ARTICLES

Protection of the Environment

A New Age of Enlightenment

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"What a piece of work is man! How noble in reason! How infinite in faculty! In form and moving how express and admirable! In action how like an angel! In apprehension how like a god! The beauty of the world! The paragon of animals! [Hamlet, Act II Scene ii]"

These words from Hamlet encompass the high watermark of enthusiasm for the capacities of humans to overcome their mortal limitations. After the oppression of the Dark Ages writers and philosophers of the Enlightenment embraced a strong faith in the power of human reason to rise above the limitations of the human condition.

The twentieth century has seen human endeavour rise to unimagined heights of innovation and potential for improving the human condition. It has also seen a new nadir of man's inhumanity to man and abuse of the natural systems of the planet that we share. But there are signs of a new energy arising from a growing concern for the future of the planet and a new awareness of the ultimate dependence of human well-being on the well-being of the natural order. Could these be the stirrings of a new age of enlightenment based on our inescapable need to share this planet?

The end of this decade, this century, this millennium provides a powerfully symbolic time to acknowledge the past, take stock of the present and project the steps needed to cross the threshold into a new age of environmental enlightenment. This paper is an attempt to stimulate debate by critically examining the prevalent ideas, values and legal frameworks that have guided environmental policy development in the latter half of the twentieth century. It then poses some questions about the future and identifies some signposts that might help guide us there.

Some Major Environmental Challenges

A stereotypical image which is flashed up whenever there is discussion of air pollution is the smoke stack of a large industrial undertaking, spewing clouds of smoke (often backlit, harmless steam) into the atmosphere. Doubtless serious problems are occasioned by industrial emissions into the air. Significant resources of the Environment Protection Authority (Victoria) ("EPA (Vic)") are engaged in seeking to address and minimise such problems, through encouraging cleaner production, waste minimisation, use of best available technology and best practice environmental management.

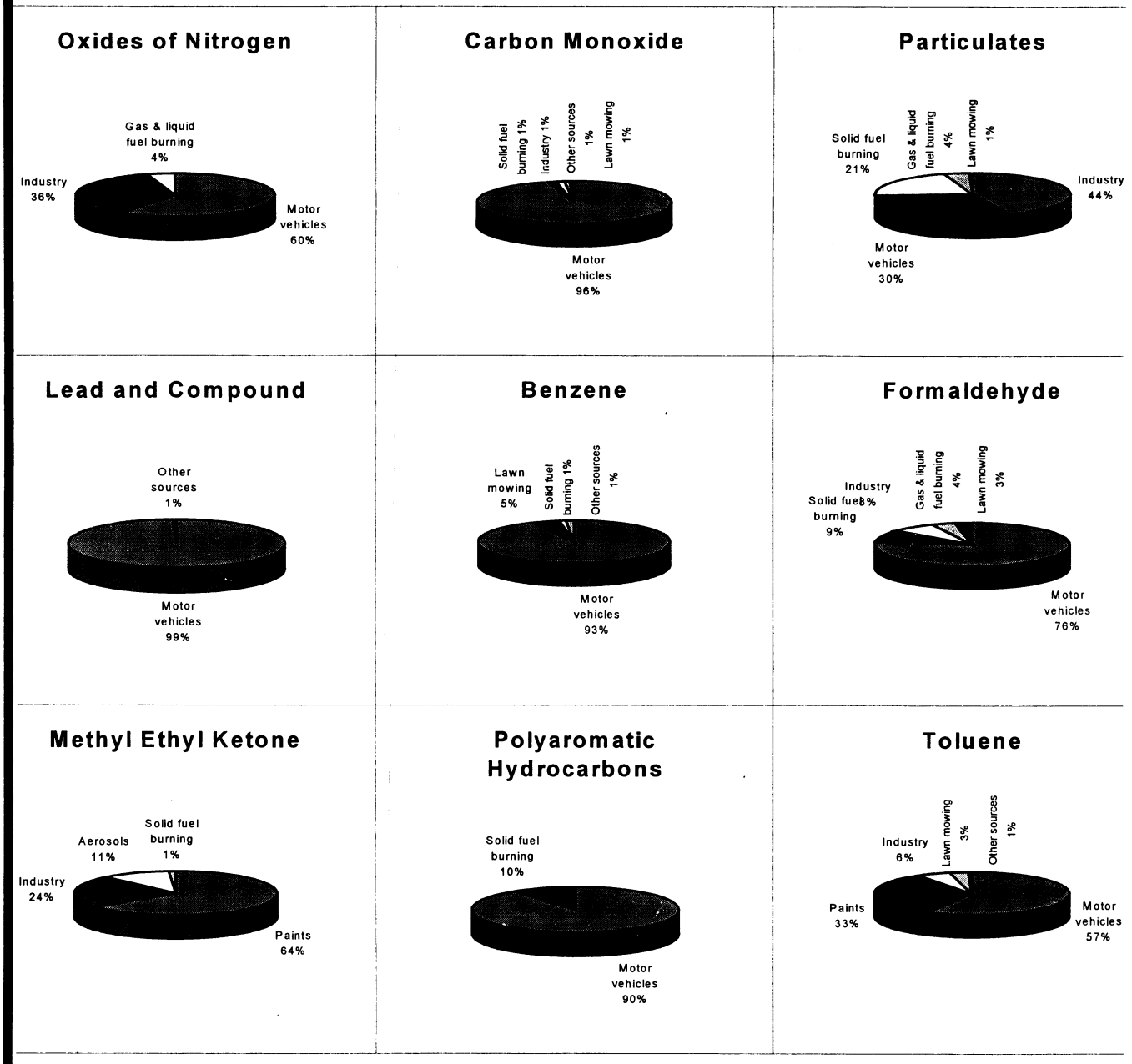
However, the recent *National Pollutant Inventory* (NPI) pilot developed by the EPA(Vic) for the City of Greater Dandenong illustrates the complexities of the issues well. Dandenong is synonymous for most people from outside the City with a heavy concentration of polluting industry. It is in fact a largely commuter belt area with several of metropolitan Melbourne's major arterial roadways. As a result of that fact up to 93% of benzene emissions to the atmosphere comes from motor vehicles, with 5% from lawn mowing, 2% from solid fuel burning and 1% from other sources. (This does not take indoor sources into account). Other figures reveal the motor vehicle as the dominant factor in contributing to atmospheric degradation.[1]

Both industry emissions and motor vehicle emissions in Dandenong result from lawful activities. One is heavily regulated through works approvals and licences with a strong community expectation of strict enforcement on individual premises and consequent heavy penalties for breaches against the Act. As to the other, while individual vehicles are theoretically regulated (and most comply), their impact relates to other fundamentals such as road infrastructure,

1 See Figure 1 which shows some results from the Trial National Pollution Inventory conducted at Dandenong

Figure 1 Contribution of Emissions, Dandenong Study Region 1994

Data based on trials for the National Pollutant Inventory carried out by EPA (Vic) and funded by the Commonwealth Environment Protection Agency



traffic management systems, meteorology, urban form and demographics and alternative transport systems. While enforcement against obvious breaches, such as individual smoky cars, is expected, the majority of vehicles are likely to be in compliance and being operated legally.

We cannot change the meteorology or the infrastructure, and urban form cannot be improved overnight (and in any case is the product of many other needs and pressures) and retrospective tightening of emission standards is fraught with massive equity, technological and economic hurdles. The political climate is not likely to support draconian regulation of travel behaviour.

Another significant issue is the pollution of waterways by urban living. The hard surfacing of catchments, brought about by urbanisation (roofs, driveways, roads, car parks etc), has changed them from acting like a sponge when it rains to providing no resistance to runoff. Flooding is more frequent downstream of urban areas than prior to urbanisation. This rapid movement of water takes with it the accumulated pollutants from our living and massively

increases erosion potential. As we drive cars the tyres and brakes wear out. This "lost" material accumulates on roads and is washed into waterways contributing to toxicity of the waters.

Likewise our pets do not have the same sanitary habits as ourselves and defecate across our urban catchments - when it rains this material is carried to waterways. It is estimated that there are some 300,000 dogs in the catchment of Port Phillip Bay which produce approximately 90 tonnes of excrement a day.[2] None of this is treated, unlike human sewage. A significant amount of this will find its way into the stormwater and drainage systems and ultimately into the Bay.

Runoff from agriculture commonly affects receiving waters by increasing the sediment loads and erosion of disturbed soils and, usually as a consequence, by increasing nutrient and pesticide loads. These seemingly small losses of soil are incremental both in their effect on the quality of the land and on the quality of waterways.

A little commented-on impact is the channeling of fresh water into marine environments, producing large fluctuations in the salinity regime, damaging the ecosystem. In some cases the variability is such that little recolonisation is possible resulting in a virtual marine desert. This in turn can lead to sediment erosion and smothering of nearby reefs and sea bottom.

Even more mundane are the problems associated with the convenience products that make up much post-consumer waste. While the post-household disposal of such waste can be conventionally regulated and good practice encouraged by the imposition of criminal sanctions, the fundamental problem of increasing waste volumes, short of creating a new class of recycling police, is not susceptible to command and control. More creative strategies will need to be found to reduce this waste of resources and the externalised social, economic and environmental costs associated with waste disposal.

The Solutions. The Criminal Law?

According to the Shorter Oxford English Dictionary a crime is an act punishable by law as being forbidden by statute or injurious to the public welfare; an evil or injurious act; a (grave) offence; a sin. In the context of that definition, an environmental crime could be characterised as a sin committed against the environment. Such a characterisation is heavy with moral turpitude. This is not inappropriate.[3] The creation of a class of environmental crimes coincides with community requirements that the environment be protected by a legal regime in much the same way as the protection afforded by the law is granted to private property or human beings.

Other definitions of crime refer to acts which are not criminal in any real sense, but which are prohibited under a penalty on the grounds of public interest; wrongs which affect the security of the well-being of the public which has an interest in its suppression; and moral wrongs which offend the general moral sense of the community.[4]

The capacity of the criminal law to assist in protection of the environment has been the subject of much criticism and analysis. The imposition of the criminal regime and criminal sanctions on certain actions has caused members of the judiciary to perform mental gymnastics to seek to fit environment protection laws within an area of the law which was designed for entirely different purposes. Despite the legal complexities, the Parliaments of Victoria, other Australian states and states overseas have decided that criminal sanctions are to be available against those who offend against proscribed actions relating to environment protection.

It would be improper, impractical and inappropriate in our society to seek to proscribe the behaviour of a large number of people acting lawfully (that is not to suggest that in the future there will not be new restrictions on activities which are currently unrestricted, such as the use of motor vehicles on smog alert days in major urban areas: the law must be able to provide new solutions to emerging problems.)

In response to this conundrum Governments around the globe, while retaining a safety net of increasingly severe punishment for criminal activity, are otherwise eschewing a heavy reliance upon prescriptive behaviour in favour of what might be described as creating pathways to self-enlightenment to achieving desired outcomes.[5] Efforts are increasingly being made to encourage a change in organisational culture and community attitudes.

To bridge the gap between the traditional regulatory approaches and a greater reliance on facilitation without losing the criminal sanctions so important to public perception, the law is being used to provide choices between the two approaches.

2 EPA (1995) Protecting Water Quality in Port Phillip Bay - State Environment Protection Policy (Waters of Victoria) draft Schedule F6 (Waters of Port Phillip Bay) and draft Policy Impact Assessment Publication 434

3 One US survey showed that corporate polluters are regarded as worse offenders than armed robbers: see Susan Smith, Doing time for Environmental Crimes: the United States Approach to Criminal Enforcement of Environmental Laws (1995) Environmental and Planning Law Journal 168, footnote 72

4 CR Williams, Criminal Law, Halsbury is Laws of Australia, Butterworths

5 See for example the suggestions made in OECD, Managing the Environment: TheRole of Economic Instruments, Paris, 1994; and Broadbent, Jack, Employing Market Incentives and Other Alternative Approaches to Achieve Clean Air in the Greater Los Angeles Area, Proceedings of the Red Tape to Results: International Perspectives of Regulatory Reform Conference, June 1995, Sydney

Several examples of this change in approach in mechanisms have been introduced into the *Environment Protection Act* 1970 (Vic) ("the Act"), or into programs which EPA (Vic) is encouraging. These include environment improvement plans and statutory environmental audits; accredited licensing; industrial waste reduction agreements; catchment strategies linked to State environment protection policies and the Cleaner Production Partnerships Program.

Crimes Against the Environment: Jurisprudentially, the Square Peg in the Round Hole

The *Environment Protection Act* 1970 (Vic) was the first piece of legislation to deal with protection of air, land and water, and to minimise impact of noise, in one statute. Existing legislation regulating air pollution and water pollution continued for some time, but the provisions of the Act prevailed. In a sophisticated change in thinking, the philosophical basis of the Act was one of pollution prevention. In his second reading speech the then Minister for Lands, The Honourable Bill Borthwick MP stated that the purpose of this Bill is to establish the basis for a program of environment protection for Victoria through the control of wastes and the prevention of pollution.

The Bill also enshrined the notion that use of the environment for waste disposal was not an unfettered right, but a circumscribed privilege to be accorded in limited circumstances: a waste discharge never in itself becomes a right and is controllable by the State at all times.

Of the four objectives of the Bill (to provide for the establishment of State environment policy; to provide a means of preventing pollution; to provide firm controls on pollution and to establish an Authority responsible for environment protection) the third objective, that of providing firm controls, was anticipated to be used if pollution occurred despite the strong prevention program of licensing waste discharges. It is clear that criminal sanctions were designed to be used when the system failed.

What was the jurisprudential context in which the new Act was passed? The notion of crime was not new; indeed, the notion of environmental crime is evidenced by *Disraeli's Rivers (Prevention of Pollution) Act* 1876 in England. However, environmental crime was as yet undeveloped. The law needed to come to grips with the juxtaposition of crime against a regulatory system the purpose of which was to facilitate environment protection. This resulted in many of the offences being cast in terms of potential harm.

Whilst the most serious environmental offences require proof of the existence of a mental element, environmental crime turns traditional criminal doctrines on their head to the extent that the requirement to show a mental element is dispensed with in many offences.[6] This results in there being no, or very limited, defences available. The justification for such a departure is due to the categorisation of environment protection legislation as social regulatory or public welfare legislation.

One other significant departure from traditional criminal doctrine is the existence of vicarious liability for the criminal behaviour of another. It is well established that the actions of an employee or an independent contractor[7] carried out within the scope of that person's employment can bind the principal or employer. The Act itself provides that where in any proceedings it is necessary to establish the intention of a corporation, it is sufficient to show that a servant or agent of the corporation had that intention.[8]

Environmental law is also one of only a handful of areas of law where directors and managers are deemed to be personally responsible for the breaches of their companies, employees and contractors.

One of the most controversial developments in environmental law, certainly in this country, has been the introduction of indictable environmental offences such as the offence of aggravated pollution.[9] There has been speculation as to the reason why charges have not been brought against this section of the Act. That offence was introduced very specifically as a deterrent against organised crime becoming involved in the hazardous waste transport, treatment and disposal industry. The private sector was to provide a range of services not previously provided or not provided at the now required standards. However, learning from the experience of North America and Europe, a deterrent was required to send a strong signal that the change was not a market opportunity for organised crime. The offence was never intended to be an operational weapon, but a deterrent. It has always been made publicly clear that, should the appropriate circumstances arise, there is certainly the will to invoke this provision. (Interestingly the introduction of

6 The categorisation of different levels of mens rea required to satisfy the mental element of an offence is found in the High Court decision of He Kaw Teh v R (1985)157 CLR 523. The case stands for the proposition that the usual mens rea requirement can be rebutted having regard to the language of the section, the subject matter of the statute and the social utility of imposing strict liability to the offence.

7 Liability can travel as far as to the employee of an independent contractor: Allen v United Carpet Mills [1989] VR 323.

8 Environment Protection Act 1970 (Vic) ("the Act") section 66B(2). The traditional view that liability would only attach to the corporation if there was fault on the part of the board of directors or managing director is set out in Tesco Supermarkets v Nattrass [1972] AC 153.

9 Section 59E of the Act, which is similar in form to the Tier One offences under the Environmental Penalties and Offences Act 1989 (NSW)

this offence was supported by the major industry associations which regarded it as a safeguard for their members.)

Enforcement Action When and How?

EPA (Vic) has published its *Enforcement Policy*, a document which amongst other things outlines the matters to be taken into account by the Authority in deciding the appropriate course to be taken in dealing with breaches of the Act.[10] The writers do not concur with one author's view that publication of official prosecutorial policies constrains the exercise of prosecutorial discretion[11]; rather, it provides the community with some degree of certainty as to the manner in which prosecutorial discretion will be exercised and in doing so has in itself a deterrent effect. It also provides the framework for an open, transparent and honest system.

The Enforcement Policy states the view of EPA (Vic) that non-regulatory measures taken to promote compliance with the Act and regulations are often cost-effective and will reduce the need for enforcement.[12]

However, when enforcement is required, there is a range of tools in the regulatory toolbox. The matters to be taken into account when considering which enforcement measures are appropriate are set out in the Enforcement Policy. [13]

Prosecution is one tool to be used in appropriate circumstances, not necessarily as a so-called tool of last resort. It is not always the most effective. Measures available to enforce the Act are warnings; directions by an authorized officer; notices; infringement notices; prosecutions; licence suspension or revocation and injunctions.

Notices of contravention are issued to advise formally the recipient that they are contravening a section of the Act. This type of notice will be issued when there is a substantive ongoing contravention and it is envisaged that further enforcement will be undertaken by way of prosecution for further offences. There are also pollution abatement notices, which can be issued when the Authority is satisfied that a process or activity which is being carried on or is proposed to be carried on at any premises has, amongst other things, caused or is likely to cause pollution or has created or is likely to create an environmental hazard. [14]

Other types of notices include the minor works pollution abatement notice[15] issued where works are minor (less than $10,000) and urgent action is required, and the pollution infringement notice.[16] These on the spot fines for minor infringements have been used effectively to chastise companies which have polluted, with the result in many instances of deterring them from developing attitudes which could lead to more serious offences. Whilst effective tools, pollution infringement notices tend to be used on occasion when court proceedings might be the more appropriate course.

Another important tool is the clean up notice, which is not subject to a right of appeal. Since notices subject to appeal are set aside until an appeal is determined, appeals against a clean up notice where a clear state of danger to the environment exists is not appropriate since delays may well exacerbate the problem.

It would be fair to say that culpability has a significant role to play at each end of the criminal process: firstly in determining what type of enforcement measure is the appropriate response to an environmental incident, and at the sentencing stage after the decision has been taken to prosecute. The offender's culpability and degree of responsibility for the offence is one of the matters Magistrates (and any members of the judiciary) are required by statute to take into account in deciding upon an appropriate disposition or penalty.[17] As a matter of law, in the case of many environmental offences which are offences of absolute or strict liability the existence or absence of culpability will go to penalty rather than liability.

If the presence or absence of culpability is a proper factor to be taken into account in the exercise of prosecutorial discretion and in sentencing, clearly use of the criminal law does not sit happily in cases where patterns of behaviour of an entire population, rather than deliberate and culpable acts, are responsible for pollution. In other words, ways must be found to protect the environment against the impacts of lawful behaviour.

Environmental Crime and Environment Protection: Peas in a Pod, or Oil and Water?

There are four commonly accepted purposes of criminal law: deterrence, retribution, rehabilitation and the need

10 EPA (NSW) has similarly produced its Prosecution Guidelines, July 1993
11 Smith op cit n. 3 at p. 174
12 EPA (1993) Enforcement Policy p. 9.
13 Not available (Figure 2)
14 Section 31A of the Act
15 Section 31 B of the Act
16 Section 63 B of the Act
17 Section 5(2)(d) of the Sentencing Act 1991 (Vic).

to protect the community from the offender.

In addition to the traditional purposes of criminal law, there are factors grounded in economics which provide a sound rationale for the judicious use of the criminal law with respect to environmental offences. In terms of questions of equity and economics, there will often be substantial advantages - especially in the short term - to be gained by avoiding environment protection requirements and trading with lower establishment and operating costs. This can introduce a significant distortion within a market with unscrupulous players able to transfer the costs of their operation onto the environment in the form of pollution.

Deterrence is meant to discourage either the defendant (specific deterrence) or other potential defenders (general deterrence) from committing the offence.

The importance of deterrence is recognised in the *Enforcement Policy of EPA (Vic)*, stating as it does that one of the principles guiding the Authority in the enforcement of the requirements of the Act is the recognition that the primary purpose of enforcement measures is to stop or prevent polluting activities, by making offenders accountable as a deterrent to those involved and to others.[18]

Much has been written on the role of deterrence in environmental crime. As far as the impact on individuals is concerned, as Smith states eloquently, the potential for criminal prosecution alone creates an extremely strong deterrent, especially for "pillars of the community" who are not accustomed to being booked, photographed, fingerprinted, and thrown in a detention cell until bail is arranged. The thought of being sent to prison for a substantial period of time and losing the privileges of a citizen such as voting is unthinkable for such individuals.[19]

The efficacy of prosecuting a government body has been the subject of some critical analysis.[20] In addition, there is a perception that large corporations are not susceptible to the same kinds of deterrence as smaller companies and individuals, as fines and penalties can be absorbed as a cost of doing business. Certainly in the case of prosecution of a corporation anxious to impress its shareholders with its good corporate citizenry, the impact of social opprobrium attached to the bringing of a prosecution is significant, even if (as often happens) the corporation is not convicted and receives a modest fine. The seriousness with which corporations view prosecution is evidenced by the fact that corporations often engage high level representation even when the likely penalty is low. The effort put into a guilty plea is directed not so much towards the size of the penalty, but at seeking to avoid the recording of a conviction whenever possible. That is not to say that the size of a penalty is an insignificant matter. The larger the penalty, the greater the corporate embarrassment, quite separate from the question of conviction.

Drawing on personal experience, it is clear that the fact of facing a prosecution does change corporate behaviour. Faced with the shock occasioned by a prosecution recalcitrant companies more often than not become cooperative. A significant change in attitude was evident even in the case of the issue of a penalty infringement notice (maximum fine $800) on a large government authority for failure to obtain approval before making a change to a licensed facility. The fine was paid within the hour of the notice being issued, apologies were proffered by the Chief Executive Officer and there has been no need to take enforcement action against that body since. That example, and others like it, suggest that the rehabilitative role of the criminal law does find its mark. Perhaps because of the use of publicity surrounding prosecutions, long standing and apparently intractable issues quickly move up corporate hierarchies and are often quickly resolved following the issuing of summonses.

The impact of prosecution can be even more dramatic when it is personalised in the form of action against individual directors. At the height of corporate greenness in the late 1980s, when corporations seemed to discover their own version of deep ecology, it was common to hear claims of willingness to proceed "beyond compliance". However, when asked privately what was the greater force - corporate image, or the possibility of criminal sanctions being applied to directors - the Chief Executive Officer of a large public company stated without hesitation that the real impetus flowed from the latter.[21] It is likely that he spoke for many of his peers in expressing such a view.

Regardless of the reason, environmental awareness and corresponding prominence given to environmental affairs has resulted in a new paradigm for corporate behaviour.[22]

Another observation is that the impact of prosecution seems to be greater in the case of public companies than private ones. One reason for this may be that such players are unaccustomed to being challenged. On the other hand

18 p cit n. 12 at p. 1.

19 p cit n. 3 at p. 180

20 See for example, Andrew Beatty, Prosecuting the Crown for Environmental Crimes, Proceedings of Environmental Crime Conference, September 1993, Hobart

21 It is interesting to note that of 242 Australian organisations which responded to the Coopers and Lybrand Consultants Environmental Management Practices Survey (November 1994), 7% of respondents introduced an environmental policy before 1988, 3% in 1988 or 1989, 18% in 1990 or 1991, 16% in 1992, 14% in 1993 and 7% in 1994. 35% of respondents did not have a policy. The upsurge coincides with the introduction of the Environmental Offences and Penalties Act in NSW.

22 Examples of some of the actions taken by Australian businesses is found in a publication published by the Business Council of Australia, Meeting the Environmental Challenge, Melbourne 1994.

Another observation is that the impact of prosecution seems to be greater in the case of public companies than private ones. One reason for this may be that such players are unaccustomed to being challenged. On the other hand it may be a perception that there is a now simple relationship between corporate behaviour and share price.

In addition to leading to improved behaviour, the demonstration of a willingness to prosecute reinforces the value of the non-criminal instruments. The fact of prosecution, or even threatened prosecution, makes people more aware of - and more receptive to - the alternatives.

From the perspective of the regulator, there are clear benefits arising out of the application of criminal enforcement, despite many problems inherent in seeking to enforce laws through the courts such as satisfying the criminal burden of proof. There is also the will of the Parliament to execute.

Nonetheless, an inherent restriction on the effectiveness of deterrence is that its aim is to achieve compliance, no more. In this respect, an analogy can be drawn with the inability of litigation to achieve the desired result for even the successful litigant, as against the flexibility of mediation and other forms of alternative dispute resolution. On the other hand, some of the programs of EPA (Vic) encourage environmental improvements beyond compliance.

Signposts for the Future

And so we end - or continue - as we began. The *Environment Protection Bill* introduced into the Victorian Parliament just over 25 years ago was squarely placed in the philosophy of pollution prevention. This philosophy is today being pursued with a renewed vigour. Tools for environment protection will increasingly focus on capturing private incentives to reward socially and environmentally responsible behaviour. The focus will be on fostering opportunities for reducing adverse impacts on the environment in a way which provides a "win" for the individual or firm, and a "win"for the environment.[23]

In Victoria we have been moving in this direction for some time now, but there is still substantial progress to be made, and in particular an increasing need to focus on small scale business[24]. and private activities of ordinary people doing ordinary things rather than large firms.

Environment Improvement Plans (EIPs) introduced by EPA in 1989 arose out of the failure of repeated recourse to enforcement measures to rectify problems where poor land use planning had created significant land use conflicts. EIPs allow industries in consultation with local communities to set their own environmental goals and strategies in a plan which covers issues including waste minimisation opportunities, community involvement and upgrade options. There are currently six in place, with another 18 in progress. Of the six current plans, two premises are on their second plan, as plans last typically for two to three years. It can take from six to 18 months to develop a plan, depending on the level of support the company or industry has from the community.

Each document is signed by the company CEO, community representatives and the Chairman of the Authority. They are symbols of a new level of trust and commitment by individual companies to their local communities providing access to real, relevant information. More than being symbols, they work. By creating a climate of trust they have encouraged voluntary, beyond compliance programs, which, for example, resulted in a more than 50% reduction in chemical emissions to air by seven large chemical companies. Other industries which have sought endorsement include a petrochemical refinery, paint plants and rubber and tyre plants.

An environmental officer of one particularly successful community/ industry liaison group, the Altona Complex Neighbourhood Consultative Group,[25] has stated that the community's right to know is supported and recognised by Altona, "where access by residents to the industry is now an established part of doing business".[26] This is progress indeed.

Not all of the new tools are accessible to smaller and medium enterprises which have a reduced capacity to invest, upgrade and move beyond compliance. One new mechanism which recognises some of these limitations, and seeks to overcome them, is the Cleaner Production Partnerships Program. Launched in December 1995 these programs

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23 A'Hearn T, Harnessing the Market: Reform of Environmental Regulation in Victoria, Proceedings of Environment Institute of Australia Conference, October 1995

24 Some empirical support for this proposition is found in the Coopers and Lybrand Survey (op cit n. 22) which notes that 50% of small organisations (those with less than 200 employees) have never undertaken an environmental audit compared with 8% of very large organisations (more than 8,000 employees) never having undertaken one

25 The achievements of the Group have been recognised in its recent presentation of one of the inaugural Environment Awards, presented to members by then Minister of the Environment, Mark Birrell, in December 1995

26 Rob Plenderleith, An Industry View, Eingana July 1992

will provide new incentives for the smaller industry players to pursue strategies, which will enable them to operate so as to impact less on the environment.

Industries such as glass, aluminium, fibreboard, plastics, construction, steel and paper are committed to reducing the amount of waste generated through their processes. This commitment is contained in Industry Waste Reduction Agreements, voluntary agreements which typically include commitments to recycling targets, lightweighting, expenditure on Research and Development relating to decreasing environmental impact of products and financial support for education infrastructure. Other industries soon to come on board include the fast food industry and green waste. Failure to comply with the terms of the Agreement does not constitute an offence accompanied by a traditional penalty but rather by being named in Parliament. Whilst superficially this might appear to be a weakness of the system, it is consistent with the co-operative approach which the Agreements enshrine.[27]

The partnership approach is evidenced in the development of the pioneering accredited licensee system, introduced into the Act in 1994. Under the system, in deciding whether to grant an accredited licence the Authority must consider whether the applicant has in place the cornerstones of an environmental management system, is undertaking an environmental audit program approved by the Authority with the participation of an environmental auditor and has prepared or is preparing an EIP[28]. Instead of prescriptive licences, licences instead focus on broad environmental outcomes and annual reporting. The reduced regulatory work is reflected in lower licence fees.

To date the Authority has awarded accredited licensee status to Kemcor Australia. Another dozen are in the pipeline. There has been some delay in the take up due to the challenges for even the large companies to reach the statutory threshold. Nonetheless, the signs are promising for this more enlightened approach to produce positive environmental outcomes.

Conclusion: A New Age of Environmental Enlightenment

The criminal law is a blunt instrument for changing attitudes and behaviour. It has been, and will continue to be, useful in raising awareness of and identifying unacceptable polluting behaviour that damages the property of others or threatens the health and well-being of people and the other inhabitants of the planet. There is also polluting behaviour which displays the characteristics of "normal" or traditional crime - intentional, negligent or reckless behaviour, especially for material gain, to the detriment of others. It is incontrovertible that such behaviour should be subject to the same legal sanctions as any other crime. But much of today's pollution arises not from criminal action but from the cumulative impact of a large number of legal and acceptable individual actions. We recognise therefore that the power to prosecute is but one instrument in an extensive tool box.

The probability of detection of an environmental crime and the demonstrated preparedness of authorities to prosecute has a major influence on community attitudes to compliance with the law and the community standing of that law. Herein lies a conundrum. Community attitudes and much environmental law are narrowly focused on deterrence or punishment of a small range of criminal activities when the major environmental assaults come from elsewhere and are entirely devoid of any level of moral culpability.

As long as end of pipe discharges from industry into specific environment segments were the major focus for pollution control activities, the criminal law provided an adequate measure of response. Since the focus has shifted to integrated pollution prevention, based on cleaner production (including principles of ecoefficiency), which of necessity involves the fundamentals of a business including corporate culture, such an approach is of limited application. The limits become more apparent as attention turns to the inevitable cumulative impacts of consumption-based urban and natural resource exploitation-based rural living.

In short, the criminal law has little to offer a strategy based at changing social and economic patterns to make them more consistent with natural systems and therefore more sustainable in the long term.

An informed and involved community lends itself to being influenced to adopt or press for practices and infrastructure that are less focused on short-term self- interested outcomes if long-term net benefits can be demonstrated or convincingly communicated. To this end it is important that we move away from superficial, slogan-based policy making to a system that gives more recognition to natural laws. For example a recognition that Murray Cod have rights (Fish Mabo) as well as irrigators might lead to a complete re-evaluation of the management of the Murray Darling system to the long term benefit of all.

One of the most vexed questions to be faced is the significance of different exposure routes to various pollutants and whether their are significant additive or synergistic impacts. It may be that the resources invested in maintaining clean air outdoors would be more cost-effectively spent on designing safer domestic products that would reduce the

27 This use of agreements is consistent with the approach used in the Netherlands where industry sectors are asked to enter agreements with the Minister setting out implementation of the National Environmental Policy Plan: see generally Paul de Jongh, The Dutch Example: Part of the European Union, Proceedings of the Visions for a Greener Future Conference, April 1996, Melbourne

28 Section 26B(2) of the Act

exposure to harmful chemicals indoors. These are issues that can only be effectively addressed by an informed and willing community (cf cigarette smoking).

The initial proposal for annual returns to be lodged by waste producers in Victoria in 1986[29] or the more recent proposal by the Commonwealth Government for a release-based National Pollutant Inventory highlight the past reductionist focus of policy formulation. The alternative proposal developed by EPA (Vic) (and funded by the Commonwealth) for a transfer and impact model is illustrative of the breadth of thinking we actually need if we are to move forward. To explain, there was little value in collecting and publishing aggregated discharge figures since while they could provide a basis for comparison, they provided the public with little information about their significance of their impact. The EPA (Vic) model on the other hand provides not only comparable emissions data, but exposure concentrations, comparisons with other parts of the world and, importantly, health effects data. This enables users to access the data they want and interpret it for their own situation within the limitations of the data.

An important tool in influencing behaviour is the demonstration project. Cleaner production demonstration projects in small business that illustrate win/win outcomes and demonstrations of the practicality and benefits of urban villages are already influencing thinking in the disparate areas of small scale manufacturing and urban design.

If we are to cross the threshold to a new age of enlightenment and ecological sustainability we will need to be more expansive in our views on the role of legislation and the capacity of the criminal law to take us where we need to go. Facilitation of behaviour change will require more deft approaches than bludgeoning by the blunt instrument of criminal prosecution.

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[29] Section 54 B of the Act