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Outlaws in the forest?
– An analysis of the nature and causes of illegal forest practices

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Abstract

An analysis of forest practices within Tasmania over the period 2000 to 2006 shows that compliance levels are very high, with breaches reported in less than 6% of forestry operations. The majority of breaches are minor or resolved through corrective actions. Serious breaches are infrequent, occurring in less than 1% of operations. Most breaches (85%) are caused by errors or deficiencies in knowledge or management, with only 15% of a deliberate nature. Punitive measures are an important deterrent in any regulatory system. However, high standards of forest practices are more likely to be achieved through improved management systems, training and education.

Introduction

Forest managers have been confronted with illegal forestry activities ever since the introduction of formal forest management systems over two thousand years ago. The ancient Romans introduced systems to regulate the cutting of forests and they imposed severe penalties for unauthorized felling and damage to trees (Osmaston 1968). In the 11th Century King Canute proclaimed laws to prevent poaching and illegal cutting within the forests of England in order to protect the royal hunting rights. The laws were zealously enforced by foresters, with severe penalties for offenders, including death, amputation of a limb, imprisonment or fine.

Illegal logging continues to be a major obstacle to sustainable forest management within many nations (Johnson and Sarre 2006). Currently, up to 15% of global hardwood wood fibre is sourced from illegal operations (Seneca Creek Associates, LLC and Wood Resources International, LLC 2004). The massive trade in illegally-sourced forest products causes forest degradation within developing nations and affects the competitiveness of producers who operate legitimately under the principles of sustainable forest management (Australian Government 2006).

The term “illegal logging” broadly covers any violation of international, national or local laws. Traditionally, it has largely been associated with the unauthorised removal of forest products. The proliferation of environmental regulations in more recent times has given rise to a new suite of illegal activities in the form of breaches of legally-binding devices such as approved plans, permits and codes of practice. This

paper reviews the nature and causes of "illegal" forest practices[1] in Tasmania, with a focus on those activities that are regulated under the *Forest Practices Act* 1985 and associated Forest Practices Code 2000.

Methods

The Forest Practices Authority (FPA) formally investigates all reports of alleged breaches of the Forest Practices Act. Reports are received from a number of sources, including: formal audits conducted by the FPA; compliance reports submitted by Forest Practices Officers[2] upon the completion of all Forest Practices Plans; and complaints lodged by other government agencies or members of the public. Details of all investigations are entered into a database and a summary is published in the Annual Report of the FPA (Forest Practices Authority 2006).

The database records the outcome, nature and cause of each investigation as follows.

(a) Outcome of investigation

no breach	The investigation found no evidence of a breach of the Forest Practices Act, Code or Forest Practices Plan
minor breach	A technical breach was found, with no or very minor environmental impact (e.g. machinery entering an exclusion zone but causing negligible ground impact)
corrective action	A breach was found, which was corrected by subsequent action, avoiding any environmental harm (e.g. installation of surface drains across snig tracks to avoid erosion)
warning given	A breach occurred, for which no corrective action was required but a warning was issued to avoid any repetition of the breach that could lead to more serious outcomes (e.g. failure to mark a boundary even though logging did not encroach over the boundary)
fine imposed	A serious breach where the FPA has imposed a prescribed fine pursuant to s.47B of the Forest Practices Act (e.g. harvesting of trees within areas reserved from harvesting)
legal action	A serious breach where the matter has not been resolved by payment of a fine and the case has been referred to the Director of Public Prosecutions for court action.
insufficient evidence	Cases where there is insufficient evidence to determine whether a breach has occurred or the persons responsible. Also includes cases that are beyond the statute of limitations (one year for offences prior to July 2005 and three years since that date).

(b) Nature of breach

No FPP	Forest practices conducted without a certified Forest Practices Plan being in place as required under s.17 of the Forest Practices Act
FPP boundary	Forest practices conducted outside of the boundary prescribed within a certified Forest Practices Plan
Streamside Reserve	Forest practices conducted within the buffer or machinery exclusion zones for streams as specified within the Forest Practices Code or Forest Practices Plan

[1] "forest practices" includes harvesting, clearing, reforestation and road construction within native forests and plantations

[2] Forest Practices Officers are persons appointed under the Forest Practices Act with powers to inspect forest operations and enforce the provisions of the Act

Natural & cultural values	Forest practices conducted in breach of the provisions within a Forest Practices Plan for the management of natural and cultural values (as defined in the Forest Practices Code)
Other breach of Code/FPP	Forest Practices conducted in breach of other provisions of the Forest Practices Code or Forest Practices Plan

(c) Cause of breach

Human error	Breach due to a mistake or poor judgement, e.g. incorrectly marking a boundary in the field or on a map
Deficient system	Breach due to deficiencies in the planning process or management system used, e.g. inadequate supervision, deficient tools or techniques
Lack of knowledge about Act	Breach caused by persons unaware of the legislative requirements
Lack of knowledge about Code/FPP	Breach caused by persons unaware of the requirements of the Forest Practices Code or the provisions of a certified Forest Practices Plan
Intentional /deliberate	Breach due to persons who knowingly disregard the requirements of the Act, Code or certified Forest Practices Plan

This paper reports on the results of investigations undertaken by the FPA. It does not cover other enforcement actions, such as corrective actions or disciplinary measures taken by forest managers under self-regulatory processes to ensure that their forest operations comply with the requirements of the Forest Practices Act.

Results

1. Outcome of investigations

Table 1 summarises the outcome of 648 investigations into reports of alleged breaches of the Forest Practices Act that were completed over the period 2000-2006 (note that the records for 2000 only represent approximately half of one year). During this period a total of 6,117 Forest Practices Plans were approved at an average of 941 new plans per year.

Evidence of breaches was found in 53% of investigations. This equates to about 53 breaches across an average of 941 new Forest Practices Plans that are approved each year (5.6%). Of these breaches, 84% were minor or were dealt with through corrective actions or formal warnings. Only 16% of breaches were considered serious enough to warrant fines or prosecution. The most serious breaches included the harvesting of trees from within a section of a streamside reserve and the construction of a sub-standard road that caused sedimentation within an adjoining stream.

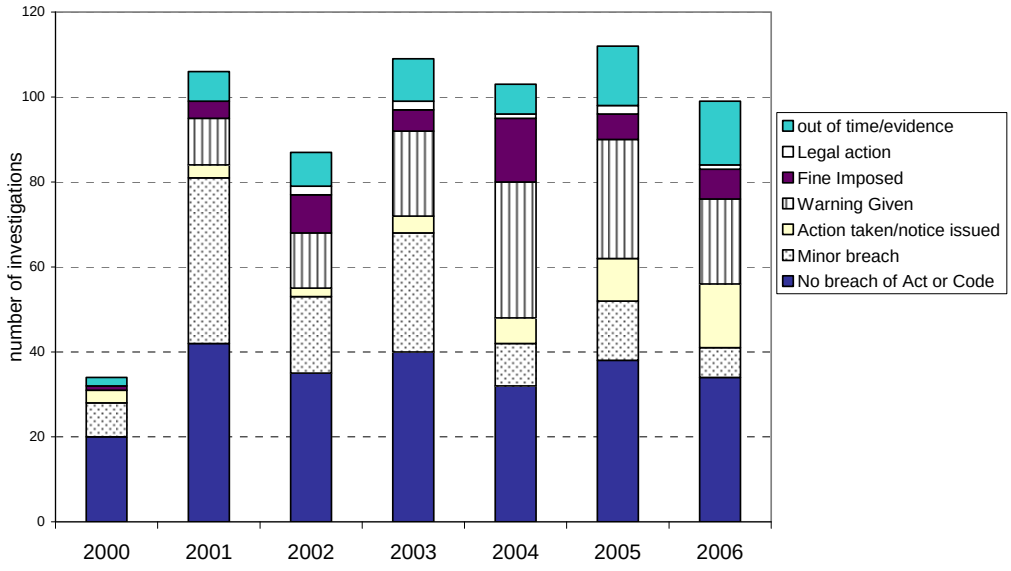
Forest Practices Officers and other forestry staff submitted the highest number of reports on potential breaches (56%). Less than 32% of incidents reported by the non-forestry sector were found to be breaches, highlighting a lack of detailed knowledge about the Act and Code within the community. In contrast, about 70% of matters reported by Forest Practices Officers or other forestry staff were confirmed to be breaches.

Figure 1 compares the outcomes from investigations over the period from 2000 to 2006. There is little evidence of any major trend in the outcomes, with a continuing high proportion of ‘no breach’ cases and no noticeable change over time in the imposition of fines or prosecutions.

Table 1. Outcome of investigations into incidents reported to the Forest Practices Authority by different sources for the period 2000-2006

Outcome of investigation	**Source of information**				
	Forest Practices Officer or other forest industry person	State or local government officer	Neighbours or members of the public	NGOs and other	Total (%)
no breach	75	22	122	22	241 (37%)
minor breach	90	6	23	3	122 (19%)
corrective action	33	3	7	0	43 (7%)
warning given	94	7	18	5	124 (19%)
fine imposed	30	6	9	2	47 (7%)
legal action	6	1	0	1	8 (1%)
insufficient evidence	34	8	19	2	63 (10%)
Total (%)	362 (56%)	53 (8%)	198 (31%)	35 (5%)	648 (100%)

Figure 1. Outcome of investigations completed from 2000 - 2006



2. Nature and cause of breaches

Table 2 provides a summary of the nature and cause of breaches that were determined for investigations completed over the period from 2000 to 2006.

The majority of breaches (44%) were due to failures to properly mark or comply with the boundaries of harvest zones (FPP boundaries) and streamside reserves, with 75% of these breaches due to either human error or deficient management systems.

Operations conducted without a Forest Practices Plan accounted for 23% of breaches, with the major cause related to a lack of knowledge about legislative requirements (60%) although a substantial proportion (23%) was determined to have been intentional.

The remaining breaches (33%) related to natural and cultural values and other code requirements. The vast majority of these breaches (63%) were caused by human error and deficient systems, with lack of knowledge about the code and deliberate breaches accounting for only 13% and 16% respectively.

Overall, most breaches (85%) were caused by errors or deficiencies in process or knowledge. Only 15% of breaches were determined to have been of a deliberate and intentional nature.

Table 2. The nature and cause of breaches determined for incidents investigated by the Forest Practices Authority for the period 2000-2006

Nature of breach	**Cause of breach**					
	Human error	Deficient system	Lack of knowledge about Act	Lack of knowledge about Code/FPP	Intentional /deliberate	Total (%)
No FPP	4	10	57	2	22	95 (23%)
FPP boundary	24	28	1	9	4	66 (16%)
Streamside Reserve	38	45	4	16	12	115 (28%)
Natural/cultural values	15	20	4	4	8	51 (13%)
Other breach of Code/FPP	9	40	7	13	14	83 (20%)
Total (%)	90 (22%)	143 (35%)	73 (18%)	44 (11%)	60 (15%)	410 (100%)

Figure 2 shows that there was little relative change in the causes of breaches over the period from 2000 to 2006, although there is a trend towards an increasing proportion of breaches due to a lack of knowledge about the legislation, possibly reflecting a number of significant changes to the Forest Practices Act during this period.

Figure 2. Causes of breaches determined for investigations from 2000 to 2006

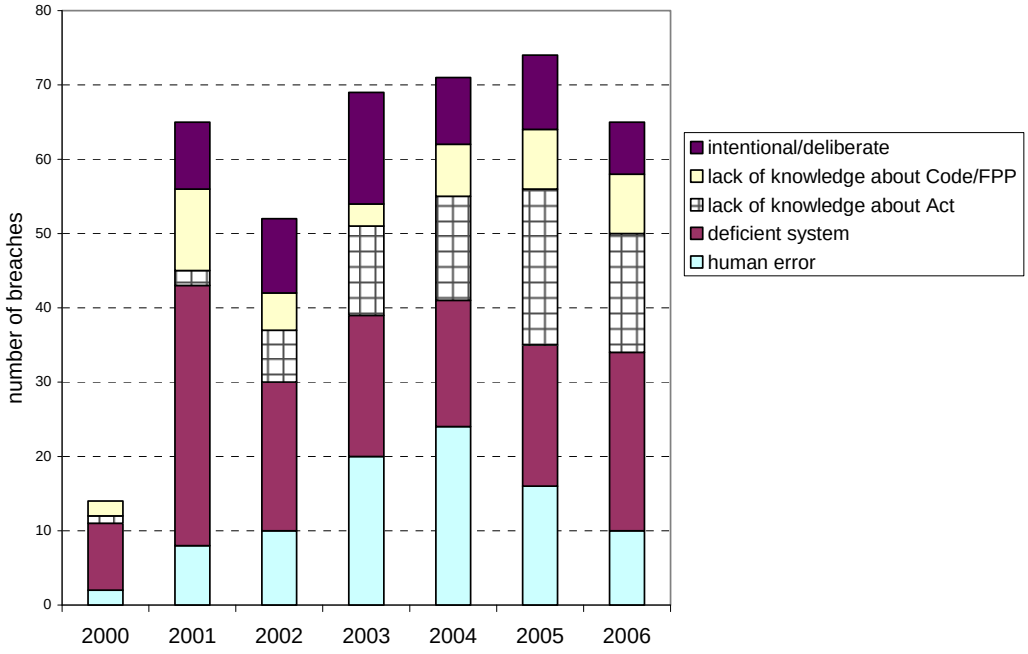
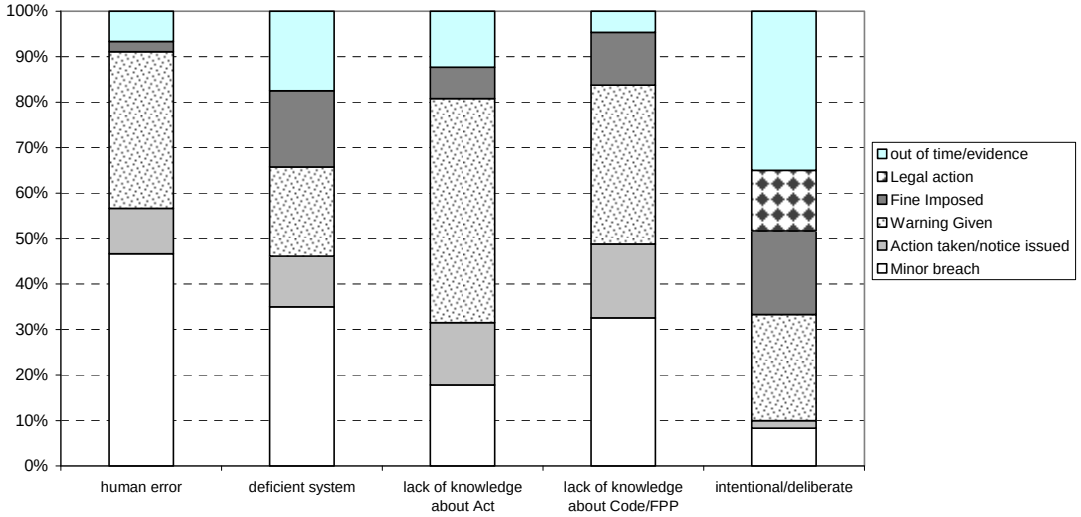


Figure 3 shows the relationship between the cause of breaches and the outcomes determined. Deliberate breaches were three times more likely to be dealt with through fines or prosecution than breaches due to errors and deficiencies in knowledge or management system. The proportion of cases where outcomes could not be determined due to a lack of evidence ranged from12% for cases involving errors or deficiencies to 35% for deliberate breaches, reflecting the difficulty in obtaining evidence from persons who have already demonstrated a lack of respect for the law. All serious breaches arising from errors and deficiencies were resolved by payment of a prescribed fine. In contrast, 42% of serious breaches resulting from deliberate offences were taken to court, generally because of the unwillingness of the offender to resolve the matter through the payment of a prescribed fine.

Figure 3. The outcomes determined for various causes of breaches for the period from 2000 to 2006



Discussion and Conclusions

The incidence of breaches of the Forest Practices Act within Tasmania is very low, affecting less than 6% of all forest operations. Serious breaches that warrant fines or prosecution represent 16% of total breaches or less than 1% of operations.

The majority of breaches (77%) relate to a failure to comply with a requirement of an approved plan. Operating without an approved plan (the traditional form of "illegal logging") accounts for only 23% of breaches or about 1.6% of operations.

Tasmania's forest practices system is based upon a co-regulatory approach that encourages forest managers to transparently report and correct any breaches. It is therefore salient to note that 74% of all breaches are detected and reported by Forest Practices Officers or forest industry persons. Other sectors are an important source of reports, although less than one third of their reports are found to be breaches. The investigation of unfounded or ill-informed complaints can be a significant imposition on the limited resources of a regulator. Clearly, forest managers and regulators have a role to play in providing better information to the community about the regulatory framework. However, it is naïve to expect that a better informed community will become significantly more expert in lodging complaints, or that lobbyists will desist from making unfounded allegations to support their cause. The investigation process must be transparent and credible if the public and media are to have confidence in the outcomes determined for alleged breaches. Otherwise the allegations of aggrieved complainants can become sensationalised in the media, fuelling (unfair) perceptions of regulatory failure and unsatisfactory performance by forest managers (Wilkinson 2003).

A lack of knowledge on the part of landowners and forest operators causes about one-third of all breaches. These deficiencies can only be overcome by training and education programs, which need to be ongoing because the provisions of the legislation and code continue to change at a rapid rate. For example, the documentation that supports the Forest Practices Code has increased by 50 fold since the introduction of the first Code in 1987 (Wilkinson 2006). The period 2000 to 2006 saw the introduction of a revised Forest Practices Code and three major legislative changes that brought activities such as land clearing, farm dams and sub-divisions under the purview of the Forest Practices Act.

Deficiencies in management systems are the single most common cause of breaches, accounting for 35% of all breaches. Much has been achieved within Tasmania over the last five years with the adoption of formal environmental management systems such as ISO 14001 by the major forestry companies. However, the smaller operators do not have formal management systems and they often lack the resources to adequately plan and supervise their operations. Finding solutions to overcome management deficiencies is a joint challenge for both regulators and forest managers. It is important for regulators to develop a workable regulatory environment with streamlined planning processes and practical planning tools. Equally, forest managers and operators must exercise due diligence, with particular emphasis on ensuring that proper systems are in place, that the roles and responsibilities of all parties are clearly defined and that all persons are adequately trained and accredited to undertake their allocated tasks. Monitoring and review is necessary to promote the ongoing improvement of management systems, with appropriate enforcement measures where required. In Tasmania, breaches associated with deficient systems are three times

more likely to attract fines than breaches associated with human error or a lack of knowledge (Figure 3).

Alexander Pope (1711) eloquently recognised that "To err is Human; to Forgive, Divine". However, the patience of the regulator is tested when nearly one quarter of all breaches is caused by human error. The FPA dealt with 98% of breaches caused by human error by way of corrective actions or warnings. It should be noted that corrective actions have a strong deterrent effect as they often incur a substantial expense on the operator who is required to carry out rehabilitation works. Likewise, warnings also serve as an important deterrent since repeated errors indicate deficiencies in management, which are more likely to attract fines.

Prescribed fines imposed under s.47B of the Forest Practices Act account for 85% of the total penalties, highlighting the general preference of both the regulator and the offender to settle matters through the payment of fines rather than by engaging in the more adversarial, costly and time-consuming process of litigation.

Overall, 16% of breaches under the Forest Practices Act were dealt with by way of punitive measures (fines and prosecution). This compares with an average of 9% for offences under legislation relating to the management of National Parks and other Crown lands in Tasmania (Forest Practices Authority 2007). Whilst "regulatory teeth" are a necessary component of any enforcement regime, an over-reliance on punitive measures for breaches of forest practices is akin to the punishment of school children for failing examinations. As Farrier (1992) notes, most regulators regard penalties as a last resort, indicative of their own failure to achieve good performance by other means. It is therefore interesting to observe that concerns about the standard of forest practices are often accompanied by vigorous calls by lobbyists for tougher penalties and more "police". In a perverse way, some lobbyists use the number and magnitude of fines as a performance measure of the forest practices system, often criticising the 'inadequate' number of fines in any one year (Murphy 2002, Putt 2005). This begs the question: does a doubling of fines from one year to the next indicate that the regulatory system is doing twice as well as the previous year; or twice as bad? Should the public expect an increase in the number of fines over time, or a reduction? The answer, of course, lies in what else the regulator does to promote high levels of compliance. Lobbyists would be better served by calling for improved training and management systems if they are genuinely interested in encouraging good forest practices.

The efficacy of a regulatory system can not be judged solely from an analysis of breaches. The true measure of performance can only be determined from the systematic monitoring of the standards that are being achieved. In Tasmania, monitoring of forest practices is undertaken at three levels-

(1) internal monitoring under formal environmental management systems used by the larger forest managers, with third party audit by the accreditation body;

(2) preparation and lodgement of compliance reports for all operations by Forest Practices Officers upon the completion of discrete operational phases within Forest Practices Plans, as required under s.25A of the Forest Practices Act;

(3) independent audit of a representative sample of Forest Practices Plans by the FPA.

The results of the compliance reports by Forest Practices Officers and the independent audit are published in the Annual Report of the FPA. The reports show that the

performance standards are generally well above the nominated standards. Areas requiring improvement are identified for further action.

Poor standards and illegal practices within developing nations have been attributed to: unclear or poorly enforced forest tenure, weak political institutions, poverty, corruption, inadequate natural resources planning and monitoring, and lax enforcement of sovereign laws and regulations (Seneca Creek Associates, LLC and Wood Resources International, LLC 2004). In contrast, Tasmania has highly developed institutional and governance arrangements that promote high standards of forest management and compliance. As a result, the incidence and seriousness of illegal forest practices are very low. Effective enforcement systems are a necessary component of any regulatory framework. However, high standards of forest practices are more likely to be achieved through improved management systems, training and education.

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