

## **SUBMISSION TO UPDATING THE CLIMATE CHANGE AUTHORITY'S ADVICE ON MEETING AUSTRALIA'S PARIS AGREEMENT COMMITMENTS**

The Government now recognises Australia's Green House Gas emissions have been rising since 2015. We are not on track to meet our modest Paris Agreement commitments.

The narrow range of tools the Federal Government employs in a restricted number of greenhouse gas emitting sectors is the main reason for our failure. The technologies are available to move Australia to a carbon neutral or even carbon negative economy in the next 20 to 30 years, but our policies are not adequate to achieve this outcome.

Australia's population, like that of most of the developed world's, increasingly recognise the planet is facing an existential threat from growing greenhouse gas emissions and related global warming, extreme climate changes and sea level rises. The extent of this crisis demands a radical rethink and total overhaul of our current piecemeal and only marginally effective emission reduction policies.

Our new emission reduction regime needs to include, but not be limited to, the following elements, mainly driven by the Federal Government:

- Levying at source a uniform tax, probably between \$20 and \$40 inflation adjusted dollars, on every tonne of carbon emitted, from every sector of the Australian economy.
- Applying this levy also to Australian exports of carbon-based products, including all fossil fuels, woodchips and whole logs, whose embodied carbon will be released into the world's atmosphere within a short timeframe.
- Including in this greenhouse gas emissions taxation regime all households and publicly and privately owned enterprises, in all sectors including transport, agriculture, forestry, existing and new industry and infrastructure. Every tonne of carbon emitted due to human activity anywhere in the economy is a threat to Australia's and the planet's future and needs to be taxed at source, in the same way to ensure emission reductions are achieved as rapidly as possible and in an economically efficient manner.
- Expanding the existing carbon farming initiative, to encourage the widespread planting of trees and discourage any further deforestation or forest degradation on public and private land. Carbon tax revenue also should directly fund the mass planting of new trees on all suitable public and private

land. These initiatives are imperative to remove CO<sub>2</sub> levels above pre-industrialisation levels, from the atmosphere.

- Simultaneously implementing and carefully overseeing an emissions trading scheme, to enable emissions from all sectors of the economy to be reduced in the most economically efficient manner.
- Using carbon tax revenue to compensate, over a limited 10-20 year transition period, owners of assets, such as fossil fuel deposits, who are adversely affected by the new carbon emission and export taxation regime.
- Using carbon taxation revenue to develop and expedite the adoption of new, cost effective CO<sub>2</sub> reducing technologies. For example, new research into seaweed-based products that prevent livestock emitting methane should be investigated and if effective rolled out rapidly with government support. Transition of the vehicle fleet to electric operation should receive strong support, including by lower vehicle registration fees and support for the rollout of charging stations throughout Australia. Similarly, the transition of electricity generation to 100% renewable energy should be expedited by a combination of the universal carbon emissions tax and enhanced targeted subsidies for renewable energy generators.
- Using carbon tax revenue to retrain and re-employ labour adversely affected by the restructuring of carbon emitting sectors, enterprises and regions. Additional employment will be available in a range of industries and enterprises which will benefit from this thorough restructuring of the economy to a carbon neutral, or negative future. These include renewable energy generation, electric vehicle rollout and servicing, feedstock production and carbon farming, among many others. Training and income support will be needed to enable workers to move to these sectors at minimal social and economic cost.

## **Focus on forestry sector recommendations**

To date, the forestry sector has been largely excluded from Australia's emission reduction policies, except as a modest component of the Carbon Farming Initiative, which supports new tree planting on private land. However, studies show approximately two thirds of global human generated GHG emissions since the start of industrialisation are due to burning fossil fuels and livestock, and one third to deforestation. A new study (Crowther, *Science*, 2019) found that planting 1 trillion trees worldwide could remove two thirds of all human generated emissions in the atmosphere over the next 50 to 100 years. The Crowther study found reforestation is the only economically viable way human generated CO<sub>2</sub> can be removed from the

atmosphere and by far the cheapest method of reducing on-going new global emissions. It also found that Australia is one of the six sites, along with Russia, Canada, China, the US and Brazil, which contain half the potential tree restoration sites. These sites were defined as vacant or sparsely treed land capable of growing trees and not currently devoted to agriculture or urban settlement. Another recent report (Dooley and Mackey, 2019) cited evidence that allowing degraded forests to regrow is a much quicker and cheaper method of significantly reducing new and existing atmospheric emissions than planting new trees

<http://theconversation.com/want-to-beat-climate-change-protect-our-natural-forests-121491>

At the micro level, a study I co-authored found ceasing logging of the 400,000 hectare southern forestry region of NSW, one third of NSW's public native forest estate, would avoid approximately 2 million tons of CO<sub>2</sub> emissions per annum (Perkins and Macintosh, <http://www.tai.org.au/content/logging-or-carbon-credits>). In 2013, the private forestry industry processed from 900,000 to 1 million cubic meters of native hardwood trees from these forests, 90 per cent for export wood chips, but was making net losses of about \$2 million per year, even after receiving annual government subsidies of approximately \$750,000. Hence, ceasing this native forest logging would impose negative costs on the economy, or be a revenue positive method of avoiding emissions. Similar economic fundamentals could well exist in other forestry regions throughout Australia, due to widespread state government policies of insulating this sector from market forces.

The Perkins and Mackintosh study refutes claims frequently made by the Australian forestry industry that logging native forests is a carbon neutral or even carbon negative activity, that helps tackle climate change.

[http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/CFI%202017%20August/Submissions/AFPA\\_Climate%20Change%20Authority%20ERF%20Review%202017%20final.pdf](http://www.climatechangeauthority.gov.au/sites/prod.climatechangeauthority.gov.au/files/files/CFI%202017%20August/Submissions/AFPA_Climate%20Change%20Authority%20ERF%20Review%202017%20final.pdf). Logging mature native forest trees, burning all but the trunks on the forest floor and processing 90% of the logs for chips used to produce rapidly decomposing packaging materials or to generate electricity is in fact significantly adding to CO<sub>2</sub> emissions. Only research funded by the forestry industry or related agencies finds such logging reduces carbon emissions.

If subsidies to this sector were stopped and a carbon tax were imposed on its CO<sub>2</sub> emissions, as suggested above, it probably would cease production. In this case, carbon tax revenue should be used re-trained employees in the sector and employ them should be in new activities. These could include regenerating degraded native forests, protecting them from wild fires, planting trees and building and maintaining fire and walking trails.

The public owners of these forestry assets should receive compensation from an expanded Carbon Farming Initiative, which should include public and privately owned forests. For example, ceasing logging the southern forestry region could generate

about \$30 million pa gross from carbon credits for the NSW Government, from the Commonwealth's existing Emission Reduction Fund if it were permitted to bid in the auction system. This would be a much better outcome for taxpayers than the \$750,000 NSW currently is losing from logging just a third of its public native forests each year. More importantly, ceasing such logging could make a significant contribution to reducing Australia's CO2 emissions.

In summary, Australia could rapidly meet its Paris Agreement commitments and achieve a position of world leader in tackling climate change by:

- introducing a uniform carbon emissions tax on all greenhouse gas emitting sectors, at source
- using this tax revenue to compensate losers, retrain and reemploy affected workers and expedite the adoption of carbon neutral technologies including in transport, electricity generation and livestock production
- ceasing logging of Australia's natural forests and reforestation of all suitable land to draw significant volumes of CO2 down from the atmosphere..

Yours sincerely

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