PROTECTING, RESTORING AND BUILDING OUR ENVIRONMENTAL ASSETS FOR INVESTMENT IN OUR SOCIAL AND ECONOMIC WELLBEING

A LEAN Resource Paper: September 2018

The health of our urban, agricultural and natural environments, on land, in our rivers, streams and wetlands and in our coastal and marine areas, underpins the productivity of our economy and health of our society. If Australia fails to protect, restore and build its natural assets there will be long-term costs to the economy and the well-being of our communities and society at large that go beyond project-by-project considerations.

In the lead up to the 2018-9 federal election, LEAN is urging the Labor Caucus to create new environment laws, and found an independent, fully resourced, public agency for the environment, within its first next term of Government.

Environmental law reform is necessary for safeguarding our natural assets and places and is an acknowledgement that vibrant healthy ecosystems underpin our economic and social wellbeing. LEAN's proposed reform should be a key consideration for a future Labor government's progressive economic and social agenda.

This document provides resources that speak to the intellectual and conceptual basis of our environment laws campaign and provide practical examples of approaches taken by other governments in this context.

Sections are given as follows:

1. Authoritative economists' perspectives
2. Sectoral, government and community perspectives
3. International perspectives
4. Policy Case Study: The United Kingdom's 25 Year Environment Plan
5. Case Studies of Economic and Social Benefits from Investment in Environmental Protection, Restoration, Building

1. Authoritative Economists' Perspectives

Prof. Frank Jotzo, Australian National University[1]

> *"Environmental protection benefits our economic prosperity. Production of quality food including for export, the tourism industry, the attractiveness of Australia as a location for global service industries, and people's health all depend on an intact environment. As a society, we cherish and take pride in Australia's natural features. Yet all too often little explicit value is placed on our natural capital, and large or lasting environmental damage is caused for small or short-term material gain. There are big benefits to be had from investing in cleaner technologies and using better practices in agriculture, mining, manufacturing, transport and housing."*

[1] Prof. Frank Jotzo: Pers Comm

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Prof. John Quiggin, University of Queensland[2]

> *"All economic activity depends ultimately on a stock of natural capital, including land, water, forests and natural ecosystems. Important sectors directly affected include agriculture, fisheries and tourism. Indirect effects arise through the dependence of our physical and mental health on a healthy natural environment. Independent of any such effects, our heritage of natural capital is of great value in itself."*

Ken Henry[3], Chair of Australia's Future Tax System Review (2010)

> *"…by investing in building our natural capital, we can enhance business resilience and productivity, and satisfy the aspirations of a growing population. We need to manage our natural capital with the same diligence that we manage our financial capital. This means accounting for the condition of our environmental assets, including the availability of clean water, the quality of biodiversity and the condition of our soils. And it means an integrated national approach to natural capital management.*
>
> Sustainable wellbeing requires that at least the current level of wellbeing be maintained for future generations. In this regard, we can consider sustainability as requiring, relative to their populations, that each generation bequeath a stock of capital — the productive base for wellbeing — that is at least as large as the stock it inherited.

Dr Martin Parkinson[4], when Australia's Treasury Secretary

> *"The stock of capital, or the productive base for wellbeing, should include all forms of capital:*
>
> 1. *physical and financial capital;*
> 2. *human capital;*
> 3. *environmental capital; and*
> 4. *social capital.*
>
> *When one thinks about wellbeing, rather than GDP, it becomes quickly apparent that society does not get an adequate return on many environmental goods. As such, society is not getting the resources it would need to build up other parts of its capital stock. Unsustainable growth cannot continue indefinitely — if we reduce the aggregate capital stock in the long run future generations will be made worse off."*

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[2] Prof. John Quiggin: Pers Comm.

[3] Henry, K. 2016. Advancing Australia's Natural Capital. Dr Ken Henry AC, Chair National Australia Bank. The Fiona Wain Oration. 27 May 2016, Sydney. p18.

[4] https://static.treasury.gov.au/uploads/sites/1/2017/06/shann_2134.pdf

2. Sectoral, Government and Community Perspectives

Australian Council of Trade Unions & Australian Conservation Foundation[5]

- *"Australia, and the world, faces unprecedented environmental challenges demanding urgent action: the threat of climate change, pollution and resource constraints.*
- *But these challenges create opportunities. Environmental solutions such as renewable energy, sustainable water technologies and innovative ways of de- signing buildings and products are generating economic activity.*
- *How Australian governments choose to respond to these challenges and opportunities will have a dramatic effect on the profile of Australia's future workforce. With the right policy settings, six market sectors currently valued at $US15.5 billion and employing 112,000 people could grow by 2030 to a value of $243 billion and 847,000 jobs."*

Australian Bureau of Statistics[6]

- *In economic terms, the rivers, wetlands and flood plains of the Murray-Darling Basin are thought to provide $187 billion in ecosystem services annually, and terrestrial ecosystems up to $325 billion per year. Biodiversity related industries also contribute significantly and directly to the Australian economy: it has been estimated that, per year, Australia's commercial fisheries are worth $2.2 billion; kangaroo harvesting worth $245 million; bushfood production worth $100 million; and wildflower exports worth $30 million.*
- *It has been estimated that tourism, recreational fishing and commercial fishing in the Great Barrier Reef Marine Park contributed $5.4 billion to the Australian economy in 2006-07. The national economic value generated by 15 of Australia's other World Heritage Areas is of the order of $7.25 billion annually, along with approximately 83,000 jobs.*

[5] ACTU & ACF, 2008. *Green Gold Rush: How ambitious environmental policy can make Australia a leader in the race for green jobs*. Available at: https://d3n8a8pro7vhmx.cloudfront.net/auscon/pages/1180/attachments/original/1467956514/Green_Gold_Rush.pdf

[6] ABS, 2010. *Year Book Australia, 2009-10.* Available at: http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/1301.0Feature%20Article12009%E2%80%9310?opendocument&tabn

National Australia Bank[7]

We recognise ecosystem services:

- *are essential to sustaining human wellbeing and may be threatened by increasing biodiversity loss and ecosystem degradation;*
- *need to be better understood so that companies can determine associated risks and opportunities; and*
- *are not currently valued appropriately and that work is required to develop methodologies that help to value natural capital.*

3. International Perspectives

UK Natural Capital Committee[8]

The State of Natural Capital Report summarises that:

- *Nature underpins our economy and is central to our wellbeing.*
- *There are substantial economic benefits to be gained from maintaining and improving natural assets. The benefits will be maximised if their full value is incorporated into decision-making.*
- *A long-term plan is necessary to maintain and improve natural capital, thereby delivering wellbeing and economic growth.*
- *If our natural capital is to continue to support development now and into the future, it is essential that it is properly taken into account in all decision-making and is invested in appropriately, such as through the Government's national infrastructure plan.*

International Renewable Energy Agency[9]

- *Renewable energy will not just produce environmental benefits, but that Accelerating the deployment of renewable energy will fuel economic growth, create new employment opportunities, enhance human welfare, and contribute to a climate-safe future.*
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[7] NAB, 2018. *Environmental Agenda*. Available at: https://www.nab.com.au/content/dam/nabrwd/About-Us/corporate-responsibilty/docs/environmental-agenda-objectives-and-strategy.pdf

[8] UK Natural Capital Committee, 2014. *The State of Natural Capital: Restoring Our Natural Assets*. Second report to the Economic Affairs Committee. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/516698/ncc-state-natural-capital-second-report.pdf

[9] International Renewable Energy Agency, 2016. *Renewable Energy Benefits: Measuring the Economics.* Available at: http://www.irena.org/publications/2016/Jan/Renewable-Energy-Benefits-Measuring-the-Economics

- *Doubling the share of renewables in the global energy mix by 2030 would increase global GDP by up to 1.1% or USD 1.3 trillion, compared to business as usual.*
- *Doubling the share of renewables by 2030 has a positive impact on global welfare, which increases by 2.7 % compared to a 0.6% GDP improvement. If achieved through higher electrification of heat and transport, global welfare would further rise by 3.7%.*
- *Doubling the share of renewables increases direct and indirect employment in the sector to 24.4%*

4. Policy Case Study: The United Kingdom's 25 Year Environment Plan[10]

The United Kingdom's 25 Year Environment Plan is an excellent example of government putting a holistic and comprehensive plan in place to ensure the health of the environment outside of the short term political cycle. In doing so, the UK Government shows strong leadership in both preserving the foundation of the country's human wellbeing and acknowledging the opportunities that conservation can present for the economy. The environment sector has welcomed the Plan and sees it as a positive start to a concerted, coordinated approach to the interwoven environmental problems facing communities worldwide.[11]

Both the systematic, proactive and ambitious approach taken by the UK Government to the creation of the Plan and the approach embodied in the Plan can serve as inspirations for Australian environmental law reform to achieve effective national governance of better stewardship of our natural environment, In Australia, that governance and stewardship, for more than 20 years has been, piecemeal, reactive and siloed and not delivering either the environmental benefits or improvements to social and economic well-being that a better cared for natural environment could.

The strengths of the Plan include:

- A recognition of the urgency of the task and the need for a consistent strategy driving actions each year over a 25-year timeframe
- A conceptual basis in the Brundtland Commission's vision of sustainable development, in committing to be *"the first generation to leave the natural environment of England in a* ***better state than it inherited****…"*
- The concept of creating net gain in Natural Capital through private and public sector investment to protect, restore and build different environmental assets - a concept which is transferrable and dynamic, and operational in cost-benefit analyses.

[10] UK Natural Capital Committee, 2017. *Advice to the UK Government on the 25 Year Environment Plan*, Available at: https://www.gov.uk/government/publications/natural-capital-committee-advice-on-governments-25-year-environment-plan

[11] E.g. World Wildlife Fund, 2018. *Our Reaction to the 25 Year Plan*. Available at: https://www.wwf.org.uk/updates/our-reaction-25-year-environment-plan

- Environmental goals that are specific, measurable and ambitious, and closely linked to also improving human health and well-being and the economy. These goals are to be evaluated at 5 yearly intervals in the light of progress to ensure the high-level vision is made tangible and accountable (both at high and regional level, across environmental sectors).
- Its segmentation into area level units to encourage local and regionally sensitive investments into natural capital planning and improvement
- A clearly articulated role for the private sector to play alongside the public sector, as opposed to treating business as a natural competitor
- A program to structure community, private, public and voluntary engagement for working toward goals in a coordinated manner
- A set of new institutions to give strategic advice to governments to keep the Plan on track. These include:
    - A new independent watchdog armed with agreed principles to ensure policy making is consistent with the goals of the plan over its lifetime
    - A green business council to advise government on setting the right conditions to stimulate environmental entrepreneurism and innovation

5. Economic and Social Benefits from Investment in Environmental Protection, Restoration, Building in Australia

Renewable Energy Hub in South Australia[12]

After years of uncertainty around job security in the Whyalla station, new life has been breathed into the region now that investment is being made in transitioning to a renewable energy hub. The project has demonstrated that renewables industry is a bankable employment base, while also reducing greenhouse gas emissions and lowering power prices for consumers.

Meanwhile, repowering Port Augusta with solar thermal has demonstrated that investment in the renewables sector has provided real jobs for the community, Investment in renewable energy will reduce greenhouse gas emissions, it will generate / sustain economic and social well-being in Port Augusta and South Australia, and so benefit Australia as a whole.

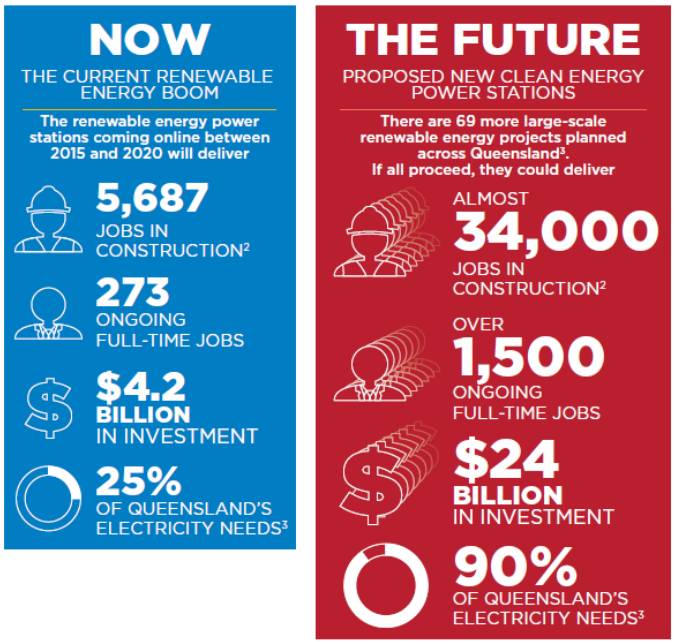
[12] *https://www.theguardian.com/environment/2018/jul/23/sanjeev-gupta-coal-power-is-no-longer-cheaper-and-well-prove-it*
https://www.theguardian.com/environment/2018/aug/15/sanjeev-gupta-1-billion-dollars-south-australia-renewable-energy-plan-will-mean-cheaper-power
https://www.theguardian.com/environment/2018/jul/20/life-after-coal-the-south-australian-city-leading-the-way

Project name	Estimated cost	Approx jobs in construction	Approx jobs in operation
Bungala solar PV plant	$425m	350	50
Port Augusta renewable energy park – stage 1	approx $600m capex	up to 600	15 to 20
Lincoln Gap wind farm	$500m	110 to 130	10 to 12
Aurora solar thermal plant	$650m	650	50
Port Augusta renewable energy park – stage 2	approx $600m capex	300	4
Goat Hill pumped hydro project	$410m	200	10 to 15
Cultana saltwater pumped hydro project	$477m	300	5
Solastor solar thermal	$650m	350	25 to 30

Table taken from: *https://www.theguardian.com/environment/2018/jul/20/life-after-coal-the-south-australian-city-leading-the-way*

Renewable Energy in Queensland

A Solar Citizens report "Renewable Energy across Queensland's Regions" forms another example of the benefits for jobs, for economic and social well-being and for the environment that can be achieved by investment in renewable energy."[13]



[13] Solar Citizens, 2018. *Queensland Regions*. Available at: *www.solarcitizens.org.au/qld_regions*

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The Importance of Natural Capital to the Victorian Economy[14]

- *Victoria's economy can expect substantial economic returns of between $9 billion and $38 billion in output and 24,000 and 230,000 jobs in the year 2028 from healthier natural capital.*
- *Healthy natural capital supports economic performance of between $16 billion and $36 billion in output and 60,000 and 220,000 jobs above historical trends in the year 2028.*
- *On the other hand, our modelling also projects that an economy underpinned by declining natural capital faces a substantial risk to growth, prosperity and jobs.*
- *Poor environmental health can result in sub-optimal growth, with up to $72.6 billion less output and 584,000 less jobs than baseline trend in the year 2028*
- *Poor quality natural capital can result in direct economic costs of up to $21.6 billion in output and 100,000 jobs in the year 2028*
- *Protecting our natural capital is a hedge against the risk of collapse. That is, even under the most challenging and threatening global economic conditions, it is even more important to develop the economy with a long term view that protects natural capital. An alternative approach where natural capital is exploited for short term industry gain would lead to total economic disruption with severe consequences to our industries as well as major job losses.*
- *Two important industry sectors are more seriously impacted by the loss of natural capital – Health Care and Social Assistance and Financial and Insurance Services, while industries such as Agriculture and Manufacturing will benefit most from the protection of natural capital.*

[14] http://www.futureeconomy.com.au/wp-content/uploads/2014/06/Future-Economy-Group-Final-Report-Nous-June-2014.pdf