



USAID
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THE COASTAL
COMMUNITY
ADAPTATION PROJECT

C-CAP NEWSLETTER

*Helping Pacific
Island Communities
Adapt to a
Changing Climate
February 2015*

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It Takes a Village: C-CAP's Social Mobilizers Bring Everyone Together

Into the third year of a five-year program, USAID's Coastal Community Adaptation Project (C-CAP) is successfully leading 77 coastal communities in nine countries through the process of identifying and addressing community specific adaptation responses to the adverse effects of climate change. By design, the C-CAP methodology uses an inclusive, participatory framework for identifying the climate change risks faced by communities and in selecting priority adaptation projects designed to provide greater resilience to the community. This process would not be possible, however, without the organization and facilitation provided by C-CAP social mobilizers (SMs).

Drawn from each community, the SMs are C-CAP's "eyes and ears" on the ground, acting as organizers, schedulers, facilitators, and climate educators. They work in partnership with C-CAP and its partners to coordinate all meetings and activities to ensure full participation of the community. They serve as community focal points for climate change-related issues with USAID/C-CAP as well as national, provincial, and/or district



ON THE FRONT LINE: A
C-CAP social mobilizer in Tuvalu.

Photo by C-CAP

government officials. The SM role in communicating with and gathering together the key community players ensures that C-CAP's work is understood and embraced by entire communities. Once the C-CAP Technical Team leaves the community after workshops or activities, the SM stays on and serves as the resident "repository" for climate change

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knowledge and information on next steps for moving towards climate resiliency. SMs are selected by and from the communities in which C-CAP operates and they represent a wide range of backgrounds and professions. While most of them are village leaders or prominent members of the community with proven records of coordination and delivery capability, in some cases, SMs have been chosen because of their demonstrated interest and knowledge of climate change.

Among the 77 SMs who have so far been selected, there are village chiefs, school teachers, pastors, bank officers, business owners, farmers, fishermen, and even a former national soccer star. The consensual nature of the selection process ensures that the SM has the full support of the community.

While the vast majority of the SMs are men, reflecting most village leadership and cultural structures, women play an important role in assisting the village and the SM participate productively with the C-CAP process. Women's Fellowships and Women's Committee leaders are consistently present on the village's "Climate Change Committee" and work with the SM to ensure that women and women's perspectives are included in the community discussion and decision-making.

Once chosen, the SM becomes C-CAP's "champion," making sure that the village is fully informed of the nature of each C-CAP project and encouraging full participation in these activities. But it is a two-way street—not only do the SMs bring communities to C-CAP activities, but they also shepherd the C-CAP team within the communities, acting as



INNOVATIVE METHODS: From left; Kalivati Vatucawaqa, Ross Busch and Country Mobilizer Semi Masilomani present the risk and asset map for Vunivatu. Photo by C-CAP

Social mobilizers ensure engagement with C-CAP, and ultimately, the project's success.

guides, interpreters, and sometimes even chauffeurs during project visits. On any given day, SMs work might involve taking the C-CAP team around villages to see first-hand the key assets identified during risk mapping, setting up local community centers in preparation for disaster risk response drills, or providing the local dialect translation of community agreements.

SMs also play a vital role once C-CAP construction is under way. C-CAP engineers and country mobilizers plan and conduct routine monitoring at critical inspection and acceptance junctures, but while the C-CAP team cannot be there every day—SMs can. SMs are briefed and trained on how to inspect for certain aspects of the Construction Quality Assurance Plan

and the associated Environmental Monitoring and Management Plan (EMMP). By conducting routine, often daily, observations, SMs keep C-CAP informed on progress and report on any irregularities in the work—are the contractors conforming to the EMMP? Do they have the necessary safety and protective equipment? Are the materials being used on-site meeting the established quality standards? While SMs are not technical experts, they are local parties representing their village interests to ensure the job gets done right.

It is through the SMs that C-CAP has been able to achieve a high level of engagement with the ultimate beneficiaries of the climate change adaptation projects. This important relationship will continue to be an integral part of the cooperative and participatory process of building community resilience to the adverse effects of climate change throughout the Pacific Islands. While it does take a village to get the job done, the SM leads the way and ensures that all members of the community are on board with the process and decisions on how best to tackle climate change adaptation.



One of the most important aspects of the work that the USAID/Coastal Community Adaptation Project (C-CAP) does in the Pacific is in designing and implementing small-scale infrastructure projects to help communities cope with climate change impacts.

Working in 77 communities in nine different countries, the challenge comes not only in developing infrastructure designs that are simple enough for communities to operate and maintain, yet strong and durable enough to withstand increasingly harsh weather events, but also in getting building materials and construction manpower to these often far-flung villages. In meeting this challenge, C-CAP has had the opportunity to get creative in using innovative designs and materials that are both functional and sustainable, and to develop flexibility in implementation.

These are not just any community infrastructure projects—these are designed to provide critical, life-sustaining needs to communities—water, shelter, flood protection—and to withstand the ever increasing impacts caused by climate change. Of course, the engineering of these projects aim for the highest quality in design and construction,

but given the challenges of working in some of the most isolated and remote island communities in the Pacific, the C-CAP technical team has needed to be creative to construct innovative water storage capacities, flood control mechanisms, evacuation shelters, and shoreline protection infrastructure projects, to name a few, that provide adaptation strategies to these at-risk communities.

Working behind the scenes is the small, but talented C-CAP technical team based in Suva, Fiji, consisting of Senior Technical Advisor Jerry Cole, Infrastructure Specialist Sanjay Prasad, and Graduate Engineer Kerryn Chung.

The C-CAP team works closely with NRW Macallan (Fiji) Limited, an engineering design and consultancy firm, to scope communities and design innovative infrastructure projects to ensure maximum climate resilience

while factoring in limited accessibility and sustainability.

“We always try our best to aim for quality in design and construction ensuring that our projects are easily maintained because most communities have neither the resources nor the capacity to maintain complex systems. To enhance sustainability of each project, an operation and maintenance training is conducted with the community after every completion,” says C-CAP graduate engineer, Kerryn Chung. “Each country is different and has its own limitations, whether in policy or resources, and we have to work within the bounds of these challenges. That’s what makes the project unique.”

This process has led to the development of interesting and innovative design features to promote climate resilience that C-CAP is demonstrating in various locations. In Papua New Guinea, Kiribati, and Tonga, the C-CAP standalone water harvesting and collection structures are equipped with a first flush apparatus that combine closed and inexpensive PVC guttering systems to produce better quality water. Additionally, they are cyclone-proof; they can withstand weather events and produce water when the community needs it the most. Designing “Reno Mattresses” in Fiji that combines gabion technology with shoreline contours and stabilization features works well to protect river banks from increased scouring and erosion. Using innovative, low maintenance elastomer valves both improves and extends the life of flood control systems (see the C-CAP November 2014 Newsletter for details). In Samoa, C-CAP design engineers are introducing geotextile bagging (pictured above) that has great potential to protect coastal shorelines but has not yet been used in the South

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Pacific. And C-CAP engineers are designing and upgrading community evacuation centers in Tonga and Fiji that meet all the specifications for cyclone and storm shelters and double as community halls so they can be also be beneficial under normal conditions.

Working simultaneously in 77 communities in nine different countries, some in extremely remote locations presents the C-CAP technical team with organizational and logistic challenges. Sporadic and sometimes unpredictable travel and delivery schedules, unavailability of building materials, and weather-related delays all must be addressed as they arise. The C-CAP technical team has handled all of these situations by maintaining flexibility and a “can-do” attitude.

“During a recent technical scoping trip to the Solomon Islands, I realized that though we may have tight schedules we must also learn to be flexible and make immediate adjustments given circumstances such as disruptions in transport or the weather,” said Chung.

“Visiting these communities magnified the reality of climate change and the resulting needs of the people. Simple essential items such as access to safe drinking water, proper sanitation, cyclone-proof centers, or medical aid, are either limited or nonexistent in these communities,” said Chung. “And while implementing infrastructure solutions is no doubt beneficial, the pivotal point in the success of this project is a behavioral change in the communities that will enhance resilience among the people. At the end of the day, this is more than just a ‘job’—it is an opportunity to make a direct impact on the livelihoods of people and their future generation.”

C-CAP Welcomes New Staff Members

New Communications Officer **Kathryn Smith** and Geographic Mapping Officer **Aman Narayan** recently joined the C-CAP team. C-CAP is excited to add these two new staff—Kathryn in the C-CAP Papua New Guinea office and Aman in the Suva, Fiji, office. Each brings to the team a range of experience and unique skills that will contribute to the project.



“I am very happy for the opportunity to join the C-CAP team as the new Communications Officer. This position allows me to take full advantage of the writing, editing, and communications skills I have developed in my past positions—first as an environmental lawyer and later as an international teacher. It also will give me the opportunity to visit many of the communities with whom we work to better understand the impacts of climate change on the people of the Pacific Islands. I have already been fortunate enough to visit villages in Papua New Guinea, Fiji, and Kiribati and I have been able to spend time with the C-CAP team. I feel privileged to be a part of such a talented and diverse group of people as we work together to develop adaptation projects that will strengthen community resilience to the adverse impacts of climate change.”

“My interest in C-CAP started out through the community mapping intern position which provided the opportunity to further develop my skills in the GIS field. Additionally, I’ve done quite a bit of work on the community level and had an interest in how mapping techniques could be used further to show both the risks and adaptation strategies in climate change projects working at the community level. This position is based on the mapping needs for C-CAP using open software such as Google Maps and Google Earth. I particularly enjoy learning efficient methods of creating high-resolution maps for C-CAP communities. Before joining up with C-CAP I was a Gender Support Intern with GIZ while completing my post-graduate diploma in environmental geoscience. I have a deep interest in the conservation sector and hope to be able to someday meet the standards that my mentors have set.”



U.S. Ambassador Breaks Ground on C-CAP Project in Kiribati



As part of her first official trip to Kiribati in February, United States Ambassador Judith Cefkin visited a USAID/ C-CAP site in the village of Buariki in North Tarawa to break ground for a new medical aid clinic—a facility that will provide medical services to more than 700 villagers who face health issues exacerbated by climate change, particularly waterborne diseases such as diarrhea and hepatitis. The clinic will provide a safe, clean environment for health workers to serve the village community.

The project has been developed by C-CAP in conjunction with the Kiribati Ministry of Environment, Lands and Agricultural Development (MELAD), Ministry of Health, the Island Council, and members of the community.

FERTILE GROUND: United States Ambassador Judith Cefkin, Minister of Health Dr. Kauta Tenaua and village leader Uatu Teatu break ground for a new Medical Aid Clinic in Buariki.

Photo by C-CAP

In Buariki, as well as other parts of Kiribati, droughts have become a common climatic event and the community's underground water supplies have been contaminated by sea level rise, severely impacting the community's water supply and its inhabitants' health. The problem is compounded by increasing population density and poor sanitation.

The new clinic will be built using climate-resilient materials that can better withstand more severe weather conditions and higher king tides, a naturally occurring event when the earth, sun and moon align in ways that create the highest tides of the year.

Rising sea levels created by climate change are creating extreme king tides that can sometimes completely flood villages that were previously dry all year. The new clinic is designed with fresh water tanks to catch rain water and solar panel systems to provide fresh, clean water and power to the facility.

Ambassador Cefkin emphasized the role of these types of facilities to help the most vulnerable members of the community—women, children, the elderly and those with special needs—to build resilience to the adverse impacts of climate change.

ADAPTATION IN MOTION

CHECKING WITH C-CAP COMMUNITIES: Fiji, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu and Kiribati.

In this periodic series, the C-CAP team checks in on partner communities that are navigating long-term climate change adaptation.

In Fiji... USAID/C-CAP began work on refurbishing damaged floodgates for partner communities of Daku and Yunisinu/Nalase. The rehabilitated floodgates will assist in preventing flooding during heavy rainfalls and high tides. Also in Fiji, five additional communities have submitted preliminary disaster assessment reports to the National Disaster Management Office, which will align the disaster drills so the communities can start their drill exercises in preparation for disasters.



CATCHING RAIN: Inspecting the new rainwater catchment structure in Papua New Guinea.

Photo by C-CAP

In Papua New Guinea... USAID/C-CAP conducted final inspections on projects completed in four communities. At these sites, C-CAP has installed 14 climate-resilient rainwater catchments and refurbished a medical aid post with climate-proof roofing. C-CAP also facilitated a Disaster Risk Management drill planning activity with members of the Gabagaba community. This community has already established its Disaster Committee; this activity was designed to educate committee members on their roles and responsibilities and to understand

universal color code warnings in relation to disaster alerts and preparedness.

In Kiribati... USAID/C-CAP and three partner communities in Abaiang participated in a Disaster Risk Reduction planning meeting. Red Cross disaster officers supported C-CAP staff to facilitate the meetings in discussing possible disaster scenarios and identifying the safe areas and structures for evacuation for these communities. The meeting concluded with community members understanding their responsibilities in preparing for disasters such as storm surges and king tides which are predicted to be increasing in frequency.

In Tonga... Work is in progress for the renovation of the evacuation centers for the communities of Nukuleka and Tatakamotonga. C-CAP is also working with the partner community of Popua to begin construction on a new climate-resilient multipurpose hall that was identified by the community as its priority project. With the assistance of the U.S. Government through USAID/C-CAP, the project is focused on providing climate-resilient evacuation centers to shelter the communities with the predicted increase in cyclone frequency and intensity in the area.

In Samoa... Preparation work has already started for the handover of the Manase infrastructure project. USAID/C-CAP, the contractor, relevant government stakeholders, and the community are preparing for the event which will inaugurate the new revetment, handover the work equipment to the Samoa Tourism Authority, introduce operations and maintenance training for the community, and initiate tree planting on the site. Also in February, C-CAP met and held discussions

with the Samoan Red Cross and the Disaster Management Office regarding planning for disaster drills for four C-CAP partner communities.



TAKING MEASURE: Lilisiana community members in Solomon Islands take measurements for the sanitation ground.

Photo by C-CAP

In Solomon Islands... The majority of USAID/C-CAP communities in-country have identified water and sanitation as their main priority projects. Through the assistance of the U.S. Government, USAID/C-CAP facilitated a technical exercise with the community to gather information to decide on the appropriate climate resilient infrastructure intervention. The communities then decided and agreed on the sites for this infrastructure.

In Vanuatu... USAID/C-CAP has completed technical scoping for all 10 sites. C-CAP engineers have assessed the sites and are in the process of issuing work orders for designs to begin. The priority projects identified by the communities include climate-resilient water structures, aid posts, and multipurpose evacuation centers.