

Stephanie Chee
stephanie.chee@u.yale-nus.edu.sg
Yale-NUS College
A0138078X

POLICY BRIEF

TO: The Hon Josh Frydenberg MP – Australia’s Minister for the Environment and Energy

FROM: Stephanie Chee – Yale-NUS Climate Science and Policy Team

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SUBJECT: Stricter Emissions Controls to Preserve Australia’s Ecologic, Environmental, and Economic Stability

The Pacific Ocean, being the largest and deepest of Earth’s oceans, influences a vast number of islands and nations and sustains abundant marine ecologies. Climate change and the rise of global temperatures affects the Pacific Ocean in many ways. With higher surface temperatures, thermal expansion of the sea and melting of ice sheets cause sea-levels to rise. Sea-level rise increases coastal flooding events, and can completely inundate low-lying island nations and coral atolls, forcing citizens on the islands to relocate (Guzman, 2013). Rising ocean temperatures also acidifies oceans, which damages coral reefs. Thermal stress can cause coral bleaching, and ocean acidification slows down coral regeneration (Great Barrier Reef Marine Park Authority). The world’s largest coral reef system with outstanding biodiversity lies in the Great Barrier Reef off the coast of Queensland. **Australia thus has a moral responsibility to protect the reef which is home to ecosystems with diverse species. While Australia’s coastal regions are directly affected by sea-level rise, Australia will also be indirectly affected by climate refugees from other island nations.** With considerable similarities to small island nations, nations like the Maldives and Tuvalu are considering an exodus to Australia when oceans levels become too high (Guzman, 2013). An influx of refugees could trigger conflict and disorder in Australia. **To protect the marine ecology and to preserve stability, Australia must include larger-scale action plans in its Reef 2050 Plan and contribute to slowing sea-level rise by making emissions reductions mandatory.**

The ministry should include in the Reef 2050 action plans mitigation efforts against larger-scale climate change effects such as ocean heating and acidification, as well as plans to form alliances with other Pacific island nations to protect the ocean cooperatively.

While the Reef 2050 Plan indicates actions to protect the Great Barrier Reef and its ecosystems, it does not consider the reef in its broader relation to the Pacific Ocean. Non-localized impacts such as changes in the Pacific Ocean’s temperature and acidity affects the entire oceanic system. To protect the Great Barrier Reef and its diverse marine ecology and to maintain the reef as a source of tourist revenue, significantly more regional efforts are needed. This effort entails a larger contribution to international emissions reductions. With Australia having the 16th highest per capita emissions in the world in 2013, the ministry needs to implement more stringent carbon restrictions (see next recommendation) to help slow sea-level rise – both for the sake of small island nations and Australia’s border security – and to protect Australia’s valued reefs.

The way neighbouring nations interact with the ocean is also important as activity in different Pacific regions are interconnected by the ocean. To ensure a shared commitment towards

maintaining the health of the Pacific Ocean, the ministry should reach out to neighbouring Pacific Island nations to construct a cooperation agreement. The agreement should include guidelines on how to manage the coast and on what and how much substances can be released into the ocean. A penalty should be decided for countries/islands who breach the agreement.

On top of the Emissions Reductions Fund (ERF) scheme, the ministry should instate a policy for mandatory emissions reductions of a decided percentage per year, applied to all major industrial emitters. This is necessary for reaching Australia's Paris targets.

The repeal of Australia's carbon tax has led to a 4.3% increase in carbon emissions, undoing part of an 11% fall in emissions during the two years the tax was in place (Australian Associated Press, 2015). Furthermore, Australia's current climate policies are insufficient to reach her Paris Agreement targets of 26 – 28% emissions reductions below 2005 levels by 2030 (Climate Action Tracker, 2016). A limitation of the current ERF is that it poorly engages the big industrial emitters (Slezak, 2016). To effectively target these major emitters, the ministry should introduce a mandatory emissions reductions policy that is penalty-based rather than incentivization-based. Industries will be required to submit their emissions analysis at the end of every year, and those who fail to meet the reductions requirements will pay a fine that will be invested in Australia's renewable energy sector. The policy would produce a secondary benefit of increasing overall investments in energy efficiency and renewable energy technologies. The government must remain steadfast in the face of opposition from industry, framing the policy as an overall cost-saving scheme for the industry.

The recommended policies will help preserve the health and vibrancy of the Great Barrier Reef and maintain peace and security for Australia's future, while bringing economic benefits through tourism revenue and saved costs from industries' mandatory investments in cleaner technologies.

Work Cited

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