

**SEEDS, WEEDS AND GREED:
AN ANALYSIS OF THE *GENE TECHNOLOGY ACT 2000 (CTH)*, ITS
EFFECT ON PROPERTY RIGHTS, AND THE LEGAL AND POLICY
DIMENSIONS OF A CONSTITUTIONAL CHALLENGE**

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The seed has become the site and symbol of freedom in the age of manipulation and monopoly of its diversity. ... It embodies diversity and the freedom to stay alive.¹

The attempt on the part of multinational seed corporations to assume control over the world's seeds constitutes an overwhelming threat to agricultural genetic diversity and small-scale traditional farming systems. These giant corporations stand poised to make incalculable profits from the commercial release of genetically engineered ('GE') seeds² in which they own intellectual property rights. Despite the existence of pockets of resistance to the phenomenon of patenting life forms, the impact of corporate ownership of GE seeds is being experienced on a global scale. The problems which arise from a commercial release of GE seed include genetic contamination of wild plants and of neighbouring and nearby non GE crops, an unpredictable degree of environmental degradation, the disempowerment and impoverishment of small-scale traditional farmers, and rapid genetic erosion. In Australia, the legislation which facilitates the widespread commercial release and use of GE seeds is the *Gene Technology Act 2000 (Cth)* (*GTA*), which came into force on 1 July 2001.

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¹ Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* (1997) 126.

² In the *Gene Technology Act*, GE organisms are referred to as genetically modified organisms or GMOs. The Commonwealth government is thus following an international trend to rename genetic alteration in a way which tends to allay public fears. Levidow and Tait have pointed out that 'modification' has more modest connotations than the more sinister terms 'engineering' and 'manipulation'. Les Levidow and Joyce Tait, 'The Greening of Biotechnology: GMOs as Environment-Friendly Products' in Vandana Shiva and Ingunn Moser (eds), *Biopolitics: A Feminist and Ecological Reader on Biotechnology* (1995) 121, 127.

This legislation does not address the economic ramifications of the commercial production of GE crops on neighbouring and nearby farmers. There is a strong argument that in licensing the commercial production of GE crops, and thereby permitting the consequential contamination of neighbouring crops and neighbouring properties, the Commonwealth has made a law with respect to the acquisition of property without providing for just terms compensation. The possibilities of a challenge to the *GTA* under section 51(xxxi) of the *Australian Constitution* are explored in this article.

THE *GENE TECHNOLOGY ACT* 2000 (CTH)

Background to and details of the regulatory regime

It was widely recognized that the regulatory regime for gene technology prior to the enactment of the *GTA* was unsatisfactory. The committees³ which administered this regime were dominated by bioscientists, and addressed only the technical aspects of dealings with GE organisms, rather than the complex ethical and ecological issues. Organisations could choose to supply information to the committees, or withhold it, and there were no legal ramifications from any failure to comply with the committees' recommendations.⁴

Despite the pressing need for more effective regulation of GE organisms, it was not until June 2000 that the Gene Technology Bill was introduced into the Federal Parliament. The *GTA* was enacted in early December 2000. It is intended to operate in conjunction with consistent State legislation for the regulation of dealings with gene technology.⁵ The *GTA* establishes a licensing process for such dealings, which is overseen by the Gene Technology Regulator. The Gene Technology Regulator must undertake a risk assessment of all proposals which involve the intentional release of a GMO⁶ into the environment.⁷ The Regulator may then issue a licence

³ Initially the Academy of Science on Recombinant DNA and the Recombinant DNA Monitoring Committee, and then, from 1987, the Gene Manipulation Advisory Committee ('GMAC').

⁴ See Richard Hindmarsh, 'Bioscience in Action? Subduing Dissent, Containing Debate' in Geoffrey Lawrence and Janet Norton (eds), *Altered Genes. Reconstructing Nature: the Debate* (1998) 37, 39 and 50.

⁵ See *Gene Technology Act 2000* (Cth) s 5. To 'deal with', in relation to a GMO, means to conduct experiments with, make, develop, produce or manufacture, breed, propagate, use in the course of the manufacture of a thing which is not the GMO, grow, raise or culture, and import the GMO, and includes the possession, supply, use, transport or disposal of the GMO for the purposes of, or in the course of, any of such dealings (s 10(1)).

⁶ A 'GMO' is defined as an organism that has been modified by gene technology, or an organism that has inherited particular traits from an organism (the initial organism), being traits that occurred in the initial organism because of gene technology, or anything declared by the regulations to be a GMO, or that belongs to a class of things declared by the Regulations to be GMOs. It does not include a human being, or an organism declared by the Regulations not to be a GMO, or an organism that belongs to a class of organisms declared by the Regulations not to be GMOs (s 10(1)).

⁷ *Gene Technology Act 2000* (Cth) ss 50, 51.

for a particular dealing or dealings,⁸ and may attach various conditions to the licence.⁹ There are provisions in the *GTA* for the inspection of premises in order to ensure compliance with the legislation,¹⁰ and for the enforcement of the legislation.¹¹ Low risk dealings,¹² which should not involve the intentional release of a GMO into the environment, and exempt dealings,¹³ which can be any dealings specified as exempt by the Regulations, do not require licences.

Despite the creation of a more rigorous regulatory structure with enforcement mechanisms, critics contend that the bio-science industry continues to dictate the government's approach to the development and release of GE organisms in Australia. Of the three committees¹⁴ created by the *GTA*, only the scientist-dominated Gene Technology Technical Advisory Committee advises the Regulator on each licence application. The other two committees, which are more representative, have only a limited role.¹⁵ Furthermore, there is no statutory requirement for an impartial and unbiased Regulator.¹⁶ Third parties have no statutory right of appeal against the Regulator's decision to issue a licence. Hindmarsh perceives these deficiencies in the legislation as part of a deliberate strategy to 'manufactur(e) consent and subdu(e) dissent for the proposed Bio-utopia'.¹⁷

The GTA and genetic pollution

Contamination of non GE crops can occur through the distribution of pollen from the GE crops by wind, insects or birds, through farming equipment which is shared with growers of GE crops and is not thoroughly cleaned after use, and through accidental spills of GE seeds from trucks. In addition, crops can be contaminated by the delayed germination of GE seeds among non GE crops grown in fields previously sown with GE crops.¹⁸ The Organic Federation of Australia predicts that there will be widespread contamination of organic and non-organic non GE crops if

⁸ *Gene Technology Act 2000* (Cth) s 55.

⁹ *Gene Technology Act 2000* (Cth) ss 61-65.

¹⁰ *Gene Technology Act 2000* (Cth) ss 149-156.

¹¹ *Gene Technology Act 2000* (Cth) ss 145-148.

¹² See *Gene Technology Act 2000* (Cth) s 74.

¹³ See *Gene Technology Act 2000* (Cth) s 32(3), (4).

¹⁴ The Gene Technical Advisory Committee (ss 100-5), the Gene Technology Community Consultative Committee (ss 106-10A) and the Gene Technology Ethics Committee (ss 111-6).

¹⁵ See Richard Hindmarsh, 'Constructing a Bio-utopia: Laying Foundations Amidst Dissent' in Richard Hindmarsh and Geoffrey Lawrence (eds), *Altered Genes II: the Future?* (2001) 36, 50-51.

¹⁶ According to the Gene Ethics Network, the recently appointed Gene Technology Regulator, Dr Sue Meeks, has been promoting genetic engineering since the mid 1980s in her role as chair of an Australian Biotechnology Association Committee and Manager of the Research and Development Branch of the Western Australia Department of Commerce and Trade (Gene Ethics Network, Press Release, (1 October 2001)).

¹⁷ Hindmarsh, above n 15, 51.

¹⁸ These sources of contamination are detailed in a Concept Paper on a Proposed Genetic Contamination Protection Act, prepared by Robert J Uram and Giselle T Vigneron. Available from the Gene Ethics Network Australia.

general release licences are granted under the *GTA*. The problem is of particular concern for organic farmers since at present Australian certification bodies strictly forbid the use of GE organisms in organic production.¹⁹

The recent successful Canadian lawsuit by Monsanto against Percy Schmeiser, a Canadian farmer, for his infringement of Monsanto's intellectual property rights in Roundup Ready canola highlights the dangers of inadvertent seed contamination through genetic pollution. Schmeiser has consistently claimed that he did not knowingly acquire and plant Monsanto's GE seed and that windborne seed contaminated his crop. The well-publicised contamination of non GE maize with pollen from Aventis' GE maize, Star Link, in the United States, has also drawn public attention to the issue of genetic contamination. In both instances, the plants which were contaminated can be cross-pollinated with GE plants which are a significant distance from the crop. A UK report has found that maize pollen can spread far beyond 200 metres and experiments with transgenic oilseed rape or canola have indicated that cross pollination can occur at distances of up to 4000 metres.²⁰ The Canadian government's agricultural department has recently reported that genetic pollution of oilseed rape crops is now so widespread that it is difficult to grow organic or conventional strains.²¹ Furthermore, United States researchers have discovered that one of the world's oldest varieties of maize has been contaminated by GE maize, despite the fact that the contaminated maize was growing in a remote area in Mexico almost 95 kilometres from the last known site of GE maize, and Mexico has banned the growing of GE maize since 1998.²²

It is significant that the government agencies which were responsible for the regulation of gene technology have acknowledged that some degree of genetic contamination is inevitable. According to GMAC, 'complete containment of GMOs released into the open environment in field trials is not possible for some types of plants. The isolation requirements that apply to field trials are designed to minimize rather than prevent dissemination of the GMO or its genetic material'.²³ The Interim Office of the Gene Technology Regulator has similarly pointed out that 'there is always the possibility of hybridization and seed mixing between GM crops and organic or conventional crops'.²⁴

Although the *GTA* allows for the imposition of licence conditions which could be used to control, minimize and deal with contamination,²⁵ the plight of victims or

¹⁹ Geoffrey Lawrence, Janet Norton and Frank Vanclay, 'Gene Technology, Agri-food Industries and Consumers' in Hindmarsh and Lawrence, above n 15, 143 at 148, 153.

²⁰ Luke Anderson, *Genetic Engineering, Food and our Environment. A Brief Guide* (2000) 61-62.

²¹ John Vidal, 'Native Corn Infection Fuels Fears of GM Spread', *Sydney Morning Herald* (Sydney), 1-2 December 2001, 22.

²² Ibid.

²³ Quoted in Anderson, above n 20, 10.

²⁴ See Senate Community Affairs References Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes. Report on the Gene Technology Bill 2000* Parliament of Australia (2000) 145.

²⁵ See *Gene Technology Act 2000* (Cth) s 62(2)(g), (j), (n), (o).

potential victims of genetic pollution is not addressed in the legislation. Neighbouring or nearby farmers who are concerned about the Regulator's decision to grant a licence to grow GE crops have no right of appeal against this decision. The only available legal avenue is to apply to the Federal Court for judicial review of the decision under the *Administrative Decisions (Judicial Review) Act 1977*,²⁶ and to proceed, they must be able to demonstrate a 'special interest' in the Regulator's decision and a ground for judicial review.

Aggrieved neighbouring or nearby farmers have no statutory remedies or right to compensation in the event that genetic contamination of their crop occurs. If contamination occurs as a consequence of non-compliance with the *GTA* or Regulations, the Regulator and inspectors have the power, in certain circumstances,²⁷ to direct licenceholders to take reasonable steps to comply with the Act or Regulations. If the licenceholder fails to take such steps, he, she or it will be liable for any costs incurred by the Commonwealth as a consequence of arranging for such steps to be taken.²⁸ Such steps could, depending upon the nature of the licence conditions, include remediation and clean up of neighbouring and nearby properties which have experienced genetic contamination as a consequence of the licenceholder's breaches. However, in circumstances in which genetic contamination occurs *despite* the licenceholder's complete compliance with the Act and Regulations, no remediation or clean up costs would be recoverable from the licenceholder. Victims of genetic pollution are left only with the option of seeking damages in trespass, negligence or nuisance through the common law.

The legislation fails not only to provide statutory remedies for third parties affected by genetic pollution, but also fails to confer upon them immunity from prosecution. Victims of genetic pollution may well find themselves, as did Percy Schmeiser, the subject of a lawsuit for infringement of the manufacturer's intellectual property rights in the GE seed. Furthermore, since an unlicensed dealing with a GMO which is known to be a GMO is an offence under the legislation,²⁹ farmers who are aware that their seedstock has been accidentally contaminated by a GE crop and proceed to grow or raise a crop which contains GE plants are in breach of the *GTA*. Awareness of herbicide resistant characteristics in the crop might well constitute knowledge of contamination. Even farmers who destroy contaminated crops and seeds, purchase non GE seed and grow a new crop, could be charged under the legislation if GE plants are present in the new crop. It is arguable that the farmer's awareness of previous contamination, and the likelihood that the lingering presence of GE seeds in the soil would contaminate the new crop, would constitute, on the farmer's part, knowledge that he or she was dealing with GE plants.

²⁶ *Gene Technology Act 2000* (Cth) s 183.

²⁷ Under s 146(1)(b), the Regulator must believe on reasonable grounds that it is necessary to exercise these powers in order to protect the health and safety of people or to protect the environment. Under s 158(1)(b), the inspector must consider that it is necessary to exercise these powers in order to avoid an imminent risk of death, serious illness or serious injury, or to protect the environment.

²⁸ See s 146(5), s 158(4).

²⁹ *Gene Technology Act 2000* (Cth) ss 32, 33.

In its failure to address the impact of genetic contamination on neighbouring and nearby farmers, the *GTA* has considerable deficiencies as a regulatory regime. It is worthwhile exploring the underlying values and ideological framework of legislation which has such an inequitable impact upon innocent third parties.

The ethical dimensions and ideological framework of the GTA

Focusing on laws, we are inclined to neglect the metaphysical or spiritual dimensions of the GMO phenomenon on the one hand, and its ethical dimensions on the other. Yet, what is a law worth if it has no spiritual inspiration and no underlying moral design? Or rather, to be more precise, what is a law worth that does not want to, does not dare to, or is unable to examine its own spiritual base, or is not concerned with the moral principles on which it is founded and the moral values that it establishes?³⁰

In an age which has been described as the dawn of the 'biotech century',³¹ the extension of property rights to encompass life forms and even DNA has become one of the most provocative issues with which existing legal systems must contend. The underlying premise of the *GTA* is that such property rights must be protected and commercial use of these property rights permitted. Limitations in liberal thinking, which prevent recognition of the public dimensions and oppressive effects of private property,³² explain the Commonwealth's support for corporate use of intellectual property rights in GE organisms. The legislation upholds certain property rights, including the rights of landowners to grow GE crops on their property and the rights of the multinational seed companies which own intellectual property rights in GE seeds to profit from the commercial use of their property. However the property rights of affected third party farmers are disregarded.

The *GTA* recognizes and permits the use of property rights of GE seed manufacturers but does not compensate third party farmers for the significant economic losses which result from genetic pollution, nor for any loss of plant germplasm. Thus the *GTA* further entrenches an artificial distinction between GE seeds, which are recognized as corporate property, and traditionally bred plants, which are not recognized as the property of the farmers who have contributed to their development. Instead, farmers' seeds and plants have traditionally been classified as part of the common heritage of mankind. The distinction has resulted in the uncompensated appropriation of the plant germplasm of developing nations by the technologically advanced, developed nations, and in the return flow of scientifically 'improved' plant germplasm which has been developed by Western

³⁰ Issiaka- Prosper Laleye, quoted in Robert Ali Brac de la Perriere and Frank Seuret (translated by Manisha Sovani and Vijaya Rao), *Brave New Seeds. The Threat of GM Crops to Farmers* (2000) 78.

³¹ Jeremy Rifkin, *The Biotech Century: Harnessing the Gene and Remaking the World* (1998).

³² See Michael Robertson, 'Liberal, Democratic and Socialist Approaches to the Public Dimensions of Private Property' in Janet McLean (ed), *Property and the Constitution* (1999) 239, 242, 256.

scientists and which is marketed as private property. Vandana Shiva explains the injustice in this distinction:

no technological artifact or industrial commodity is formed out of nothing; no industrial process takes place where nothing was before. ... The biotech seed that is treated as a creation to be protected by patents could not exist without the farmer's seed.³³

Third World disaffection with this international 'genetic order' led to the United Nations Food and Agriculture Organisation's nonbinding *Undertaking on Plant Genetic Resources* 1983 ('FAO Undertaking'), in which all plant genetic resources, including the 'elite and proprietary varieties of the North', were classified as part of mankind's common heritage.³⁴ The Undertaking attacked the principle of private property and therefore challenged the Western dominant market-based ideology.³⁵ Predictably, the developed nations refused to support the Undertaking. Ultimately, the 'common heritage' principle was abandoned as 'not politically feasible'³⁶ and replaced with the concept of sovereign state rights in plant genetic resources.³⁷

Intellectual property rights in commercial plant varieties continue to proliferate, with the process sanctioned at an international level by TRIPs, the agreement on Trade-Related Intellectual Property Rights.³⁸ Under the TRIPs agreement, which came into force on 1 January 1995, countries are required to incorporate the patenting of life forms into their national legislation or adopt an effective sui generis system.³⁹ The question of what constitutes an effective sui generis system will be resolved not by individual nations but, ultimately, by the dispute resolution machinery of the World Trade Organisation.⁴⁰

However the protections offered by intellectual property rights statutory regimes remain, for the most part, unavailable to traditional farmers. Vandana Shiva has described the distinction between the work of corporate scientists and the breeding

³³ Shiva, above n 1, 62.

³⁴ Jack R Kloppenburg, Jr and Daniel Lee Kleinman, 'Preface. Plant Genetic Resources: The Common Bowl' in Jack R Kloppenburg, Jr (ed), *Seeds and Sovereignty. The Use and Control of Plant Genetic Resources* (1988) 1, 10-11.

³⁵ Jack R Kloppenburg, Jr and Daniel Lee Kleinman, 'Seeds of Controversy: National Property versus Common Heritage', in *ibid* 173, 174.

³⁶ Jonathon C Carlson, 'Strengthening the Property-Rights Regime for Plant Genetic Resources: The Role of the World Bank' (1996) 6 *Transnational Law and Contemporary Problems* 91,104.

³⁷ This concept appears in the 3rd Annex to the FAO Undertaking, adopted in 1991, and in the *Convention on Biological Diversity*, opened for signature 5 June 1992, (1992) 31 ILM 818 ('Convention on Biodiversity').

³⁸ *Tariffs and Trade - Multilateral Trade Negotiations (the Uruguay Round): Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods*, 15 December 1993, 33 ILM 81 (entered into force 1 January 1995) ('TRIPs Agreement').

³⁹ TRIPs Agreement Article 27.

⁴⁰ Naomi Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 17 *Michigan Journal of International Law* 919, 954.

efforts of farmers over 10,000 years as social discrimination.⁴¹ Underlying the distinction is the political reality of the Western 'colonizing impulse to discover, conquer, own and possess everything, every society, every culture'.⁴² The *GTA*'s failure to recognise the property rights of traditional farmers, who will lose valuable plant germplasm as a consequence of the licensing of commercially produced GE crops, reinforces the international regime which assigns and recognises property rights only in scientifically 'improved' plant germplasm.

The *GTA* also fails to address the irreversible and potentially catastrophic public impact of the corporate exploitation of intellectual property rights in GE organisms. The intensification of control over the world's seed market by the five giant multinational seed industries,⁴³ the spread of ecologically unstable monocultures, the increase in chemical pollution due to the herbicide resistant characteristics of GE crops,⁴⁴ the decline in biodiversity in traditional agriculture and the loss of the traditional and collective knowledge of how to breed⁴⁵ are likely consequences of the activities permitted by the *GTA*. Small-scale farmers are effectively disempowered by these developments,⁴⁶ their livelihoods threatened, their status diminished, as they are transformed from producers of seeds to consumers of GE seeds.

The licensing regime under the *GTA* does not ensure that these concerns are adequately addressed. Admittedly the Regulator must be satisfied that the risks posed by a proposed dealing are able to be managed in such a way as to protect the health and safety of people and the environment before a licence is issued.⁴⁷ However existing mechanisms of risk assessment cannot provide decision makers with accurate predictions of the effects of GE organisms, as the insurance industry has already pointed out.⁴⁸ There are theoretical and practical problems in predicting the behaviour and effect of GE organisms once they are released into the environment.⁴⁹

The *GTA* establishes the sort of statutory licensing regime and risk assessment mechanisms which have traditionally been used in the regulation of environmentally hazardous activities and pollutants, but in so doing makes no concessions for the unique impacts of GE organisms. Unlike other pollutants, GE

⁴¹ Shiva, above n 1, 52.

⁴² Ibid 3.

⁴³ These are Monsanto (USA), Astra Zeneca (Great Britain/Sweden), Novartis (Switzerland), Du Pont/Pioneer (USA) and Aventis (a merger between Germany's Hoechst, France's Rhone-Poulenc and AgrEvo, a joint subsidiary of Hoechst and Schiering, and Dow Elanco (USA)). See de la Perriere and Seuret, above n 30, 11.

⁴⁴ Shiva, above n 1, 88.

⁴⁵ de la Perriere and Seuret, above n 30, 16.

⁴⁶ Ibid 16-17.

⁴⁷ *Gene Technology Act 2000* (Cth) s 56(1).

⁴⁸ See Senate Community Affairs Reference Committee, above n 24, 148-149; Rifkin, above n 31, 77; Anderson, above n 20, 45.

⁴⁹ Regine Kollek, 'The Limits of Exponential Knowledge: A Feminist Perspective on the Ecological Risks of Genetic Engineering' in Shiva and Moser, above n 2, 95, 107-108.

organisms are self-reproducing. Furthermore, unlike other forms of pollution, genetic pollution is irreversible. As Apoteker, from Greenpeace, France, has commented, ‘once a gene “escapes” into nature ... it cannot be brought back into the laboratory when its effects start showing’.⁵⁰ The assumption that conditional licensing will allow for adequate containment of any adverse impacts is dangerously misguided.

Furthermore, the risk assessment procedure in the *GTA* does not include assessment of the ethical aspects of each dealing with a GE organism. The *GTA* artificially separates ethical decision making from risk assessment, although ethical issues invariably arise in all aspects of risk assessment. Levidow points out that the pretence that risk assessment involves fact finding rather than value judgements hides the value judgements from public scrutiny.⁵¹

The ethical dimensions of licensing decisions are consigned to the Gene Technology Ethics Committee but this Committee’s deliberations do not directly affect the licensing decisions. There is provision for the development of ethical policy principles,⁵² and licensing decisions which are inconsistent with such policy principles must not be made.⁵³ However there is no statutory requirement that policy principles covering ethical issues must be prepared prior to the issue of licences. It is more probable that the ‘bioethics’ provided by the committee of experts will support earlier, unacknowledged value choices.⁵⁴ Moreover given the lacuna in ethical theory, the lack of existing ethical guidelines and the absence of sufficient experience to deal with the release of GE organisms, there are obvious difficulties in developing comprehensive policy principles on ethical issues.⁵⁵ There is disagreement even on the definition of ethical issues relating to agricultural biotechnology.⁵⁶ In a climate of moral uncertainty, the enactment of legislation which permits the widespread release of GE organisms into the environment is both rash and premature.

The *GTA* reflects liberal thinking that property can and should be used by its owners in profit making endeavours. Consequently, despite the absence of public consensus on the question of whether the decision to release GE organisms into the environment is morally correct, the *GTA* empowers corporations and others to sell, grow, breed and use GE organisms. The legislation separates the ethical dimensions of these activities from the decision making processes, thereby ensuring that commercial activities are not unduly impeded by inconclusive debates on what is

⁵⁰ Quoted in de la Perriere and Seurat, above n 30, 83.

⁵¹ Les Levidow, ‘Whose Ethics for Agricultural Biotechnology?’ in Shiva and Moser, above n 2, 175, 182.

⁵² The Ethics Committee is consulted in relation to these principles. *Gene Technology Act 2000* (Cth) s 22.

⁵³ *Gene Technology Act 2000* (Cth) s 57.

⁵⁴ See Levidow, above n 51, 186.

⁵⁵ Glenys Godlovitch, ‘Moral Questions, Legal Answers and Biotechnological Advances’ (1998) 28 *Victoria University of Wellington Law Review* 225, 231, 238.

⁵⁶ Levidow, above n 51, 183.

morally right. The licensing process appears to operate with numerous safeguards in place, including licence conditions and enforcement mechanisms, but there is little evidence to support the assumption that the release of GE organisms is a process which can be controlled. In fact, the *GTA* provides a legitimating mechanism for rampant genetic pollution. The impact of this on organic and conventional farmers will undoubtedly be significant, and possibly catastrophic.

THE *GENE TECHNOLOGY ACT* AND THE ACQUISITION OF PROPERTY

Property rights affected by genetic pollution

Genetic pollution affects both tangible and intangible property. The effect of genetic pollution upon a farmer's tangible property rights in his or her land, plants and seeds may include a loss of the organic accreditation of the land due to the lingering presence of GE seeds, even after a contaminated crop has been destroyed, a reduction in the value of the land due to a history of GE crops,⁵⁷ loss of the crop which grows from the contaminated seed,⁵⁸ and loss of any contaminated seeds.⁵⁹ The farmer may have to contend with ongoing market suspicion and consequent loss of profits. Genetic pollution also leads to loss of plant germplasm, which is intangible property.

Plant germplasm has been variously described as the hereditary material which passes genes from one generation to the next,⁶⁰ as the substance in the plant cells by which hereditary characteristics are transmitted,⁶¹ and, in more poetic terms, as 'the mystical foundation of life'.⁶² The agricultural plant germplasm which is threatened by genetic pollution has been cultivated over thousands of years through a process of 'generational innovation'.⁶³ It consists of improved and selected material which reflects the experience, inventiveness and hard work of farmers, past and present.⁶⁴ The threat posed by genetic pollution to the 'wealth of genetic variability in small farming systems'⁶⁵ cannot be easily quantified in economic terms. Yet given the

⁵⁷ See Anderson, above n 20, 63.

⁵⁸ Under patent law, the farmer would no longer have the right to use or sell the crop, since the owner of the patent in the GE seed would control these property rights. See *Monsanto Canada Inc and Monsanto Company v Percy Schmeiser and Schmeiser Enterprises Ltd* [2001] FCT 256.

⁵⁹ Ibid. Under patent law, the farmer would no longer have the right to use the seeds. Again, intellectual property rights in the seeds would have been acquired by the owner of the patent in the GE seed.

⁶⁰ Robert Grossman, 'Equalizing the Flow: Institutional Restructuring of Germplasm Exchange' in Kloppenburg, above n 34, 255, 257.

⁶¹ Roger A Sedjo, 'Property Rights and the Protection of Plant Genetic Resources' in *ibid* 293, 295.

⁶² Brewster Kneen, *Farmageddon. Food and the Culture of Biotechnology* (1999) 144.

⁶³ Lara M Ewens, 'Seed Wars: Biotechnology, Intellectual Property and the Quest for High Yield Seeds' (2000) 23 *Boston College International and Comparative Law Review* 285, 305.

⁶⁴ Shiva, above n 1, 52.

⁶⁵ Mark Hannig, 'An Examination of the Possibility to Secure Intellectual Property Rights for Plant Genetic Resources Developed by Indigenous Peoples of the NAFTA States: Domestic

increasing scarcity of non GE seeds and consumer uneasiness about the consumption of GE food, the value of this intangible property will increase exponentially.

Of central importance in any discussion of compensation for loss of property rights is the nature of the farmer's rights (if any exist) in the plant germplasm of his or her crops.

Farmers' rights in plant germplasm

Although traditionally derived plant germplasm is classified as part of the common heritage of mankind, there is some limited international recognition of farmers' rights in their crop germplasm. The role of the world's farmers in protecting and maintaining genetic diversity for agricultural and other purposes is generally underrated, yet critical.⁶⁶ Ex situ seed banks, despite their extensive and ever-increasing collections, cannot compete with the ongoing process of crop evolution and developing diversity which takes place in farmers' fields. A motivating factor in recognizing crop germplasm as the heritage of farmers is that this may serve as an incentive for the ongoing maintenance and diversification of their crops.⁶⁷

The concept of farmers' rights appeared in a 1987 annex to the FAO Undertaking and encompassed rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources. However, the concept had serious limitations. It did not provide farmers with property rights, nor with compensation for the use of their work. Farmers' rights were vested not in farmers but in the international community as a trustee for past and future generations of farmers.⁶⁸

There has been further international acknowledgement of the significant role played by farmers in conserving biodiversity, and of the need to protect farmers' rights, in the 1992 Convention on Biodiversity.⁶⁹ Various nations have considered incorporating the concept of farmers' rights as a form of communal intellectual property in national legislation.⁷⁰ In India, a massive movement has formed, the Seed Satyagraha, which advocates a charter of farmers' rights including the rights

Legislation Under the International Convention for Protection of New Plant Varieties' (1996) 13 *Arizona Journal of International and Comparative Law* 175, 191.

⁶⁶ It has been estimated that the annual value added to industrialised countries' agriculture by farmers' seeds held in gene banks of international agricultural research centres is \$US4-5 billion. See Andrew Christie, 'The Novelty Requirement in Plant Breeders' Rights Law' (1988) 19 *International Review of Industrial Property and Copyright Law* 646.

⁶⁷ David Wood, 'Crop Germplasm: Common Heritage or Farmers' Heritage?' in Kloppenburg, above n 34, 274, 278.

⁶⁸ Arrioz, above n 40, 951.

⁶⁹ Articles 8(j) and 10. See de la Perriere and Seurat, above n 30, 102.

⁷⁰ These include India, Thailand, the Philippines and Colombia. See Roht-Arrioz, above n 40, 954 and Meetal Jain, 'Global Trade and the New Millenium: Defining the Scope of Intellectual Property Protection of Plant Genetic Resources and Traditional Knowledge in India' (1999) 22 *Hastings International and Comparative Law Journal* 777, 796.

to produce, exchange, modify and sell seeds.⁷¹ However, the practical difficulties in defining these rights and the holders of such rights are manifold.⁷²

Even without communal property rights, farmers have a more limited and less controversial right in relation to crop germplasm – the right to save seeds. The tradition of seed selection and saving promotes crop variety and diversity, whereas the annual purchase of seeds by large-scale farmers leads to monocultures and consequent genetic erosion.⁷³ The farmer's right to save seed was recognised and protected in the 1978 revision of the International Convention for the Protection of New Varieties of Plants (the UPOV Convention)⁷⁴ and in national plant breeders' rights legislation enacted pursuant to the Convention.

Recently, however, it appears that the farmer's right to save seeds is gradually being lost. Under the 1991 Revised Act of the UPOV Convention, farmers' rights to replant seed are protected only at the discretion of the member States.⁷⁵ One commentator has argued that there is no statutory enshrinement of such a right in the United States and it would be difficult to establish a common law property right for farmers to save seeds.⁷⁶ In his view, such a right is incompatible with the 'very essence of property', the right to exclude others.⁷⁷ In Australia, however, farmers' rights to save seeds are still protected to a limited extent in the *Plant Breeders' Rights Act 1994*.⁷⁸

The legal status of the farmer's right to save seeds is critical in any compensation claim, since seed saving becomes an infringement of intellectual property rights once seeds are contaminated by cross pollination with patented GE seeds.⁷⁹ The farmer's right to save seed is threatened even more dramatically by the possibilities of cross pollination with Terminator crops.

Terminator technology sterilizes seeds through the insertion of a Terminator gene. The 'simple biological obstacle' to effective enforcement of intellectual property rights in GE seeds, namely the capacity of the seed to reproduce itself, is overcome

⁷¹ Shiva, above n 1, 125-126.

⁷² See Jain, above n 70, 797.

⁷³ Hannig, above n 65, 182, 190.

⁷⁴ *International Union for the Protection of New Varieties of Plants*, opened for signature 2 December 1961, 815 UNTS 89 (UPOV Convention).

⁷⁵ Article 15(2).

⁷⁶ Jeremy P Oczek, 'In the Aftermath of the "Terminator" Technology Controversy: Intellectual Property Protections for Genetically Engineered Seeds and the Right to Save and Replant Seeds' (2000) 41 *Boston College Law Review* 627.

⁷⁷ *Ibid* 656.

⁷⁸ *Plant Breeders' Rights Act 1994* (Cth) ss 14(2) and 17(1). However under s 17(2), particular plant varieties can be excluded from this protection.

⁷⁹ See Richard B Jarvis, 'Plant Patent, Plant Variety Right – or Both?' (1993) 4 *Australian Intellectual Property Journal* 211, 219 and Shiva, above n 1, 55. The holder of the patent over the GE seed has the exclusive right to exploit his or her invention (*Patents Act 1990* (Cth) s 13).

by Terminator technology⁸⁰ and hence this technology is considered desirable by the GE seed industry. The commercial release of Terminator technology is imminent.⁸¹ The appearance of the Terminator gene in plant germplasm on the property of neighbouring and nearby farmers, due to genetic pollution, would constitute a fundamental attack on the traditional practice of seed saving and lead to rapid erosion in agricultural plant genetic resources.

At present there is some limited recognition of farmers' rights in traditionally derived plant germplasm, but such rights, with the possible exception of a right to save seed, are not protected in international documents and in national legislation. It would therefore be difficult to argue that genetic pollution led to a loss of farmers' property rights in plant germplasm. Nor can farmers seek the protection of statutory intellectual property rights for their plant germplasm. Neither existing patents law nor plant breeders' rights legislation can be effectively adapted to farmers' needs.

Patents

The use of patents to protect GE seeds and other GE organisms is a recognized phenomenon in the United States,⁸² in Australia and in Europe.⁸³ However, while GE plants and animals, as non naturally occurring organisms, are considered to meet the requirements of innovation, novelty and inventiveness which make a discovery patentable, traditional agricultural innovation or selecting and breeding plants in the field is not considered to meet these requirements.⁸⁴ The plants produced over generations are seen as existing naturally occurring substances, and hence not patentable.⁸⁵

Generally, the status of intellectual property rights as private rather than public rights renders them unsuited to the process of traditional plant breeding, which is a collective, generational and cumulative development. It is difficult to reconcile 'the kind of individual secretive effort epitomized by the lone scientist in his basement laboratory', which is the sort of work recognized and rewarded by a patents regime, with traditional plant breeding by farmers.⁸⁶ A radical shift in the nature and

⁸⁰ Oczek, above n 76, 644.

⁸¹ In August 2001, the United States Department of Agriculture announced that it had concluded negotiations to license the Terminator technology to its seed industry partner, Delta and Pine Land.

⁸² See *Diamond, Commissioner of Patents and Trademarks v Chakrabarty*, 447 US 303 (1980), in which the United States Supreme Court held (at 310) that Chakrabarty's GE bacterium was not nature's handiwork, but 'the result of human ingenuity and research' and *Ex parte Hibberd*, 227 USPQ (BNA) 444 (1985), in which the Court held that utility patents could be obtained on newly developed plant varieties.

⁸³ See Ben Mahoney, 'The Suitability of Plant Breeders' Rights as Security Collateral' (2000) 11 *Journal of Banking and Finance Law and Practice* 257. See also Jarvis, above n 79, 214.

⁸⁴ Roht-Arrioz, above n 40, 938; Ewens, above n 63, 298.

⁸⁵ In *National Research Development Corporation v Commissioner of Patents* (1959) 102 CLR 252, the Court held that naturally occurring substances are not patentable.

⁸⁶ See Roht-Arrioz, above n 40, 936.

underlying value system of intellectual property rights regimes would be required if such regimes were to be used to protect farmers' rights in plant germplasm.

Plant Breeders' Rights

Plant breeders' rights are a modified form of intellectual property rights and are more accessible to farmers than are patents. Unlike patents, they do not bestow rights of full ownership and exclusive use of plant germplasm.⁸⁷ Yet over time, plant breeders' rights have become more extensive and more 'patent-like'.⁸⁸

Plant breeders' rights legislation exists in most countries and is modeled on the UPOV Convention, which was most recently revised in 1991. Australia enacted the *Plant Variety Rights Act* in 1987. This was repealed with the enactment of the *Plant Breeders' Rights Act 1994* (the *PBRA*), which incorporates the changes made in the 1991 revision of the UPOV Convention.

Farmers (and, indeed, commercial plant breeders) are more likely to benefit from the plant breeders' rights regime than from the patents regime, which principally benefits institutions and companies specialising in GE techniques.⁸⁹ However, both regimes are more suited to farmers in developed economies who use modern technologies, and are ill-suited to farmers who use traditional farming techniques and who save, sell and exchange seeds.⁹⁰

Farmers who seek the protection of plant breeders' rights must establish that the plant variety is identified and segregated, clearly distinguishable from other existing varieties and sufficiently homogenous and stable in essential characteristics. The variety must have either not been exploited, or only recently exploited.⁹¹ Christie argues that a publicly known but not yet commercialized variety may be the subject of plant breeders' rights and that the distinctiveness requirement⁹² does not operate as a requirement of novelty.⁹³ Similarly, Hannig concludes that intergenerational contributions to a plant variety's development do not necessarily amount to common knowledge, thereby excluding the plant variety from protection.⁹⁴ This interpretation could enable farmers to obtain plant breeders' rights in relation to publicly known varieties, which have been bred over centuries but not previously commercialized, provided that they are distinguishable from other varieties.⁹⁵ Since small-scale farmers tend to swap seeds freely rather than sell and buy them, many

⁸⁷ Shiva, above n 1, 54.

⁸⁸ Roht-Arriozza, above n 40, 941.

⁸⁹ Jain, above n 70, 794.

⁹⁰ SK Verma, 'TRIPs and Plant Variety Protection in Developing Countries' (1995) 6 *European Intellectual Property Review* 281, 286.

⁹¹ *Plant Breeders' Rights Act 1994* (Cth) s 43(1).

⁹² *Plant Breeders' Rights Act 1994* (Cth) s 43(2). The applicant's variety must be distinct from all varieties whose existence is a matter of common knowledge.

⁹³ Christie, above n 66, 655.

⁹⁴ Hannig, above n 65, 244-5.

⁹⁵ Christie, above n 66, 656.

varieties selected and bred over generations in families and small communities would not be considered to be previously commercialized or exploited.

Considerable obstacles still confront farmers who wish to protect plant varieties developed over generations. The requirements of uniformity and stability disadvantage small-scale farmers who employ traditional farming methods, since such farmers are usually interested in promoting adaptability and hence breed less uniform and stable varieties than do commercial breeders and large seed companies.⁹⁶ The emphasis on breeding for increased diversity rather than for maximum yield is not rewarded under the plant breeders' rights statutory regime.⁹⁷

Neither patents nor plant breeders' rights are suited to the needs of small farmers who wish to assert property rights over traditionally derived plant germplasm. Intellectual property rights regimes are designed to promote economic and commercial growth and encourage 'the dominance of monopolistic and commodity based approaches to creativity'.⁹⁸ They confer rights upon individuals, upon the 'solitary and original creator',⁹⁹ in relation to new innovations or developments. Small farmers seek to protect plant germplasm developed over time, through the work of generations.¹⁰⁰ As McManis observes, 'traditional agricultural innovation does not fit comfortably into the fundamental conceptions and requirements of intellectual property rights'.¹⁰¹

Given the difficulties in finding intellectual or other property rights for farmers in the plant germplasm of their crops, the focus of a section 51(xxxi) challenge to the *GTA* must necessarily be on the items of tangible property which are affected by genetic contamination – the farmer's land, his or her crops and his or her seeds. The question which must be addressed is whether the loss of rights in relation to this property, when coupled with the vesting of intellectual property rights in his or her crops and seeds in the corporation which owns patent rights in the GE seed, constitutes an acquisition of property for the purposes of section 51(xxxi).

⁹⁶ Roht-Arrioz, above n 40, 941-2.

⁹⁷ Ibid 932-5.

⁹⁸ Michael Davis, 'Indigenous Rights in Traditional Knowledge and Biological Diversity: Approaches to Protection' (1999) 4(4) *Australian Indigenous Law Review* 1, 10.

⁹⁹ From the Bellagio Declaration, quoted in Michael Blakeney, 'Bioprospecting and the Protection of Traditional Medical Knowledge of Indigenous Peoples: An Australian Perspective' (1997) 6 *European Intellectual Property Review* 299.

¹⁰⁰ Hannig, above n 65, 196.

¹⁰¹ Charles R McManis, 'The Interface Between International Intellectual Property and Environmental Protection, Biodiversity and Biotechnology' (1998) 76 *Washington University Law Quarterly* 255, 268-269.

Section 51(xxxi) and the GTA

The ambit of section 51(xxxi)

The Parliament shall, subject to this Constitution, have power to make laws for the peace, order and good government of the Commonwealth with respect to:-
 ... (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws.

Section 51(xxxi) case law is complex and confusing. Commentators have referred to ‘the doctrinal uncertainty engendered by ... recent decisions’¹⁰² and to the lack of ‘predictive power’ in the legal approaches adopted by the High Court.¹⁰³ The judges have acknowledged that no formula of universal application is available,¹⁰⁴ and that each case must be determined on its particular circumstances.¹⁰⁵ Very different assumptions about the importance and function of section 51(xxxi) influence the judges’ decisions. Some judges have emphasised the need to ensure that the legislative powers of the Commonwealth are not unduly impeded by too wide a construction of section 51(xxxi); others have stressed the paramount importance of section 51(xxxi) as a constitutional guarantee of a ‘universal and fundamental’¹⁰⁶ human right, and as a mechanism to ensure that an individual’s private ‘zone of freedom’¹⁰⁷ is protected from State interference.

The first view finds expression in, for example, the judgments of Murphy J, who has referred to the ‘remarkable results’ which would ensue if the many Federal laws which provide for the alteration of property rights and obligations between citizens were to be regarded as within the ambit of section 51(xxxi).¹⁰⁸ Deane and Gaudron JJ have likewise observed that too wide a reading of section 51(xxxi) would reduce the legislative powers of the Commonwealth ‘to an extent which could not have been intended by those who framed and adopted the Australian constitution’.¹⁰⁹ McHugh J has held that section 51(xxxi) is not a ‘true guarantee of property’ and

¹⁰² Tom Allen, ‘The Acquisition of Property on Just Terms’ (2000) 22 *Sydney Law Review* 351, 380.

¹⁰³ Simon Evans, ‘When is an Acquisition of Property Not an Acquisition of Property? The Search for a Principled Approach to Section 51(xxxi)’ (2000) 11 *Public Law Review* 183, 189.

¹⁰⁴ *Smith v ANL Ltd* (2000) 176 ALR 449, 475 (Kirby J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 99 (Kirby J); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 189 (Deane and Gaudron JJ).

¹⁰⁵ *Trade Practices Commission v Tooth and Company Ltd* (1979) 142 CLR 397, 415 (Stephen J); *Commonwealth v Tasmania* (1983) 158 CLR 1, 284 (Deane J).

¹⁰⁶ *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 658 (Kirby J); *Smith v ANL Ltd* (2000) 176 ALR 449, 476 (Kirby J).

¹⁰⁷ Gregory S Alexander, ‘Constitutionalising Property: Two Experiences, Two Dilemmas’, in McLean, above n 32, 88, 89.

¹⁰⁸ *Trade Practices Commission v Tooth and Company Ltd* (1979) 142 CLR 397, 434 (Murphy J), discussed in *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 201 (Dawson and Toohey JJ).

¹⁰⁹ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 189 (Deane and Gaudron JJ).

that ‘property owners in Australia sometimes have no protection from federal laws that take their property’.¹¹⁰

The recognition of the need to confine the operation of section 51(xxxi) in the interests of effective regulation for the social good has given rise to a number of established exceptions to the general rule that legislative acquisition of property by the Commonwealth or a third party requires just terms compensation.¹¹¹ The development of these exceptions has been described as ‘limitation-oriented jurisprudence’,¹¹² and reflects a particular perspective on the institution of property. According to this perspective, the institution of property is no more than a means to advance the collective good of society, and therefore political institutions can redistribute it in the interests of society as a whole.¹¹³

The second view of section 51(xxxi) appears most recently in the judgments of Kirby and Callinan JJ. Kirby J has observed that the constitutional guarantee is one of the institutional strengths of the Australian economy.¹¹⁴ It is, furthermore, the expression of ‘an essential idea which is both basic and virtually uniform in civilised legal systems’,¹¹⁵ the need to provide protection against the arbitrary and uncompensated deprivation of property. Callinan J also employs strong rhetoric in support of his view that section 51(xxxi) should protect and insulate private property from all forms of State interference. He has described as ‘unthinkable’ that citizens ‘in a democratic society, particularly in normal and peaceful times, ... would regard with equanimity the expropriation of their or other private property without proper compensation’.¹¹⁶

Such views of section 51(xxxi) are shaped by the assumption that ‘property is a pre-political baseline which political institutions should respect’,¹¹⁷ a means of securing a zone of freedom for the individual from State interference.¹¹⁸ This assumption has its antecedents in Blackstone’s 18th century statements about the fundamental importance of property in the common law.¹¹⁹ Blackstone’s theories continue to influence legal (and constitutional) concepts of property despite the compelling argument of environmental lawyers that we need to abandon ‘the mistaken 18th

¹¹⁰ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 58 (McHugh J).

¹¹¹ See in particular *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, *Health Insurance Commission v Peverill* (1994) 179 CLR 226 and *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134.

¹¹² A J Van der Walt, ‘The Constitutional Property Clause: Striking a Balance Between Guarantee and Limitation’, in McLean, above n 32, 109 at 129.

¹¹³ See Alexander, above n 107, 89 and Evans, above n 103, 201.

¹¹⁴ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 102 (Kirby J).

¹¹⁵ *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 659 (Kirby J); see also *Smith v ANL Ltd* (2000) 176 ALR 449, 476 (Kirby J).

¹¹⁶ *Smith v ANL Ltd* (2000) 176 ALR 449, 486 (Callinan J).

¹¹⁷ Evans, above n 103, 200.

¹¹⁸ Ibid. See also Alexander, above n 107, 89.

¹¹⁹ See Murray Raff, ‘Environmental Obligations and the Western Liberal Property Concept’ (1998) 22 *Melbourne University Law Review* 657, 665.

century theorizing of William Blackstone' and to redefine property rights in accordance with the secular principle of ecologically sustainable development.¹²⁰

The complexities in section 51(xxxi) jurisprudence stem from these 'competing visions of the functions of property and the State, one which treats property as inviolable and one which treats property as subject to redistribution in the common interest'.¹²¹ Both visions are influential in determining the outcome of section 51(xxxi) challenges to Commonwealth legislation.

'Property'

Nothing in the *GTA* appears to require an acquisition of property. It is, however, clear that indirect acquisitions of 'the substance of a proprietary interest' through a 'circuitous device' will breach section 51(xxxi).¹²² The requirements of section 51(xxxi) address attention to substance and not merely form.¹²³ Kirby J has held that the Court will, where necessary, 'look beyond its direct legal operation to examine the effect of what the law does'.¹²⁴ The practical effect of a regulatory regime which permits the licensing of commercial GE crops has already been explored. Such a regime results in the genetic contamination, or pollution, of the crops of nearby farmers.

'Property', for the purposes of section 51(xxxi), is construed very widely.¹²⁵ The term extends to innominate and anomalous interests which are not recognised as proprietary either at law or in equity.¹²⁶ Intellectual property rights are encompassed within the term.¹²⁷ While interests which 'partake by analogy of familiar features of stable and valuable property interests long recognized by common law' are more likely to be protected by the guarantee than interest which do not,¹²⁸ want of

¹²⁰ Ibid 671; Karla Sperling, 'Going Down the Takings Path: Private Property Rights and Public Interest in Land Use Decision Making' (1997) 14 *Environmental and Planning Law Journal* 427, 433.

¹²¹ Evans, above n 103, 201.

¹²² *Bank of NSW v Commonwealth* (1948) 76 CLR 1, 348-349 (Dixon J).

¹²³ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 184 (Deane and Gaudron JJ), 223 (McHugh J); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 305 (Mason CJ, Deane and Gaudron JJ), 320 (Toohey J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 49 (McHugh J); *Smith v ANL Ltd* (2000) 176 ALR 449, 455 (Gaudron and Gummow JJ), 468, 473-4 (Kirby J), 479 (Hayne J).

¹²⁴ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 90 (Kirby J).

¹²⁵ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 172 (Mason CJ), 184 (Deane and Gaudron JJ); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 303 (Mason CJ, Deane and Gaudron JJ), 314 (Dawson J); *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 573 (McHugh J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 90 (Kirby J); *Commonwealth v Western Australia* (1999) 196 CLR 392, 455 (Kirby J) and *Smith v ANL Ltd* (2000) 176 ALR 449, 469 (Kirby J), 487 (Callinan J).

¹²⁶ *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 314 (Dawson J); *Smith v ANL Ltd* (2000) 176 ALR 449, 487 (Callinan J).

¹²⁷ *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480.

¹²⁸ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 99 (Kirby J).

assignability, for instance, does not preclude characterization of a right as property.¹²⁹

The rights in tangible property of third party farmers, which are lost due to genetic contamination, would be recognized as ‘property’ for the purposes of section 51(xxxi). Furthermore, if farmers could overcome the difficulties discussed above and establish ownership of intellectual property rights in the plant germplasm of their crops, such property rights would also be recognised as ‘property’ for section 51(xxxi) purposes. The following analysis will, however, focus upon the loss of tangible property rights.

‘Acquisition’

In cases in which title to property has not been removed but property rights have been ‘effectively sterilized’,¹³⁰ and that which is preserved by the impugned legislation is but ‘an empty shell’,¹³¹ the Court has accepted that, provided that a countervailing benefit has been vested in the Commonwealth or in a third party, the property owner has experienced sufficient deprivation of property rights for section 51(xxxi) to apply. In *Newcrest Mining*,¹³² the majority judges held that the effect of Proclamations, which extended Kakadu National Park and thereby effectively extinguished the benefits which Newcrest Mining might otherwise have derived from its pre-existing mining leases in the area, amounted to an acquisition of property for the purposes of section 51(xxxi). Even the dissenting judge, McHugh J, conceded that Newcrest Mining had experienced a loss of property rights; his finding that there was no acquisition was based on the view that no corresponding advantage flowed to the Commonwealth or to the Director of the National Parks and Wildlife Service. ‘In colloquial terms, Newcrest lost but the Commonwealth did not gain.’¹³³

In other cases in which the Court has considered the ‘sterilization’ of property rights rather than the removal of title to property in the context of section 51(xxxi), the Court has accepted that the loss of property rights is indeed significant and has focused instead on whether a corresponding benefit has been conferred on the Commonwealth. Thus, in the *Tasmanian Dams* case,¹³⁴ the legislation which prevented Tasmania from developing an area of land to which it retained title did not breach section 51(xxxi) because there was no acquisition by the Commonwealth

¹²⁹ *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 311-2 (Brennan J), 314 (Dawson J). See also *Health Insurance Commission v Peverill* (1994) 179 CLR 226, 241 (Brennan J).

¹³⁰ *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 635 (Gummow J), 148 (Kirby J); see also *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 17 (Brennan CJ), 99 (Kirby J); *Commonwealth v Western Australia* (1999) 196 CLR 392, 480 (Callinan J) and *Smith v ANL Ltd* (2000) 176 ALR 449, 455 (Gaudron and Gummow JJ).

¹³¹ *Smith v ANL Ltd* (2000) 176 ALR 449, 472 (Kirby J).

¹³² *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513.

¹³³ *Ibid* 573 (McHugh J).

¹³⁴ *Commonwealth v Tasmania* (1983) 158 CLR 1.

or by another of ‘an interest in property, however slight or insubstantial’.¹³⁵ However, Callinan J has subsequently commented on the significant effect on property rights of such legislation which restricts or prevents particular commercial uses of property. In his view, although Tasmania continued to own the land in question, ‘in proprietary terms it had assumed a quite different character. It had become an area of land from which almost all of the conventional commercially exploitable attributes had been stripped or rendered highly conditional. In short, almost all of the components of the sum of the property rights had been effectively taken away.’¹³⁶

In *WMC Resources*,¹³⁷ legislation which prevented a mining company from using its pre-existing exploration permit to explore for petroleum in certain areas within the continental shelf between Australia and East Timor, was acknowledged by the Court to deprive the company of proprietary rights. The majority judges, however, held that there was no acquisition of property for the purposes of section 51(xxxi), because of the nature of the statutory rights in question,¹³⁸ and the fact that no corresponding benefit was conferred on the Commonwealth.¹³⁹

The ‘degree of impairment of the bundle of rights constituting the property in question’¹⁴⁰ must be significant in order for the legislation to be caught by section 51(xxxi). In *Waterhouse v Minister for the Arts and Territories*,¹⁴¹ for instance, a statutory prohibition on the export of a painting which left the owner free to retain, make use of or sell the painting, did not attract the operation of section 51(xxxi).¹⁴² In *Commonwealth v Western Australia*,¹⁴³ the majority¹⁴⁴ held that the designation of an area of Western Australia as a Defence Practice Area and the operation of the Defence Force Regulations in that area did not sufficiently affect the State’s proprietary rights such that section 51(xxxi) applied, although Gummow J acknowledged that the restrictive operation of the Regulations *could* conceivably deny to the State the ‘substance’ and ‘reality’ of its proprietary interest.¹⁴⁵ Kirby and Callinan JJ, dissenting, held that the State’s loss of control over rights of mining

¹³⁵ Ibid 145 (Mason J).

¹³⁶ *Smith v ANL Ltd* (2000) 176 ALR 449, 491 (Callinan J).

¹³⁷ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1.

¹³⁸ Ibid 51-2, 56-7 (McHugh J), 73, 75 (Gummow J). McHugh and Gummow JJ held that the Commonwealth had the power to amend, vary or extinguish such statutory rights without compensation.

¹³⁹ Ibid 20 (Brennan CJ), 37-8 (Gaudron J). Brennan CJ and Gaudron J held that, in contrast to *Newcrest*, the Commonwealth had no property in the continental shelf which could be enhanced by the modification of the permit. However Toohey J at 30 and Kirby J at 96-97 took a wider view of the benefits which the Commonwealth enjoyed by virtue of the legislation.

¹⁴⁰ *Smith v ANL Ltd* (2000) 176 ALR 449, 456 (Gaudron and Gummow JJ).

¹⁴¹ (1993) 119 ALR 89.

¹⁴² See discussion of case in *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 635 (Gummow J) and in *Smith v ANL Ltd* (2000) 176 ALR 449, 456 (Gaudron and Gummow JJ), 492 (Callinan J).

¹⁴³ (1999) 196 CLR 392.

¹⁴⁴ Gleeson CJ, Gaudron, McHugh and Gummow JJ.

¹⁴⁵ *Commonwealth v Western Australia* (1999) 196 CLR 392, 443-444 (Gummow J). See also 420 (Gleeson CJ and Gaudron J) and 478 (Hayne J).

and exploration as a result of the operation of the Regulations brought the legislation within the ambit of section 51(xxxi).¹⁴⁶ Both judges emphasised that property rights can be lost even when the owner retains the title to the property. Callinan J held that ‘it is no answer to say that an owner who remains the owner of the property in name and can use it perhaps for one or two limited purposes, but not for other proper and permissible valuable purposes, still has and enjoys proprietary rights’.¹⁴⁷

For third party farmers whose property is affected by genetic pollution as a consequence of the operation of the *GTA*, the ‘degree of impairment’ of their rights in their tangible property is indeed substantial. They retain title to their crops and seeds, but they cannot use or sell affected crops or seeds without infringing the intellectual property rights of the manufacturers of the GE seeds. If they have organic certification, they cannot use their land for growing organic crops in the foreseeable future because of the risk that GE plants will recur in the next few growing seasons. Provided that a corresponding benefit vests in the Commonwealth or in a third party, there is an acquisition of property for the purposes of section 51(xxxi).

By contrast with the United States decisions on the ‘takings’ clause in the 5th Amendment to the United States constitution, it is clear that an ‘acquisition of property’ in section 51(xxxi) requires more than the mere extinguishments of proprietary rights.¹⁴⁸ A benefit must also be conferred upon the Commonwealth or upon a third party. Although there is much authority for the principle that the benefit or interest which is received need not correspond exactly with that which is taken,¹⁴⁹ the judges remain divided on the question of whether the benefit or advantage must be proprietary in nature, or whether non proprietary or even intangible benefits will suffice.¹⁵⁰

¹⁴⁶ Ibid 458-9 (Kirby J), 480, 485 (Callinan J).

¹⁴⁷ Ibid 488 (Callinan J). See also 457 Kirby J: ‘it is a fundamental mistake to confine the notion of “acquisition” to the taking of full ownership of the “property” concerned’.

¹⁴⁸ The distinction between a ‘taking’ and an ‘acquisition’ has been made in many cases. See, for instance, *Commonwealth v Tasmania* (1983) 158 CLR 1, 144-145 (Mason J), 247-8 (Brennan J), 283 (Deane J); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 304-305 (Mason CJ, Deane and Gaudron JJ), 315 (Dawson J); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 202-203 (Dawson and Toohey JJ). However recently Callinan J has held that there is no great significance to the distinction between a taking and an acquisition. *Smith v ANL Ltd* (2000) 176 ALR 449, 490 (Callinan J).

¹⁴⁹ *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 304-5 (Mason CJ, Deane and Gaudron JJ); *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 634 (Gummow J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 28 (Toohey J), 35 (Gaudron J), 96 (Kirby J); *Commonwealth v Western Australia* (1999) 196 CLR 392, 458 (Kirby J); *Smith v ANL Ltd* (2000) 176 ALR 449, 474 (Kirby J), 491 (Callinan J).

¹⁵⁰ For instance, there is authority to suggest that the acquisition of a purely financial benefit, as opposed to the acquisition of some real interest in property, will suffice. See *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 173 (Mason CJ), 176 (Brennan J); *Health Insurance Commission v Peverill* (1994) 179 CLR 226, 236 (Mason CJ, Deane and Gaudron JJ); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR

In line with his wide view of section 51(xxxi), Callinan J has observed that what may have been acquired may often be without any analogue in the law of property and incapable of characterisation according to established principles of property law. For instance, in his view, a gain for the Commonwealth in prestige and influence with international bodies concerned with environmental and other matters would constitute a non-proprietary benefit for the purposes of section 51(xxxi).¹⁵¹ Similarly, Kirby J has held that the improved relationship between Australia and Indonesia was a non-proprietary benefit for the purposes of section 51(xxxi), enjoyed by the Commonwealth through the operation of the legislation at issue in *WMC Resources*.¹⁵²

In general, however, the Court has looked for a proprietary benefit or advantage which is bestowed upon the Commonwealth or a third party as a consequence of the operation of the impugned legislation. In the *Tasmanian Dams* case, Deane J, who alone held that the Commonwealth did obtain an 'identifiable and measurable advantage'¹⁵³ from the legislative restrictions on the development of the World Heritage area, namely, 'the benefit of the prohibition of the exercise of the rights of use and development of the land',¹⁵⁴ referred to this benefit as a proprietary benefit. In his view, the benefit was analogous to a restrictive covenant, incorporeal but nevertheless property.¹⁵⁵ Dawson and Toohey JJ have held that for section 51(xxxi) to apply, 'it must be possible to identify an acquisition of something of a proprietary nature', with the usual characteristics of a right of property, and that, therefore, if the right which was conferred by the legislation lacked exclusivity, it did not amount to an interest in property.¹⁵⁶ In *Newcrest*, those judges who dealt with the issue of acquisition¹⁵⁷ identified proprietary benefits which vested in the Commonwealth and in the Director of the National Parks and Wildlife Service, in the form of land freed from the right of Newcrest to occupy and conduct mining operations thereon, and minerals freed from the right of Newcrest to mine them.¹⁵⁸

On the other hand, in *WMC Resources*, the fact that the Commonwealth did not own a proprietary interest in the relevant areas of the continental shelf led Brennan

297, 305 (Mason CJ, Deane and Gaudron JJ), 311 (Brennan J). However Dawson and Toohey JJ have held otherwise. *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 200-1 (Dawson and Toohey JJ); *Health Insurance Commission v Peverill* (1994) 179 CLR 226, 251 (Dawson J); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 315-6 (Dawson J), 320-1 (Toohey J).

¹⁵¹ *Smith v ANL Ltd* (2000) 176 ALR 449, 492 (Callinan J).

¹⁵² *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 97 (Kirby J).

¹⁵³ *Commonwealth v Tasmania* (1983) 158 CLR1, 283 (Deane J).

¹⁵⁴ *Ibid* 287 (Deane J).

¹⁵⁵ *Ibid* 286-287 (Deane J).

¹⁵⁶ *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480, 528 (Dawson and Toohey JJ).

¹⁵⁷ Dawson and Kirby JJ assumed that there was acquisition without discussing in any detail the nature of the benefits conferred upon the Commonwealth. *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 547 (Dawson J) and 638 (Kirby J).

¹⁵⁸ *Ibid* 530 (Brennan CJ), 634 (Gummow J).

CJ and Gaudron J to conclude that no benefit had been conferred on the Commonwealth for the purposes of section 51(xxxi). In contrast to *Newcrest*, no property of the Commonwealth was enhanced by the legislative modification of the exploration permit in this area.¹⁵⁹

There is no necessity for recourse to arguments on the non-proprietary benefits which may well flow to the Commonwealth as a consequence of the operation of the *GTA* for there is clearly a proprietary interest which is conferred upon a third party as a consequence of the licensing of GE crops under the *GTA*. Once genetic pollution occurs, the owner of the patent in the GE seed which contaminates a nearby farmer's crop acquires enforceable intellectual property rights in the contaminated seed and in the contaminated crops. Such intellectual property rights are proprietary rights for the purposes of section 51(xxxi).¹⁶⁰

Nothing of a proprietary nature is conferred on the Commonwealth. Although recent case law in this area has focused upon acquisitions by the Commonwealth, it is, nevertheless, generally accepted that acquisition under section 51(xxxi) can be by third parties.¹⁶¹ In a situation in which a benefit or interest is conferred upon a third party, there is authority which suggests that only when the benefit or advantage received by third parties is for Commonwealth purposes or for Commonwealth use will section 51(xxxi) come into operation.¹⁶² Dawson J has held that 'it is the intended use or application of the property which is significant'.¹⁶³ According to this reasoning, if property is acquired by a third party for his or her own purposes, the acquisition falls outside section 51(xxxi). This interpretation of section 51(xxxi) would restrict its application in most situations in which the acquisition of property confers a benefit on a third party. It would be difficult to argue that the acquisition of intellectual property rights in farmers' seeds and crops by multinational seed corporations was acquisition for Commonwealth purposes or

¹⁵⁹ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 20 (Brennan CJ), 37-8 (Gaudron J).

¹⁶⁰ *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480. See also; *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 70 (Gummow J).

¹⁶¹ See, for instance, *P J Magennis Pty Ltd v Commonwealth and Others* (1949) 80 CLR 382; *Trade Practices Commission v Tooth and Company Ltd* (1979) 142 CLR 397, 403 (Barwick CJ), 407 (Gibbs J), 424 (Stephen J), 426-27 (Mason J) and 451-452 (Aickin J); *Commonwealth v Tasmania* (1983) 158 CLR 1, 282 (Deane J); *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480, 510-1 (Mason CJ, Brennan, Deane and Gaudron JJ), 526 (Dawson and Toohey JJ); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 189 (Deane and Gaudron JJ), 199 (Dawson and Toohey JJ); *Health Insurance Commission v Peeverill* (1994) 179 CLR 226, 249 (Dawson J); *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134, 165 (Dawson J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 92 (Kirby J); *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 194 (Gaudron J). However recently one commentator has argued that most third party acquisitions lie outside section 51(xxxi). See Allen, above n 102, 379.

¹⁶² See, for instance, *Attorney-General (Commonwealth) v Schmidt* (1961) 105 CLR 361, 372-3 (Dixon CJ); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 198-9 (Dawson and Toohey JJ); *Health Insurance Commission v Peeverill* (1994) 179 CLR 226, 250-251 (Dawson J); *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134, 165-167 (Dawson J).

¹⁶³ *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134, 165 (Dawson J).

for Commonwealth use, although the Commonwealth may gain favour with certain international organisations by permitting such acquisitions.

However, other judges have interpreted the phrase ‘for any purpose in respect of which the Parliament has power to make laws’ more broadly.¹⁶⁴ Kirby J has stated that:

The paragraph focuses on the subject of the acquisition, not upon what happens to the property once it is ‘acquired’. It has been held repeatedly that it is not necessary that the acquisition should be effected by the Commonwealth or even by its instrumentalities so long as it is done for a purpose in respect of which the Parliament has the power to make laws. Given the variety of such purposes, and their ever-expanding ambit, it would be a mistake to conceive of the ‘property’ referred to in the paragraph as limited in such a way that it must be used after acquisition in the same way as it was before.¹⁶⁵

If the phrase ‘for a purpose in respect of which the Commonwealth has the power to make laws’ is interpreted broadly, the proprietary interests conferred upon third parties by the operation of the *GTA* in conjunction with the ‘sterilisation’ of farmers’ proprietary rights in their crops, seeds and land, may constitute an acquisition of property within the ambit of section 51(xxxi).

Limitations

Establishing that the *GTA* brings about an acquisition of property does not necessarily ensure that the requirement of just terms compensation then applies. It is clear that there are a number of recognised exceptions to the principle that the acquisition of property through the operation of Commonwealth law requires the payment of just terms compensation by the Commonwealth. The operation of section 51(xxxi) is subject to an express or implied contrary intention in other grants of legislative power.¹⁶⁶ In distinguishing between acquisitions which fall within section 51(xxxi) and those which do not, the judges have drawn upon principles of characterisation of laws. They have also referred to the category of regulatory regimes, some of which appear to fall outside the operation of section 51(xxxi), to the concept of ‘necessary and characteristic’ means, and to the irrelevance or incongruity of the notion of ‘just terms’ in particular legislative contexts.¹⁶⁷ These categories of exceptions are not discrete.¹⁶⁸

¹⁶⁴ See *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480, 511 (Mason CJ, Brennan, Deane and Gaudron JJ).

¹⁶⁵ *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 92 (Kirby J).

¹⁶⁶ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 187 (Deane and Gaudron JJ); *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134, 160 (Mason CJ, Brennan, Deane, Toohey, Gaudron and McHugh JJ).

¹⁶⁷ These four approaches are identified and discussed by Simon Evans in Evans, above n 103.

¹⁶⁸ *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 194 (Gaudron J).

The characterisation approach requires an identification of the ‘dominant character’¹⁶⁹ or ‘principal purpose’¹⁷⁰ of the law. Section 51(xxxi) applies only when a law can ‘properly be characterized’ as a law with respect to the acquisition of property for a purpose in respect of which Parliament has the power to make laws.¹⁷¹ If the acquisition of property is incidental to, or consequential upon, the principal purpose or effect which the law seeks to achieve and has ‘no recognizable independent character’, it falls outside section 51(xxxi).¹⁷² Acquisitions which are an ‘inevitable consequence’ of the exercise of another section 51 head of power or a ‘reasonably proportionate consequence’ of a breach of a law passed under another section 51 head of power will fall outside section 51(xxxi).¹⁷³

The use of characterisation principles in section 51(xxxi) jurisprudence is not only inconsistent with traditional principles of characterisation, but also based on an assumption that there is a ‘most correct’ characterisation of a law.¹⁷⁴ McHugh J,¹⁷⁵ Callinan J,¹⁷⁶ and Kirby J¹⁷⁷ have all questioned the usefulness of this approach. Subjective considerations are undoubtedly involved in the identification of a ‘correct’ characterisation of a particular law such that the operation of section 51(xxxi) is thereby excluded.¹⁷⁸ Kirby J has stated that other characterisations may be given to any law and any part of such law and if this then excluded the character which would attract the constitutional guarantee of just terms, the effectiveness of that guarantee would be ‘severely constricted’. In his view, ‘once a party has established that it has lost a valuable “property” right and that such a loss is classified as an “acquisition” of such “property” under the impugned law, that party is well on the way to seeing the characterisation of such law, or part of it, as one “with respect to” the acquisition of such property’. The fact that the purposes of the legislation are worthy and within power does not preclude the operation of section 51(xxxi).¹⁷⁹

An argument could be raised that the *GTA* is more properly characterised as a law with respect to heads of power quite distinct from section 51(xxxi), including

¹⁶⁹ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 181 (Brennan J).

¹⁷⁰ *Ibid* 171 (Mason CJ).

¹⁷¹ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 188 (Deane and Gaudron JJ).

¹⁷² *Ibid*; see also *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 306-307 (Mason CJ, Deane and Gaudron JJ) and *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 101 (Kirby J).

¹⁷³ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 219 (McHugh J); *Health Insurance Commission v Peeverill* (1994) 179 CLR 226, 259 (McHugh J); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 50 (McHugh J).

¹⁷⁴ *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 247-8 (McHugh J).

¹⁷⁵ *Ibid* 248-51 (McHugh J).

¹⁷⁶ *Smith v ANL Ltd* (2000) 176 ALR 449, 493 (Callinan J).

¹⁷⁷ *Smith v ANL Ltd* (2000) 176 ALR 449, 475-476 (Kirby J).

¹⁷⁸ See Evans, above n 103, 197.

¹⁷⁹ *Smith v ANL Ltd* (2000) 176 ALR 449, 476 (Kirby J).

sections 51(xx), 51(i), 51(ix), 51(xi), 51(xxxix) and 52.¹⁸⁰ Arguably, the acquisitions of property which take place as a consequence of the operation of the legislation can be considered an indirect or incidental consequence rather than part of the dominant purpose or character of the legislation. The fact that the effect of the licensing regime upon the property of third parties is not specifically acknowledged or dealt with in the *GTA* may lend support to such an argument.

Yet the subjective nature of this approach has already been noted. As with the other approaches devised by the Court, this approach is more easily construed as a rationalisation of a particular finding, or as ‘result-oriented decision-making’, rather than as a ‘useful predictive or diagnostic tool’.¹⁸¹ As Kirby J has stated, ‘describing the deleterious impact on pre-existing property rights with various adjectives such as “incidental”, “peripheral”, or “consequential” hardly yields a useful discrimen by which to discharge the obligation of constitutional characterisation of the law as section 51(xxxi) requires when its provisions are invoked’.¹⁸² This approach does not and cannot conclusively rule out the operation of section 51(xxxi) in this context.

Regulatory regimes form a specific category of laws which are unlikely to bear the character of laws with respect to the acquisition of property.¹⁸³ Such statutory regimes provide a means of resolving or adjusting competing claims, obligations or property rights of individuals as an incident of the regulation of their relationship.¹⁸⁴ Callinan J has expressed reservations about the ‘general regulation’ principle as a means by which the Commonwealth may ‘escape liability’ to pay for property acquired.¹⁸⁵ There are difficulties, as with the characterisation approach generally, in distinguishing between laws which should be classified as regulatory laws and laws which should be classified as acquisitory laws. These difficulties are compounded by the Court’s acknowledgment that some regulatory regimes *can* be laws with respect to the acquisition of property.¹⁸⁶

¹⁸⁰ See *Gene Technology Act 2000* (Cth) s 13.

¹⁸¹ Evans, above n 103, 189, 191.

¹⁸² *Smith v ANL Ltd* (2000) 176 ALR 449, 475 (Kirby J).

¹⁸³ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 189-190 (Deane and Gaudron JJ).

¹⁸⁴ *Ibid*; *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480, 510 (Mason CJ, Brennan, Deane and Gaudron JJ); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 171 (Mason CJ); *Health Insurance Commission v Peverill* (1994) 179 CLR 226, 236 (Mason CJ, Deane and Gaudron JJ); *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 307 (Mason CJ, Deane and Gaudron JJ); *Nintendo v Centronics Systems Ltd* (1994) 181 CLR 134, 161 (Mason CJ, Brennan, Deane, Toohey, Gaudron and McHugh JJ); *Commonwealth v WMC Resources Ltd* (1998) 194 CLR 1, 38-39 (McHugh J); *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, at 299-300 (Gummow J).

¹⁸⁵ *Smith v ANL Ltd* (2000) 176 ALR 449, 494 (Callinan J).

¹⁸⁶ *Georgiadis v Australian and Overseas Telecommunications Corporation* (1994) 179 CLR 297, 307 (Mason CJ, Deane and Gaudron JJ).

The *GTA* can be classified as a regulatory regime. The legislation regulates the activities of licence holders and the relationship between licence holders and the Commonwealth government, but fails to regulate the relationship between licence holders and affected third parties, or between the Commonwealth and affected third parties. Gaudron J has indicated that legislation which operates to acquire the property of innocent third parties, without any direct benefit to the person whose property is affected, is not legislation which adjusts competing claims or interests.¹⁸⁷ Similarly, four judges in the *Australian Tape Manufacturers Association* case held that a compulsory transfer of property by a payer to a recipient which is neither a tax, nor ‘quid pro quo for any benefit or advantage received by that person nor accompanied by any countervailing compensation to that person’ is unconstitutional due to the absence of ‘just terms’ compensation.¹⁸⁸ This would suggest that the regulatory characteristics of the *GTA* do not preclude the operation of section 51(xxxi) in relation to the property of affected third party farmers.

The Court has used two other approaches in order to distinguish between acquisitions which fall within section 51(xxxi) and those which do not. The first requires a determination as to whether the acquisition is a necessary or characteristic feature of the means which the law selects to achieve its objective, where the means selected are appropriate and adapted to achieving an objective within power which is not solely or chiefly the acquisition of property.¹⁸⁹ One difficulty with this approach is that not every regulation has similar antecedents which can be cited in support of an argument that uncompensated acquisition is a characteristic and necessary feature of that type of regulation.¹⁹⁰ This criticism is particularly pertinent to the regulation of gene technology.

Although licensing regimes are commonly used in the regulation of land uses which pose a threat to the environment, there are few other land uses which threaten the long-term sustainability of nearby farms to such a significant degree. The conferral of intellectual property rights in neighbours’ seeds upon multinational seed corporations, the ‘effective sterilisation’ of property rights in neighbouring land, crops and seeds, and the potential loss of organic markets and organic accreditation of nearby organic farmers are not necessary and characteristic features of licensing regimes for more conventional land use activities.

The final approach which has been used by the Court entails a determination as to whether the notion of fair compensation in the circumstances of the acquisition of

¹⁸⁷ *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 197-99 (Gaudron J).

¹⁸⁸ *Australian Tape Manufacturers Association Ltd v Commonwealth* (1993) 177 CLR 480, 511 (Mason CJ, Brennan, Deane and Gaudron JJ).

¹⁸⁹ *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 180-1 (Brennan J); *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 180-1 (Gleeson CJ and Kirby J).

¹⁹⁰ See Evans, above n 103, 189.

property is irrelevant or incongruous.¹⁹¹ Again, the judges' assessment of irrelevance or incongruity necessarily rests on subjective considerations. Ultimately, the judges' positions on the role and function of property and on the nature of property rights influence their findings on the operation of section 51(xxxi) in any particular legislative context.

POLICY IMPLICATIONS OF A SECTION 51(xxxi) CHALLENGE

It is evident that legal arguments can be assembled in support of a constitutional challenge to the *GTA*, on the basis that the Commonwealth has acquired property without paying just terms compensation. Such a strategy requires careful consideration on the part of afflicted third party farmers. In this final section, some of the practical and philosophical implications of mounting a constitutional challenge under section 51(xxxi) will be briefly discussed.

Since afflicted third parties could seek damages at common law by mounting actions in nuisance, negligence and/or trespass against the manufacturers and growers of GE seeds, there is little point in seeking a declaration that the *GTA* infringes section 51(xxxi) solely in order to recover compensation. Common law actions would have more predictable outcomes. On the other hand, by the time contamination has occurred and such actions could be commenced, irreversible genetic erosion has also occurred. A strategy which involves seeking a declaration from the High Court that the *GTA* infringes section 51(xxxi) might prove to be more expedient and hence more effective.

Moreover, a successful constitutional challenge would require the Commonwealth to acknowledge the serious ramifications of genetic pollution, accept an onerous financial responsibility and set up a statutory compensation fund, or, alternatively, refrain from issuing licences which would result in genetic pollution. Either way, the Commonwealth government would be forced to rethink its policy to promote commercial production of GE crops. Ultimately, farmers would reap more long-term benefits from this development than they would from the recovery of damages after a long drawn-out and time-consuming series of lawsuits against GE seed manufacturers and growers, especially since, given the insurance industry's reluctance to insure against the losses caused by contamination,¹⁹² the damages may never be recoverable.

Traditional organic or non GE conventional farmers, who oppose the use of genetic technology in agriculture, may find it difficult to reconcile the use of constitutional property rights arguments with their values and moral principles. The main

¹⁹¹ See *Re Director of Public Prosecutions; Ex parte Lawler* (1994) 179 CLR 270, 285 (Deane and Gaudron JJ); *Mutual Pools and Staff Pty Ltd v Commonwealth* (1994) 179 CLR 155, 187 (Deane and Gaudron JJ), 219-220 (McHugh J); *Newcrest Mining (WA) Ltd v Commonwealth* (1997) 190 CLR 513, 595-6 (Gummow J); *Airservices Australia v Canadian Airlines International Limited* (1999) 202 CLR 133, 250-1, 252-3 (McHugh J), 296 (Gummow J).

¹⁹² See above n 48.

incentive for challenging the *GTA* may well be an abhorrence of the ongoing process of commodification or privatisation of the genetic commons, which has been described as ‘patent mania’.¹⁹³ The liberal assumptions about the protection of private property, which underlie the *GTA*, have already been discussed. The perceived need for the *GTA* and similar legislation in other countries has arisen from the corporate rush to privatise the global commons¹⁹⁴ and the corporate desire to reap profits from the newly acquired property in genetic material. Vandana Shiva describes the ‘shift from common rights to private property rights’ as ‘a general social and political pre-condition’ for exclusivist technologies, including biotechnology, ‘to take root in society’.¹⁹⁵ The wisdom of utilising property rights arguments in a counter attack on the legislation is debatable.

E P Thompson, in his analysis of a much earlier English statute which served to protect the property interests of the ruling classes at the expense of the common property rights of the lower classes,¹⁹⁶ has argued that the ruling classes effectively became the ‘prisoners of their own rhetoric’ by using the language of the law in defence of their property.¹⁹⁷ It was, he states, ‘inherent in the very nature of the medium which they had selected for their own self-defence that it could not be reserved for the exclusive use only of their own class’.¹⁹⁸ In his view, the disempowered can use the rhetoric of the law in order to develop ‘a radical critique of the practice of society’.¹⁹⁹

The legal language of property rights may serve many purposes. Indeed, some commentators argue that the strategic use of property rights is the only way to avoid the playing out of ‘the tragedy of biodiversity loss ... on the global commons’²⁰⁰ and the inequitable exploitation of the plant genetic resources of developing nations by the seed and pharmaceutical industries.²⁰¹ Carol Rose argues that ‘modern environmentalism needs to build on the normative metaphors of property’²⁰² and that concepts of property, especially common property, can assist in the creation of ‘norms of responsibility and carefulness about a shared trust that we want to last’.²⁰³

However, for the same reasons that reservations have been expressed about the use of intellectual property rights by indigenous people to protect their plant genetic

¹⁹³ de la Perriere and Seurat, above n 30, 72.

¹⁹⁴ Shiva, above n 1, 67 and Rifkin, above n 31, 38-41.

¹⁹⁵ Vandana Shiva, ‘Biotechnological Development and the Conservation of Biodiversity’ in Shiva and Moser, above n 2, 193 at 194.

¹⁹⁶ *The Black Act* 1723, 9 George I c 22.

¹⁹⁷ E P Thompson, *Whigs and Hunters. The Origins of the Black Act* (1975) 263.

¹⁹⁸ Ibid 264.

¹⁹⁹ Ibid 265.

²⁰⁰ Rebecca L Margulies, ‘Protecting Biodiversity: Recognising International Intellectual Property Rights in Plant Genetic Resources’ (1993) 14 *Michigan Journal of International Law* 322, 324.

²⁰¹ Ibid; Carlson, above n 36, 100, 102.

²⁰² Carol M Rose, ‘Given-ness and Gift: Property and the Quest for Environmental Ethics’ (1994) 24 *Environmental Law* 1, 28.

²⁰³ Ibid 31.

resources from genetic exploitation, the use of property rights language by small farmers who are the victims of genetic pollution may involve some unpalatable compromises. Naomi Roht-Arrioz's comments on the predicament of indigenous people can be applied in this context. She asks:

By attempting to manipulate the prevailing Western paradigm to suit their needs, will indigenous people accelerate the very commodification of knowledge and of living things that many find so objectionable? Worse, will they be forced to adopt foreign categories as their own, to shoehorn their world views and values into an alien set of concepts and laws?²⁰⁴

Similar concerns about the use of legal strategies generally have been voiced by Laurence Tribe. He has commented that environmentalists who mount legal challenges are forced to translate 'the felt obligation', which may reflect their reverence for other life forms, into the 'terminology of human self-interest'.²⁰⁵ This in turn can help 'to legitimate a system of discourse which so structures human thought and feeling so as to erode, over the long run, the very sense of obligation which provided the initial impetus for his own protective efforts'.²⁰⁶

As Karla Sperling has pointed out, a generous reading of section 51(xxxi) and an over-emphasis upon the protection of property rights are not compatible with the goals of environmental protection and ecological sustainability.²⁰⁷ In her view, the *Newcrest Mining* decision constituted a step down the 'takings' path created by the United States Supreme Court, which has interpreted land use restrictions as 'takings' for the purposes of the Fifth Amendment to the United States Constitution.²⁰⁸ A successful challenge to the *GTA* on the basis that the legislation breached section 51(xxxi) of the Constitution would almost certainly encourage corporations, which find their activities curbed by other Commonwealth legislative controls on land use, to mount similar challenges. Such a result is not desirable from the perspective of those who wish to protect our remaining common property, including our plant genetic resources, from the process of privatisation.

A section 51(xxxi) challenge will involve compromises and the strategic use of language and principles which may well be incompatible with the values and ideals of opponents of gene technology. This group may prefer to wait for the development of legal principles which encompass a reverence for life forms and reject the premise that private property is sacrosanct. However, by the time that such principles are developed, it will, given the irreversible, catastrophic nature of genetic pollution and the extent of its potential impact, be too late to save most of our agricultural plant genetic resources.

²⁰⁴ Roht-Arrioz, above n 40, 956-7. See also Hannig, above n 65, 196.

²⁰⁵ L H Tribe, 'Ways Not to Think About Plastic Trees: New Foundations of Environmental Law' (1974) 83 *Yale Law Journal* 1315, 1330.

²⁰⁶ Ibid 1331.

²⁰⁷ Sperling, above n 120, 423, 427.

²⁰⁸ Ibid 432.