



Ocean Acidification and Pacific Islands

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Penehuro Lefale¹²

Ocean acidification poses a serious threat to ocean ecosystems, and could have profound impacts on the food security, economy, and culture of communities in the Pacific Islands, and around the world.

The Pacific region is well-positioned to be a global leader on Ocean Acidification - an emerging environmental and economic issue. Increasing atmospheric CO₂ concentrations lower oceanic pH and carbonate ion concentrations, thereby decreasing the saturation state with respect to calcium carbonate (IPCC 2007³), resulting in greater acidity of ocean water. This could have potentially, devastating ramifications for marine life, including coral reefs, shellfish, and fish.

Ocean acidification is essentially irreversible during our lifetime, according to latest scientific assessment.⁴ Reducing CO₂ emissions to the atmosphere, appears to be the only practical way to minimise the risk of large-scale and long-term changes to the oceans.

In response to this challenge, New Zealand's Ministry of Foreign Affairs and Trade (MFAT) has partnered with the Pacific Regional Environment Program (SPREP), working with the Pacific Community (SPC) and the University of the South Pacific (USP) to deliver an initiative on building resilience of ecosystems, and communities, to ocean acidification in the Pacific.

The "New Zealand Pacific Partnership on Ocean Acidification (PPOA)" is a 4-year program (2015-2019), with a total budget of NZ\$2.1m. The PPOA aims to build resilience, through practical adaptation actions, capacity building, and awareness raising, along with a small component on research and monitoring.

As part of PPOA, a regional vulnerability analysis has been carried out, and we are currently identifying pilot sites in Tokelau, Kiribati, and Fiji, through discussions with government departments, and local stakeholders.

In Tokelau, a community-based workshop on ocean acidification took place in Apia, Samoa in April 2017, with representatives from the three atolls – Fakaofu, Nukunonu, and Atafu. The workshop was well-received, and

¹ Climate Advisor, Government of Tokelau, Member of the NZ delegate to COP23.

² Director, LeA International Consultants.

³ https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10s10-4-2.html

⁴ https://royalsociety.org/~media/Royal_Society_Content/policy/publications/2005/9634.pdf

SPREP has been invited to visit Tokelau later this month to get the pilot projects under way.

New Zealand and Tokelau are committed to partner with other governments and organisations working to address ocean acidification. The good news is such an organisation exists - the International Alliance to Combat Ocean Acidification (OA).

OA is an international network of governments and organisations that together, will address ocean acidification and other threats from changing ocean conditions.

The following Maori proverb beautifully captures the spirit and essence of working together, as one people, to address global challenges like ocean acidification and climate:

*"Nā tō rourou, nā taku rourou ka ora ai te iwi.
With your food basket and my food basket, the people will thrive."*