
The principles of ecologically sustainable development in Australia and internationally

June 2020



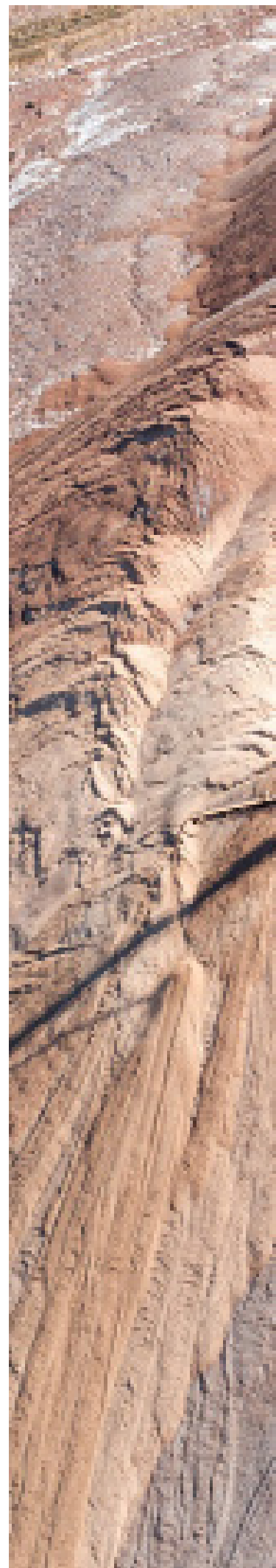
The meaning of ecologically sustainable development (ESD) has been described as “elusive”, as it differs from one jurisdiction to another.¹ Legislation may omit a definition or refer to the need to achieve ESD without specifying what it is or how it should be achieved. Commonwealth legislation refers to ESD by defining its principles, which are²:

- decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- the precautionary principle – if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- the principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making; and
- improved valuation, pricing and incentive mechanisms should be promoted.

Although ESD lacks a precise accepted definition, it is generally recognised as an important concept as it ensures environmental factors and future generations are considered in assessing current development.

1 Brian Preston, ‘The Judicial Development of the Precautionary Principle’ (Environmental Management of Firefighting Foam Policy Implementation Seminar, 21 February 2017).

2 Environment Protection and Biodiversity Conservation Act 1999 (Cth) s 3A, reflected in Protection of the Environment Administration Act 1991 (NSW) s 6(2).



Contents

How is ESD applied in major projects?	02
ESD in legislation	02
ESD in New South Wales	03
ESD in Queensland	06
ESD in Victoria	06
ESD in Western Australia	07
How has the principle of ESD been applied internationally?	08
United States of America	08
United Kingdom	08
Netherlands	08
International law	09
The future of the principle of ESD	10

How is ESD applied in major projects?

ESD in legislation

The principle of ESD is incorporated in various planning and environmental statutes across Australia's jurisdictions. In New South Wales, one of the objects of the *Environmental Planning and Assessment Act 1979* (NSW) (**EP&A Act**) is to

"... facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment."

ESD requires "the effective integration of social, economic and environmental considerations in decision-making processes"³

In Queensland, explicit references are made to considering the precautionary principle, "short and long-term environmental effects of development", providing "equity between present and future generations" and "promoting the sustainable use of renewable and non-renewable natural resources"⁴ Further, the object of the *Environmental Protection Act 1994* (Qld) is to

"... protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development)."

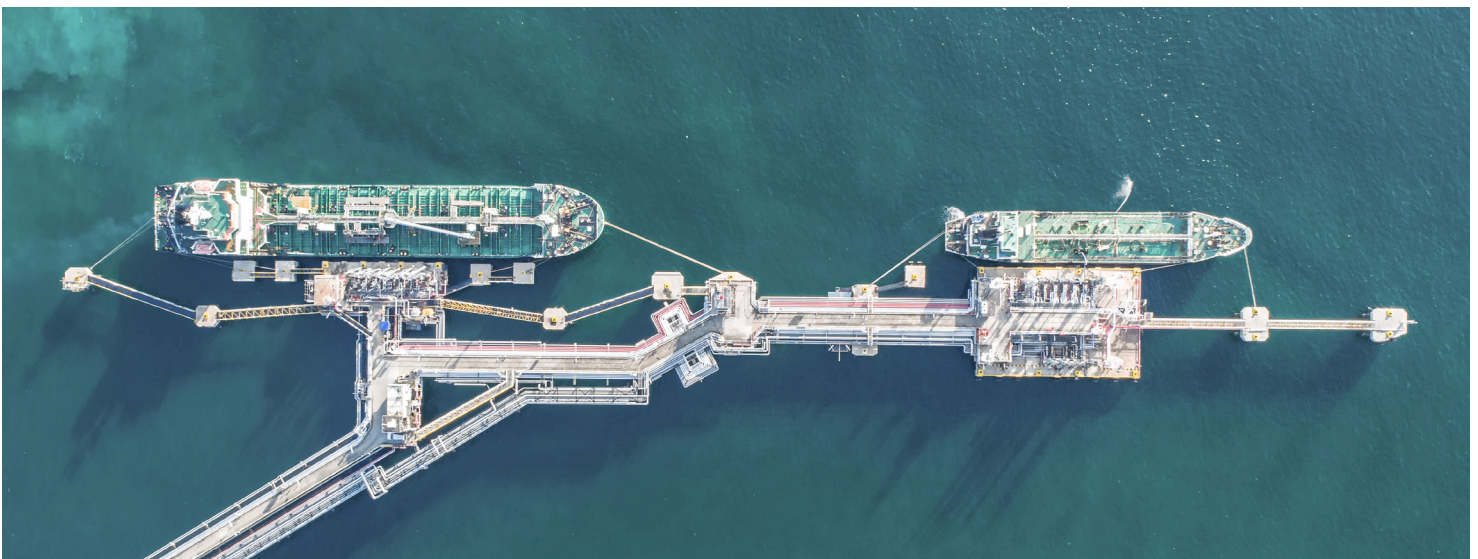
In Victoria and Western Australia, although there are no express references to ESD, the objectives of planning legislation in these jurisdictions generally enshrine the principle of ESD.

The planning objectives in Victoria include "to balance the present and future interests of all Victorians" and "to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity"⁵ The objectives of the *Planning and Environment Act 1987* (Vic) include:

"... to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land."

Similarly, in Western Australia, one of the purposes of the *Planning and Development Act 2005* (WA) is to "promote the sustainable use and development of land in the State"

Accordingly, all development in New South Wales, Queensland, Victoria and Western Australia should be undertaken consistently with the principle of ESD. Courts have developed the meaning of ESD through implementing objectives that refer to ESD.



3 *Protection of the Environment Administration Act 1991* s 6(2).

4 *Planning Act 2016* (Qld) s 5(2).

5 *Planning and Environment Act 1987* (Vic) s 4(1).

ESD in New South Wales

***Telstra v Hornsby Shire Council* (2006) 67 NSWLR 256; (2006) 146 LGERA 10; [2006] NSWLEC 133 (Telstra)**

In *Telstra*, the Court observed that, in addition to the express reference to ESD in the EP&A Act, the principle of ESD has been incorporated as part of the “public interest” consideration where ESD is relevant to the proposal.

The Court also provided a detailed discussion on the precautionary principle. The precautionary principle applies if there is:

1. “a threat of serious or irreversible environmental damage”; and
2. “scientific uncertainty as to the environmental damage”.

A mere ‘threat’ of serious or irreversible environmental damage is sufficient to satisfy the first element of the precautionary principle test provided it is “adequately sustained by scientific evidence”. The degree of the “scientific uncertainty” required by the second element of the test is satisfied if there is “considerable scientific uncertainty” or it is “highly uncertain.”

However, there must be “reasonable scientific plausibility” of the environmental damage, which can be satisfied by empirical scientific data. A “simple hypothesis, speculation or intuition” is unlikely to be enough to satisfy this requirement. If both elements are satisfied, the decision-maker “must assume the threat of serious or irreversible environmental damage is no longer uncertain but is a reality”.

***Gray v Minister for Planning* (2006) 152 LGERA 258; [2006] NSWLEC 720 (Anvil Hill)**

The principle of ESD continues to be developed in the context of climate change, as evident in *Anvil Hill* and subsequent cases.

The Court in *Anvil Hill* held that when considering the scope of environmental assessment requirements and how they are applied in an environmental assessment of a project under Part 3A of the EP&A Act, the Director-General must exercise “broad discretion in accordance with the objects of the Act which includes the encouragement of ESD principles”.⁶

More specifically, the Court found Scope 3⁷ emissions (which, in the context of a coal mine, include burning coal once the coal is sold to a third party) are a relevant matter that should be considered when assessing a proposal. In this case, a failure to include an assessment of Scope 3 emissions precluded the consideration of the principle of intergenerational equality.

In establishing a causal link between the ‘action’ (being greenhouse gas emissions from the coal mine) and the ‘environmental damage’ (being the impacts of climate change), the Court concluded Scope 3 emissions are necessary to be assessed and a failure to do so is inconsistent with the precautionary principle.

***Hub Action Group Incorporated v Minister for Planning and Orange City Council* (2008) 161 LGERA 136; [2008] NSWLEC 116**

A local action group appealed the Minister’s decision to grant development consent for a waste facility. The Court found the proposal did not satisfy the relevant planning requirements as it would have adversely affected the long-term use of the subject site and adjoining land for sustained agricultural production.

Notably, the Court found after the waste disposal facility would cease operations (after 40 years) the full suite of crops could not be grown on the rehabilitated land that had been previously used for the waste disposal facility.

The Court also noted the adverse effects of the proposal on the long-term use of the land is inconsistent with the principle of ESD as it compromises the ability of future generations to use and enjoy the land for prime crop and agricultural purposes to the same degree as the present generation.

⁶ Part 3A of the EP&A Act has been repealed, however, various Part 3A is still applicable to various projects by virtue of *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* (NSW).

⁷ Scope 3 emissions are indirect emissions caused by the activities project, but occur at sources controlled by another company (sometimes referred to as ‘downstream’ emissions): Corporate Value Chain (Scope 3) Accounting and Reporting Standard, Chapter 5.1.

Anderson & Anor v The Director-General of the Department of Environment and Conservation & Ors (2006) 144 LGERA 43; [2006] NSWLEC 12

The principle of intergenerational equity has also been applied to protect Aboriginal objects. In this case, the Court overturned development consent granted to destroy Aboriginal objects for the purpose of residential subdivision. Even though *National Parks and Wildlife Act 1974* (NSW) did not expressly require the decision-maker to refer to the principle of ESD, the Court noted it was “striking” the decision-maker did not refer to issues relevant to the assessment of the significance of the impact from an inter-generational perspective. Namely, fewer remaining objects reduces the opportunity for future generations of Aboriginal people to enjoy the cultural benefits of the site.

Newcastle and Hunter Valley Speleological Society Inc v Upper Hunter Shire Council and Stoneco Pty Ltd (2010) 210 LGERA 126; [2010] NSWLEC 48

Upper Hunter Shire Council granted development consent to Stoneco Pty Ltd to construct a limestone quarry. The Newcastle and Hunter Valley Speleological Society Inc appealed the decision, arguing that the proposed site contained an endangered ecological community of Box-Gum Woodland and a threatened species of squirrel glider that would be significantly affected if the proposed development was allowed.

The Court acknowledged that the threat of environmental damage was scientifically likely, meaning the precautionary principle applied. Although it endorsed the ESD principle that conservation of biological diversity and ecological integrity should be a fundamental consideration, it determined that the appropriate and proportionate response in the circumstances was to implement an adaptive management regime.

The Court found that any threat of environmental damage, including the biota within the limestone cave systems, could be avoided so long as a properly designed management program was adopted to monitor compliance with the conditions of the consent.



Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited (2013) 194 LGERA 347; [2013] NSWLEC 48

Local residents appealed the Minister’s decision to grant approval to extend Warkworth Mine Ltd’s existing open cut coal mine. The Court determined that the planned extension had significant and unacceptable impacts that could not be appropriately managed, especially in relation to the existing biological diversity.

In particular, the clearing of surrounding land was likely to seriously impact existing wildlife corridors that included endangered ecological communities and key habitat areas of native and threatened fauna.

In overturning the approval, the Court noted that the public interest requires the principle of ESD to be conscientiously addressed when considering a project application.

This decision was upheld on appeal.

Gloucester Resources Ltd v Minister for Planning (2019) 234 LGERA 257; [2019] NSWLEC 7 (Rocky Hill)

The coal mine proposal in the Rocky Hill decision was refused due to the unacceptable planning, visual and social impacts of the proposal. The Court found the environmental, social and economic burdens of the proposal would be distributed unequally between current and future generations in that the economic and social benefits of the project will last for the life of the project (being less than two decades), but the environmental, social and economic burdens will continue after the life of the project.

The proposal was also refused due to its direct and indirect greenhouse gas emissions. This is the first time greenhouse gas emissions was a reason to refuse the project, which demonstrates the evolving scope and importance of ESD in major projects.

The Court considered Scope 1⁸, 2⁹ and 3 emissions to assess the greenhouse gas emissions of the project. Including Scope 3 emissions was justified by national and international authorities that either mandated or recognised the possibility of considering Scope 3 emissions when assessing the impacts of a project.

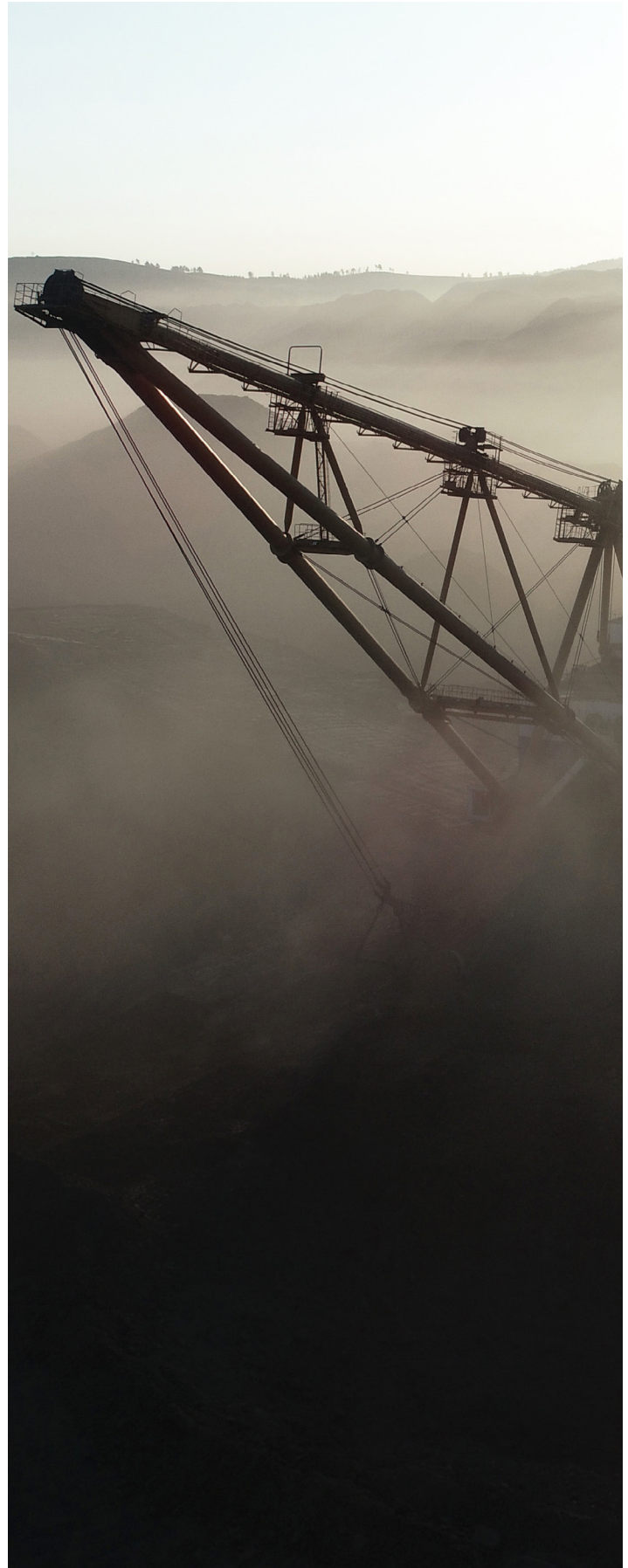
The Court found all of the direct and indirect greenhouse gas emissions of the project will impact the environment and contribute to climate change and its consequences. Interestingly, the Court noted approving the project is inconsistent with the Paris Agreement and NSW's goal of achieving zero emissions by 2050, even though these targets do not outline by which mechanisms these reductions are to occur.

United Wambo Open Cut Coal Mine (Wambo Mine)

On 29 August 2019, the Independent Planning Commission (IPC) granted consent to an expansion to an open cut coal mine in Singleton, subject to a condition of consent that requires the Applicant to prepare an Export Management Plan (EMP) to the satisfaction of the Planning Secretary.

The EMP must establish protocols that require the Applicant to use reasonable and feasible measures to export coal to countries that are party to the Paris Agreement or have similar policies in place to reduce greenhouse gas emissions.

The purpose of this condition of consent is to ensure all reasonable and feasible measures are adopted to minimise Scope 3 emissions to the greatest extent possible.



8 Scope 1 emissions are “the release of greenhouse gas into the atmosphere as a direct result of an activity or series of activities (including ancillary activities) that constitute the facility”: cl 2.23 *National Greenhouse and Energy Reporting Regulations 2008* (Cth).

9 Scope 2 emissions are “the release of greenhouse gas into the atmosphere as a direct result of one or more activities that generate electricity, heating, cooling or steam that is consumed by the facility but that do not form part of the facility”: cl 2.24 *National Greenhouse and Energy Reporting Regulations 2008* (Cth).

ESD in Queensland

Coast and Country Association Queensland Inc v Smith [2016] QCA 242

In this case, the Land Court determined it can consider Scope 3 emissions in considering whether public rights and interests will be prejudiced by the granting of the mining lease pursuant to s 269(4)(k) of the *Mineral Resources Act 1989* (Qld). However, Scope 3 emissions are one of a number of factors the Court must consider in assessing the public's rights and interests.

The majority in this case concluded the Land Court is not precluded from considering Scope 3 emissions when deciding whether to recommend the approval of a mining activity relating to a mining lease pursuant to s 223 (now s 191) of *Environmental Protection Act 1994* (Qld). Interestingly, the minority found the Land Court must consider Scope 3 emissions in this context.

The notable difference is the discretion that is available in Queensland to consider Scope 3 emissions, whereas it is presently required in New South Wales (subject to the passing of the *Environmental Planning and Assessment Amendment (Territorial Limits) Bill 2019* (NSW) through Parliament). The above demonstrates differences in how the principle of ESD, including the precautionary principle and principle of inter-generational equity is being applied differently in different jurisdictions, in practice.



ESD in Victoria

Victorian cases have applied the guidance provided in Telstra when implementing the precautionary principle.¹⁰

Australian Conservation Foundation v Latrobe City Council (2004) 140 LGERA 100; [2004] VCAT 2029

The Victorian Civil and Administrative Tribunal overturned a decision regarding the expansion of the Hazelwood coal-fired power station as the decision-makers were instructed not to consider Scope 3 emissions. The Tribunal found the proposal would likely increase greenhouse gas emissions, which may be an “environmental effect of significance” and ought to be considered.

Western Water v Rozen (2008) 24 VR 133; [2008] VSC 382

The Supreme Court of Victoria overturned a decision of the Victorian Civil and Administrative Tribunal, which improperly applied the precautionary principle. The Court found that the Tribunal had failed to recognise the true nature of the precautionary principle, as it did not properly consider the issue of cumulative risk posed by the resulting development.

Rozen and others were attempting to develop land, which fronted an open water storage system. While the Council initially refused to grant a permit for the proposal due to the impact it would have on water quality, the Tribunal determined that the proposal could go ahead given that it did not pose a risk of irreversible damage.

The Court held this to be a misapplication of the precautionary principle, which requires an assessment of the gravity of the risk not a risk of irreversible damage.

Environment East Gippsland Inc v VicForests (2010) 30 VR 1; [2010] VSC 335

In this case, Environment East Gippsland sought an injunction to restrain logging by VicForests until further surveys were undertaken to determine the ecological significance of the areas to be logged. They contended that logging by VicForests would breach their obligation to apply the precautionary principle in relation to habitat protection for endangered species.

The Supreme Court of Victoria held that the precautionary principle applied even when the risk of serious or irreversible environmental damage is remote. As a result, the Court granted the injunction, ruling that the logging be delayed until such time as it was satisfied that there was no real threat of serious or irreversible damage to the environment.

¹⁰ *Environment East Gippsland Inc v VicForests* (2010) 30 VR 1; [2010] VSC 335 [188]; *Alanvale Pty Ltd v Southern Rural Water* (2010) 37 VPR 31; [2010] VCAT 480; *MyEnvironment Inc v VicForests* [2012] VSC 91 at [272]-[274], [314], which was not relevant to the appeal.



ESD in Western Australia

Western Australia has applied the principle of ESD in the assessment of development and has adopted the guidance provided in Telstra regarding the precautionary principle.¹¹

Mount Lawley Pty Ltd and Western Australian Planning Commission [2007] WASAT 59

In this case, the principle of ESD was used to justify development consent being granted to carry out sand extraction and earthworks, which the proponent intended to use to achieve the approved site levels for a residential subdivision on adjoining land. Approving the proposal significantly reduced the amount of fill to be imported for the subdivision, which reduced the need for transport.

It avoided social and economic detriments, by preventing road damage, and also environmental detriments that would otherwise flow from the heavy truck movements. In coming to this conclusion, the Tribunal recognised “sustainability is now a core element of orderly and proper planning”.

WA Developments Pty Ltd and Western Australian Planning Commission [2008] WASAT 260

The Western Australian State Administrative Tribunal refused a challenge to a condition of development consent that required the alignment of the central boundary of a two-lot subdivision to ensure *Diuris drummondii*, a declared rare fauna, was on one lot.

The Tribunal adopted the guidance provided in Telstra regarding the precautionary principle to conclude the central boundary of the subdivision through the declared rare fauna population poses a threat of serious or irreversible environmental damage due to potential construction of a fence and clearing of a firebreak and potential effect on proper management. Accordingly, the condition of consent was reasonable.

Robertson and City of Albany [2019] WASAT 3

A development application for a limestone quarry was approved on appeal, partly on the basis of sustainability.

As there was a lack of locally-produced agricultural limestone available, the Tribunal concluded the proposal was sustainable because it would reduce carbon emissions by reduced travel distances to supply lime to farmers. Supplying lime would also mitigate the significant environmental problem of land degradation caused by soil acidification.

¹¹ *Wattleup Road Development Company Pty Ltd and Western Australian Planning Commission [2011] WASAT 160; Hanson Construction Materials Pty Ltd and Town of Vincent [2008] WASAT 71.*

How has the principle of ESD been applied internationally?

Internationally, as has been the case domestically, the principle of ESD is continuing to play a significant role in the evolution of policies and regulation in relation to areas of law for which scientific uncertainty arises, most evidently demonstrated by climate change.

United States of America

A similar focus on greenhouse gas emissions is evident in various cases in the US. US courts have found a failure to consider or quantify upstream or downstream greenhouse gas emissions in an environmental impact assessment is inadequate.¹²

In *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007) the Court found the US National Environmental Protection Agency failed to explain why it took no action to decide whether greenhouse gasses cause or contribute to climate change. The Court invited the National EPA to reconsider its position.

Should the EPA find a connection between greenhouse gasses and climate change, the Court concluded the National EPA has an obligation to regulate greenhouse gas emissions from new motor vehicles. In the event the National EPA maintains its position, the Court said it must justify its inaction based on statute.

The Trump administration has seen the US approach to climate change and ESD diminish, an example being the withdrawal from the Paris Agreement. More recently, the [Affordable Clean Energy Rule](#) was introduced which removes the cap on greenhouse gas emissions and provides states the power to regulate their reductions in emissions. This change winds back the national regulation of greenhouse gas emissions and carbon limits set under the Obama administration.

The Affordable Clean Energy Rule is currently [under court challenge](#) on the basis that the amendment ignores the responsibility of the National EPA in setting limits on greenhouse gas emissions. Such argument turns on whether the power of the National EPA extends to setting national carbon emission targets. Accordingly, the determination of this case may have severe consequences on future national environmental policies.

United Kingdom

In June 2019, the UK [amended its climate change legislation](#) to reduce greenhouse gas emissions to net zero by 2050. A 'net zero' target enables any emissions to be balanced out by offset schemes. Although this change is a legally binding commitment, it can be changed by future governments.

Netherlands

In December 2019, the Dutch Supreme Court upheld the District Court's order that requires the government to reduce its greenhouse emissions by at least 25% of 1990 levels by the end of 2020.¹³ The order was sought on the basis that national greenhouse gas emission reduction targets did not reflect Dutch international and regional agreements and targets, including the Paris Agreement.

Although this case primarily relied on Dutch human rights obligations to assert the reduction in greenhouse gas emissions, the Court used ESD principles in its findings.

For example, the precautionary principle was used to apply articles 2 and 8 of the *European Convention on the Protection of Human Rights and Fundamental Freedoms*; the lack of full scientific certainty regarding the effectiveness of reducing greenhouse gas emissions by a certain amount did not obviate the government's responsibility to protect the lives of citizens in its jurisdiction, including their right to home life and private life.

Interestingly, the Court found that making the order did not overstep its function into the political domain.

12 *Border Power Plant Working Group v Department of Energy* 260 F Supp 2d 997 (SD Cal, 2003); *Montana Environmental Information Centre v US Office of Mining* 274 F. Supp 3d 1074 (D Mont, 2017); *Sierra Club v Federal Energy Regulatory Commission* 867 F 3d 1357 (DC Cir, 2017); *Mid States Coalition for Progress v Surface Transportation Board* 345 F 3d 520 (8th Cir, 2003).

13 *Netherlands v Urgenda Foundation*, ECLI:NL:HR:2019:2007.

International Law

At an international level, the development of the principle of ESD has led to the emergence of a new principle, known as 'non-regression in environmental law', [identified by Professor Michel Prieur](#), a French specialist in environmental law.

The principle requires environmental norms which have already been adopted by countries not to be revised if the overall effect of the revision would be regressive. It is based on the idea that the diminution of laws to protect the environment would contradict the principle of inter-generational equity.

The principle was inferentially recognised in the outcomes of the Rio + 20 Summit, The Future We Want. In paragraph 20, the document states:

"... it is critical that we do not backtrack from our commitment to the outcome of the United Nations Conference on Environment and Development."

Since then, Australia has signed a number of international environmental conventions and free trade agreements which have included non-regression clauses. For example:

- Korea-Australia Free Trade Agreement (2014) – "... each Party recognises that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in its environmental laws, regulations and policies."¹⁴
- Australia-United States Free Trade Agreement (2005) – "... the Parties recognise that it is inappropriate to encourage trade or investment by weakening or reducing the protections afforded in their respective environmental laws."¹⁵
- Comprehensive and Progressive Agreement for Trans-Pacific Partnership (2018) – "... the Parties recognise that it is inappropriate to encourage trade or investment by weakening or reducing the protection afforded in their respective environmental laws."¹⁶

While the principle has yet to find its way into domestic legislation, it has been successfully adopted in France.



14 *Korea-Australia Free Trade Agreement*, signed 8 April 2014 (entered into force 12 December 2014) art 18.3.2.

15 *Australia-United States Free Trade Agreement*, signed 18 May 2004 (entered into force 1 January 2005) art 19.2.2.

16 *Comprehensive and Progressive Agreement for Trans-Pacific Partnership*, signed 8 March 2018 (entered into force 30 December 2018) art 20.3.6.

The future of the principle of ESD

The meaning and consideration of the principle of ESD has been further refined in light of recent climate change litigation.

Domestically, the most recent experiences of extensive droughts, bushfires and flooding has resulted in Bushfire Survivors for Climate Action Incorporated (**BSCA**) [commencing proceedings against the NSW EPA](#).

The BSCA claims the EPA has failed to fulfil its purpose of protecting the environment by not controlling greenhouse gas emissions. The BSCA is seeking the EPA to develop policies and guidelines to address climate change and regulate greenhouse gas emissions.

These proceedings present the potential for the principle of ESD to become more entrenched in decision making processes.

A refusal by the IPC for the Bylong Valley Coal Mine has been appealed to the Land and Environment Court in NSW. The refusal by the IPC heavily relied on Rocky Hill and one ground of the refusal was inconsistency with the principle of ESD.

Most recently, Bylong Valley Protection Alliance (**Alliance**) has been joined to the proceedings as the Court found it was in the public interest to have a contradictor to fully participate and respond to the proceedings.¹⁷

The Alliance intends on opposing the appeal ground that asserts the Paris Agreement and New South Wales' Climate Change Policy Framework should not be considered when determining the breadth of the IPC's obligations under clause 14(2) of the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007*. The determination of this issue will further define the extent to which the principle of ESD should be considered when approving major projects, particularly energy and resource related projects.



17 *KEPCO Bylong Australia Pty Ltd v Independent Planning Commission* [2020] NSWLEC 38 [82].

In light of the increased focus on the risks presented by scientific uncertainty regarding the impacts of climate change, it is likely that the principle of ESD in a variety of contexts will be much more intensively considered and embedded in the assessment of major projects.

Litigation against government departments associated with assertions of a failure to implement or to properly implement the principle of ESD is also likely to become more prevalent.

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