

Pacific Climate Change Science Program



Climate Change in the Pacific: Scientific Assessment and New Research **Volume 1: Regional Overview**



Australian Government



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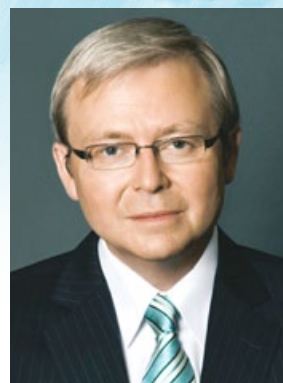
Foreword

This report is a first in many ways. To date our understanding of how the climate of the Pacific is changing, and is likely to change in the future, has been limited. Lack of scientific knowledge is a major challenge to effective adaptation planning for Pacific Island countries. In 2007, the Fourth Assessment Report of the Intergovernmental Panel on Climate Change identified key information gaps in the Pacific. *Climate Change in the Pacific: Scientific Assessment and New Research* is a significant step forward in our understanding of climate drivers in the Pacific region.

Climate Change in the Pacific is the final report of Australia's Pacific Climate Change Science Program, a landmark investment in climate science for the region. It is the result of three years' scientific research. This report is an invaluable reference for climate scientists, communities and decision-makers in the Pacific.

Climate Change in the Pacific also tells the climate change story - for the first time - for individual countries. It includes the first-ever country scale projections for the region, along with more detailed information for 15 small island developing states including East Timor. Enhanced understanding of climate change impacts is critical to building the capacity of countries to plan appropriate adaptation responses.

The Pacific Climate Change Science Program is one element of Australia's five-year, \$328.2 million International Climate Change Adaptation Initiative. The Initiative assists countries to identify and implement priority adaptation measures, assess their vulnerability and develop evidence-based adaptation strategies. As part of this, *Climate Change in the Pacific* will be an essential tool for Pacific Island countries and their development partners in progressing adaptation and building resilience to future climate change.



Climate Change in the Pacific finds that during this century the Pacific will continue to see increasing temperatures and sea level rise, changes to rainfall variability, further ocean acidification and more extreme weather events. Pacific Island countries will face increasing impacts on human health, fresh water availability, agriculture, fisheries, marine ecosystems and tourism – with flow-on effects to livelihoods, culture and custom.

Australia is committed to working with developing countries to develop effective adaptation responses to the unavoidable impacts of climate change. Australia's adaptation support focuses on least developed countries and small island developing states – because these countries need it most urgently. Australia is committed to building on the achievements of the Pacific Climate Change Science Program and supporting further research and investment to increase the resilience of the Pacific. Australia will continue to support our neighbours in the Pacific and East Timor to respond to the challenges identified in the *Climate Change in the Pacific* report – and work together towards a sustainable future for the region.



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