

COMMUNICATION AND PARTICIPATION IN THE PACIFIC: LESSONS FOR ADAPTATION TO CLIMATE CHANGE & VARIABILITY¹

Cheryl L. Anderson, UH Social Science Research Institute

INTRODUCTION

Experience in addressing impacts from climate variability in the Pacific Islands has demonstrated the importance of including a wide variety of perspectives and knowledge in planning. The geographic remoteness of islands, even in a single political jurisdiction, necessitates the consideration of various forms of communication and the development of tools to deal with extreme climate events locally. By building on lessons learned over the past decade, better processes can be developed to adapt to short and long term changes in climate.

This paper focuses on a deeper understanding of communication and participation in the Pacific Islands region. The discussion combines lessons revealed from research following the 1997-98 ENSO warm event by the Pacific ENSO Applications Center (PEAC), national and regional climate-related workshops in Fiji, Samoa, and Hawaii over the last five years,² over a decade of research and planning in disaster management throughout the region, and watershed planning and resource management practices in island communities.

COMMUNICATION IN THE PACIFIC ISLANDS REGION

Most often when we talk about communication methods and tools, we consider telecommunications technology---telephones, cell phones, satellites, internet, and radio. In the Pacific Islands, we can think about tools of the past---yells and screams, whistles, conch shells for localized communication, and navigation and canoes for communicating with other islands. As we continue to learn with each experience, communication in the Pacific Islands is much more than the technology. The success stories and positive outcomes in dealing with climate variability and natural hazards have depended greatly on *how* we communicate, on *methods* of communication.

To build and develop long-term strategies for adaptation to climate change and variability, it is important to consider the range of communication methods used in the Pacific. The following list details types of communication interactions:

- Islands to Continents – Communication occurring from the island region to external governments and organizations. This type of communication comes from the international community, from donor agencies, and from funding organizations. Expectations and requirements are often communicated through financial contributions, requirements, and directives. Politically, these associations are communicated through affiliated status with larger countries through agreements such as the compacts of free association. Historically, this

type of communication has been top-down, from the external agencies into the island nations, although this has evolved into more dialogue in the last decade. Many of the islanders and representatives from regional organizations participate in international political dialogues, discussing global issues of concern.

- Island Group to Island Group – This category is characterized by regional discussions and communication, through “Country-to-Country” interaction or bilateral agreements. Regional organizations, such as the South Pacific Regional Environment Program, the South Pacific Applied Geoscience Commission, the Secretariat of the Pacific Community, the East-West Center, and the Pacific ENSO Applications Center, have organized issue-oriented regional meetings and workshops where communication takes place among Pacific Island Nations and communities to determine solutions.
- Island to Island (within the same jurisdiction) – Geographically, islands within a state or country can be separated by thousands of miles of ocean. For example, the Woleai atoll, with five inhabited islands, lies four hundred miles east of Yap, the political center of the state. Yap State is part of the Federated States of Micronesia, but there are no direct in-country air flights from Yap to Pohnpei, the center of the FSM government. Therefore, geographic isolation makes these islands dependent on a number of communication tools, such as broadband radio, ships to transport goods and services, and small aircraft. Relationships may be characterized as that between an urban center and rural areas, with some of the outlying or “neighboring” islands having much less formal economy or wealth than the central island or city. Relationships among the individual islands in the state have often been established through traditional practices. The neighbor island of Yap would send “tribute” items, such as woven cloths, to Yap proper annually. The islands in Hawaii State each have their own histories and personalities, and relationships, with Maui County consisting of three unique islands, which are more similar to each other when compared to Oahu. Because of the small landmasses in the islands, the island or place that one comes from often defines their worldview and their interaction from the smallest island identity to the island nation, to the region, to the world.
- Islander to Islander – Living in defined geographic areas, communication among islanders is critical. The preference is for “eyeball-to-eyeball” contact or “face-to-face” interaction, making meetings, discussions, and personal interaction critical. This type of communication helps to determine trust. Another important form of island communication has been referred to as “the coconut wireless” whereby gossip or knowledge is communicated through personal connections across the island in a relatively short amount of time, making it nearly impossible to keep secrets and imprudent to speak poorly of others. In addition, people are often related, and this means that interaction with one person will be interpreted as interaction with the entire family.

These categories of interaction provide an overview of communication methods and flow of information in the Pacific. As certain as each island differs, there are numerous ways to think of interactions and communication vectors. Telecommunications technology has developed unevenly across the Pacific, requiring use of a range of tools rather than dependence solely on the internet or telephones. As technology improves, increasingly effective tools emerge for communicating in any of these areas. For example, satellite telecommunications through PEACESAT enable use of the internet, email, and video teleconferencing in the US-affiliated islands. PEAC has distributed climate forecast information in newsletters and by facsimile and conducted weekly updates and technical assistance for local ENSO Task Forces using PEACESAT and radio connections. Widespread cellular phone use means that the “coconut wireless” works at lightening speed.

Improvements in geographic information systems (GIS), remote sensing, and global positioning systems have enabled a broader use of maps for dealing with resource management and extreme climate events. Not only are we able to look at the hazard zones, but we can quickly see residents, business, and critical facilities at potential risk from the hazards. These technologies can be merged with three-dimensional visualizations to communicate risk and vulnerability to communities and decision makers. By having tools that visually communicate complicated information and make it accessible to “non-scientists,” islanders have been able to improve planning and determine actions to mitigate impacts of potential hazards.

Communications tools and technology will continue to improve and expand, allowing new opportunities to include more people in the dialogue. It is important to think about the context of using each individual tool and employ those that will be most appropriate to the situation. In the Pacific Islands, people use various communications methods at different times to serve specific purposes. It is important to recognize that these methods exist as potential opportunities for improving communication and facilitating dialogue.

PARTICIPATORY PLANNING

In as much as we consider *how* we communicate, it is equally important to reflect on *who* communicates, or rather, *who participations in the dialogue?* The climate community has improved in its focus of bringing the “end users” into the conversation. Researchers understand the importance of engaging communities from different sectors, such as agriculture, water resource management, disaster management, and government leaders. While this builds a broader dialogue within the climate community, it does not adequately address the questions of who participates in the discussion, because we do not know how these groups formed, who has access to information in these groups, and which voices are silenced or ignored. It is important to continuously evaluate participation to ensure access to the dialogue if we are to build strategies for long-term adaptation to climate change.

The first question is “who has access to information?” Is information centralized at the national government level or within local agencies? Do these public agencies interact

with local communities? Are less accessible rural areas included in the distribution of newsletters and climate forecasts? Is the language used in distributing information understandable to people receiving the information? Access to information can be determined in a variety of ways. In many places, information is esteemed as another form of power, and by withholding information, one retains control over the situation.

Gender analysis of participants is one tool for examining participation. Some examples come from the disaster management community in the Pacific. In Hawaii, members of the State Hazard Mitigation Forum, which include directors and administrators of hazard related public agencies and some private businesses, and hazard advisory bodies are predominantly male. Women are not present in positions of planning and management in the county emergency management agencies in Hawaii. Across the Pacific, only one woman currently heads a disaster management agency and relatively few women even serve in these agencies. In considering the numbers of climate variability and change workshops referred to in the introduction of this paper (listed in the endnotes), the presence of women amounted to a handful for any workshop, with the greatest participation by women (about 17% of participants) attending of the Pacific Islands Assessment workshops held at the East-West Center. Women, therefore, have less access to information and less voice in planning.

Another consideration in determining access to information and participation would be ethnicity and race. Using the same example from Hawaii's State Hazard Mitigation Forum and hazard advisory committees, the predominant members are Caucasian and Asian, reflecting the dominant representation in the state and county governments but not the widespread ethnic diversity of residents in the state. In trying to change behaviors to respond to disasters and adapt to climate, it is important to consider whether every group is represented, and becomes vested in the planning process.

Agencies and organizations in urban centers may not include participation from rural areas for several reasons. They may not have considered the need for broad participation in planning and physical distance may add additional cost or difficulty in including representatives from rural areas and outlying islands. Current federal requirements for grants and funding often stipulate public involvement; however, this stipulation does not specify representation or type of participation. More consideration may need to be given to use of new communication technologies to enable participation.

Small islands, watersheds, and coastal settlements---very localized areas---experience the strongest impacts of extreme climate events. Therefore, it is important to engage communities in planning to mitigate the impacts of these hazards. The disaster management community has incorporated local participation in risk and vulnerability assessments to identify potential hazard risks and develop mitigation strategies. The community living in the area knows the facilities, infrastructure, high-risk populations, and natural features that need protection, often better than those in public agencies who are disconnected from the land in their daily activities.

Planning activities and workshops related to both disaster risk reduction and climate variability and change have emphasized the importance of multi-disciplinary, multi-sectoral approaches that engage people with varying expertise. Hydrologists, meteorologists, and climatologists have successfully engaged in dialogue with water resource manager and disaster managers. Other workshops have initiated dialogue among the climate community with public health officials. The best example of this comes from the Pacific Islands Assessment Workshop in 2000, which assembled people from many backgrounds and perspectives in several issue-oriented discussions, consisting of community activists, cultural practitioners, resource managers, elected officials, disaster managers, private company representatives, scientists, climatologists, and numerous others. The opening of the workshop began with a presentation from a kumuhula (cultural practitioner of hula) who recounted a history of watershed management and decision-making that occurred by watching wind, water, and signs from the environment. The following presentation by a climatologist acknowledged elements of the previous presentation and explained the experience he had in making climate observations and forecasts. The appreciation by presenters of different types of knowledge instilled a trust that encouraged participation by all attendees in the working groups. By bringing a broad range of perspectives into the conversation, the workshop resulted in a series of recommendations and projects that could be pursued in collaboration.

Throughout the Pacific Islands region, disaster management and watershed planning projects, which often share benefits in dealing with climate variability, have realized the benefit of collaborative projects and partnerships. For example, a project in Umatac Village on Guam began with physical and biological research on the coral reefs with the community asking for assistance in understanding observed fish and coral declines. The project engaged the community in identifying the causes of extensive erosion and sedimentation on the reefs. Solutions range from improved construction methods, better engineered road drainage systems, forest fire prevention, reforestation, stream bank stabilization, and marine protected areas. To improve the coral reefs and fish stocks, many different agencies working in concert with the community must take responsibility to attend to erosion issues and develop strategies for ecosystem restoration. Besides providing an example of collaboration of scientists, social scientists, federal and local public agencies, and community organizations, the Guam project demonstrates that complex issues require inclusive approaches using expertise from a variety of sources. Similarly, the development of tools for adaptation to climate variability and change will demand participation from a broad community.

CONCLUSION

Recent experiences in addressing impacts from climate variability and extreme climate events in the Pacific Islands region indicate that greater participatory planning increases public awareness and the likelihood of social and behavioral adaptation. Adapting to climate change will depend on consideration of communication mechanisms and participation in determining actions.

Lessons learned thus far in the Pacific Islands emphasize the necessity of understanding that communication is about building trust and relationships. The climate forecasts and warnings issued by the Pacific ENSO Update from PEAC prior to the 1997-98 ENSO warm event would not have been heeded had years of trust been established through a variety of professional, organizational and personal relationships. Ultimately, the communication methods and tools that were chosen---newsletters, on-the-ground drought briefings, and weekly radio teleconferences with ENSO Drought Task Forces from each island jurisdiction---worked because years of briefings, workshops, education, training, and successful projects in hazard mitigation paved the way for PEAC's success.

Another important lesson has been that all stakeholders must have a voice and be able to participate in the dialogue to gain ownership of the problems experienced with climate variability, and to have a place in finding solutions. The process for adapting to climate change, which can benefit from the short-term lessons learned with climate variability, must be established using appropriate communication and widespread participation, blending knowledge from multiple perspectives.

¹ This paper was developed from a presentation, "Lessons Learned in Communication and Participation in Climate Variability and Change for the Pacific Islands" presented by the author at the Climate Change and Variability Symposium of the Pacific Science Congress, Bangkok, Thailand, March 2003, organized by the East-West Center and the Asian Disaster Preparedness Center.

² These workshops include: Evaluation of the 1998 ENSO Warm Event, a series of island workshop in the Republic of the Marshall Islands, the Federated States of Micronesia, Guam, the Northern Mariana Islands, and the Republic of Palau, August 1998 conducted by the Pacific ENSO Applications Center (PEAC); Fiji Drought Impact Assessment National Workshop, Suva, Fiji, June 1999, University of Hawaii Social Science Research Institute, PEAC, and United Nations Development Program at the South Pacific Applied Geoscience Commission (UNDP/SOPAC); the Pacific Island Regional Drought Impact Assessment, Nadi, Fiji, October 1999---which included climatologists and meteorologists, water resource managers and disaster managers, co-sponsored by the South Pacific Applied Geoscience Commission, PEAC/University of Hawaii, the British High Commissioner, and the United Nations Development Program; the Consequences of Climate Change and Variability, Pacific Islands Assessment, 1998 and 2000, conducted by the East-West Center; Linking Public Health with Climate Change and Variability in the Pacific, 2000, Western Samoa, sponsored by the World Health Organization and NOAA/Office of Global Programs; and the Climate Variability and Change Symposium at the Pacific Science Congress, Bangkok, Thailand, 2003, convened by the East-West Center and the Asian Disaster Preparedness Center.