Strengthening disaster and climate resilience in urban development

NIWA
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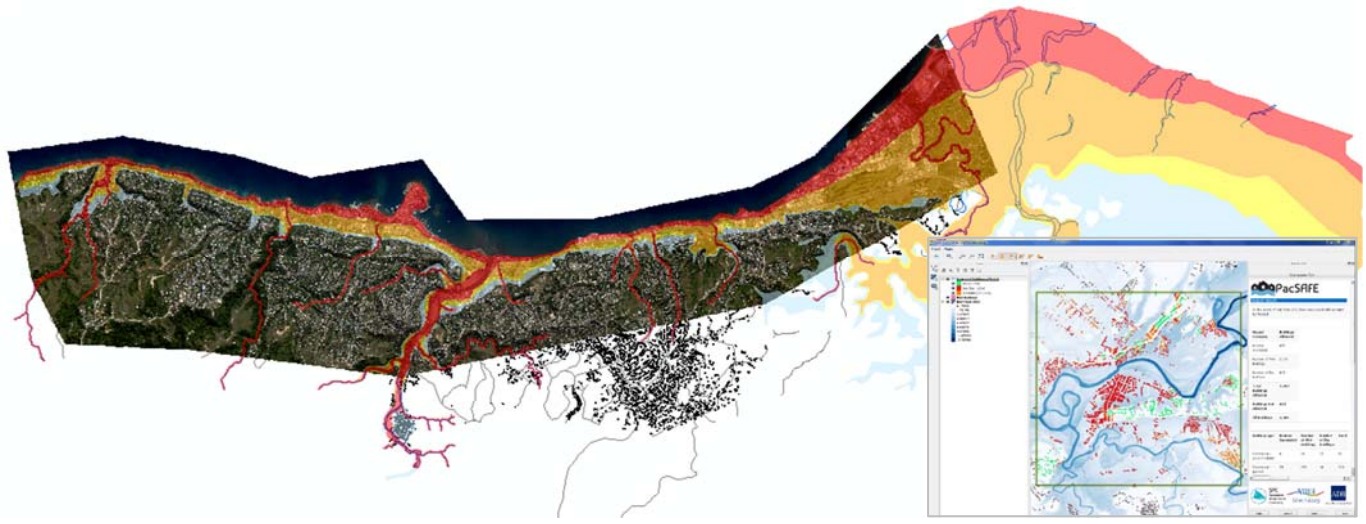
PROJECT



Client:	Asian Development Bank
Location:	Fiji, Samoa, Solomon Islands, PNG, Tonga, Vanuatu
Duration:	2014-2015
Services:	Multi-hazard risk assessment, risk decision-making tool development, resilience & adaptation urban planning, training and capacity development, stakeholder consultation

Continued urban and peri-urban expansion and infrastructure development will be a continuing feature of all Pacific nations over the coming decades. Many of these main urban and developed areas and associated infrastructure are located in areas prone to significant natural hazards.

Where hazard impacts and vulnerability in urban and peri-urban areas has substantially increased in recent decades, it is in many cases due to human-related land modification and development changes that are fundamentally driving this increasing vulnerability, rather than changes in the hazard characteristics, for example due to climate change and sea-level rise.

NIWA has been leading a project funded by the Asian Development Bank to:

- Develop pragmatic risk-based methodologies to support and inform urban planning and development appropriate to the types of information available and capacities within Pacific Island countries.
- Demonstrate, through building in-country capacity in relevant government departments in two pilot countries, how existing available information datasets can be brought together to underpin and support risk-based land use and development planning.
- Develop tools and training to enable the methodologies developed to integrate disaster and climate risk in to land use, urban planning, infrastructure and development investment.
- Raise awareness of the need for effective risk-based planning decision-making within Pacific policymakers and development partners in the Pacific region

The project has developed a toolbox of risk-based tools in collaboration with the planning agencies in Fiji and Samoa. These tools fill existing decision-support gaps and have been developed to use and apply available Pacific datasets.

Processes have been developed to better identify and understand the mix of potential options that need to be considered for effective and sustained risk mitigation and adaptation. The approach aims to inform the development of urban adaptation pathways, with a greater emphasis on utilising the protective services provided by natural ecosystems, influencing where development happens, and how it is constructed.

An *Introduction to risk-informed decision-making in urban development planning* training course has been carried out in the six participating countries. The 3-day course has been developed to assist urban planners and infrastructure engineers develop skills and knowledge to make risk-informed urban planning, risk mitigation and adaptation decisions. The course now forms part of the Pacific Community's Disaster Risk Management suite of training courses.