


Traditional Knowledge for Adapting to Climate Change

Safeguarding Intangible Cultural Heritage in the Pacific

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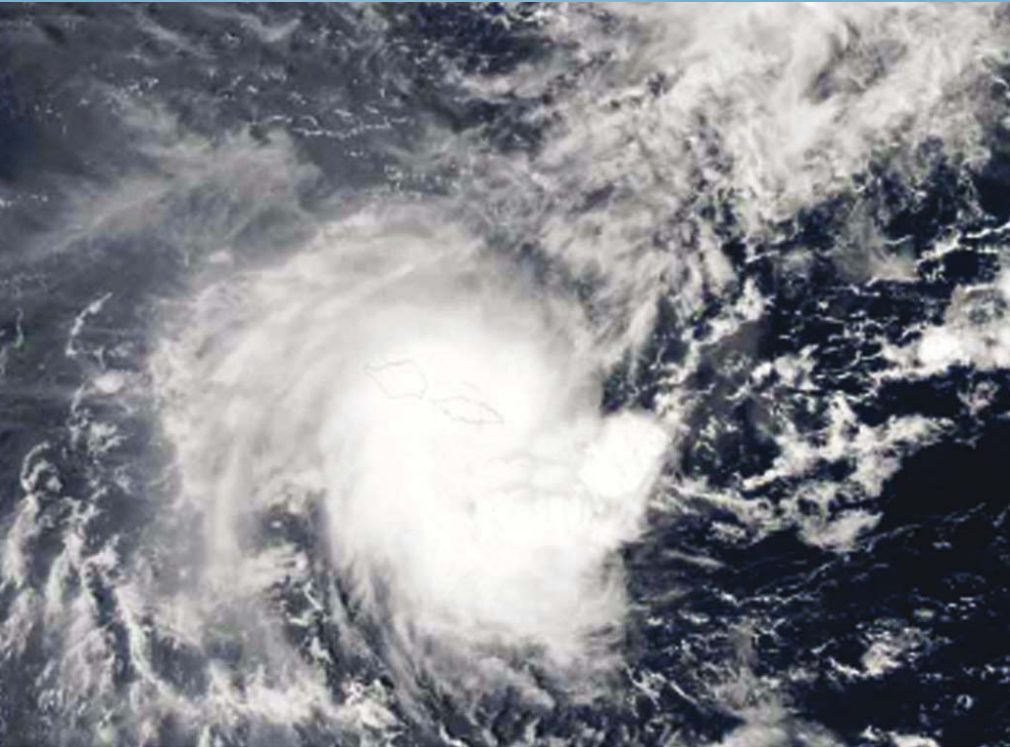
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Introduction

Strengthening resilience to natural disasters and combating climate change through culture

Pacific islanders have been dealing with a changing environment for centuries. Adaptation to change is part of the lifestyles of the Pacific community, and traditional knowledge, values, and practices—or intangible cultural heritage (ICH)—underpins the ability of the Pacific community to successfully live and thrive in the Pacific environment. In synergy with other scientific knowledge, ICH may enhance the communities' resilience against natural disasters and climate change. Consideration for culture should be integrated into reducing disaster risk and adapting climate change policies, plans, and actions.



Cyclone Evan and Samoa (December 2012) © NASA Image Courtesy of Jeff Schmaltz, LANCE MODIS Rapid Response



Coastal Erosion ©Khoroshunova Olga

How?

Since the adoption of the ICH Convention in 2003, the Pacific region has been actively engaging in efforts to safeguard many forms of ICH. As of today, eight out of fourteen Pacific islands states are parties to the ICH Convention. Each Pacific country is establishing national ICH safeguarding measures. Ongoing community-based ICH inventoring activities are paying special attention to identifying traditional knowledge related to natural disasters and the effects of climate change, as well as how these activities can be integrated into reducing disaster risk and adapting actions for climate change.

Over the long term, this will lead to the comprehensive inventoring of indigenous knowledge systems for adapting to climate change, which will also lead to international recognition through the mechanisms established by the ICH Convention—ICH Representative List, the ICH Urgent Safeguarding List, and the Register of Best Safeguarding Programmes.

This information brochure has been produced to highlight examples of how ICH contributes to climate change adaptation efforts in the Pacific and helps facilitate some of the above-mentioned processes.



ICH Inventoring in Solosolo Village, Samoa ©A.Parak

Traditional Navigation Systems

The Pacific, with its land and oceanic areas, spans one-third of the planet. Traditional navigation systems are the most important ICH elements shared by Pacific communities. For centuries, Pacific navigators have used a wide range of traditional knowledge and techniques related to weather patterns and signs to guide their long ocean voyages. Such techniques rely upon following observations.¹

- The sea and lagoon (the size, strength, and sound of waves; the colour and smell of the water; and the amount of seaweed deposited on the beach)
- The sky (including the type and colour of clouds and the particular appearance of the moon)
- The winds (primarily direction and speed)

Safeguarding traditional navigation systems reminds not only the Pacific community but also the entire world of the ancient knowledge and skills of humanity and of the respect to nature and the universe.

¹ Nakashima, D.J., Galloway McLean, K., Thulstrup, H.D., Ramos Castillo, A. and Rubis, J.T. 2012. *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*. Paris, UNESCO, and Darwin, UNU, 120 pp.



Demonstration of Traditional Navigation, Yap
©UNESCO/A.Takahashi



Inventoring *Balu*, Decorative Wood Carving for *Lopo*, Traditional Canoe, Alotau, PNG ©A.Parak

Master Navigators: Living Human Treasures in the Pacific

Answering a call to lead a traditional navigation voyage of the Hokule'a canoe from Hawaii to Tahiti in 1976, the late Pius Mau Piailug (1932–2010), master navigator from Satawal Island, Micronesia, inspired an entire generation of the Pacific to take pride in their identity and heritage. Sometimes the best way to instil appreciation of local culture is to share this knowledge with the world—Mau proved this. His legacy is a string of celestial navigators who carry his spirit and who will no doubt hand these skills down to Pacific children. He gave selflessly so ICH could live into the future.

Environmental Resource Management

Pacific island communities have long lived subsistence lifestyles, entirely self-reliant, and even today, a strong subsistence sector remains in parts of the region. However, the recent increase of cash cropping and fishing as well as importation of foods in the islands has resulted in a loss of these traditional techniques. Safeguarding related ICH will mitigate the erosion of self-sufficiency and contribute to the community resilience to climate change hazards. Some examples of how this can be achieved are mentioned below.

Agroforestry

The Federated States of Micronesia (FSM) became party to the ICH Convention in 2013. The first ICH workshop in FSM was hosted in Yap State in February 2013.



Clearing of Taro Pit and Replanting, Marshall Islands ©Joseph Maddison

At workshop, Ms Margie Falanruw, Director of the Yap Institute of Natural Science, made a presentation on how early inhabitants of Yap successfully modified the islands into habitats for resource-based, subsistence livelihoods while maintaining the habitats' ecological function. She explained, "Agroforests buffer rainfall and stabilize and develop soil as do natural forests; taro patches and swamps function as silt traps; and mangroves provide a source of wood and nearshore areas for shellfish gathering while continuing to perform their buffering, filtering, and fish nursery functions." One of her projects is to develop field schools where proud Yapese trainers will be able to transmit their traditional knowledge to future generations.

Traditional Farming Systems

The traditional farming systems in the Pacific have a number of mechanisms that allow for sustainable production and a supply of agricultural products. These mechanisms include the production of surpluses, the use of emergency food resources, control of food consumption, and the maintenance of agricultural resilience through diversifying crops. These systems have enabled Pacific island communities to mitigate the risks and effects of climatological extremes and to ensure food security.

The common examples of traditional knowledge across the Pacific are traditional calendars that guide agricultural planning and harvesting of forest and agricultural products. Tongan farmers have their own calendar around which farming activities revolved.² According to this traditional calendar, the year comprises thirteen lunar months, where each lunar month consists of twenty-eight days. The Tongan calendar plays a role when smallholders make decisions about planning, harvesting, and other farming matters.

The names of the months in the Tongan calendar are based on the relative growth, development, and cultivation of yams, the most valued food crops in Tonga. Some rural farmers still operate according to these lunar cycles despite the acceptance and adoption of the Western calendar in Tongan society.



Yam Plantation, Tonga ©Koliniasi Fuko

² Kanongata'a, S. "Traditional Farming Systems." 2011 *ICH Courier* 8 (July): 7.

Traditional Fishery Systems

Several traditional fishing control practices have been put in place in the Pacific through different types of customary marine tenure. These practices include limiting access, closing fisheries during certain seasons, establishing no-catch zones, and enacting species-specific prohibitions. Examples include the no-fishing or tabu areas of Fiji, Vanuatu, and Kiribati; the *ra'ui* in Cook Islands; the *masalai* in Papua New Guinea; and the *bul* in Palau. These traditional fishery-management practices have served as measures for sustainable resource management and ecosystem protection. They have also constituted important living food reserves for communities.



Traditional Fishing Method with Coconut Fronds, Marshall Islands ©Redme Bunglick



Vanuatu Sand Drawing ©NHK/Vanuatu Culture Centre



Rock Islands, Palau ©Daniel Lin



Coast of Aitutaki, Cook Islands ©Daniel Lin



Youths at Sea, Palau ©Ibibil Society/A.Singeo

Vernacular Architecture

There are many examples of traditional building methods in Pacific islands. Due to the frequency of natural disasters in the region, many building styles demonstrate adaptations to environmental hazards. Examples include the traditional Samoan *fale tele*, which is mounted on a high stone foundation to prevent flooding and storm surges. It has a high dome ceiling to combat humidity and has open sides to allow winds to pass through. Such traditional dwellings incorporate architectural styles that enable them to withstand extreme weather and strong winds. Even in the event of the structure failing, replacement materials are readily available and sustainable, and the collapse generally would not injure the inhabitants. Many of the traditional aspects of vernacular housings in the Pacific have eroded with the introduction of Western building techniques and materials, including corrugated iron and concrete. Construction is often unregulated, and buildings are not built according to proper building standards and codes. This makes the Western-style buildings more vulnerable to environmental hazards and more dangerous to inhabitants.



Fale Under Construction Using Traditional Methods, in Asau, Savai'i, August 1978 ©Trustees of the British Museum, Oc,A36.58, AN510422



Traditional Men's House, Yap ©A.Takahashi

In Samoa, the builders of houses were also the architects who belonged to an ancient guild of master builders, *tufuga fau fale*. The Samoan word *tufuga* denotes the status of master craftspeople or Living Human Treasures. The Post-Disaster Needs Assessment following Cyclone Evan that hit Samoa in December 2012 recommended revitalizing the skills of the master craftspeople through appropriate incentives and encouragement. Revitalizing these skills will enhance the resilience of communities by reinvigorating the positive features of traditional buildings in Samoa.³ This will be particularly relevant as cyclone intensity is predicted to increase in the region due to climate change.

³ Government of Samoa. 2013. Samoa—Post-Disaster Needs Assessment Cyclone Evan 2012. Apia: Government of Samoa.

Social Cohesion, Networks, and Cooperation



Epawepawe, Traditional Children's Game of Ealeba, Milne Bay Province, Papua New Guinea
©Abby Yadi

Traditional support systems in communities are vital mechanisms for resilience. In the Pacific, this can take many guises, including reciprocal exchanges and the trading of valuables among communities and islands, the history of which predates European contact. Traditional feasts and ceremonies were also organized not only for the consumption of existing stock but also for the production of extra supplies. On such occasions, the role of traditional chiefs was primarily to ensure redistribution of traditional wealth, such as vegetables, pigs, mats, bark cloth, and shell money, among community members and families. The organization of these events provided opportunities for cooperation within and among communities and islands.

The exchange of fine mats (*le tōga*) in Samoa is one example of reciprocal exchange or traditional gift-giving in the Pacific.

Fine mats, made of a special kind of pandanus leaves, have a strong cultural value and are considered the most precious item at extended family gatherings (*fa'alavelave*), which take place on occasions such as weddings, funerals, church openings, and title bestowment ceremonies. Fine mats used to be exchanged for pigs and other food items, but today, this practice is being replaced by money. Fine mats were passed from one village to another through elaborate rituals with stories associated with them. The recipient families kept the fine mats until the next extended family gathering. Over time, fine mats connected numerous villages and families, creating a social network, even with overseas communities. This traditional safety net is activated in times of difficulties, providing places for evacuation and shelters as well as basic health, education, and other services for affected families.



Epawepawe, Traditional Children's Game of Ealeba, Milne Bay Province, Papua New Guinea
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