

Progressing Multi-Scale Climate Hazard Risk Information Development for Decision-Making in Pacific Island Countries: The PARTneR Project

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Introduction

Pacific peoples are uniquely resilient and have been living and adapting to different environments over several centuries through to millennia. Nevertheless, the Pacific region is highly exposed to the impacts of natural hazards and subsequent disasters, which are exacerbated by the effects of accelerated climate change and extreme shock events. These compounding processes pose significant adaptation challenges to living with natural hazards in the 21st Century and beyond, and they underscore the need for developing integrated technologies to access accurate hazard risk data and information to support resilient decision-making.

Objectives

This presentation discusses the development and application of climate hazard risk data and information system tools through the Pacific Risk Tool for Resilience (PARTneR) project. Enabled through the New Zealand Ministry of Foreign Affairs and Trade, information for decision making funding, PARTneR aims to strengthen the use of data-driven system tools to support risk-based decision-making at local, national and regional levels in the Cook Islands, Marshall Islands, Samoa, Tonga, Tuvalu and Vanuatu.

Methodology

We draw on use cases that have supported the establishment of baseline climate and hazard information for incorporation into planning and decision processes associated with compounding sea-level rise and coastal inundation, as well as operational decisions encompassing the real-time monitoring and impacts forecasting of extreme events such as tropical cyclones and droughts.

Findings and Significance of the work for policy and practice

While the benefits of leveraging new technologies and information tools are an essential adaptive strategy for living with natural hazards, key challenges for sustaining the optimal outcomes in a world with ever-increasing resource pressures are discussed in the context of research and development opportunities for the Pacific region.