

Data Management System Development in the Pacific for Disaster Risk Reduction

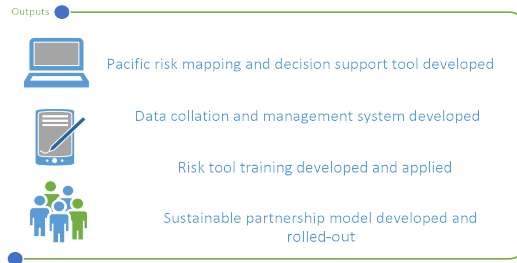
PARTneR Pacific Risk Tool for Resilience

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INTRODUCTION

The New Zealand Aid funded PARTneR (Pacific Risk Tool for Resilience) project builds the capacity of Pacific Island countries (PICs) to manage disaster risk through the use of risk management tools. Specifically, the project aims to deliver the following Outputs:



A Pacific Risk Tool, data gathering mechanisms and accompanying risk training will be piloted and delivered over three years in Samoa and Vanuatu, from 2016 to 2019, through a sustainable PARTneRship model.

The PARTneR project design relies on selected demonstration case studies for each country (e.g. ash-fall impact to inform preparedness and emergency response on Tanna Island, Vanuatu). These case studies form the 'blue print' for the project and inform the content of the risk training modules for Vanuatu and Samoa.

There are several actions that must take place in order to begin implementation of these case studies. For data collection and management, initial stakeholder scoping and consultations identified some key data sets that contribute towards the development of each case study. However, to support the long-term use of a risk modelling tool, a sustainable data management system in each country is required.

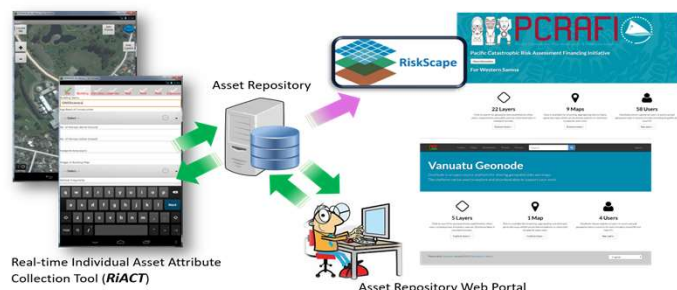
This poster represents a summary of findings for the development and delivery of the PARTneR data management system in both Vanuatu and Samoa and discussions for the way forward.

OVERVIEW OF DATA MANAGEMENT SYSTEM

Comprehensive and coherent asset data (e.g., people, building, infrastructure etc..) and damage data collected after events have long been recognized as an emerging need, and are subject to ongoing challenges in Disaster Risk Reduction (DRR). Potentially useful exposure and damage data and related information from past events are available, albeit dispersed around private sectors and respective government sectors in the Pacific region.

To pave the way for better data management, to assist in the efforts of proper safe keeping of this information and to further assist with the disaster modelling tools, the PARTneR Project, along with the Pacific Resilience Project (PREP) being led by SPC, has aligned efforts to provide PICs with systems and methods to enable the accurate collection, management and dissemination of this information.

The schematic representation in the figure below illustrates the proposed data management system and how its components are combined to achieve the main goal of this development. Geonode was selected as the data host server in both countries. RiACT (or other similar tools) is then used to collect the asset characteristics and/or damage states. Upon completion of each survey, the data can then be transmitted to the asset repository and shared via the Geonode server.



UP TO DATE PROGRESS

During the first two years of the PARTneR project, the team has made significant progress towards achieving the agreed targets, outputs and outcomes for the data management component.

This has included the successful completion of data gap identification, data management system design and action plan development. As well as data collection for case studies, other activities included in-country data management server development (i.e., Samoa and Vanuatu Geonode web portals were set up), and field data capture tool trainings and applications (i.e., used for collection building assets in Tanna Island for ash fall and cyclone case studies).



RiACT training in Samoa (left) and Vanuatu (right).



Geonode training in Port Vila, Vanuatu.



RiACT was used for collection building assets in Tanna Island for ash-fall and tropical cyclone case studies.

Through the successful implementation of the Geonode server and data management training in both countries, the next steps within the PARTneR project is to encourage data sharing for sustainability. For example, the use of risk tools to model and plan for disaster events relies on a whole-of-government approach as different agencies have varying responsibilities related to the same disaster event. As a start, the PARTneR project is targeting the need for improved data sharing across departments (e.g. through an Memorandum of Understanding- MOU), as well as capacity building on the use/ application of data and subsequent risk analysis outputs to inform inter-sectoral decisions.

In practice, data sharing can be a challenge. Opportunities to enhance data sharing for the sustained use of risk tools include: securing strong political buy-in, promoting data sharing via Geonode, developing standardised collection templates and engaging with data stakeholders in-country.

SUMMARY

- This poster provides an overview of the development of the data management system within the PARTneR project. Overall, the project is on track with Geonode servers set up and running in both Vanuatu and Samoa. Data management plans for both countries have been developed and MOUs for data sharing and data standardisation (including post-disaster damage surveys) are either completed or are underway.
- The next steps under the project will focus on the finalisation of data standards, data sharing, the integration of the estimated/modelled impacts and post-disaster damage survey templates. These will be loaded on the Geonode server, as well as guidance materials and training for data management, in order to inform decision-making.

Acknowledgments:

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