ENVIRONMENTAL REFORMS TO SECURE INTERGENERATIONAL JUSTICE

Address to the 2026 AARES Conference

Adelaide

On the 28th of November 2025, the Australian Parliament passed the most consequential reforms to Australia's environment laws in a generation, legislating a set of long overdue amendments to the 25-year-old *Environmental Protection and Biodiversity Conservation (EPBC) Act*. The EPBC Act was a joke. It had done little to protect the Australian environment. It had failed, spectacularly, to conserve biodiversity.

Especially since the industrial revolution, the natural environment in almost every corner of the world, including this continent, has been heavily degraded by land clearing, invasive species, habitat destruction, and poor fire management. The degradation has been accelerated by climate change.

On this continent, about 100 million hectares of forest have been cleared since 1788. In the past 25 years alone, Australia has cleared approximately nine million hectares of tree cover, an act of lunacy that has not only devastated the environment but also released into the atmosphere an estimated 2.3 Gt of greenhouse gas emissions.

And the clearing hasn't slowed. As each year goes by, remnant habitat for endangered species, including the koala and the greater glider, becomes increasingly scarce.

105 Australian species have already been recorded extinct, including 10% of all known mammal species. A further 21% of all remaining mammal species are currently threatened with extinction.

741 species have been added to the threatened species list in just the past 25 years. In total, 2,138 animal and plant species are now considered to be at threat of extinction.

We are passing to future generations a legacy of decades of reckless plunder. That legacy, our gift to our children and grandchildren, includes a changing climate.

Globally, humanity's degradation of nature has contributed to recursive environmental dynamics, characterized by tightly integrated vicious cycles involving pollution of the atmosphere, hydrosphere and biosphere.

We have created deserts. We have rendered waterways so toxic that they are incapable of supporting aquatic life fit for human consumption, or even any aquatic life at all.

Crops have been failing with increasing frequency and severity. Millions of hectares of land on this continent have been rendered unfit for agricultural activity, or condemned to very low productivity, due to the leaching of nutrients, acidification, soil erosion and chemical toxicity, covered in herbicide-resistant exotic weeds and feral pests.

Instead of affording protection from wild weather events, the natural environment is now their accelerator.

We have turned nature against us. Our destruction of the natural environment now poses an existential threat to everything we value.

In this address, I want to reflect on the importance of recent environmental law reforms and consider what must come next. And then I want to step back and consider what has gone wrong, over several centuries now, in our thinking about the requirements of sustainable economic and social development, why the environment has taken a beating, and what, in general terms, we will need to do if we are to turn things around.

I should say at the outset that, in dealing with environmental matters affecting intergenerational justice, the economics discipline hasn't been of much help. As you know, in analysing environmental destruction, in any form, economists are likely either to defend what they see on the argument that environmental losses have been more than compensated by material gains or suggest that there are negative externalities to which governments have failed to attend, for political reasons. If economics is going to make a meaningful contribution to our understanding of the environmental policy requirements of

intergenerational justice, then it will have to get a lot more sophisticated than that.

Nobel Prize winning economist Robert Solow 's attempt to define sustainability in economic terms does reference intergenerational justice. He sees sustainability as a '(moral) obligation to conduct ourselves so that we leave to the future the option or the capacity to be as well off as we are'.[1]

'Well off' references 'well-being', and well-being is more expansive than material consumption. Solow has in mind a concept of well-being that includes an appreciation of environmental amenity. However, having elevated environmental amenity to a place in the social welfare function, Solow then chooses to treat it like any other argument in that function. Thus, he takes the view that there is nothing inherently special about any aspect of the environment that means that it cannot be traded off for compensatory material gains.

Trade-offs that don't reduce community wellbeing don't look like negative externalities, not to the present generation anyway. But what about future generations? In converting natural capital into material consumption, are we leaving to future generations 'the option or the capacity to be as well off as we are'? It has taken a long time for economists to accept that, as in every other area of choice theory, optimising social welfare derived from both material consumption and environmental amenity demands a careful specification of constraints; in this case, biophysical constraints that economists have done their best to ignore, or explain away. Many of us have been mere apologists for plunder.

Perhaps that just means that economists are human too. After all, amongst the millions of different species that have inhabited this planet, we humans stand out as specialists in plunder. Our distinct evolutionary advantage as a species has been an ability to plunder other species at scale, including what they have left behind in fossilised forms over hundreds of millions of years. Leading plunderers amongst us have benefitted from the pronounced myopia

[1] Robert M Solow, 'Sustainability: an economist's perspective', paper presented as the Eighteenth J. Seward Johnson Lecture to the Marine Policy Center, Woods Hole Oceanographic institution, at Woods Hole, Massachusetts, on June 14, 1991.

of our species and by their outsized endowments of several human traits that feature among the seven deadly sins. The rest of us have celebrated their dumb luck. We have craved the psychic comfort of the nation building fairytales they spin for us, even as they make our lives more dangerous.

Those familiar with the politics of environmental policy will spot a big gap in Solow's thinking. He concerns himself with only the end products, or final outputs, of industry, ignoring the value humans place on their roles in the production process. In converting natural capital into material goods for human consumption, we have created whole industries, ways of living, concepts of livelihood, that we value and which have political resonance.

For most of us, our sense of identity comes not from what we consume, but from what we do. Thus, we will continue to support fishing because we value those who fish. We will continue to support the logging of native forests because we value timber workers. We will continue to support land clearing for farming because we value farmers and those who operate the land clearing equipment. And we will continue to support these activities until the last fish is caught, and the last tree has been cut down or bulldozed into history.

In the state of NSW, for example, in absorbing the commercial losses of the Hardwood Division of Forestry Corporation, the government spends a lot more money protecting the livelihoods of loggers and sawmill operators than it does any of the native species being driven to extinction by their operations. NSW governments haven't subsidised logging because they consider wood chips more attractive than trees. They have done so because they value timber workers.

For some of our politicians, sustainability doesn't mean preserving what is left of the stock of natural capital, it means continuing the practices, and sustaining the livelihoods, that have been degrading natural capital. That's a hard thing to turn around.

To its credit, in developing the Great Koala National Park, the NSW Government has recognised the importance of doing what it can to secure alternative livelihoods for those whose jobs have been destroying the forests.

There is reason for hope.

I am going to argue that rebuilding environmental security is foundational to any claims we might want to make concerning intergenerational justice; that, unless we invest in the rebuilding of natural capital, this generation can have no reasonable expectation that it will leave to the future the option or capacity to be as well of as we are.

Intergenerational injustice is a topic that has developed considerable political resonance in the past few years. That's one reason for hope. But it's not the only thing that gives me hope. More potent is the acceleration in the frequency and severity of terrifying events that we still label 'natural disasters', even though they bear human fingerprints. Floods, violent storms and bushfires have brought into the here and now a taste of an apocalyptic future that all previous generations of humans were able to dismiss as the imaginings of a fevered science fiction mind.

Even if it is the case that today's voters don't give a damn about their successors, they are clearly frightened for themselves. They know that we lack resilience. That's what gives me hope.

Burning platform? Bonfire of the fairytales, more like.

EPBC reforms

The reforms to the EPBC Act promise to establish high levels of protection for Matters of National Environment Significance (MNES), for which the Australian Government has responsibility due to its ratification of international treaties and agreements to protect threatened species and ecological communities, internationally important wetlands and migratory species, and outstanding places of World and National Heritage.

The centrepiece of the reforms is a new power for the Minister to create legally binding, and outcomes focussed, National Environmental Standards against which both development proposals and proactive conservation programs will be developed and assessed.

The most important of the new standards, presently under development, aims to ensure the protection and restoration of MNES.

An independent National Environmental Protection Authority (NEPA) will enforce the standards. The NEPA will be provided with powers, in most instances delegated by the Minister, to assess and approve new development applications.

Importantly, development proposals will be considered for assessment only if they pass a new 'unacceptable impacts' test that seeks to ensure the protection of the most important and significant MNES.

Application of the new unacceptable impacts test and the application of standards will require world leading science that will be provided by the new Environment Information Australia (EIA), an independent body entrusted with a range of data responsibilities, including identifying critical habitat of threatened species that must be protected and, where possible, restored.

The reforms also require that the new tests be applied to previously exempt activities, including the clearing of native vegetation over 15 years old and native forest operations presently shielded by Regional Forest Agreements (RFAs).

Other EPBC reforms include sweeping changes to the discredited offsets regime, including the application of a new 'net gain' test and the enforcement of the mitigation hierarchy, including through the application of the unacceptable impacts test.

In the longer term, the most significant amendments to the EPBC Act should be the reforms to support regional planning, which I will come to in a moment.

Implementation

The EPBC reforms are a game changer. But legislative reform is only the first step. The second step is resourcing.

It is no exaggeration to say that we are in a race against the clock to avert species extinction and ecosystem collapse, both of which have been accelerated by climate change. Resources are required urgently to undertake the long overdue assessment of the impacts of native forest logging on nationally listed species such as the koala, the greater glider and the swift parrot, to name a few of the endangered

species threatened by logging but exempt from Federal oversight for a quarter of a century.

The Government must invest in the data, monitoring and compliance systems needed to implement the new rules that require assessment of land clearing proposals and native forests over 15 years of age or found in the catchment of the Great Barrier Reef.

The next Commonwealth Budget will need to provide substantial resources to establish an effective NEPA, focussed on enforcement and compliance; and ensure that Environment Information Australia has the capability to produce the data that will underpin everything else. EIA must be resourced to play its central role in building, rapidly, a repository of high-quality environmental data to inform the application of the new rules, identify MNES at both site and regional scale, and to develop baselines to assess the effectiveness of these reforms, with transparency provided through new and regular state of the environment reporting. High quality data, and the use of this data to identify and protect MNES, will be central to the success of the most ambitious of the reforms to protect native forests and native vegetation from the impacts of logging and land clearing.

EIA must also be resourced to deliver national environmental accounts.

And the Budget will need to provide substantial resources to kick-start the development of bioregional plans, without which it will be almost impossible to deliver the government's stated environmental protection and economic productivity goals of the EPBC reforms.

It seems to me that a 2026 Budget allocation of less than $1 billion would not do justice to the reforms secured at the end of last year.

Restoration at scale must come next, and now

The success of the EPBC Act reforms will be judged, in the medium-term, by progress in the protection of critical habitat, a substantial reduction in native forest logging and reduced deforestation, trusted decision making, timely provision of high-quality data, quicker and more predictable project assessment, and investments that deliver improved environmental outcomes.

But the forward agenda must be much more ambitious, and it must be prosecuted as a matter of urgency. Accelerating climate change underscores the need to build resilience in every pocket of the Australian continent. Building resilience demands landscape restoration at scale. Restoration at scale is not a greenie fantasy. It is not a 'nice to have'. It is critical to the future of humans on this continent, by far the most important element in the backlog of investments needed if we are to cope with the climate we have helped create, protected from wild storms, floods, droughts and fire.

The restoration of biodiversity at scale also offers a means of securing greenhouse gas emissions abatement, through carbon sequestration.

Thus, there is a strong case for governments, this year, integrating climate and environmental policy and regulation, simultaneously targeting carbon emissions abatement, climate change adaptation, and nature repair.

The various components of an integrated approach have been much discussed for several years now. They include high integrity natural capital markets, large-scale public-sector investment, regional plans, and landscape scale environmental restoration investment strategies.

Australia's climate risk exposure is asymmetric. We are a relatively small emitter, unless one includes the carbon content of our exports, but highly vulnerable to climate change no matter where in the world those emissions occur. That makes a case for focussing our climate policy efforts on adaptation, through nature repair activities that simultaneously reduce net greenhouse gas emissions and build resilience. In addressing the climate change needs of Australians, nature repair stands head and shoulders above gross emissions abatement. I might be more equivocal if we assumed responsibility for the carbon embedded in our fossil fuel exports. But we don't.

To date, the Australian policy effort has been focussed overwhelmingly on gross emissions abatement, especially in electricity and energy, respecting the international commitments we have made. There has been far less policy effort in building resilience through nature repair. I would argue that there is a strong case for rebalancing our efforts.

Not to do less on abatement, but to do a lot more on nature repair. And we must do it now.

The fact that we are a relatively small emitter, heavily exposed to the emissions of others, is not an argument for avoiding cutting our emissions. To the contrary, it is an argument for making a strong case for concerted global action, something we can do only if we are seen to be shouldering our fair share of the abatement burden. More importantly, though, it is an argument for focussing on domestic resilience. And that means investing a lot more aggressively in nature repair. Resilience means first, protecting what is left. And second, rebuilding much of what has been destroyed. We need reafforestation, not more land clearing and logging. We need sustainable water use, not more broadscale irrigation. We need mining activity that delivers nature positive outcomes, not groundwater disturbance and the destruction of native species habitat. We need restoration at scale.

An economy-wide price on carbon, with high integrity accounting of sequestration offsets, would be a better place to start on this journey. But we are where we are. So, let's assume that, for now, we are to continue with the Safeguard Mechanism and ACCUs.

The Climate Change Authority estimates that, if Australia is going to meet its 2050 target of net zero emissions, then the Australian landscape is going to have to sequester, annually, about two and a half times the carbon it sequestered last year. A lot of work is going to be needed to figure out how, on Earth, that is going to happen with the Safeguard Mechanism and ACCUs as our only tools in the toolbox.

The Safeguard Mechanism review slated for this year and next provides the obvious opportunity for that work. But that's only the first step. A lot more work is going to be required to ensure that those instruments build resilience through nature repair. I need to emphasise that it will be our investment in nature repair, not our emissions abatement effort, that will be the principal source of enhanced resilience across the Australian continent for this, and subsequent, generations.

We have some big questions to ponder this year.

Let me set out a few policy pillars that might help in addressing some of those questions.

First, interventions to achieve restoration at scale should be developed through bioregional plans. Those plans must be supported by high integrity data, curated by Environment Information Australia, with the assistance of the other two levels of government and private landowners. As with the Australian Bureau of Statistics, there should be no barrier to EIA's obtaining data from any source. The EIA data must be comprehensive, providing a real-time spatial platform that allows the public to track the impact of human activity, revealing the cumulative impacts of development, with well- articulated baselines or reference conditions.

The use of bioregional plans implies that restoration at scale involves some element of central coordination, even direction. It provides an opportunity to integrate spatial planning for carbon sequestration projects; renewable energy zones; critical minerals extraction and processing facilities; energy, transport and communications infrastructure corridors; and residential settlement.

Just one observation underlines the importance of spatial planning at regional scale. According to the Australian Energy Market Operator (AEMO), we need $122 billion of new large scale renewable generation, storage and transmission to deliver a reliable and decarbonised grid. We need to triple grid-scale renewable capacity by 2030 and increase it sixfold by 2050. Where are we going to do this?

Australia hasn't met a challenge of this sort before. This policy task is not as simple as cutting tariffs on imports, deregulating shop trading hours or ceding to the Reserve Bank operational independence in the conduct of monetary policy. It will test the ingenuity of thought leaders across multiple disciplines.

Yet, there are pilots underway that will offer guidance on the way forward, including in this state of South Australia – one in the Upper Spencer Gulf across to the Gawler Ranges and the other on the NSW border in the Braemar Province.

These regions present opportunities in renewable energy and critical minerals. But both have big data gaps when it comes to Matters of National Environmental Significance.

South Australia has a proud historical record of leading the nation, and indeed the world, with innovations that today's generation see as no-brainers, like the rights to vote for First Nations people and women.

Here is another opportunity for South Australia to show leadership.

Planning what must be protected and identifying what needs to be restored to boost resilience for the benefit of future generations also allows for the identification of areas that are suitable for development, speeding up project approvals.

Whilst other pilots are underway across the country, South Australia's track record in effective collaboration provides confidence that its plans will be finalised by mid-2027, as planned. South Australia's leadership will attract more investment to the state because of the ease of approvals in agreed zones. Perhaps more importantly, it will set a standard for those that follow.

Developing bioregional plans across the continent is a big deal. The scale of its ambition makes it a worthy successor to the Hawke Government's Decade of Landcare.

The second policy pillar is that nature repair activity must be certified, so that all stakeholders have confidence in what is being delivered. There are a few ways of achieving this. One is to scale up the existing Nature Repair Certificates, recognising that a lot more resources will need to be invested in the development of methods. Another option is to utilise the world-leading standard and methods developed, over many years, by the Wentworth Group of Concerned Scientists and Accounting for Nature.

And the third policy pillar is that nature repair activity must be properly funded. The Wentworth Group estimates that the restoration of ecosystem functioning across the Australian continent would cost about $7 billion a year for 30 years.[2] That probably sounds like a lot of money. For context, it's about one-quarter of one per cent of GDP, or

[2] citation

about a cup of coffee a week for the average Australian. If you think that's too much for this generation to pay for the boost to resilience that would come from the restoration of ecosystem functioning across the Australian landscape, then I would suggest that you shouldn't be here. And I don't just mean that you shouldn't be in this room. You shouldn't be here, period. Future generations deserve better stewards.

So, how might restoration at scale be funded? Well, there are better ways than levying a small poll tax, equivalent to a cup of coffee a week, on every living Australian. Two options, consistent with the polluter pays principle, stand out.

The most obvious funding mechanism would be to levy a carbon tax on the greenhouse gases embedded in Australia's fossil fuel exports. These emissions are about three times the size of the net emissions for which Australia has accepted responsibility under the Paris Agreement; that is, about 1.2 billion tonnes of CO_2 equivalent annually. A tax levied at the current spot price for ACCUs would generate about $45 billion a year. Over time, it would also lower the domestic price of gas and alleviate east cost gas supply pressures.

It is difficult to understand why the Australian Government hasn't introduced such a tax. No matter what it did with the revenue, the outcome would have to be better for future generations of Australians than where the money is going right now.

An alternative source of revenue, which ties landscape restoration to domestic emissions, would be to levy a royalty on land-based ACCUs that fail to meet a designated threshold of nature repair, and to use the royalty revenue to fund landscape restoration. The Australian Climate and Biodiversity Foundation has done extensive work with consultants, using the world-leading LUTO model developed by the CSIRO, which demonstrates that this 'nature positive ACCUs scheme' could generate the required $7 billion a year, whilst also achieving net carbon abatement sufficient to meet the Australian Government's 2030 emissions abatement target, at an ACCU price below the Government's cost containment ceiling, and in a way that lifts average farm incomes by more than 10 per cent.

Applying a royalty to ACCUs that fail to meet a designated nature repair threshold might present Safeguard Mechanism facilities with a slightly higher cost of offsetting emissions. There will be some who say that that offends the principle of least cost abatement. To them I would simply say this. Everything done in the climate policy space since the day the Gillard Government's so-called carbon tax was repealed offends the principle of least cost abatement. Everything. And that most certainly includes the core instruments of the current government's climate policy, inherited from their predecessors. Even the carbon tax avoided least cost abatement, especially through its protection of emissions-intensive, trade-exposed sectors. Anybody who really believes the Australian public has an appetite for least cost abatement should be calling for an economy-wide emissions trading system or carbon tax. If they won't do that, then they are simply being disingenuous, or worse.

Least cost abatement is an economic principle, not a social principle. Economy-wide carbon taxes and 'cap and trade', or emissions trading, schemes, both involving credits or offsets for sequestration activity, are the work of the Australian policy people once described as economic rationalists. Some of them are still around. But we are not the only players active in this space. Considerably more active are those who shun the logic of markets, preferring command and control approaches. For them, carbon emissions are so morally reprehensible that they should simply be banned, whatever the cost. They describe that approach as tackling emissions at source. Whatever it is called, this anti-economics approach is the extreme opposite of least cost abatement.

If it is the case that the Australian community, or at least its elected parliamentary representatives, have no appetite for least cost abatement, then we must consider what 'lesser cost' strategies might prove sustainable. This is why the imminent review of the Safeguard Mechanism is so important.

The review of the Safeguard Mechanism must deliver accelerated gross abatement. But what about the offsets scheme that accompanies it? The Australian community will not tolerate a tightening of emissions caps delivered by a proliferation of land-based

carbon offsets that allows carbon polluters to buy their way out of cutting emissions and do nothing to build domestic resilience. A ramping up of the supply of carbon offsets, without delivering enhanced resilience for this and future generations of Australians lacks social licence. It puts the whole scheme at risk.

The problem to be solved

It's worth reflecting on how we humans got ourselves into this mess.

For centuries, we have believed that economic and social progress necessarily comes at the expense of the environment. We have believed that the destruction of the natural world is a price that must be paid, even that nature had to be bent to our will.

In policy circles, those who care about the state of nature are usually presented with a contest between environmental protection and job creation. This is consistent with the traditional framing of ecologically sustainable development as needing to find a 'balance' among economic, social and environmental goals.

I have noted on other occasions that that framing makes no sense.

First, job creation has not been a problem for Australia. Second, the activities responsible for the destruction of natural capital don't employ a lot of people. Third, and most importantly, the continued viability of those activities now depends upon repairing the environment, not destroying what is left.

Last year's EPBC Act amendments acknowledge that the state of the natural world is foundational. That without its rebuilding, future economic and social progress cannot be secured.

We are not free to choose, as Robert Solow imagined, how much environmental amenity we sacrifice in pursuit of material gains. We should think of economic and social progress as exercises in constrained optimisation. The most important constraints on human choices are embedded in the immutable laws of nature. Yet, clearly, we have had no idea what those constraints look like. As I noted at the National Press Club last year, our failure to recognise these natural laws as constraints on our behaviour is now undermining productivity

growth and having a discernible impact on economic performance. It threatens livelihoods, even lives.

Intergenerational justice

If we are to employ the framing of externalities to analyse the issues at stake in environmental sustainability, then each generation is going to have to accept some responsibility for the wellbeing of all its successors. The welfare function that matters for policy design cannot be confined to the wellbeing of members of the present generation.

Yet, if we are to be informed by deeds, and not merely words, we would have to conclude that this generation doesn't give a damn about the wellbeing of future generations. If it did, it would have been ensuring that its transformation of natural capital into current consumption provides durable support for successor generations. And it would have been rebuilding the stock of natural capital, to provide some level of protection against the probability of a catastrophic collapse in both ecosystem and economic functioning.

But whilst this generation might not give a damn about its successors, it appears to be losing confidence in its own resilience. There is a growing realisation that the economic and social security of those alive today rests upon quite fundamental change in the way we manage natural capital.

What has been missing is the strategic planning and market infrastructure that preferences activities that are nature positive against activity that is destructive of nature.

Recent reforms to the EPBC Act make a start. But they are just a start. Bigger challenges, to build resilience through landscape restoration at scale, lie ahead. Work on addressing those challenges must start this year. And the place to start is integrating our climate and nature repair strategies, through bioregional planning and the supporting mechanisms I have referenced this morning.

This would be a fitting successor to the Hawke Government's Decade of Landcare, delivering the environmental reforms needed to secure intergenerational justice.