

BUILDING COMMUNITY AND ECOLOGICAL RESILIENCE TO CLIMATE CHANGE IN SOLOMON ISLANDS

SESSION 3: INCREASED RESILIENCY AGAINST CLIMATE CHANGE IMPACTS AND DISASTER RISKS

Roviana and Vonavona Lagoons in Solomon Islands comprise a diverse social-ecological system that has supported human populations for 15,000 years. The area has a highly dynamic history socially, environmentally and geologically with influences including: tribal warfare, religious diversity, World War II battleground, high rainfall, tectonic uplift and subsidence, and tsunamis. This dynamic social-ecological history has built an inherent resilience into the present day communities and ecosystems which will, to some extent, provide a buffer for Roviana and Vonavona against future climate change pressures. However, a multidisciplinary climate change vulnerability assessment conducted in 2011 at the request of local communities, as part of the Australian Government's Pacific Adaptation Strategy Assistance Program (PASAP), highlighted a number of factors reducing the area's resilience and making Roviana's socio-ecological system more vulnerable to climate change. These include:

Marine – Lack of connectivity between seagrass, mangrove and reefs in some marine protected areas, limited genetic connectivity between Roviana and elsewhere in some fish species, high sediment loads and nutrients from unsustainable logging in Roviana catchment.

Coastal – Significant human disturbance of mangroves, tectonic subsidence causing mangrove die-back, lack of awareness of importance of mangroves for coastal protection, some villages located in low-lying areas subject to inundation under 50cm sea level rise scenario.

Gardens – Traditional knowledge surrounding gardens and bushfoods not being passed on, increase in pests and diseases of food crops, lack of skills to improve soil fertility, increasing reliance on processed foods, fertile garden land being used for commercial agroforestry.

Social – Erosion of traditional value systems, erosion of customary governance.

Whilst some of these factors are externally driven, many can be addressed at the local level through community based adaptation. Utilising a range of tools incorporating traditional knowledge, social surveys and cutting edge science through a consultative, participatory process, this PASAP project assisted the Roviana people to develop a five-year climate change resilience plan. The resilience planning process and the adaptation actions that flow from it are now being led by the Roviana Conservation Foundation (RCF) who represent the tribal communities of the area. Several key lessons have been derived from this work: the importance of local leadership throughout the vulnerability assessment and adaptation planning/implementation phases; the importance of a combination of simple vulnerability assessments combined with scientific methods and expert opinion, and; the importance of ensuring information flows down to community members and up to provincial/national governments.

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