



C-CAP NEWSLETTER

JUNE 2013

ENVIRONMENTAL SAFEGUARDS FOR ADAPTATION ACTION

C-CAP team members have successfully undertaken environmental reviews in 11 communities within four participating countries. These environmental assessments ensure that any potential environmental impacts of proposed C-CAP activities are identified, mitigated and monitored, in order to safeguard the health of the natural environment.

One of the main ways C-CAP is assisting Pacific Island countries adapt to the impacts of climate change is by undertaking small-scale infrastructure activities in 90 vulnerable coastal communities. These activities will serve as models that can be replicated in other communities with similar vulnerabilities. They will be practical activities involving the construction, renovation, maintenance, or establishment of infrastructure, which can range from man-made structures to agricultural or natural assets such as crops or mangrove forests. An environmental review must be undertaken for each C-CAP infrastructure activity to assess potential impacts during and after implementation and, where



ABOVE: Images of flood prone areas collected by the C-CAP team for environmental baseline surveys.

necessary, develop mitigation plans for any identified environmental issue. The C-CAP team undertook the first round of environmental reviews during April and May 2013

in 11 C-CAP communities: Pari in PNG; Buretu in Fiji; Auala, Asau, Sapalili'i, and Falealupo in Samoa; and Sopu, Tatakamotonga, Ahau, Popua, and Nukuleka in Tonga.

The purpose of environmental reviews is to ensure that environmental factors and values are considered when making project decisions, in accordance with USAID Environmental Procedures. The USAID environmental review process is formally referred to as the "Regulation 216" for its listing in the US Code of Federal Regulations. It is a detailed study of the reasonably foreseeable significant effects, both beneficial and adverse, of a proposed aid action on the environment. Through the review process, environmental risks are identified, and appropriate mitigation measures are developed and implemented. For the duration of the project, checking that risk mitigation measures are being implemented successfully is one important objective of project monitoring.

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Strong community engagement and consultation during the infrastructure prioritization process (described below in Technical Focus section) helps ensure the local suitability of the suite of selected activities under consideration, which include: the renovation and cyclone-proofing of community facilities; mangrove restoration; improvement of sewerage systems; river bank protection; and improvement of rain water collection facilities.

Before an environmental review can be undertaken for a C-CAP activity, environmental baseline information about the project site is collected. Anecdotal evidence about environmental changes observed in recent years, collected from community members, contributes to the baseline assessment. The environmental legislation of the participating country is also

C-CAP's Environmental Management and Monitoring Plan establishes the procedures that will be implemented during the project to ensure compliance with Regulation 216 and USAID environmental guidance.

To receive an electronic copy of the draft Plan, please send an email with the subject line **REQUEST: C-CAP EMMP** to C-CAPcommunications@dai.com

EXAMPLE One example of an environmental risk relating to small-scale construction work may be contamination from a potential on-site fuel spill. This potential risk could be identified if fuel for construction machinery is stored and used on-site during the construction phase.

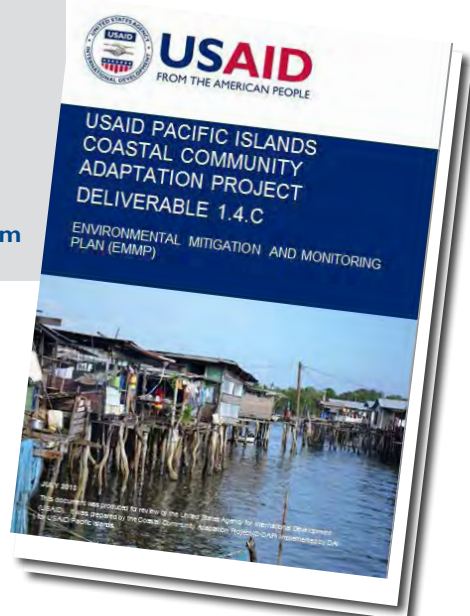
During this short period, mitigation efforts would include ensuring that the construction contractor implemented procedures for proper handling and storage of fuels, and conducted appropriate training of workers. During monitoring visits the C-CAP team would verify that training had been completed, proper handling methods were being employed, and all other agreed procedures were in place.

consulted. By considering in detail the actions that will take place for the proposed adaptation activity within the established environmental and legislative context, the C-CAP team works in participation with communities to identify potential site-specific environmental risks and the appropriate mitigation strategies. As well as helping to achieve project-specific environmental outcomes, this approach increases the communities' capacity to monitor environmental impacts and changes in their locale on an ongoing basis, which informs future local-level climate change adaptation decision-making in the longer term.

The findings from environmental reviews are captured within a set of forms and checklists developed by C-CAP. If the review indicates that no further investigations are required, and the findings are approved by USAID, the proposed project activities may commence.

By the end of this year, the C-CAP team will work with an additional nine to 14 communities to identify climate change adaptation infrastructure priorities and undertake environmental reviews for those activities.

These efforts will ensure that vulnerable coastal communities will receive a helping hand with their climate change adaptation infrastructure needs, without compromising the health of their natural resources and environments.



C-CAP'S COMMUNITY LIAISON OFFICER ISOA KOROVULAVULA FOCUSED ON POSITIVE OUTCOMES FOR COMMUNITIES

Isoa Korovulavula talks about his role as C-CAP's Community Liaison Officer, and the importance of effective community engagement.

Q. What attracted you to the Community Liaison Officer role?

After completing my PhD studies in integrated water resource management, I was looking forward to getting back into community-focused environment and development work. The Community Liaison Officer (CLO) position provides me the opportunity to return to the very thing that was dear to my heart—community work.

Q. In your opinion, what is the role of the C-CAP CLO?

The CLO is responsible for ensuring that all C-CAP community-related activities are delivered according to the project work plan. Since C-CAP's community engagement team, including the CLO, are engaged through the University of South Pacific (USP), the CLO also has a crucial role to play in facilitating a productive partnership between USAID/C-CAP and USP. On a day-to-day basis, the CLO manages and supports the work of C-CAP's community engagement team, including the Community Liaison Specialist, and each of C-CAP's Country Mobilizers who are the project's country-level specialists.

Q. How does your role support C-CAP?

C-CAP is a community-focused development initiative. The CLO role supports the whole C-CAP team to appropriately and effectively engage with communities throughout all project phases, to achieve optimal project outcomes. Through effective engagement, C-CAP communities will acquire the knowledge, skills, and tools needed to think critically about the impacts of climate change. This enables them to make, communicate, and where possible implement, their own decisions about suitable adaptation approaches for the short and long term. This level of awareness also helps communities to better liaise with government managers and programs on climate change matters, strengthening their capacity for disaster preparedness and land use planning which supports climate adaptation.

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Q. What does effective community liaison and engagement look like in practice?

In practice it can be quite time consuming. Some communities are open and willing to communicate their thoughts and suggest ways forward, but sometimes participants need encouragement to find their voice. This can be challenging, particularly when there may be underlying tensions at work. Spending time with communities in their own clan or village meetings is essential to develop a good sense of community dynamics. Being sensitive to cultural dimensions is critical to engage a community's trust.



PHOTO BY C-CAP

ABOVE: Isoa Korovulavula (center) discusses the logistics of a proposed infrastructure project with the C-CAP team and community members.

TECHNICAL FOCUS

C-CAP'S INFRASTRUCTURE PRIORITIZATION INDEX



One of the ways C-CAP is enhancing the adaptive capacity of Pacific Island communities, is by rehabilitating or constructing new, small-scale community infrastructure within 90 communities, spread across nine Pacific Island countries. The USAID/C-CAP Infrastructure Prioritization Index is helping communities to identify their top infrastructure needs for becoming climate ready.

With limited resources, increasing needs, and high degrees of vulnerability to the current and projected impacts of climate change, prioritizing climate change adaptation solutions for Pacific Island coastal communities is no easy task.

USAID's Coastal Community Adaptation Project (C-CAP) is providing critical support for Pacific Islanders to help them catalogue their climate risks and vulnerable infrastructure, and identify, prioritize and implement climate adaptation interventions through a support tool, the Infrastructure Prioritization Index (IPI).

C-CAP aims to deliver climate resilient infrastructure solutions that will be of most benefit to the communities, including their most vulnerable residents. Decisions about the infrastructure activities to support in each community are based on careful consideration, research and, extensive consultation. To ensure that only appropriate and effective infrastructure activities are chosen, the C-CAP team undertakes rigorous consultation with communities, governments, and stakeholders. An understanding of the predicted impacts of climate change for each community provides a starting point for making informed decisions. This information

is utilized by communities, during workshops facilitated by C-CAP, to map out local-level climate change risks and vulnerabilities.

C-CAP has developed a decision-making tool—the Infrastructure Prioritization Index (IPI)—to assist communities to prioritize their infrastructure needs in light of their identified risks and vulnerabilities. The

IPI employs criteria that are used to provide structure and ensure that important factors such as local capacity and resources, sustainability and climate projections are considered, thereby standardizing the decision-making process across all 90 communities.

The IPI was developed by the C-CAP team to assist communities



PHOTO BY C-CAP

ABOVE: The Tubusereia community, Papua New Guinea, identify infrastructure priorities for climate change adaptation.

come to agreement on priorities more efficiently, equitably, and objectively. The participatory IPI process helps build a foundation for ongoing adaptation decision-making, advocacy and governance within communities, beyond the life of the C-CAP project. The IPI also helps the community to identify second and third priorities that can form the basis of planning for future climate adaptation projects.

The IPI was developed after extensive consultations with regional stakeholders and investigations through which, C-CAP found that no existing prioritization tool available to assist communities to rank infrastructure needs based on their vulnerability to climate-related impacts. While no tool fit C-CAP's

specific needs, elements of other programs were applicable, and helped to inform the design of the IPI. C-CAP completed a stocktaking exercise on regional approaches to infrastructure support services and prioritization during risk mapping exercises undertaken in Fiji, Papua New Guinea, Samoa, Tonga and Vanuatu.

This was also accomplished by consulting with regional organizations, including: the University of the South Pacific (USP); Secretariat of the Pacific Communities (SPC); the Pacific Islands Applied GeoScience Commission (SOPAC); the Secretariat of the Pacific Regional Environment Programme (SPREP); the United Nations Development Program (UNDP); and the

German Agency for International Cooperation (GIZ). Specific documents used as a reference included the Community Climate Vulnerability and Adaptation Planning Manual (developed by the Asian Development Bank (ADB) / WWF) and the ADB's Tonga National Infrastructure Investment Plan.

Each community uses the IPI during a one-day workshop to facilitate community discussion and consensus on their infrastructure priorities. Both the IPI methodology and its Implementation Guide were trialled and further developed in Samoa in five communities (Falealupo, Asau, Auala, Manase and Sapapali'i) in April 2013. The IPI workshop method was also trialled in Fiji in June.

Based on the lessons learned from the trials, the C CAP team is applying two facilitation approaches during the IPI workshops to help communities arrive at well-considered and accurate scores for each criterion: helping communities to consider the many variables to take into account for each criterion; and helping them to develop accurate assessments of factors that are difficult to measure quantitatively (see table 1).

With the benefit of the IPI and an effective facilitation process, C-CAP communities will be well-placed to identify the infrastructure activities of most help to them as they prepare for the impacts of climate change.

TABLE 1 The Infrastructure Prioritization Index: a Multi-criteria analysis tool used for the final prioritization of community infrastructure.

Sample scoring sheet for each criteria — the score ranges from 1 to 5

Criteria	Infrastructure Intervention Options		
	Option 1	Option 2	Option 3
1. Environmental Resilience : 1-5 (low to high) capacity to increase community's resilience to the following climate change impacts:			
Flooding (extreme rainfall events inundation)			
Sea level rise (storm surge, king tides)			
Drought			
Climatic coastal degradation (coral bleaching/death, mangrove habitat decline)			
Tropical cyclones (wind factor)			
Total			
2. Sustainability			
Best Appropriate Technology			
Financial			
Human resource/Community contribution			
Governance			
Leadership			
Total			
3. Socio-Economic Benefit			
Cost			
No-regrets options			
Contributions to Community Health			
Economic Benefits			
Community Contribution			
Total			
4. Additional criteria/considerations as defined by the community			
Criteria (score x 5)			

THREE PNG COMMUNITIES IDENTIFY INFRASTRUCTURE PRIORITIES FOR ADAPTATION

Infrastructure prioritization exercises were undertaken in three PNG communities in June 2013. Top priority infrastructure activities were identified and new skills were developed for ongoing adaptation decision-making and governance.

The infrastructure prioritization assessments completed at Pari, Gabagaba, and Tubuserieia were attended by the leadership of each respective community including men, women and youth. C-CAP Senior Technical Adviser Jerry Cole and Community Liaison Officer Isoa Korovulavula facilitated the assessments (read the interview with Isoa on page 3).

The prioritization exercises were undertaken during one-day workshops at each community. At the beginning of each workshop, communities were given an overview of the issues of global warming and climate change, ensuring that participants understood the relationship between the two. Communities were introduced to the Pacific Climate Change Science Program country report for PNG (see page 7). The C-CAP team discussed the trends and projections from the report with each community. Projections included temperatures continuing to increase with more very hot days expected in the future; changing rainfall patterns with more extreme rainfall days and less frequent but more intense tropical cyclones expected for PNG.



PARI



GABAGABA



TUBUSERIEIA

ABOVE: Papua New Guinean coastal communities prioritize infrastructure for climate change adaptation. Photos by C-CAP

Each community has identified their top priority infrastructure activities and learned new skills for future adaptation decision-making.

The information from the participatory climate change risk mapping exercises conducted for each community in January was also presented and discussed.

The exercise included surveying community perceptions of climate change and how it was impacting their community, and mapping of community infrastructure assets and identifying how they are vulnerable to climate change. All existing infrastructure assets were listed and confirmed by each community during the exercise.

Based on the climate change information, the C-CAP team then facilitated discussions for communities to determine by consensus the three main infrastructure issues that affect each community. With assistance from the C-CAP team, each community identified the kinds of infrastructure activities that could help address the top three issues identified. Lastly, these potential activities were prioritized using the

The Pacific Climate Change Science Program was delivered by a partnership between the Australian Bureau of Meteorology and Commonwealth Scientific and Industrial Research Organisation (CSIRO) between 2009 and 2011. The Program produced critical climate scientific research concerning Pacific Island countries.

Program reports offer simple and clear, yet rigorously-developed climate change projections for 2030, 2055, and 2090. The projections are based on three different scenarios of greenhouse gas and aerosol emissions— developed by the Intergovernmental Panel on Climate Change—which take into consideration future population changes, economic development and technological advances. The reports are being used by C-CAP because they are understandable, accessible and affordable to the communities that C-CAP serves. Publications from this work, including individual country-level reports, can be freely accessed online at



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www.pacificclimatechangescience.org/publications/reports/

C-CAP Infrastructure Prioritization Index.

By the end of the day, each of the three communities had successfully identified their top priority infrastructure activities and learned new skills for future adaptation decision-making.

NEW IPCC REPORT FOR RELEASE BEGINNING THIS YEAR

The seminal climate change authority, the Intergovernmental Panel on Climate Change (IPCC) is due to begin releasing the Fifth IPCC Assessment Report (AR5) from this September in Stockholm. The first section of AR5 to be released is the component on the physical science behind climate change.

Each IPCC assessment is drafted with the input of thousands of scientists and experts, and reviewed by representatives from all IPCC member governments prior to release, ensuring the consensus of the participating governments.

Building on the IPCC Assessment Report of 2007, AR5 will offer updated information on the scientific, technical and socio-economic aspects of climate change.



ABOVE: IPCC's Fifth Assessment report soon to be released. Website image © Intergovernment Panel on Climate Change

For further information, visit the IPCC website at www.ipcc.ch

stay informed

THE COASTAL COMMUNITY ADAPTATION PROJECT

C-CAP

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