

# **Designing the regulatory framework for the implementation of codes of forest practice – the Tasmanian experience**

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## ***Abstract***

*Tasmania's regulatory framework for implementing a code of forest practice has progressively evolved over two decades. The framework is based upon a model of co-regulation, which involves responsible self management by the forest industry, with independent oversight by government. Implementation of the code is based on streamlined planning and approval processes, which are backed up by credible systems for monitoring and reporting on compliance. Continuing improvement has been effected through a cooperative approach towards the development of smart planning tools and a well trained and responsible work force.*

## **Introduction**

Tasmania was the first state in Australia to regulate forest practices through legislation (*Forest Practices Act* 1985) and a code of forest practice (1987). The early system of regulation was designed to be simple and practical. At the same time, the system was based on a principle of continuing improvement and a commitment to increase skills and capacity in a structured manner through training, education and research.

The need for the regulation of forest practices was first identified in the 1970s. Prior to this time, forestry operations were concentrated in productive forests on public land where systematic logging and regeneration systems had been developed. The advent of a woodchipping industry in the 1970s saw intensive forestry operations rapidly expand into lower productivity forests on private land. Concern over poor practices and a lack of regeneration prompted the government and forest industry to agree on regulations to ensure that private forests were regenerated and managed on a sustainable basis. The evolution of the code of forest practice in Tasmania reflects three cumulative phases.

*Improved technical standards* – the first code was released in 1987 with a practical focus on technical standards for forest roading, harvesting and reforestation. Particular attention was paid to changing logging practices that were causing undue harm to forest soils and streams. The introduction of the code heralded a gradual shift in logging systems from bull-dozer to more environmentally friendly systems based on excavators, shovel logging and matting techniques (Wilkinson 2001).

*Improved scientific and cultural standards* – the second code in 1993 saw a more holistic approach to sustainable forest management, with increased focus on values such as biodiversity, geodiversity, visual landscape and cultural heritage. The code was accompanied by increasingly sophisticated planning tools that translated scientific research into operational prescriptions for forest planners.

*Improved social standards* – The third code in 2000 reflected a trend towards increased social responsibility and accountability. The code improved the provisions relating to requirements for notification and consultation on forest planning and operations. At the same time, the Act was

amended to improve monitoring and reporting on compliance and sustainable forest management. The code has always been designed as a practical document for forest planners and field operators. However, by 2000 the code and its outcomes were increasingly being scrutinised by the broader community to ensure that they delivered the highest standards of sustainable forest management (Wilkinson 2003). Such scrutiny led to other initiatives such as the Good Neighbour Charter, which represented a commitment by the forest industry to go beyond minimum legal compliance and to respond to issues and concerns raised within the community.

### **Components of a regulatory framework**

Codes of forest practice are technical guidelines for planning and conducting forest operations in a manner that protects the natural and cultural values of the forest. To be effective, codes of practice need to be implemented under an appropriate regulatory framework (Wilkinson 1999). Tasmania's framework corresponds to the standard structure of an environmental management system, such as that defined by ISO14001 (Standards Australia/Standards New Zealand 1996). The structural components can be described as follows.

*Laws and policies* – these define the broader operating environment, specifying the forests that are available for wood production and relevant legislation for the protection of natural and cultural values. Legislation should also clearly define the objectives of sustainable forest management and determine the relative roles and responsibilities of government and other parties. Many jurisdictions suffer from a plethora of complex laws and policies. In Tasmania, the approach has been to consolidate relevant legislation into a single *Forest Practices Act*, which seeks where ever possible to deliver the requirements of other legislation in a streamlined, integrated and efficient manner. The Act is administered by the Forest Practices Board.

*Planning*- the regulatory framework should define how strategic and operational plans are to be prepared and approved. In Tasmania, strategic plans are prepared for all public forests to define broad management intent. These are 10 year plans prepared with public comment. Three Year Plans are prepared for all tenures to show proposed operational areas so that impacts on catchments and infrastructure can be reviewed in consultation with local government instrumentalities. Forest practices plans of one to four year duration are prepared for operational units with an average area of 70ha.

*Implementation and enforcement* – the key questions are how will a code be implemented (translated into field practice) and who will do this? In Tasmania the code is implemented through a legislative requirement for forest practices plans to be drawn up for all forest harvesting, clearing, reforestation and associated roading. The code contains 'will' statements that are legally binding on all forest practices plans. The code also contains 'should' statements or guidelines, which require interpretation and the development of specific prescriptions for each plan on a case by case basis. It is therefore the forest practices plan which becomes the tool for delivering the code at an operational level. Who implements the code? The Tasmanian system is based on the principle that the people actually carrying out and supervising the forest operations are the people who are best placed to deliver the code. The focus is therefore on building capacity in the forest through-

- (a) training – to devolve skills to field practitioners; coupled with
- (b) delegation – to devolve responsibilities from government to the forest industry.

The Tasmanian system is one of co-regulation, which involves a partnership approach between government and industry. Under co-regulation, industry accepts responsibility to self manage within a legislative and policy framework imposed by government. The role of government is to provide checks and balances by monitoring standards and by taking corrective action where

necessary, using penalties as a last resort. Self management is primarily achieved through foresters employed within the forest industry who are specially trained in the code. These foresters can apply to be appointed as Forest Practices Officers by the Forest Practices Board. Once appointed they are given statutory powers and responsibilities to ensure that their operations are properly planned and supervised in accordance with the code. They are required to take corrective action where necessary to ensure compliance with the code. In return, they are delegated the authority to certify forest practices plans without requiring separate governmental approval. The Forest Practices Board independently oversees the work of Forest Practices Officers to ensure that appropriate standards are achieved and that enforcement action is taken where necessary.

*Monitoring* – monitoring is important for two reasons. Firstly, monitoring provides feedback on performance to forest managers, identifying areas where improvements can be made. Secondly, monitoring should provide the broader community with information about the standards being achieved. In Tasmania, opponents of the forest industry have sought to discredit self management by alleging that breaches of the code go undetected and unpunished (Wilkinson 2003). They use this argument to call for more governmental regulation and tougher penalties. The best response to these calls is to ensure that monitoring systems are credible, with independent verification and transparent reporting of results. The larger forest companies have responded by conducting in-house monitoring under accredited environmental management systems. These systems are independently verified. In addition, the Forest Practices Board independently audits a sample of operations and the results are published in a publicly available annual report. The Forest Practices Board uses these reports to identify the areas that require improvement and the best means for achieving improvement. In most cases, improved performance is best achieved through better management systems, planning tools and training. Legal action or fines are seen as a last resort, symptomatic of a failure to achieve good implementation of the code by other means.

*Review and improvement* – codes of practice are drawn from a combination of scientific and technical knowledge, operational experience and expert judgement. A continuing commitment to research, training and review is essential to maintain the credibility, practicality and efficacy of any code and its supporting regulatory framework. The Tasmanian system is underpinned by a team of scientists and specialists in the areas of botany, geoscience, forest soils and water, cultural heritage, zoology and visual landscape. These officers conduct research, develop planning tools, provide advice and monitor operational outcomes. They work in close partnership with field foresters to ensure that research findings are translated into practical planning tools and operational prescriptions.

### **Designing an appropriate regulatory framework**

Two principles are important when designing a regulatory framework. The first principle is that the framework needs to be specifically designed to suit local social, economic and environmental factors – one size does not fit all! The second principle is one of *festina lente* (hurry slowly) – regulatory systems need to be practical, efficient and affordable. By necessity, initial systems will be relatively simple because of limitations on available resources, skills and knowledge. Over time the complexity of code requirements and the degree of regulation inevitably increases (Garland 1996) and Tasmania has been no different (Figure 1). The challenge is to avoid regulatory overload and to manage a process of continuing improvement in a measured and systematic manner by gradually building capacity in technology and skills.

The choice of regulatory mix for the implementation of codes of forest practice is determined by a number of factors, including the following.

1. *The tenure of land to be regulated* – Governments generally respond to public pressure by increasing the regulatory burden on public forests, whilst being reluctant to remove rights on private land. In many States of Australia and America, overly-restrictive regulation of public forests has resulted in excessive planning costs and risks of litigation. In contrast, private land is often subject to little if any regulation, thereby creating a dilemma for the sustainable management of values such as water and biodiversity at a catchment scale. Governments are often reluctant to impose constraints on private land because of political backlash and potential compensation liability. This issue has been resolved in the Tasmanian code by defining a ‘duty of care’. The duty of care is the mandatory contribution that a landowner must make towards the protection of natural and cultural values. It is defined as any measure that is necessary to protect the fundamental resources of soils and water (such as exclusion of steep or erodible sites and requirements for streamside buffers). In addition, it includes the protection of any other values (such as special habitat, nesting sites or cultural sites) up to a level equivalent to 10% of the forest area. Any protection above this threshold is deemed to be for the public benefit and as such it can only be protected by voluntary means or through the payment of compensation. The duty of care has been remarkably successful in achieving balanced outcomes for the protection of natural and cultural values on privately owned forests in Tasmania.
2. *The type of operations and degree of risk*- Public perception generally demands a higher level of regulation for ‘high risk’ activities such as clearfelling old growth forest than for ‘low risk’ activities such as the thinning of plantation forests. However, the risks are often subtle. Tasmania’s most productive forest types are wet sclerophyll forests, which require clearfelling and high intensity burning regimes to ensure regeneration. Successful management demands high standards of planning and appropriate logging and reforestation technology. In contrast, selective harvesting is often considered to be low impact and of low environmental risk. However this is not always the case. For example, selective removal of dead trees and coarse woody debris for firewood from dry woodland results in serious habitat loss for invertebrates and hollow-dependent fauna. Furthermore, the selective removal of trees without adequate regeneration in dry woodland can exacerbate forest decline, leading to gradual deforestation. The Tasmanian system requires plans to be prepared for all types of logging with the exception of small scale operations involving less than 1ha or 100t.
3. *Institutional arrangements within government*- A single agency approach to the regulation of forest practices ensures that uniform standards are applied in a consistent and integrated manner. In contrast, a multi-agency approach can hinder the ability of government to manage and monitor the full range of forest values in an integrated way and lead to increased bureaucracy and complex enforcement under different laws (Ellefson *et al.* 1997, Eddins and Flick 1997). This has been avoided in Tasmania through a partnership approach between relevant agencies (Wilkinson 2001). Where ever possible relevant legislation is delivered under a streamlined regulatory framework administered by one agency – the Forest Practices Board.
4. *Social attitudes regarding regulation*- Forestry has been the dominant issue for environmental lobbyists within Australia and Tasmania for the last two decades. Public concern about forest regulation often results in a knee-jerk response of tougher laws and penalties (Eddins and Flick 1997). This in turn forces industry to focus its efforts solely on ensuring compliance to avoid prosecution and there is no incentive for it to pursue excellence through innovation, research and development (Sunstein 1990). Tasmania has responded to calls for greater accountability from forest

managers by focusing on improved communication and reporting on operational performance (Wilkinson 2003). However, public mistrust remains as the major threat to the self management component of forest regulation in Tasmania.

5. *The availability of skills within government and the private sector* – forest management generally involves a sharing of roles and responsibilities by government and the private sector. A basic principle of any model is that the people conducting the operations should be properly trained, supervised and accountable. The degree to which these responsibilities may be placed on industry is a matter for negotiation between government and the forest industry. The Tasmanian forest industry is willing to invest in skills because of the efficiencies and benefits that it sees in a system of self management. As a result, the number of forest practices officers employed within the industry has increased three fold since the introduction of the code in 1987.

## **Successful features of the Tasmanian regulatory framework**

The successful features of Tasmania’s regulatory framework arise from three fundamental objectives. Firstly, to foster cooperation and a partnership approach. Secondly, to focus on monitoring and the correction of problems rather than a purely punitive approach. Thirdly, to seek continuing improvement through training and the devolution of skills.

### *1. Cooperation and partnerships*

#### *Co-regulation – Partnership between Government and Industry*

The Tasmanian approach is based on the principle that governments can use legislation and enforcement to deliver ‘minimum standards’ of compliance with codes of practices. However, ‘best practice’ requires skills, innovation and commitment throughout the industry. Tasmania’s industry has risen to the challenge of responsible self-management and it is willing to pay its way. The forest industry pays 93% of the total cost of approximately \$AUD 9 million (approximately USD 6.3m) per year for implementing and supporting the code of practice, leaving a very small residual cost on the public purse (Figure 2). The benefit to industry is reduced bureaucracy and greater operational flexibility and efficiencies in planning and decision-making. The benefit to government is that it can focus its limited resources on fostering improvements and on the oversight of standards and compliance.

#### *Partnership between Government and private land owners*

Private forest owners control one million hectares or 50% of the forest available for wood production within Tasmania. Under the partnership approach, the private sector agreed to be bound by a code of practice in return for land use security and participation in the design and implementation of the code and regulatory framework. Land use security is provided by private timber reserves, whereby land owners may have their forest secured for perpetual forest use, thus protecting them from land use changes that may arise under local government planning schemes. The involvement of the private sector in the design and delivery of the code is provided by representation on the Forest Practices Board and the Forest Practices Advisory Council, which oversees the review of the code of practice.

### *Partnership between forester managers and scientists*

Forest agencies often become embroiled in disputes with specialist scientific bodies or conservation agencies on matters relating to the nexus between science and management. Often the relationship becomes adversarial, with power struggles between agencies competing for the primacy of their particular objectives or ethos (Ellefson *et al.* 1997). In Tasmania forest managers and scientists employed within the forestry sector work closely with experts from conservation agencies and research establishments. In key areas, the partnership has been formalised into ‘agreed procedures’ that are recognised in policies or legislation. The best example relates to the management of threatened species. In this case, a single planning process has been developed and endorsed as meeting the requirements of both the code of practice and the threatened species legislation, thus avoiding two separate approval processes. More importantly, the partnership between forester managers and scientists is mutually beneficial-forester managers improve their understanding of science and scientists improve their understanding of how to manage natural and cultural values in a practical and effective manner.

### *2. Monitoring and the enforcement of standards*

Monitoring and enforcement is carried out at a number of levels in Tasmania-

*Voluntary in-house monitoring under self-management* – most of the larger forestry organisations conduct in-house monitoring under formal environmental management systems. Under these systems non-conformances and associated corrective actions are recorded and reported to the appropriate governmental regulator.

*Statutory requirements for self-monitoring* – the *Forest Practices Act* requires compliance reports to be prepared by a qualified Forest Practices Officer upon the completion of operations. These requirements encourage industry to implement appropriate environmental management systems and employ sufficient Forest Practices Officers to undertake regular monitoring. The aim is to ensure that any potential breaches are identified and rectified in a timely manner, thus avoiding the risk of prosecution. Forest Practices Officers have the power to issue notices under the Act to require any person to take corrective action. For example, a contractor may be directed to install drains on skid tracks at any time up to one year after the completion of operations. Clearly it is in the interests of the contractor to fully comply with the code before leaving a logging area or the contractor faces the cost of having to bring machinery back to the site to comply with a notice, or risks prosecution.

*Statutory independent audit* – The Forest Practices Board independently audits about 15% of operations to check compliance. The results of the independent audit are publicly reported in the Board’s annual report to Parliament.

*Statutory enforcement* – The Forest Practices Board is required to investigate all complaints of non-compliance. The Board may impose fines or proceed to prosecution for serious breaches. Serious breaches are regarded as those cases which involve environmental harm or major deficiencies in a company’s supervisory and management system.

### *3. Training and the devolution of skills*

Training is well recognised as a critical component of any management system. In Tasmania the training strategy has two objectives. Firstly, training is designed to ensure that Forest Practices Officers are multi-skilled in all key areas of the code so that they can effectively integrate forest management across a range of values. Secondly, the strategy aims to devolve as much specialist

knowledge as possible to field staff. As scientific knowledge increases, there is increasing pressure to employ more and more specialists. Potentially, this trend reduces the ability to achieve an integrated approach to planning. The Tasmanian approach has been to focus on the development of smart planning tools and specialist training in key areas. For example, the Threatened Fauna Advisor is a computer-based program that allows foresters to make high level decisions about the management of threatened fauna without having to have expert knowledge of the threatened species. Similarly, a series of forest botany manuals allows foresters to recognise areas likely to contain plant species of high conservation significance through the use of keys. The keys focus on forest attributes familiar to foresters such as tree species and topographic features, rather than requiring all foresters to become expert botanists. These tools allow foresters to efficiently make many decisions that would otherwise require expensive surveys by specialists. As a result, the specialists can avoid unnecessary time on routine surveys and concentrate on areas where the planning tools call for higher level expertise. The time saved can be invested in research, monitoring, review and on the further development of planning tools.

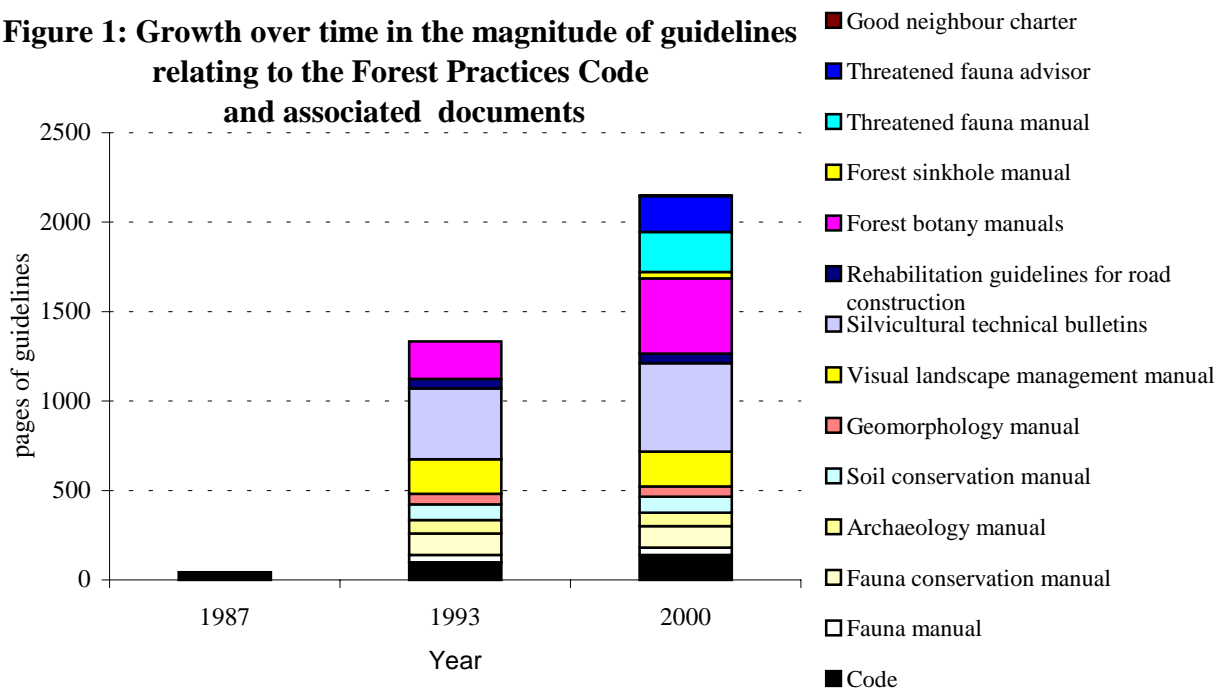
## Conclusion

Codes of forest practice need to be implemented by a regulatory framework that is designed to respond to changes in social, economic and environmental conditions. The Tasmanian code began in 1987 as a simple and practical document. Over time, the code has grown in complexity and it has been supplemented by numerous supporting documents, processes and planning tools. Herein lies a challenge. 'Unregulated regulation' can lead to codes becoming excessively restrictive, complex and unworkable. However, this need not be the case. The Tasmanian system has not shifted from its overarching principle of ensuring that the code can be delivered in a practical and effective manner through a cooperative approach involving partnerships, smart tools and a well trained and motivated work force.

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**Figure 1: Growth over time in the magnitude of guidelines relating to the Forest Practices Code and associated documents**



**Figure 2: Allocation of annual cost of AUD 9m per year for implementing Tasmania's code of practice**

