

Submission to the Productivity Commission Consultation on Pillar 1: Creating a More Dynamic and Resilient Economy

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Executive Summary

This submission responds to the Productivity Commission's framing of economic resilience and dynamism, challenging its reliance on deregulation, corporate tax incentives, and market-led infrastructure growth. It argues that these mechanisms are not only outdated but actively harmful in a climate-constrained, ecologically stressed world. By weakening environmental safeguards, displacing regional communities, and externalising long-term costs, the current economic model is undermining the very conditions it claims to strengthen.

True economic resilience cannot exist without ecological stability, social cohesion, and intergenerational equity. Yet the Commission's proposals overlook critical risks: cumulative environmental impacts, irreversible biodiversity loss, rising climate volatility, and mounting public health and infrastructure liabilities. These are not fringe issues, they are now central to Australia's economic outlook.

This submission lays out a blueprint for recalibrating national economic policy to reflect biophysical limits and long-term public value. It makes the case for cumulative impact legislation, full life-cycle cost accounting, independent social impact assessments, rehabilitation levies, and the protection of national parks, remnant forests, and critical habitats from industrial development. It calls for an end to PFAS use, reform of corporate tax structures, and the embedding of climate risk and ecosystem productivity into all future economic modelling.

Australia has an opportunity to lead, not through rhetoric, but through accountability, scientific integrity, and policy foresight. A dynamic economy is not built on ecological collapse or social dispossession. It is built on systems that last. The time to align economic governance with this reality is now.

This is not a radical proposition. It is a necessary correction.

1. Introduction

The Productivity Commission's focus on creating a more dynamic and resilient economy arrives at a moment of unprecedented ecological stress and economic contradiction. While the stated goal is to promote resilience and growth, the policy tools under consideration—

deregulation, corporate tax incentives, infrastructure acceleration, and resource liberalisation directly undermine the very systems that support economic stability: intact ecosystems, reliable climate, healthy communities, and sovereign resource integrity.

This submission challenges the foundational assumptions embedded in the Commission's framing. It argues that deregulation and market flexibility, far from fostering innovation or resilience, are exacerbating systemic risks. These risks are not abstract. They are measurable in terms of rising climate volatility, regional infrastructure degradation, biodiversity collapse, and growing public resistance. At the same time, the environmental and social costs of current policies are being externalised and deferred—offloaded onto future taxpayers, regional communities, and ecosystems already at their limit.

What follows is not a rejection of economic growth but a demand for its redefinition. True resilience requires an economic system that does not erode the natural capital it depends on, nor displace the social foundations it claims to protect. A forward-looking economy must account for cumulative impacts, full life-cycle costs, social cohesion, ecological thresholds, and intergenerational liabilities.

Each section of this submission unpacks a core area of concern, from the myth of deregulation, to the inadequacy of corporate tax incentives, the failure to integrate ecological accounting into productivity metrics, the blindness to cumulative impacts, and the gross inequities facing regional communities. It provides a roadmap to recalibrate policy in line with scientific evidence, economic prudence, and ethical governance.

This is not about ideology. It is about preserving the conditions that allow economies and societies to endure. The time for partial reform has passed. What is required now is a structural reorientation of economic policy that secures value, safeguards national assets, and prepares Australia for the compounding shocks of the century ahead.

2. Deregulation: The False Promise of Flexibility

The assumption that deregulation automatically breeds innovation and growth is neither supported by evidence nor sustainable in a climate-constrained world. Deregulatory agendas often ignore the long-term function of regulation: to protect public goods, including clean air, water security, biodiversity, and climate stability.

When regulations are weakened to promote short-term business dynamism, the economy is exposed to cascading risks. For example, loosening environmental assessment frameworks in the name of project facilitation has already led to the fast-tracked approval of resource-intensive developments with significant ecological footprints (Ogle & Buxton, 2023).

These short-term gains result in long-term liabilities: degraded land, contaminated water, reduced resilience to fire and drought, and social division. Weakening planning and environmental laws under the guise of efficiency undermines precisely the adaptive systems Australia needs to face 21st-century threats.

Contrary to the narrative promoted by proponents of deregulation, it is not regulation but the absence of robust governance that leads to stagnation, inefficiency, and systemic fragility.

The idea that 'cutting red tape' improves economic outcomes ignores the reality that many of these regulations were instituted precisely to correct market failures, prevent environmental degradation, and ensure that economic activity remains within social and ecological limits. Deregulation in the name of flexibility often functions as a transfer of risk—from corporations to communities, from polluters to the public, and from the present to the future.

A salient example is the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), which has been repeatedly weakened to fast-track development approvals. As noted in the Samuel Review (2020), the Act is no longer effective in its core objective of protecting biodiversity. The result is a planning landscape where extractive industries and infrastructure megaprojects proceed without cumulative impact assessments, long-term monitoring, or enforceable rehabilitation obligations.

Worse still, deregulation is often implemented asymmetrically: while regulations protecting nature or worker rights are weakened, corporate rights and investor protections are simultaneously entrenched through mechanisms such as Investor-State Dispute Settlement (ISDS) provisions. This creates a one-way street where the power to act in the public interest is curtailed, but the power to extract profits is legally protected and politically prioritised.

In a climate-constrained world, flexibility must be redefined. It cannot mean removing all constraints it must mean adapting within constraints, recognising ecological thresholds, social limits, and intergenerational obligations. Deregulation, as currently conceived, is a dangerous relic of 20th-century growth thinking. It is not flexibility; it is institutional abandonment leaving systems vulnerable to collapse at the precise moment they most need stability, guidance, and stewardship.

The Productivity Commission must acknowledge that regulation is not antithetical to innovation it is its precondition. Clear, enforceable rules create certainty, level playing fields, and long-term investment signals. Innovation thrives not in the chaos of deregulated markets, but in well-governed systems that protect public goods, enforce accountability, and ensure that economic success is aligned with ecological survival.

3. Corporate Tax Incentives and Inequity

The Commission's suggestion to reduce barriers to investment through business tax reform must be rigorously interrogated. The prevailing narrative that cutting corporate taxes stimulates growth, innovation, and job creation is a political fiction not supported by empirical evidence. In reality, such policies disproportionately benefit multinational corporations, encourage capital flight, and undermine the tax base required for resilient public infrastructure and environmental governance.

Evidence shows that corporate tax avoidance is not a marginal issue, but a structural feature of the global economy. The Tax Justice Network (2023) estimates that Australia loses over AUD \$11 billion annually to corporate tax abuse. These are funds that could otherwise be allocated to public health, education, biodiversity restoration, or climate adaptation. Instead, they are siphoned into offshore tax havens or absorbed into executive bonuses and share buybacks, widening inequality and eroding national sovereignty over financial flows.

The Productivity Commission's failure to critically examine this reality suggests a tacit endorsement of rent-seeking behaviour under the guise of economic reform. Far from incentivising productive investment, tax concessions often reward extractive practices, particularly in high-emissions sectors like fossil fuels, industrial agriculture, and speculative property development. These industries not only generate carbon-intensive profits but externalise their costs onto the environment and future generations.

Scientific studies confirm that economic growth driven by deregulated capital does not equate to sustainability or resilience. According to Hickel et al. (2022), GDP growth decoupling from environmental impact at the scale required to meet planetary boundaries is a myth. Economic policy focused solely on attracting investment through tax reductions is not only environmentally reckless, it is economically myopic.

Furthermore, the framing of corporate tax relief as a prerequisite for competitiveness ignores global trends toward progressive fiscal reform. The OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) is a direct response to widespread recognition that corporate tax dodging undermines democratic governance and economic justice. Australia's continued acquiescence to corporate lobbying against tax reform stands in stark contrast to these international efforts to restore fiscal integrity.

The failure to tie corporate benefits to binding environmental or social outcomes also betrays a critical policy gap. Tax breaks are granted without conditions on emissions reduction, biodiversity protection, fair labour practices, or domestic reinvestment. This represents a dangerous form of deregulated capitalism where private profit is decoupled from public accountability. A truly dynamic and resilient economy would reverse this logic, rewarding companies that align their operations with ecological regeneration, ethical governance, and national interest.

To do otherwise is to lie to the public. It is to pretend that prosperity can be achieved by shrinking the very institutions that enable collective wellbeing. Austerity disguised as economic efficiency is still austerity and it is being sold to Australians under a false banner of flexibility.

What is required is a comprehensive shift in economic thinking: from corporate appeasement to corporate accountability; from fiscal erosion to fiscal restoration. Corporate tax reform must be guided by science, ethics, and intergenerational equity not by ideology or industry pressure.

4. The Myth of Productivity Without Ecological Accounting

The Productivity Commission's continued adherence to traditional definitions of productivity—measured narrowly through labour output and GDP growth—fails to recognise the foundational role that ecosystems play in supporting economic activity. This omission is not benign; it is a structural blind spot that conceals the true costs of environmental degradation and enables destructive practices to masquerade as growth.

Australia's forests, wetlands, soil systems, rivers, oceans, and coral reefs are not passive backdrops to the economy, they are active systems that provide irreplaceable services. These

include carbon sequestration, flood regulation, pollination, water purification, climate moderation, and disease buffering. As the 2021 State of the Environment Report (DAWE, 2021) warns, the accelerated degradation of these systems is contributing to cascading risks across sectors, from agriculture and tourism to health and housing.

Yet, in practice, these services are rendered invisible in national accounting frameworks. As a result, land clearing, fossil fuel expansion, overfishing, and unsustainable infrastructure development proceed without full recognition of their ecological costs. This is not just an accounting failure, it is a policy failure that undermines resilience, fuels climate instability, and jeopardises food and water security.

Global scientific consensus confirms that economic models must integrate ecological limits. The Dasgupta Review (2021) on the economics of biodiversity makes clear that our economies are embedded within nature, not external to it. Ignoring this reality leads to what Dasgupta terms "a suicide pact" between markets and the biosphere. Continued prioritisation of GDP growth over ecological balance ensures that today's gains will be tomorrow's collapse.

Moreover, the cost of ignoring ecological accounting is not only environmental, it is fiscal. As climate-related disasters escalate, so too do public expenditures on emergency relief, insurance bailouts, health crises, and infrastructure repair. According to the Climate Council (2023), extreme weather has cost Australians over \$40 billion in the past decade, a figure expected to rise sharply under current emissions trajectories. These are costs that would be far lower under a preventative, ecologically literate economic model.

Current productivity metrics also reward practices that degrade long-term system integrity. For instance, large-scale developments, particularly renewable energy, fail to account for environmental harms such as PFAS contamination and microplastic pollution. These substances degrade water quality, compromise catchment integrity, and increase toxic runoff into ecosystems. Yet, such impacts are rarely treated as environmental 'debts'—they are excluded from cost–benefit analyses and regulatory assessment. This lack of ecological accounting conceals the cumulative damage to freshwater systems and weakens long-term environmental resilience.

True productivity must include the preservation and regeneration of ecological systems. It must value the stability of climate zones, the fertility of soils, and the health of water cycles. If these are lost, no amount of labour efficiency or market innovation will compensate. The continued failure to embed ecological intelligence into economic planning is a form of institutionalised denial and it is one of the most dangerous delusions shaping policy today.

5. Cumulative Impact Blindness

Perhaps the most profound failure in contemporary economic reform is the absence of cumulative impact assessment. Australia continues to treat planning decisions, industrial development, and infrastructure expansion in isolation—ignoring how multiple pressures intersect across ecosystems, timeframes, and regional scales. This fragmented approach facilitates chronic environmental overreach, disguised under metrics of incremental approval and piecemeal assessment.

This blindness is not accidental, it is structural. Current environmental frameworks and planning laws largely assess projects as stand-alone ventures, allowing developers and regulators to evade responsibility for broader degradation. A single wind farm may appear justifiable; ten across a critical biodiversity corridor represents ecological collapse. Yet there is no formal obligation to assess or model these combined effects. The result is a death by a thousand cuts, where ecosystems are gradually dismembered while each individual decision is deemed acceptable in isolation.

Scientific and legal bodies have repeatedly called for reform. The Australian Panel of Experts on Environmental Law (APEL, 2017) argued that without mandatory cumulative impact frameworks, environmental assessments lack scientific integrity and public legitimacy. Likewise, the Independent Review of the EPBC Act (Samuel, 2020) found that decisions are often made without the spatial or temporal data needed to understand compound effects on species, water systems, and climate resilience.

In practice, this means landscapes already stressed by drought, invasive species, heat, and habitat fragmentation are pushed to collapse under additional burdens from mining, renewables, transport corridors, or agriculture. Communities bear the consequences: collapsing water tables, wildlife disappearance, increasing fire regimes, and the permanent loss of cultural and ecological identity.

Moreover, without cumulative mapping, government cannot fulfil its constitutional obligation to ensure environmental protection in line with Section 51(xxix) (external affairs power) and its international treaty obligations, including the Convention on Biological Diversity. The absence of such mechanisms is not a neutral gap—it is a violation of duty.

This policy vacuum also fuels intergenerational injustice. The inability or refusal to monitor cumulative impacts enables a form of silent dispossession. Future Australians will inherit degraded soils, failed rivers, regional extinction events, and destabilised climatic patterns, not through one act of malice, but through sustained negligence masked as economic pragmatism.

To build a dynamic and resilient economy, this blindness must end. Cumulative impact assessment must become a national obligation, backed by scientific modelling, regional ecological baselines, and enforceable legislative mandates. It is not enough to reform individual project criteria we must reform the epistemology of approval. The land, water, species, and communities of Australia do not experience impacts in silos. Neither should government policy.

6. Social Resilience as Economic Bedrock

A truly resilient economy cannot exist without socially cohesive, mentally healthy, and physically secure populations. Yet the Productivity Commission's framing of economic reform treats social infrastructure public health, education, housing, and care systems as fiscal burdens rather than foundational assets. This is not just short-sighted; it is economically reckless.

Economic shocks whether from pandemics, climate disasters, or market failures disproportionately affect those already vulnerable. Rising inequality not only erodes individual wellbeing but also weakens national capacity to respond to crises. As Wilkinson and Pickett (2010) found in their seminal work *The Spirit Level*, societies with greater income inequality suffer higher rates of mental illness, violence, obesity, imprisonment, and lower life expectancy. Social cohesion is not a luxury. It is a structural determinant of economic performance.

The Commission's push for labour market flexibility, outsourcing, and deregulation of worker protections continues a policy trajectory that has fragmented job security, suppressed wages, and increased precarity. In 2024, over 40% of Australian workers were in casual, contract, or gig-based employment (ABS, 2024). This erosion of stability undermines not only household resilience but also consumer confidence, productivity, and national wellbeing.

Simultaneously, underinvestment in care systems aged care, early childhood education, disability support, and mental health exacerbates stress, burnout, and demographic strain. Australia's ageing population and rising rates of youth mental distress are not temporary anomalies; they are indicators of structural fragility. When care work is undervalued, unpaid, or externalised, the economy becomes brittle and reactive.

Social resilience also includes access to housing, food, and water as non-negotiable human rights. Yet housing affordability is collapsing, particularly in regional areas impacted by extractive industries and large-scale energy infrastructure. Water insecurity, intensified by both climate change and poor planning, places entire communities especially First Nations and remote populations at existential risk. These are not social problems to be addressed after economic reform; they are core metrics of whether reform is working.

In truth, economic resilience flows from **collective capacity** from people's ability to care, to recover, to collaborate, and to adapt. It requires public institutions that are trustworthy, inclusive, and adequately resourced. The neoliberal ideology that views public investment as inefficiency must be abandoned in favour of models that value regeneration, reciprocity, and wellbeing as central economic indicators.

The Productivity Commission must also confront the reality that **climate grief**, disaster fatigue, and social fragmentation are eroding the very human capital it seeks to optimise. As long as policies degrade the social fabric, they will fail to build a resilient economy. Resilience cannot be downloaded onto individuals it must be structurally embedded.

It is time to treat social equity not as an aspirational goal, but as essential economic infrastructure. This means embedding equity metrics in every reform agenda, measuring wellbeing alongside GDP, and investing in the full spectrum of social care. Only by doing so can Australia forge a future that is truly dynamic, inclusive, and capable of withstanding the shocks ahead.

7. Climate Risk as Core Economic Risk

One of the most glaring omissions in the Productivity Commission's approach is its failure to recognise that climate risk is not just a threat multiplier it is being actively exacerbated by false solutions marketed as mitigation. Australia's economic and energy strategies are increasingly shaped by a net zero narrative that assumes decarbonisation equals climate stability. Yet the very technologies deployed under this banner—industrial wind farms, vast solar arrays, chemical-intensive batteries, and expansive transmission corridors—are contributing to environmental degradation, increasing regional temperatures, fragmenting ecosystems, and displacing viable agricultural land.

This is not theoretical. The photovoltaic heat island effect has been observed to raise surrounding land temperatures by up to 4°C (Barron-Gafford et al., 2016). Wind farms require extensive vegetation clearing and generate cumulative heating and dust effects. Lithium-ion battery storage systems leach PFAS chemicals into water and soil, creating long-term contamination risks. These developments—sold as “green”—are often implemented with minimal oversight, no cumulative impact modelling, and no accountability for atmospheric or ecological side effects.

Meanwhile, emissions from industrial-scale construction, deforestation, and infrastructure deployment are often excluded from national carbon accounting. This results in a deeply flawed model: a carbon-led policy that ignores heat, hydrology, and biophysical damage. The real climate crisis is not just carbon—it is ecological overshoot, land system destabilisation, and the collapse of natural cooling mechanisms.

The Commission's implicit endorsement of climate adaptation through decarbonisation fails to interrogate this contradiction. While economic losses from extreme weather are rising—costing billions in flood, fire, and drought recovery—the current response compounds vulnerability by undermining the natural systems that regulate climate and water cycles. Major insurers are withdrawing from fire and flood-prone regions not just due to climate volatility, but because land use decisions are eroding resilience faster than adaptation measures can compensate.

What Australia needs is not net zero rhetoric, but net impact transparency. That means rigorous accounting for all thermal, ecological, and pollution-based consequences of energy and infrastructure projects. It means shifting from emissions abstraction to ecosystem preservation. It means recognising that a degraded biosphere cannot support a functioning economy, regardless of carbon metrics.

Instead of applying shadow carbon pricing, redirecting public funds to industrial renewables, or pursuing speculative carbon offset markets, Australia should invest in climate integrity. This includes restoring wetlands and forests, protecting remnant vegetation, securing catchments, safeguarding aquifers, and reducing the total industrial footprint across ecologically sensitive areas.

If resilience is to mean anything, it must begin with realism. The current climate policy framework is not insulating Australia from risk, it is accelerating it under another name. A future-proof economy must value what is irreplaceable, measure what matters, and act within the ecological boundaries we are already breaching.

8. Environmental Justice and Regional Australia

Economic reform in Australia has increasingly shifted environmental and social burdens onto regional communities, particularly those located near extractive zones, industrial-scale renewable energy developments, and major infrastructure corridors. The Productivity Commission's framework fails to address this geographic inequity, instead presenting a centralised growth model that extracts environmental capital from the periphery while concentrating economic returns in urban centres and corporate headquarters.

From wind and solar mega-projects to energy transmission infrastructure, regional and rural Australians are being asked to bear the ecological, cultural, and social costs of so-called national progress. These projects often proceed without genuine local consent, without equitable compensation, and without transparent, long-term benefit-sharing mechanisms. What is sold as a green transition is too often experienced as land alienation, biodiversity loss, rising local temperatures, dust storms, aquifer drawdown, and escalating conflict over land use.

Nowhere is this injustice more apparent than in the systematic failure to address end-of-life infrastructure impacts. The decommissioning of wind turbines, solar panels, battery arrays, and transmission assets remains entirely unresolved at both a policy and regulatory level. As Guelfo et al. (2024) detail, PFAS contamination from lithium-ion batteries presents a major emerging threat to soil and water systems. Similarly, the shedding of fibreglass and carbon fibre from wind turbine blades introduces microplastic and chemical pollutants into terrestrial and marine ecosystems, compounding risks to biodiversity and agricultural viability.

These are not speculative risks. They are already being felt on the ground, in farms adjacent to industrial energy installations, in aquifers downstream from battery sites, and in communities whose landscapes are being irreversibly transformed under the illusion of progress. Without enforceable national frameworks for decommissioning, monitoring, and rehabilitation, these harms will accumulate—unmeasured, unaddressed, and unjust.

This structural imbalance also exacerbates existing health and economic disparities. Rural Australians already face reduced access to healthcare, education, and employment opportunities. The imposition of energy megaprojects without corresponding social investment only deepens this marginalisation.

A truly resilient and dynamic economy must reverse this extractive logic. Regional communities must not be treated as sacrifice zones. Instead, they must be empowered as leaders in place-based regeneration, food sovereignty, and community-owned energy. Environmental justice demands that regional Australians not only be consulted but be co-designers of the transition. This includes profit-sharing arrangements, legal veto rights, cumulative health and ecological impact assessments, and the constitutional recognition of First Nations governance over Country.

The Productivity Commission must acknowledge that resilience cannot be built by displacing costs onto those with the least capacity to bear them. Environmental justice is not peripheral, it is central to economic viability, democratic legitimacy, and national cohesion. To ignore it is to invite resistance, litigation, and systemic failure.

9. Recommendations

If Australia is to have any hope of creating a genuinely dynamic and resilient economy, the current trajectory must be abandoned in favour of a model that centres environmental regeneration, social equity, and intergenerational stewardship. This is not just a moral imperative—it is a pragmatic necessity. Every pillar of economic function depends on the ecological and social systems we are currently dismantling. What remains of our rivers, forests, aquifers, and communities must be protected as a national priority.

The Productivity Commission must reframe economic policy through the lens of planetary boundaries and social foundations. A resilient economy cannot be built on ecological liquidation and social division. It must instead be grounded in the capacity of ecosystems to support life, the wellbeing of communities, and the ability of future generations to thrive in a stable climate and just society.

Accordingly, this submission recommends the following urgent and structural reforms:

- **Mandate cumulative impact assessment and mapping** at all scales of planning and decision-making. These must be codified in national legislation and supported by geospatial data systems, public registries, and ecological baselines.
- **Legislate full lifecycle accounting** for all major projects, including end-of-life decommissioning, ecological and social cost attribution, and rehabilitation obligations. This must include strong legal and financial penalties for non-compliance.
- **Require legislated, independent social impact assessments** for all major infrastructure, energy, and extractive projects. These assessments must be undertaken by an arm's-length agency, free from industry capture, with senior oversight by a statutory commissioner for community and environmental rights.
- **Impose a rehabilitation levy on all project proponents**, held in trust by government and indexed to inflation, to fully fund site decommissioning, waste remediation, and ecosystem restoration. No project should proceed without the upfront financial assurance to repair the damage it causes.
- **Immediately ban the use of PFAS compounds and other persistent toxins** in energy, defence, and industrial projects, in line with global best practice and public health protection. Where contamination exists, a national clean-up strategy must be implemented without delay.
- **Declare all National Parks, remnant native forests, and critical habitats for endangered species off-limits** to industrial development, infrastructure encroachment, and resource extraction. These areas must be permanently protected under strengthened environmental legislation and World Heritage obligations.
- **Integrate ecological productivity into national economic metrics**, recognising ecosystem services such as carbon sequestration, water retention, pollination, and biodiversity as foundational economic infrastructure.
- **Transform corporate tax structures** to incentivise environmental performance, local reinvestment, and contributions to regenerative public goods. End subsidies and tax offsets for environmentally destructive practices.
- **Rebuild public capacity** by investing in government science, regulatory enforcement, and community-based monitoring systems, particularly in rural and ecologically sensitive regions.

- **Recognise environmental justice as core to economic legitimacy**, ensuring that regional and First Nations communities are not only consulted but are empowered through legal rights, co-governance, and long-term benefit-sharing.
- **Reinstate robust environmental laws and institutions** with independent oversight, strong enforcement powers, and constitutional guarantees to uphold ecological integrity and the rights of nature.
- **Embed climate risk as a central economic consideration** in every infrastructure plan, fiscal policy, and industrial strategy—including carbon pricing, climate stress testing, and biodiversity offset reform.

If we do not act, the systems we rely on—climate, biodiversity, agriculture, water, community cohesion will collapse under the weight of negligence. But with courage, accountability, and ecological intelligence, we can still save what remains.

These recommendations are not radical. What is radical is the delusion that business as usual will protect Australia’s people, economy, or future.

10. Hidden Climate Feedbacks and Intergenerational Costs

At the heart of Australia’s economic and energy transition lies an unacknowledged paradox: policies designed to prevent climate catastrophe are accelerating it through poorly understood ecological feedback loops. Industrial-scale renewable energy developments while presented as green solutions are driving land clearing, microclimate disruption, and cumulative ecological destabilisation at an alarming pace. These impacts are not incidental. They are engineered outcomes of systems that treat land, atmosphere, and communities as disposable.

Large-scale solar arrays displace vegetated land, creating what scientists refer to as the photovoltaic heat island effect (PVHI), where solar infrastructure increases surrounding surface temperatures by up to 4°C compared to nearby natural landscapes (Barron-Gafford et al., 2016). These heat islands alter rainfall patterns, exacerbate drought conditions, and increase soil evaporation rates, undermining regional hydrology and agricultural productivity.

Wind farms often built in fragile habitats or fire-prone areas require extensive clearing of native vegetation and construction of access roads, transmission corridors, and substations. These linear disruptions fragment ecosystems, destroy wildlife corridors, and reduce carbon sink capacity. The loss of remnant forests, particularly in dry sclerophyll and woodland biomes, strips the landscape of its resilience to fire, erosion, and biodiversity collapse.

Most dangerously, none of these cumulative heating effects, water disruptions, or ecological consequences are accounted for in national energy models or project approvals. Environmental impact statements routinely omit downstream and atmospheric effects, while state-based planning frameworks lack any mechanism to assess cumulative heating or climate-altering feedbacks. This is not a data gap, it is a systemic failure.

The result is an unmanaged climate engineering experiment. Without scientific oversight or regulatory boundaries, we are replacing climate-moderating landscapes with infrastructure that exacerbates the very problem it claims to solve. These impacts are invisible to carbon

accounting models, which ignore land surface albedo, hydrological shifts, and biogenic emissions from soil and vegetation disturbance.

The consequences are generational. Children born today will inherit a nation with destabilised rainfall regimes, hotter regional climates, degraded farmland, contaminated aquifers, and fragmented ecosystems. The physical legacies of industrial renewables—fibreglass blade debris, PFAS-laced batteries, concrete foundations, and deforested ridgelines—will persist long after the energy transition narrative has shifted.

The time to act is now. National planning must adopt a climate integrity framework that evaluates the full climatic footprint of infrastructure, including thermal, hydrological, and atmospheric effects. No further approvals should be granted without real-time environmental modelling, heat mapping, and accountability for induced climate instability.

To do otherwise is to sacrifice long-term resilience for short-term symbolism. We are not just stealing from the future—we are destabilising the very systems our children will depend on to survive.

11. Conclusion

Australia stands at a precipice. The decisions made today will determine whether we protect our economic base or undermine it entirely. This is not about ideology it is about risk management, asset protection, and fiscal foresight. The natural systems currently being sacrificed for short-term returns, our forests, aquifers, farmland, coastlines, and regional communities, form the foundation of long-term national prosperity. Without them, economic stability collapses.

Economic policy that ignores ecological reality is not innovative; it is negligent. The continued push for deregulated development and infrastructure rollout without cumulative impact oversight or end-of-life cost accountability is creating long-term liabilities that will dwarf any temporary gains. These liabilities include rising insurance costs, infrastructure repair from climate extremes, biodiversity offsets, contamination remediation, water stress, and social displacement.

If the true financial cost of current policy settings were disclosed through accurate carbon accounting, full life-cycle analysis, and risk-weighted ecological modelling many of the projects being fast-tracked today would be deemed economically unviable.

We are not cutting costs. We are shifting them onto taxpayers, farmers, regional councils, future governments, and ultimately, the next generation. At the same time, we are creating investment volatility and undermining Australia's sovereign environmental assets.

The irony is sharp: in the name of sustainability, we are degrading the very natural capital that underpins food security, clean water, tourism, health, and climate resilience. Our carbon footprint is rising. Our heat signatures are intensifying. Microplastics, chemical residues, and waste from renewables are entering supply chains, farmland, and water tables.

This is not precautionary policy, it is an engineered risk exposure. One that will drive legal challenges, compensation claims, and capital flight as the scale of ecological loss becomes undeniable.

If Australia wants to remain economically competitive, politically stable, and socially cohesive, it must stop externalising the cost of environmental decline. A dynamic economy must protect the assets that cannot be rebuilt: biodiversity, topsoil, aquifers, climate zones, and public trust.

The window to act is narrowing. But decisive policy that restores integrity, mandates real accountability, and rewards ecological performance is still possible. There is no long-term return on collapse.

The question for the Commission and for the country is this: will we allow ideology and short-termism to override evidence and economic logic, or will we make the tough decisions now to prevent far more costly consequences later?

References

1. Australian Bureau of Statistics (ABS), 2024. *Characteristics of Employment, Australia*. Canberra: ABS. Available at: <https://www.abs.gov.au/statistics/labour/employment-and-unemployment/characteristics-employment-australia>
2. Australian Government, 2021. *EPBC Act Review – Final Report by Professor Graeme Samuel AC*. Canberra: Department of Agriculture, Water and the Environment. Available at: <https://epbcactreview.environment.gov.au/resources/final-report>
3. Australian Panel of Experts on Environmental Law (APEL), 2017. *Blueprint for the Next Generation of Environmental Law in Australia: The Foundations*. Sydney: APEL. Available at: <https://apeel.org.au/>
4. Barron-Gafford, G.A., Minor, R.L., Allen, N.A., Cronin, A.D., Brooks, A.E. and Pavao-Zuckerman, M.A., 2016. The Photovoltaic Heat Island Effect: Larger solar power plants increase local temperatures. *Nature Scientific Reports*, 6, Article 35070. Available at: <https://doi.org/10.1038/srep35070>
5. Climate Council, 2023. *The Great Deluge: Australia's Climate Cost Crisis*. Sydney: Climate Council. Available at: <https://www.climatecouncil.org.au/resources/great-deluge-climate-costs-australia/>
6. Dasgupta, P., 2021. *The Economics of Biodiversity: The Dasgupta Review*. London: HM Treasury. Available at: <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>
7. Deloitte Access Economics, 2021. *A New Choice: Australia's Climate for Growth*. Canberra: Deloitte. Available at: <https://www2.deloitte.com/au/en/pages/economics/articles/new-choice-climate-growth.html>
8. Department of Agriculture, Water and the Environment (DAWE), 2021. *State of the Environment Report 2021*. Canberra: Australian Government. Available at: <https://soe.dcceew.gov.au>
9. Environmental Justice Australia (EJA), 2022. *Green Energy, Red Flags: The Need for Environmental Justice in the Renewable Transition*. Melbourne: EJA. Available at: <https://envirojustice.org.au/publications/green-energy-red-flags/>
10. First Peoples' Assembly of Victoria, 2021. *Guiding Principles for First Nations Involvement in Land Use Planning*. Melbourne: First Peoples' Assembly of Victoria. Available at: <https://www.firstpeoplesvic.org>
11. Guelfo, J.L., Shih, W.Y., Lee, L.S., MacMillan, D.K., Higgins, C.P., Higgins, C.A., Peaslee, G.F., Ulrich, B.A. and Venkatesan, A.K., 2024. Lithium-ion battery components are at the nexus of sustainable energy and environmental release of per-

and polyfluoroalkyl substances (PFAS). *Nature Communications*, 15(1), Article 3201. Available at: <https://www.nature.com/articles/s41467-024-23201-4>

12. Hickel, J., Brockway, P., Kallis, G., Keyßer, L.T., Lenzen, M., Slamersšak, A., Steinberger, J.K. and Ürge-Vorsatz, D., 2022. Urgent need for post-growth climate mitigation scenarios. *Nature Energy*, 7(2), pp.163–170. Available at: <https://doi.org/10.1038/s41560-021-00998-8>

13. Intergovernmental Panel on Climate Change (IPCC), 2023. *AR6 Synthesis Report: Climate Change 2023*. Geneva: IPCC. Available at: <https://www.ipcc.ch/report/ar6/syr/>

14. International Association for Impact Assessment (IAIA), 2022. *Principles of Social Impact Assessment*. Fargo, ND: IAIA. Available at: https://www.iaia.org/uploads/pdf/SIA_Principles.pdf

15. International Monetary Fund (IMF), 2021. *Tax Policy for Inclusive Growth in Australia*. Washington, DC: IMF. Available at: <https://www.imf.org/en/Publications/CR/Issues/2021/04/14/Australia-Tax-Policy-for-Inclusive-Growth-503091>

16. International Monetary Fund (IMF), 2023. *Fossil Fuel Subsidies: A Closer Look at their Magnitude and Impact*. Washington, DC: IMF. Available at: <https://www.imf.org/en/Blogs/Articles/2023/08/24/fossil-fuel-subsidies-new-data-and-policy-advice>

17. Ogle, G. and Buxton, M., 2023. The Fast Track to Nowhere: Planning Reform and Environmental Deregulation in Australia. *Environmental and Planning Law Journal*, 40(3), pp.142–160.

18. Organisation for Economic Co-operation and Development (OECD), 2022. *Corporate Tax Statistics: Fourth Edition*. Paris: OECD. Available at: <https://www.oecd.org/tax/tax-policy/corporate-tax-statistics-database.htm>

19. Productivity Commission, 2014. *Environmental Regulation and Mining*. Canberra: Australian Government. Available at: <https://www.pc.gov.au/inquiries/completed/mineral-exploration/report>

20. Samuel, G., 2020. *Independent Review of the EPBC Act: Final Report*. Canberra: Australian Government. Available at: <https://epbcactreview.environment.gov.au/resources/final-report>

21. Tax Justice Network, 2023. *The State of Tax Justice 2023*. London: Tax Justice Network. Available at: <https://taxjustice.net/reports/the-state-of-tax-justice-2023/>

22. United Nations Environment Programme (UNEP), 2022. *Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies*. Nairobi: UNEP. Available at: <https://www.unep.org/resources/making-peace-nature>

- 23.** United Nations Environment Programme (UNEP), 2022. *Chemicals in Plastics: A Technical Report*. Nairobi: UNEP. Available at:
<https://www.unep.org/resources/report/chemicals-plastics>
- 24.** Wilkinson, R. and Pickett, K., 2010. *The Spirit Level: Why Equality Is Better for Everyone*. London: Penguin.