of the programme, and
- a research programme to maximise sequestration potential of forestry.

IPF/IFF Process (1995-2000)

The Intergovernmental Panel on Forests (IPF) and the Intergovernmental Forum on Forests (IFF) represent five years of international forest policy dialogue. The IPF, established by the Commission on Sustainable Development (CSD) for two years (1995-97) to provide a forum for forest policy deliberations. Subsequently, in 1997, ECOSOC established the IFF, for three years (1997-2000).

Deliberations by the IPF were on the following issues:

- implementing the forest-related decisions of the United Nations Conference on Environment and Development (UNCED) at the national and international levels,
- international co-operation in financial assistance and technology transfer,
- scientific research, forest assessment and the development of criteria and indicators for sustainable forest management,
- trade and environment in relation to forest products and services, and
- international organisations and multilateral institutions and instruments, including appropriate legal mechanisms.

The IFF's deliberations were aimed at resolving

several issues on which IPF had not reached consensus, such as financial resources, transfer of environmental sound technologies, and other issues left pending, including deliberations on international arrangements and mechanisms on forests.

IFF's programme included the following:

- facilitating the implementation of the proposals for action (see below) of the Intergovernmental Panel on Forests and reviewing, monitoring and reporting on progress in the management, conservation and sustainable development of all types of forest,
- considering matters left pending and other issues arising from the programme elements of the IPF process,
- international arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests.

The most concrete outcome of the IPF/IFF processes is the wide-ranging set of 270 proposals for action (PFA). The PFA cover decision-making; policy tools, including national forest programmes and criteria and indicators; information and public participation; scientific knowledge; traditional forest-related knowledge; as well as monitoring, assessing and reporting on progress towards sustainable forest management. Other issues addressed include forest resources and their management, such as deforestation and forest degradation; forest health and productivity; rehabilitation and maintaining forest cover; as well as forest conservation and protection of unique types of forests. Another set of issues is related to international cooperation and capacity building, particularly on financial resources, international trade and transfer of environmentally sound technologies.

The five main types of proposals for action are:

- general guidelines,
- co-operation,
- co-ordination and collaboration,
- reiteration of previous agreements and
- no consensus, issues in need of further discussion.

The IPF/IFF proposals for action are aimed at five main actors:

1. countries,
2. intergovernmental organisations, including institutions and instruments,
3. the Interagency Task Force on Forests (ITFF)/collaborative Partnership on Forests (CPF),
4. private sector and
5. other major groups, including non-governmental organisations.

The IPF/IFF proposals for action provide guidance to the main actors on further development, implementation and co-ordination of national and international policies on sustainable forest management.

Developing processes in forest regulation

The following list covers the main development areas but should not be taken as exhaustive:

1. Review of the forestry acts
2. Indicative Forest Strategies (Regional Forest Plans)
3. New guidelines
4. EU Directive 2001142/EC on Strategic Environmental Assessment (SEA)
5. Water Framework Directive
6. Mid-term Review of the Rural Development Plan
7. Successor to the Rural Development Plan
8. Review of strategy
9. UN Forum on Forests (UNFF)
10. Certification of private forests
11. Conclusion

1. Review of the forestry acts

The purpose of the review is to update, extend and consolidate the Forestry Acts, 1946 to 1988, to provide a modern, workable legislative framework to safeguard and assist in the expansion of the forest sector in Ireland.

In *Growing for the Future* (Section IV, Chapter 17) a commitment was given to: *review the body of current forestry legislation and to propose any changes which appear to be necessary to facilitate or promote full implementation of the Strategic Plan.*

Current forestry legislation consists of the Forestry acts of 1946, 1956 and 1988. While many of the existing provisions remain unchanged, this Bill contains a number of significant changes along with some new initiatives as follows:

- it recognises and takes account of Sustainable Forest Management principles,
- it addresses the Minister’s powers in

relation to the framing of regulations controlling the management of forests and forestry-related activities,
- it addresses controls of tree felling, deforestation and alleged illegal felling,
- it covers the appeals procedure, the forestry consent system and environmental impact assessment (EIA),
- it deals with Coillte governance and amendments to the 1988 Act and,
- it covers Inspectors powers, penalties and provision of information by certain stakeholders.

2. Indicative Forest Strategies (Regional Forest Plans)

An indicative forest strategy (IFS) scoping exercise has been carried out by the Forest Service to:

1. define the objectives of an IFS,
2. identify key results of the IFS process and
3. set out the tasks that were needed to complete the IFS project successfully.

In addition to researching available literature, the Forest Service visited the Forestry Commission in Scotland to learn of their experiences in this area. The following were the key lessons learned from this trip:

- local authorities are a key partner in the process for reasons of democratic accountability,
- the process is more important than the product because it opens a platform for debate on forestry and specifically its economic, cultural and social aspects,
- issue discussion papers to interested parties at the outset to facilitate the consultation process, and
- the importance of consensus and agreement and not just consultation.

An IFS is concerned with planting the right tree in the right place and helping to guide the location and character of future afforestation. This can be achieved by taking into account social, economic and environmental issues. Along with local opinions and considerations, the IFS will present these issues on a single platform, thereby providing easy access to all relevant information relating to forestry development in the county. The IFS will designate areas with the following categories according to the potential sensitivity of these areas to new forests:

- preferred areas for forestry,
- potential areas for forestry,
- sensitive areas for forestry.

These designations will determine the level of consultation required.

The overall objective of the IFS process will be to guide and promote sustainable forestry by conserving and enhancing the environment, supporting the local economy and generally adding to the quality of people's lives. Where appropriate, the IFS will also provide guidance and make recommendations on other forestry activities such as harvesting and haulage.

The IFS process will deliver 27 county-based IFSs which will be developed in partnership with 29 Local Authorities and agreed with stakeholders and the public.

Key results of the IFS process will include:

- consultation process agreed with local authorities,
- discussion documents agreed with local authorities,
- IFS map outlining areas of potential sensitivity agreed with local authorities and stakeholders,
- public meetings completed for all IFSs,
- IFS completed and agreed with local authorities and stakeholders,
- IFS reflected in local authorities' County Development Plan,
- GIS-based environmental considerations check rolled out to forestry inspectors and administrative staff in Wexford.

3. New guidelines

Environmental Impact Assessment (EIA)

EIA is a process for predicting the effects of a proposed development on the environment. The mitigation of negative impacts may then be considered in the design process by the avoidance, elimination or the reduction of their sources. The EIA procedure commences at the project application stage where it is decided whether an Environmental Impact Statement (EIS) is required or not. The underlying ethos of impact assessment is identification of potential impacts and taking appropriate steps to avoid or reduce the effects of negative impacts.

The Forest Service is currently in the process of developing guidelines for Environmental Impact Assessment (EIA) for initial afforestation. The European Communities (Environmental Impact

Assessment) (Amendment) Regulations, 2001 (S.I. No. 538 of 2001) set out the requirements for Environmental Impact Assessment (EIA) for forestry. With regard to initial afforestation, the regulations provide for the introduction of a statutory consent system by the Minister for Communications, Marine and Natural Resources (to coincide with initial afforestation being taken out of the control of Local Government (Planning and Development) (Amendment) Regulations, 2001 (S.I. No. 539 of 2001)). The forest consent system provides for mandatory EIA above a threshold of 50 ha and provides for the possibility of sub-thresholds, where a project is likely to have significant impact on the environment.

Forest Recreation

The Forest Service is currently developing these guidelines in consultation with a wide range of national interest groups and sporting bodies. The guidelines are aimed at forest owners and managers, local authorities and other relevant statutory bodies, user groups and sporting bodies, local communities, and all those interested in providing for and developing the recreational potential of Ireland's forests. Their primary aim is to encourage the provision for recreation at a level appropriate to the forest and needs of different user groups, and in a manner compatible with other functions of the forest. It is hoped to publish the guidelines in mid 2003.

4. EU Directive 2001142/EC on Strategic Environmental Assessment (SEA)

As provided for in Article 14, the Directive came into force on the date of its publication in the Official Journal on 21 July 2001. Under article 13 (1), Member States have three years to transpose the Directive.

Strategic Environmental Assessment (SEA) involves assessment of the likely significant environmental effects of plans and programmes prior to their adoption. It provides for strategic environmental consideration at an early stage in the decision-making process, and is designed to complement the environmental impact assessment (EIA) process which is project based.

The requirements of the Directive are usefully summarised in the definition of environmental assessment in Article 2 as: ... *the preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision in accordance with Articles 4 to 9.*

The Directive will have major implications for planning/programming across a wide range of sectors: agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism and land use planning (see Article 3 (2)). Points to note in relation to the scope of the Directive are:

- the overriding criteria governing the carrying out of SEA is where plans/programmes are likely to have significant environmental effects (article 3(1) of 2001/42/EC),
- the requirement to carry out a SEA of plans/programmes in the sectors mentioned above arises where they set the framework for future development consent of projects which require EIA under the EIA Directive (85/337/EEC, as amended by Directive 97/1 1/EC). Mandatory EIA thresholds are set out in the European Communities (Environmental Impact Assessment) (Amendment) Regulations, 1999 (S.I. 93 of 1999) (article 3(2)(a) of 2001/42/EC),
- a SEA is also necessary where plans/programmes are likely to have a significant impact on sites governed by the Habitats Directive (92/43/EEC) (article 3(2)(b) of 2001/42/EC),
- plans/programmes that determine the use of small areas or minor modifications to plans/programmes only require assessment where it is determined that they are likely to have significant environmental effects (article 3(3) of 2001/42/EC),
- other plans/programmes that set the framework for future development consent of projects and are likely to have significant environmental effects must also be subject to SEA (article 3(4) of 2001/42/EC).

Specific exclusions from the terms of the Directive are plans/programmes

1. that relate to national defence or civil emergency,
2. are of a financial or budgetary nature or
3. are co-financed under the current round of

EU funding under Council Regulations 1260/99 and 1257/99 (article 3(8) & (9) of 2001/42/EC).

The detailed requirements in relation to the preparation of an environmental report are set out in Article 5, with the content specified in Annex I of the Directive. However, under Article 5(2), the requirement to include the information specified in Annex 1 is governed by a number of considerations:

- current knowledge and methods of assessment,
- the contents and level of detail in the plan or programme,
- its stage in the decision-making process, and
- the extent to which certain matters are more appropriately assessed at different levels in that process.

The Directive requires wide-ranging consultation with relevant interests, including other Member States, and the public and the provision of certain information following the adoption of a plan or programme. These requirements are set out in articles 4 to 9.

Article 10 and item (i) of Annex I require that monitoring arrangements be put in place in so as to allow for the early identification of unforeseen adverse environmental effects of plans and programmes and the taking of appropriate remedial measures.

Article 13(4) requires Member States to notify the European Commission of the types of plans and programmes governed by the Directive.

5. Water Framework Directive (WFD)

In 1988 the Frankfurt ministerial seminar on water reviewed existing legislation and identified a number of improvements that could be made and gaps that could be filled. This resulted in the adoption of:

- the Urban Waste Water Treatment Directive, providing for secondary (biological) waste water treatment, and even more stringent treatment where necessary,
- the Nitrates Directive, addressing water pollution by nitrates from land use.

Other legislative results of these developments were Commission proposals for action on:

- a new Drinking Water Directive, reviewing the quality standards and, where necessary, tightening them (adopted November 1998),
- a Directive for Integrated Pollution and Prevention Control (IPPC) adopted in 1996, addressing pollution from large industrial installations.

The central feature of the WFD, around which all its other elements are arranged, is the use of river basins as the basic unit for all water planning and management actions. This recognises that water respects physical and hydrological boundaries, but not political and administrative limits.

Through the development and implementation of River Basin Management Plans, the overall objective is the achievement of "good status" for all of Europe's surface and groundwaters within a 15-year period. Implementation will involve a vast range of stakeholders, ranging from consumers, major water-using sectors such as agriculture and industry, and secondary uses including water-based recreation, to water supply/treatment companies, scientists, nature conservationists and the authorities involved in planning land and water use at local, regional, national and international levels.

Benefits are expected to include:

- improved freshwater and coastal water ecosystems,
- biodiversity gains (through better management of aquatic and wetland habitats/species),
- sustainability of water use (through more efficient water resource use and management),
- reduction of water pollution and
- mitigation of the effects of floods and drought.

The key milestones for implementation are listed in Table 1.

6. Mid-term review of Rural Development Plan (RDP)

Article 49 of Council Regulation 1257/99 provides for a mid-term review of the measures covered by the programme. The Department of Agriculture, Food and Rural Development as the lead department has employed external consultants to undertake the review. All stakeholders are likely to participate in the process. The review is likely to address inter alia progress on the broadleaf planting target.

Whereas the RDP 2000-2006 is explicitly excluded from the scope of the SEA, any successor to the RDP will be subject to SEA.

TABLE 1: MILESTONES FOR THE IMPLEMENTATION OF THE WATER FRAMEWORK DIRECTIVE.

Year	Issue	Article(s)
2000	Directive entered into force	25
2003	Transposition in national legislation. Identification of River Basin Districts and Authorities.	23
2004	Characterisation of river basin: pressures, impacts and economic analysis.	5
2006	Establishment of monitoring network. Start public consultation.	8, 14
2008	Present draft river basin management plan	13
2009	Finalise river basin management plan including programme of measures.	11, 13
2012	Make operational programmes of measures.	11
2015	Meet environmental objectives	4

7. Successor to the Rural Development Plan

Whereas the RDP, 2000 – 2006, is explicitly excluded from the scope of the SEA, any successor to the RDP will be subject to SEA.

8. Review of Strategy

A formal review of the strategy for the sector is likely in the medium term.

9. UN Forum on Forests (UNFF)

The International Panel on Forests/International Forum on Forests (IPF/IFF) proposals for action will continue to play a pivotal role in the United Nations Forum on Forests (UNFF), the successor body to the IPF and IFF. According to the UN ECOSOC resolution E/2000/35, UNFF will *develop a plan of action for the implementation of Intergovernmental Panel on Forests/Intergovernmental Forum on Forests proposals for action, which will address financial provisions.* This document has been prepared to support the UNFF's efforts in developing a plan of action for the implementation of the IPF/IFF proposals for action.

10. Certification of private forests

Forest certification is a voluntary procedure whereby the ecological, economic and social aspects of forest management are evaluated. Coillte has achieved certification to the Forest Stewardship Council (FSC) standard, thereby enabling wood products from their forests to compete in the UK market with other certified origins. However, almost 40% of the Irish forest estate, comprised of private forests, has yet to be certified. This represents a potential barrier to the sale of wood products derived from these forests and to their long-term sustainable management.

The two main certification organisations in Europe are:

Pan-European Forest Certification (PEFC)

The purpose of the PEFC scheme is to promote an internationally credible framework for forest certification schemes and initiatives in European countries, in the first instance, which will facilitate mutual recognition of such schemes. The PEFC technical document and statutes define the basic requirements of forest certification and set up of institutional arrangements at Pan-European and national and sub-national levels. Wood from certified forests that meet the PEFC criteria and requirements will have access to the PEFC logo.

Forest Stewardship Council

The FSC's principles and criteria for forest management serve as the global foundation for the development of region-specific forest-management standards. Independent certification bodies, accredited by the FSC in the application of these standards, conduct impartial, detailed assessments of forest operations at the request of landowners. If the forest operations are found to be in conformance with FSC standards, a certificate is issued, enabling the landowner to bring product to market as "certified wood", and to use FSC trademark logo.

11. Conclusion

The increase in legislation that impacts on forestry reflects changes in public values and attitudes, and peoples increasing awareness of the crucial role of forests. The forest sector has shown that it is very adaptable to change in legislation and this will have to continue in the future in light of the developing processes in forest regulation.

The impact of forest regulation and policy on the economic viability of forestry - an international perspective

Michael Mosman[5]

Introduction

I am very pleased and honoured to be a participant in today's seminar on Forest Regulations. I work in the native temperate forests in the Pacific Northwest region of the United States - some of the most regulated forests in the world, and in the exotic forest plantations of New Zealand -some of the least regulated. Of the two regions, which do you think is keeping annual statistics of new afforestation projects and which keeps statistics on forest area lost to other land uses – in other words: deforestation? New Zealand of course.

I am here today to give you my perspective from working in those two regions on regulations, policy and their impact of forest's economic viability. Towards that end I will address the following topics:

- a brief overview of the economics relating to regulations; both to the public community and to private investors,
- the difficulties well-meaning people have determining what should be done,
- a review of the regulatory web entangling the Pacific Northwest forests and some of its unintended consequences. Nightmares tonight for all of the landowners among us could be a new unintended consequence,
- I will end with a discussion of strategies being tested and of expensive lessons learned the hard way.

Before I begin I need to give you some background information so that you can put my perspective in context. As the Vice President of Resources, I direct a great team of foresters that manages Port Blakely's forestry investments in western Washington, western Oregon and New Zealand. Our brief includes silviculture, strategic sustainable yield modelling, tactical forest planning, acquisitions and dispositions. It is a great job: I get to spend a lot of money and, occasionally still get to play in the woods.

The company I work for, Port Blakely Tree Farms, incorporated in 1863 and built a brand new sawmill at Port Blakely harbour on Puget Sound, just across the water from a new settlement called Seattle. For the past 100 years the company has been privately held by the Eddy family. Their instructions to management are very clear; make money for current and future generations by managing responsibly, sustainably and efficiently. Grow asset values, manage risk and have fun.

In 1922 the family decided to focus on growing trees rather than milling boards and the mill was dismantled. Growing high quality trees has been the company's primary occupation ever since. As a result, our forest management objectives may differ from many industrial forest owners because we are not directly motivated by specific mill supply needs. We are not an integrated company, however, some of our best friends are. We depend on open, competitive log markets and we work hard at finding niches for our logs.

Two thirds of Port Blakely's forests are in Western Washington and Oregon, where the primary species is Douglas fir. In 1994 I appraised our first purchase in New Zealand. We went overseas to diversify our portfolio, part of our strategy to mitigate the growing risks in the Pacific Northwest. The New Zealand properties, where we are know as Blakely Pacific Limited, now makes up the other one third of our forests. Approximately half of the new acquisitions were sheep stations that we planted into trees; the other half was of existing, working forests. You could say we voted with our feet.

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[5] Vice President of Resources, Port Blakely, USA and NewZealand. Email: mmosman@portblakely.com

Economics and Regulations

The benefits provided by forests, both indigenous and exotic, to the environment, to the economy and to the community beyond their boundaries are well documented. Clean air, clean water, carbon sequestration, fish and wildlife habitat, wood products, employment and recreation; healthy forests create healthy communities. Most regulations and policy relating to forestry are attempts to sustain these benefits in a socially accountable manner.

Forestry enterprises benefit and depend on similar regulatory attempts with other community members. Figure 1 has the list of criteria Port Blakely used to evaluate the investment potentials of Pacific Rim forestry regions in 1993. Items 1, 2, 5, 8, 9, 10, 12, 14, 15, 17, 18, and 19 all benefit from regulations or policy being imposed on others. In fact, due to the extremely long time horizons associated with sustainable forestry, we are more dependent than most on the establishment of a stable and just rule of law. We need our highly capitalised long-term assets, our access to competitive markets and our commitments protected. Some regulation is essential for forestry's success.

Sustainable forestry will remain viable as long there is confidence that its reasonable investment-backed expectations will be met. What distinguishes sustainable forestry from most other enterprises is that its expectations require a lower risk profile due to the highly capitalized, extremely long-term nature of the investment. When the risk assessment rises above an investor's tolerance the enterprise either liquidates all or a portion of the capitalized investment by accelerating the harvest of standing growing stock, or changes to an alternative land use, or sells off the asset to re-invest elsewhere.

The graph in Figure 2 is a typical pre-tax investment profile for a new Douglas-fir plantation in New Zealand. It illustrates the long-term nature of the investment and our second requirement for a viable investment: the need for low, stable operating costs. Final harvest values might be high, but investors must account for all of their costs; land acquisition or rent, silviculture, administration and the cost of money invested throughout the entire rotation. The line labelled investment cost curve in Figure 2 represents this accounting; it illustrates just how unmerciful the compound interest formula is to long-term investments.

Good investors are pragmatic; they evaluate a potential investment based on the known first, and then the unknown. Taxes, fees and current regulatory costs are considered known items; projected yields and future prices are only estimates. Good investors intent on long-term sustainable forestry enterprises will avoid regions with high operating costs.

FIGURE 1: Port Blakely's investment evaluation criteria.

Port Blakely Tree Farms, L.P.

ITEM	FORESTRY REGIONAL INVESTMENT POTENTIAL Evaluation Criteria	Poor ⇔ Good
1	Competitive wood market access	Low – High
2	Corruption	High – Low
3	Currency stability	Low – High
4	Economic feasibility	Low – High
5	Environmental issues	High – Low
6	Forestry biological/physical risks	High – Low
7	Forestry growth rates	Low – High
8	Human rights	Low – High
9	Infrastructure	Low – High
10	Judicial system	Low – High
11	Labour quality and cost	Low – High
12	Land availability	Low – High
13	Language/cultural differences	High – Low
14	Operating costs	High – Low
15	Overseas investment treatment	Low – High
16	Political stability	Low – High
17	Reciprocal tax agreement	Low – High
18	Regulatory stability	Low – High
19	Unresolved native people claims	High – Low
20	Urban/rural population ratio	High – Low

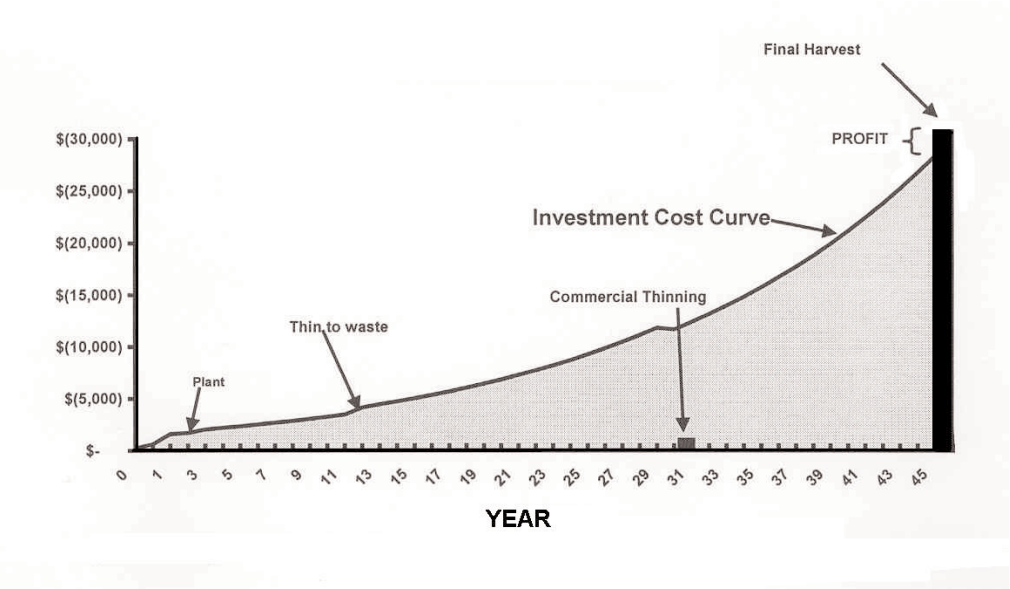

FIGURE 2: Example of a New Zealand Douglas-fir plantation investment. Source: Port Blakely Tree Farms. [Pre-tax $NZ investment profile of one hectare assumes an average cost of money of 6%].

What's best?

As a rule, people want to do what is right for the land. Unfortunately, determining what is right is not an easy task. Responsible, sustainable forest management is not rocket science. Rocket science benefits from established physical rules such as Newton's laws of motion describing inertia, acceleration and force. Rockets are cohesive units in which the sum of the parts equals the whole. A forest, exotic or indigenous, is not a cohesive unit; it can function without every part present. All parts of a forest do not develop, grow, decay, etc. at the same rate or in direct relationship to each other. A forest does not equal the sum of its parts; it is greater because of the synergy that exists in biological systems. The science of sustainable forest management is much harder than rocket science.

According to Bob Lee, a forester-turned-sociologist at the University of Washington, much of the current conflict over forests stems from how science is used in making decisions. Sufficiency of information is only one test for the adequacy of science used to support decisions. A second test asks whether facts are selected on the basis of what is conventionally understood to be a right or wrong belief about forest ecosystems. This blurring of the lines between science, data and subjective, moral values by good people on all sides makes the task of defining good stewardship a never-ending problematic one.

Regulations in the Pacific Northwest-Oour national forests

There is not enough time today to go over all of the legislative acts, listings, determinations, executive orders and court decisions affecting the management of our federal forests. What is more important is to talk about their effects. In the United States the federal forests provided 25% of the nation's softwood lumber supply in 1990: 11 billion board feet. By 1999 the harvested volume was slashed 80%; down to 2.2 billion board feet nationally.

In the Pacific Northwest the change was even more dramatic. In 1989, federal judge, William Dwyer, granted an injunction that brought the harvest of federal forests west of the Cascade Mountains to a halt. The "Spotted Owl Wars" had begun. Figure 3 shows sales in 2000 were only 4% of sales in 1990, despite the Northwest Forest Plan President Clinton launched in 1993 with assurances of sustainable harvest from federal forests in the region.

Essentially, the national forests in the Pacific Northwest are now preserves with no harvest activity to speak of, now or in the foreseeable future. This was not the result of a conscience decision by policy makers, nor the result of any science discovery, but rather a condition of paralysis by analysis imposed on federal managers by the innumerable court challenges they must address.

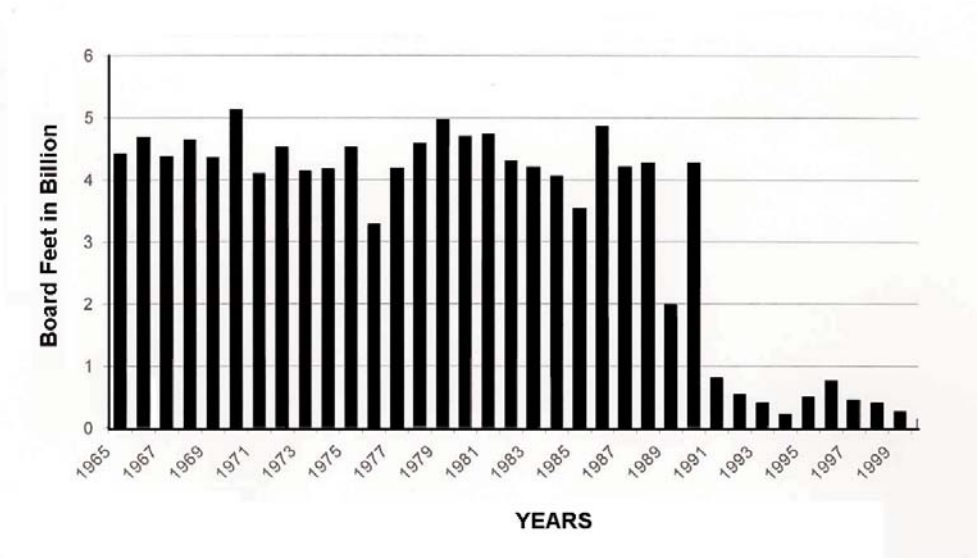

FIGURE 3: USDA Forest Service timber sales in the Pacific Northwest 1965-2000. Source: Forest Service, U.S. Department of Agriculture, Pacific Northwest Region; includes Washington, Oregon and a small portion of northern California.

Unintended consequences

In an area where timber had been the largest industry for more than one hundred years, mills started closing. From 1989-1993, with the injunction in effect, 242 mills closed and 30,000 mill and wood industry jobs were lost in the northwest. By 2000, mill closures increased by 3-fold and the number of jobs lost doubled.

The loss of rural mills and jobs is dramatic. Behind those numbers are whole communities of good, honest hard-working people devastated and reduced to subsistence living. The human cost has been terrible and in my opinion, has not been justified by either science or leadership.

The mills that remained re-tooled for smaller logs available from commercial thinnings and plantation forests on private industrial lands. Few mills today want to purchase logs with a small end diameter over 50 cm (20 inches). The average annual production of the softwood mills in 1990 was 45 million board feet . In 2001 the re-tooled mills averaged 93 million board feet . As costs go up producers needed to do more with less, which meant consolidation and the elimination of the small, local community sawmills.

These market changes are now affecting the landscape of the private landowners. We are now penalized in the market for holding our stands too long and producing large, high quality logs. The two pictures in Figure 4 are of the same stand, taken 50 years apart. Today the unit value is higher for logs produced from the younger stand than they are for the older stand. As a result, commercial thinning has stopped and rotation ages are dropping on private forests and the high quality habitat shown in the older picture will no longer be produced voluntarily.

The no-management reality on the National Forests, coupled with the old fire exclusion policy make them firebombs waiting to go off. The year 2002 has been a particularly bad fire season for Oregon State, where 390,000 ha (one million acres) burned - of which 350,000 ha (900,000 acres) was on Forest Service lands. There have been several well-founded attempts to clean up the fuel build-ups, but none has gone very far. We consider them bad neighbours and work hard to move away from their boundaries.

Regulations in the Pacific Northwest - Washington State

For private the development of forestry regulations I will focus on Washington State regulations.

Early in the 1900s Washington State was covered with old growth and the main goal was to let daylight into the woods. Practically all of our farmland today in western Washington used to be forestland. Common practices today such as leaving wildlife trees and snags was considered unsafe and poor forestry, and what we consider now to be poor forest practices was generally accepted until the early 1970s. Out of school the mantra was: Cut it down, burn it black, plant it back.

Regulations affecting forestry started in earnest in

the early 1970s with the passage of the State Environmental Policy Act. At the time it was passed forestry was mostly exempt. The Shoreline Management Act introduced us to mandated buffers for major rivers and lakes. When the Federal Clean Water Act passed we all cheered, because it was aimed at factories and point source pollution. The Endangered Species Act was also welcomed, legislation aimed at protecting whales and Panda bears … no concern of ours. In the same year Judge Bolt ordered the state to recognize the local tribes fishing rights as spelled out in their old treaties. Considered a good decision by most - if we had made an agreement we should honour it.

The state passed the Forest Practices Act in 1974, with the support of the forest industry. It required that harvested areas be reforested (we already were) and created one agency, the Department of Natural Resources to conduct oversight. Forest Practice Permits were now required. Industry thought that agreeing to agency oversight and permits would give the public assurances that no one was getting away with anything.

During the late 70s and early 80s there were several contentious issues fought as sides defined themselves and environmentalism became popular. Lawsuits were fought and the tribes made a case that inherent in the right to fish was the right to protect fish spawning grounds.

About this time I came out of school and began my career in the forest industry in Washington's coastal forests. My first duty as a new forester was to hire a crew to clean all of the wood out of a stream my company had just logged next to. The state department of fish and wildlife threatened to cite us if we did not. They also insisted that our staff attend an upcoming seminar on stream restoration, which we did. It was at the seminar that I first caught on about ecology not being rocket science. In the morning the regulators told us why and how to clean the wood out. In the afternoon several researchers told us about their efforts to put stumps and other large woody debris back into streams with helicopters.

I still don't know if we have it right. In New Zealand, where I have caught monster fish, we are not permitted to plant trees within twenty meters of a stream bank. They don't want tree litter ruining water quality.

In 1987 two leaders with vision, Stu Bledsoe with industry and Billy Frank with the tribes got together

FIGURE 5: An abbreviated history of forest regulations in Washington State.

Washington State
History of Forest Regulations

1949	Hydraulics Act
1971	State Environmental Policy Act, Shoreline Management Act, Pesticide Control Act
1972	Federal Clean Water Act
1973	Federal Endangered Species Act, Bolt Decision on tribal fishing rights
1974	Forest Practices Act
1987	Timber, Fish and Wildlife (TFW) formed
1990	Growth Management Act
1992	Updated Forest Practices Act, Watershed Analysis, Spotted Owl rules
1996	Marbled Murelett, L.P.P.s
1999	Salmon Recovery Act
1999/2000	Forest and Fish Agreement

and formed a new organization called Timber, Fish and Wildlife (TFW) to solve issues by collaboration instead of lawsuits. Twenty-five foot (7.6 m) buffers on all fish bearing streams and some voluntary set-asides by landowners were a result. More importantly, people on opposite sides talked and gained respect for each other.

In the 1990s there was one issue after another. The listing of the Spotted Owl under the Endangered Species Act was a very loud wake up call, later reinforced by the salmon listing. The Clean Water Act was interpreted to include non-point sources and water temperature identified as a problem. Without data, the removal of shade was seen as a non-point pollution source; buffers increased to 50 feet (15.2 m) on either side of a fish-bearing stream. There were watershed analysis, new green up rules, limited clear-cut sizes and new chemical application procedures. It is a long list of items often approved under data free conditions because of perceived problems and there seemed to be no end.

At this time several of us within Port Blakely began to question whether we should be in the business. We were approaching the edge of our risk tolerance. We settled on a two tiered approach:

1. invest elsewhere to diversify our risk, and
2. to know more about our lands than anyone else and to be proactive about determining what was the right thing to do.

Becoming experts has not been cheap. We added

three wildlife biologists and negotiated a Habitat Conservation Plan (HCP) for a small site in western Washington with three Spotted Owl hits. The plan is a fifty-year agreement that covers multi-species. The HCP has cost us $US 650,000 and covers 3,000 ha. We have invested heavily in technology such as GIS. Our inventory costs have tripled since we began including streams and sensitive site surveys.

By 1999 there was a recognition that the viability of the industry was in trouble. Leaders from six caucuses of stakeholders: Industry, Tribes, State Agencies, Federal Agencies, Counties and Environmental organisations met to work out a new approach. The group agreed that the guiding principal would be to ”go where the science took them”. They also set four goals upfront:

1. compliance with ESA for riparian dependent species,
2. restore and maintain riparian habitat to support a harvestable level of fish,
3. meet Clean Water Act compliance,
4. keep the timber industry economically viable.

Unfortunately, the environmental caucus walked out mid-way through the two-year negotiation process. I think that there are some organic reasons why an environmental organisation would consider an agreement with the opposition counter-productive. Everyone else stayed and hammered out what is now called the Forest and Fish Agreement.

Roads are required to be maintained at high standards or else abandoned to minimize sediment delivery to streams. Cross drains upgraded to meet 100 year flood standards and all perched culverts removed to re-open fish habitat. Buffers now extend to non-fish bearing segments, unstable slopes and other sensitive sites. Buffers on fish bearing streams have been significantly increased in width.

The cost to forest landowners in Washington State has been estimated in the billions. The road fix is extremely expensive and approximately fourteen percent of our land base has been set-aside. We traded it for a future. Some regulatory certainty was essential for our continued existence. The agreement has acknowledged flaws and resembles a camel - something put together by committee. But a key element to the agreement was the inclusion of a strong adaptive management section. We will go where the science will lead us. We don't have all the facts just yet, so we have had to rely on political science to set up the framework. For more detailed information on the agreement see www.forestandfish.com.

Oregon has taken a different approach. The Governor formed a task force of appropriate state agencies, research institutions and industry to create the Oregon Plan. It is a science-based voluntary plan designed to meet ESA requirements without compromise. The plan is much easier and less costly to administer than Washington’s, yet we do not feel as if we are doing anything significantly different on the ground. Whether it is acceptable will be decided by pending lawsuits, stay tuned.

California, as in most things, has gone over the top. Like Washington, California began with a Forest Practice Act in 1973. However they never were able to engage in collaborative talks like TFW. Court case after court case layered new burdensome regulations on top of regulations. One forester described the attacks as relentless and constant. Timber Harvesting Permits (THP) in California cost between $10,000 and $50,000 on the coast and between $4,000 and $10,000 in the Sierras.

California has seen extreme consolidation and erosion of its industry base. Many of those still remaining are focused on extracting value rather than building sustainable value. New investment has come to a halt.

Risk tolerance is different for everyone, but perhaps we can consider publicly traded companies with quarterly earning pressures as our indicator species -like a canary in a mineshaft. There are none in California anymore. In Washington State Weyerhaeuser, a publicly traded corporation, has announced deals to sell off all of its properties in King County near Seattle; productive tree farms, thirty minutes from their Corporate Headquarters that they had managed for over 100 years. Meanwhile, they are investing heavily in New Zealand and afforestation projects in Uruguay.

My conclusion is that the system in California is broke, and that the one in Washington is in trouble if the Forest and Fish Agreement does not work.

Lessons learned the hard way

There are five conditions that make a forest investment viable:

1. Operating Certainty
2. Operating Certainty
3. Operating Certainty

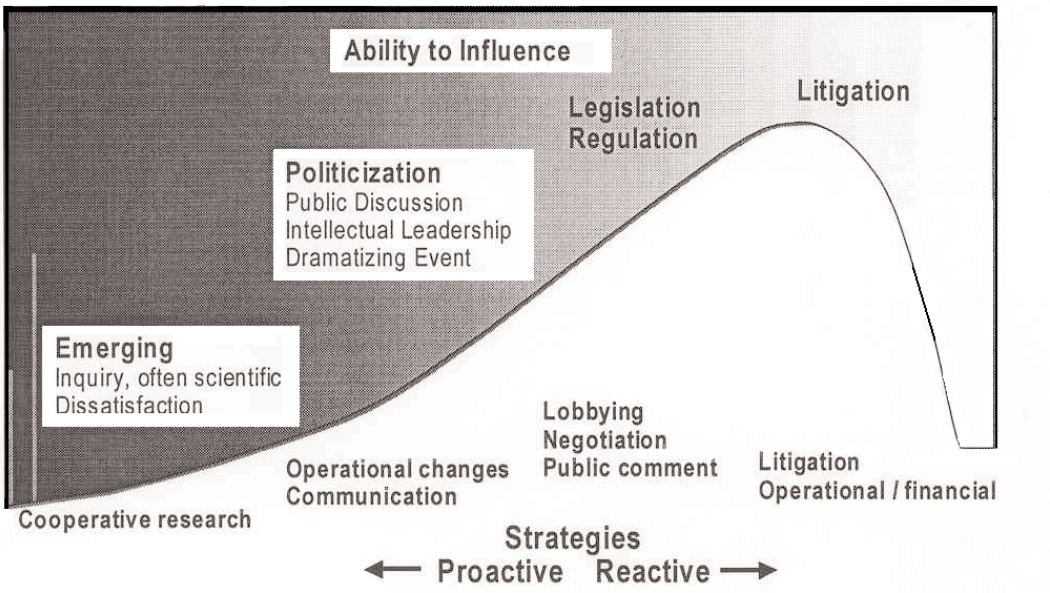

FIGURE 6: Life cycle of a public policy issue. Source: NACASI 2002.

4. Good Growth Rates
5. Fair Markets

Forest regulations and policy are by far the biggest factors impacting investment risk assessments and operating costs today. Forestry enterprises are either threatened or encouraged by the process identifying the community's stewardship expectations, the means and manner of their implementation and the distribution of the resulting cost between the private landowner and the community.

Regulations are not a particularly effective tool to promote forest stewardship and conservation objectives. Economists generally prefer market based incentive systems to regulatory methods as a means to achieve environmental objectives. Regulatory methods often produce unintended impacts and as a consequence are inefficient in delivering the intended goals.

I believe that good, responsible stewardship is the only way that Port Blakely's management will be able to protect and increase the value of our forest assets for the enjoyment by the next Eddy family generation. We are committed to research, monitoring and continuous improvement to go where science leads us.

However, we also recognize that many of the issues are wrapped up in personal values and moral filters, not in disciplined science. We will oppose extremely restrictive solutions where there is no clear scientific evidence to support the prescription. We will oppose solutions where the cost is high, while achieving the desired results look improbable. We will support disciplined science and are committed to get involved early and often in policy issues. Figure 6 is illustrative of the life cycle of a public policy issue. By being proactive and addressing the issues early we have an opportunity to educate and influence with real information. We have enough unsuccessful experience being reactive to issues that we know waiting on the sidelines is too risky.

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Forest issues and the environment at the EC

Joost van de Velde[6]

Key Facts about the State of the Forest Environment in the EU

The EU has a total forest area of 113 million ha, around 33% of its total land mass. Forest land in the EU is 65% privately owned by some 12 million private forest owners. With the accession of Austria, Finland and Sweden, the EU has become the world's second largest paper and sawn-wood producer and it is the foremost importer and third largest exporter of forest products. Forests are also of high importance in the Mediterranean area because of their protective and biodiversity functions. Altogether, the EU forest-based industries' production value amounts to nearly 300 billion EURO, employing some 2.2 million people.

There are substantial differences in forest type, forest cover and ownership structure within the EU. In brief:

- Austria, Finland and Sweden are heavily forested and have substantial forest products industries based predominantly on coniferous forest,
- France, Greece, Italy, Spain and Portugal have Mediterranean woodland, managed primarily for protection and within which fire is potentially a serious threat. France and Italy in particular also have large areas of temperate forest and mountain forests, including coppice areas, farm woodlots and community forests,
- Belgium/Luxembourg, France and Germany have a mixed ownership structure and a range of forest types with production being significant but not normally the primary aim in any forest,
- Denmark, Ireland, the Netherlands and the UK have a predominantly artificial forest based on plantations although the objects of management have been adapted over the last decades to encompass service values,
- South western France, northern Spain and parts of Portugal have large areas of industrial wood plantations, mainly destined for pulping.

The EU is the largest trader and second largest consumer of forest products in the world, with a positive trade balance overall. The forest sector is very important for the EU economy.

The environmental state of EU forests can be characterised by the following points:

- forest cover has fluctuated greatly during this millennium, with very low or poor coverage in many countries.
- present forest cover is the result of a steady increase in recent decades, mainly by planned afforestation and regrowth in semi-natural areas after abandonment of cultivation or grazing. The forest area is still growing by approximately 0.3 % per year and will continue to do so as a result of the evolution of the farm policy (CAP), which is expected to free more land,
- forest habitats are changing through intensification of management, increase in uniformity, fragmentation, use of exotic tree species, introduction or maintenance of animal species for hunting, drainage and air pollution,
- productivity and total production are increasing in many areas. The increase is probably due to a combination of use of high-yield strains, management including fertilisation and pest control, increasing levels of atmospheric CO2 and eutrophication,

6 DG ENV.B.2, Nature Protection and Biodiversity Unit, Directorate General for Environment, European Commission.
Email: joost.vandevelde@cec.eu.int

- very little of the natural forests which once covered most of Europe remains untouched, mostly as isolated pockets, and loss of old natural and semi-natural woodlands continues,
- some new forest habitat types are being created, e.g. those associated with short rotation Christmas trees, energy woodlands or the use of exotic species such as *Eucalyptus*; these generally have low biodiversity,.
- forest soil chemistry has changed radically in many areas, resulting in complex consequences for the productivity of forests and for the species they contain.

Summarising one can say that, although the absolute area of EU forests is expanding, the environmental quality of the forest ecosystems is declining.

Key Facts about the State of the Forest Environment Internationally

Covering around one third of the world's land area, forests are central to the environment. They harbour the majority of the world's terrestrial biodiversity, are a determining factor in the regulation of the global climate and provide a major renewable resource of energy and materials. In particular, forests are key for sustainable development and poverty alleviation in many countries.

However, the FAO estimates that the net annual global forest loss is currently around 11 million ha with drastic consequences for the world's environmental stability. Since 1970, the world has lost 12% of its forests! While forest cover in the boreal and temperate range slightly increased, tropical areas face greatest losses. The EC-JRC TREES project revealed rates of annual deforestation ranging from 0.36% per year in Latin America, 0.49% in Africa to 0.9% in SE Asia.

One of the reasons for the failure to halt and reverse global deforestation and forest degradation is the inadequate focus on the underlying causes such as poverty, lack of good governance including corruption, land tenure conflicts, and unsustainable production and consumption patterns.

Community Competences in the Field of Forestry Policy

The EU Treaties make no provision for a comprehensive common forest policy. In 1998 the Commission concluded a European Forestry Strategy which was endorsed by the Council of Ministers. The core principles of the EU Forest Strategy are sustainable forest management as defined by the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and multifunctionality of forest use. The management, conservation and sustainable development of forests are nevertheless vital concerns of existing common policies, such as the CAP and primarily the rural development, environment, trade, internal market, research, industry, development co-operation and energy policies.

Division of EU responsibilities between the general directorates for Environment (DG ENV), Agriculture (DG AGRI) and Enterprise (DG ENTR)

DG AGRI is responsible for implementing the EU Forestry Strategy and provides:

- the majority of Community financing available for forestry through the Rural Development Plans (RDP – Member States only) and SAPARD plans (accession countries);
- management of two regulations related to monitoring forest health and forest fire prevention;
- the EFICS information exchange system
- co-ordination of the Standing Forestry Committee, in which issues related to the EU Forestry Strategy and the Regulations are being discussed
- co-ordination of the Advisory Committee on Forestry and Cork, in which stakeholder consultations with the forest sector take place.

DG ENTR is responsible for actions that promote the efficiency and competitiveness of forest and paper based industries. It also manages the Committee on Forest and Paper Enterprises.

DG ENV is responsible for environmental issues related to forestry such as:

- adoption and implementation of the Community Biodiversity Action Plans (currently the one on Natural Resources and Agriculture regarding forest BD);
- transformation of the existing monitoring tools related to atmospheric pollution and

forest fires into a comprehensive state of the art monitoring system named Forest Focus;

- the European Climate Change Programme (ECCP), in which a working group on forest related sinks which will provide a series of proposals for technical measures to enhance carbon storage in EU forests, resulting from extensive stakeholder consultation;
- the integration of environmental considerations in other EU policies affecting forests (agriculture, trade, research, trade, external relations and development co-operation)
- increasing the market share of sustainably produced wood inter alia by encouraging forest certification and related labelling of products.

Co-ordination of the activities of different DG's relating to EU forest issues is assured by Inter Service Group on Forestry, which was installed in April 2002 and meets 3 to 4 times a year.

Instruments at our disposal in the international domain

As regards international aspects, DG ENV chairs an ad hoc inter-service group on international forest policy that co-ordinates Commission positions for international meetings.

The international forest regime, a highly complex and politically sensitive issue, consists of a number of international legally binding or non-binding agreements and initiatives related to forests. These include the Rio UNCED Forest Principles and Chapter 11 of Agenda 21, the IPF proposals for action (1997), the UN Forum on Forests (UNFF), the Convention on Biological Diversity (CBD), the Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, the G8 action programme on forests, the Pan-European Forest Process (MCPFE), the International Tropical Timber Organisation (ITTO), the Food and Agriculture Organisation (FAO) and CITES.

Despite the efforts made during the international forest dialogue of the past ten years no binding agreement comparable to the CBD, FCCC or CCD has been reached in relation to forests although this was among the objectives of the Rio conference in 92. The world's forests still suffer global loss and degradation at continued high rates. However, with the adoption of the expanded work programme on forest biodiversity at COP6 of the CBD (April 2002) the global community has, for the first time, a comprehensive set of agreed action-oriented objectives for the conservation and sustainable use of forest resources. The expanded CBD Work Programme includes a number of goals, objectives and activities related to monitoring and assessment of forest biodiversity and threats from pollution, fires, and other causes.

As a large consumer of wood products the EU is committed to combating illegal logging and related illegal trade as reflected in the 6th EAP. The EC Communication *Towards a Global Partnership for Sustainable Development* commits the Commission to develop an EU action plan on Forest Law Enforcement, Governance and Trade (FLEGT) to combat illegal logging and associated illegal trade by the end of 2002.

The EU has a fundamental responsibility to ensure that the wood it consumes comes from sustainably managed forests. The EC and DG ENV in particular promote the consumption of wood from sustainably managed forests through its Eco-label scheme, through greening public procurement, and by granting tariff preferences in its General Scheme of Preferences.

Forests and Forestry in the 6th EAP

The 6th Community Environmental Action Plan that was presented by the Commission in 2001 and which was adopted in July 2002 by the European Parliament and the Council of Ministers mentions the objectives regarding forests, forestry and the use of forest products and services to be reached during the coming 10 years.