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C-CAP TAKES A 'WHOLE-OF-ISLAND APPROACH' IN KIRIBATI

Kiribati coastline communities are considered the most vulnerable in the world to climate change.

Picture this: the islands of Kiribati populate an expanse of ocean that is equivalent in size to the continental United States; yet, if you condensed the country's 32 atolls and one island into one land mass its area would only be 811 km², roughly the size of Memphis, Tennessee. Kiribati is widely recognized in the international community as one of the most vulnerable nations in the world to climate change.

The Government of Kiribati should also gain notoriety for the innovative way it will support community-based climate change adaptation despite

the distance, communications and resource challenges inherent when trying to work across its dispersed 32 atolls—which spread across each of Earth's four hemispheres.

In August 2013, the Kiribati Cabinet approved the "Whole of Island Approach" for climate change adaptation in Kiribati.

The Office of the President's initiative is an integrated, multi-sector strategy to increase social and economic resilience to climate change and natural hazards at an island scale. Kiribati will execute the



Photo by C-CAP.

DISCLAIMER

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WHOLE OF ISLAND APPROACH *continued...*

strategy by channeling donor support for climate adaptation one island at a time.

USAID has joined GIZ, UNDP and the Secretariat of the Pacific Community (SPC) to lead climate adaptation at the “Whole of Island Approach” demonstration site on Abaiang Island.

A short speed boat ride from Kiribati’s capital city, Tarawa, Abaiang is home to 18 villages with a combined population of 5,500. C-CAP—through consultation with the Office of the President and other implementers has adopted three partner communities in Abaiang: Borotiam, Evena and Taniau.

In each, C-CAP will support community efforts to climate-proof infrastructure assets and develop disaster risk preparedness and climate-smart land use plans. C-CAP has completed Climate Change Risk & Asset Mapping and Infrastructure Prioritization Index activities in each community and is currently assessing climate-smart infrastructure designs which will be released for bidding within the next two quarters.

“C-CAP is proud to contribute to Kiribati’s ‘Whole of Island Approach’ to climate change adaptation,” notes C-CAP Chief of Party Stephen Smith. “Collaboration between donors is essential so that we can leverage one another’s expertise and spread

resources efficiently.

Working hand-in-hand with partners is also essential for the sustainability of our efforts. We look forward to continuing this important work over the next three years.”



“...C-CAP is proud to contribute to Kiribati’s ‘Whole of Island Approach’ to climate change adaptation.”



Kiribati Profile

21 of the 33 islands are inhabited; Banaba (Ocean Island) in Kiribati is one of the three great phosphate rock islands in the Pacific Ocean - the others are Makatea in French Polynesia, and Nauru; Kiribati is the only country in the world to fall into all four hemispheres (northern, southern, eastern, and western).

See more at: <http://kiribati.facts.co/interestingkiribatifacts/aboutkiribatifunfacts.php#sthash.2IPbcLrl.dpuf>



ABOVE: Children playing on the coastline of the lagoon at Abaiang, Kiribati.

RIGHT: A youth group participating in one of C-CAP activities, engaged in a discussion on climate changes threats and issues. The youth group is from Noto village, North Tarawa.

Photos by C-CAP.

C-CAP Securing Livelihoods in Line with 'Call to Action' From Recent Asia Development Bank Study

ADB's Economics of Climate Change in the Pacific Assesses Potential Economic Impacts on Agriculture, Tourism, Oceans and Health

"It's the economy, stupid!" This oft-repeated and moderately impolite exclaim—its message that the economy and livelihoods are among a population's greatest concerns—is poignant for those advocating climate change adaptation. A recent ADB study, *Economics of Climate Change in the Pacific*, has embodied the phrase by presenting climate change projections in terms of economic impacts on important sectors like agriculture and tourism, and on overall gross domestic product (GDP).

The study applied climate modeling to identify potential changes in temperature, precipitation, sea level rise, and ocean acidity, among other areas. The ADB then assessed how these changes may impact important economic sectors in Fiji, PNG, Samoa, Solomon Islands and Vanuatu. Finally, report contributors conducted economic analysis to quantify the economic losses resulting from the projected climate change impacts.

The report projects declines of between 2.9 and 12.7 percent of annual GDP across the countries, under a medium emissions scenario. Losses were experienced across all sectors studied, including rain-fed agriculture, fisheries and tourism. The findings channel readers to the report's recommendations that climate change strategies and adaptation projects such as climate-proofing infrastructure can and should be used to increase economic resilience.

USAID's community-based approach to climate change adaptation is at the forefront of putting these words into action in communities across the Pacific Islands region. C-CAP is working with 74 communities across nine Pacific Island countries to implement



ABOVE: During heavy rain and extreme sea level events like storm surge and king tides, Tanu Fales resort in Samoa experiences flooding and increased erosion. *Photo by C-CAP.*

climate change adaptation projects designed to increase resilience of important local livelihoods and community health and well-being.

C-CAP is in the process of installing a coastal erosion and shoreline protection system that will increase the resilience of Tanu Fales, a community-owned tourism resort—the most important economic asset in Manase, Samoa. The Manase Climate Change Committee (CCC) identified and prioritized the shoreline protection of Tanu Fales resort during C-CAP's risk mapping and Infrastructure Prioritization Index exercises. Tanu Fales's traditional, stand-alone guest rooms and the beachfront that serves as the town's main draw have increasingly experienced impacts of sea level rise and flooding. These impacts exacerbate coastal erosion that is already encroaching on the fales closest to the shoreline.

C-CAP elected to use an innovative approach to stabilize the coastline. Elcorock geofabric is an innovative geo-

fabric sand bag container that will be installed to stabilize the beach berm protecting the coastline with sand bag containers that are 'hidden' adaptation infrastructure interventions that stand in contrast to more prominent and visible sea walls. Elcorock will be anchored below the waves just off the coast of Manase. It will enhance the scenic beauty of the coastline, functioning out of tourists' view to reduce erosion and protect the large beach that draws them to Tanu Fales.

C-CAP doesn't always focus adaptation interventions directly on businesses to support local economies; however, C-CAP adaptation projects across the region can be linked to livelihoods. In Fiji's Daku, Vunisinu, Nalase and Buretu communities, for example, CCCs have all prioritized adaptation to flooding and saltwater intrusion in part because of potential impacts on agriculture. This fall, C-CAP will launch interventions there to increase the resilience of these communities' important livelihood resources.

HIBISCUS QUEENS

Fiji Hibiscus Queen Pageant Contestants Visit C-CAP Community to Help Raise Climate Change Awareness During Annual Festival

Buretu, Fiji is a long way from Atlantic City, traditional home of the Miss USA pageant – but the story was perhaps more compelling when the contestants of Fiji's Hibiscus Queen Pageant visited this C-CAP partner community to learn about climate change. The annual event is a week-long celebration of Fijian culture, people and the arts. Each festival adopts an important theme, but C-CAP found this year's to be particularly relevant: "Climate Change Affecting Human Lives." C-CAP had the opportunity to raise awareness about the theme by partnering with the Festival's biggest draw—the Hibiscus Queen Pageant.

In August, 17 Hibiscus Queen Contestants visited C-CAP partners in Buretu, a community of 131 people in the southeastern part of Viti Levu Island. During their visit, the aspiring queens learned about C-CAP's process of risk and infrastructure mapping that teaches communities about the effects of climate change and helps to identify options for adaptation interventions. Community leaders also shared details on their experience with climate change. They identified flooding and erosion as the main risks to the village's social, economic and water infrastructure and explained how climate change impacts like sea level rise, storm surge and precipitation pattern changes can exacerbate them. Important community gathering spaces located near the river—the community hall, church, and primary school, for example - are all at risk of being inundated from river flooding. Crops grown near the village - taro, cassava, bananas and leafy vegetables - are vulnerable to salt-water intru-



sion, which produces lower yields and reduces the availability of arable land.

Community leaders highlighted that C-CAP is helping to make their village more resilient by planning an adaptation project to stabilize the Navolau riverbank. This year, C-CAP will start work to reinforce the riverbank with erosion-control geotextiles and natural plants such as mangroves and vadra. Such a simple intervention can become a safeguard to so many

aspects of community life.

After their visit, the Hibiscus Queen Pageant contestants compiled their observations on climate change risks in a formal report. The visit and contestants' reactions to climate change were documented in local newspapers and TV news programs alike—helping C-CAP to do its part in support of the Festival theme, raising awareness of how climate change affects human lives. C-CAP congratulates all the Hibiscus Queen finalists!



ABOVE: C-CAP Nick Hodgood (second from right) with the queen contests.

LEFT: C-CAP team briefing the contestants and (below) contestants discussing climate change.

Photos by C-CAP.

CONGRATULATIONS!

C-CAP Named Finalist in Inaugural 'DAI Innovation Challenge'

Charting New Pathways to Resilience with Climate Change Risk and Asset Maps, C-CAP's application to the Challenge outlines the team's innovative approach to climate adaptation in remote island communities. It details the strategy to combine climate change projections, awareness of risks/climate variability, and spatial layout of community assets into one innovation—Climate Change Risk & Asset Maps; maps are then used to guide adaptation planning for vulnerable community assets like water systems, evacuation centers, economic infrastructure and coastal barriers.

Part of C-CAP's innovation was in using free, easily-accessible and user-friendly adaptation tools. In the remote and highly dispersed countries of the Pacific Islands region, the only path to sustainability is via low-cost, scalable development interventions. C-CAP applies the free GoogleMaps platform, widely accessible country-level climate change trend projections and hand-drawn community maps to create a digital planning tool that has been shared between our most remote island communities, local and national government partners throughout the South Pacific, project support team members in the United States, and USAID/Pacific Islands. All C-CAP GoogleMaps can be viewed by clicking on the hyperlinked community names on the C-CAP Flickr page: <https://www.flickr.com/people/c-cap/>.

Innovation Challenge judges had this to say about C-CAP's application, "The application was very inspiring ... The approach is simple, elegant, inexpensive, and applicable in all the various island nations C-CAP covers.



We have used mapping on other projects to help communities understand impacts and address problems, but it is the sheer scale of this that's worth highlighting. It would be great to be able to standardize this type of tool for other projects and in particular those that are working directly with communities".

C-CAP Community Liaison Officer Isoa Korovulavula and DAI Project Manager Joey Manfredo will lead a presentation on C-CAP to a panel of

"...*"We have used mapping on other projects to help communities understand impacts and address problems, but it is the sheer scale of this that...is worth highlighting. It would be great to be able to standardize this type of tool for other projects and in particular those that are working directly with communities."*

Innovation Challenge judges in the Washington, D.C. area on 29 October. The winner will be announced later that day. Good luck C-CAP!

C-CAP WELCOMES NEW STAFF MEMBERS

New Engineer, Communications Specialist and Procurement Manager Join the Team.

July through August was an exciting time of transition for C-CAP, with the hiring of three new staff members: Sylvia Avitu and David Komba in Papua New Guinea, and Kerryn Chung in Fiji. Each has a unique skill set and range of experience to contribute to the project.



Sylvia Avitu- Development Outreach Coordinator Sylvia Avitu is responsible for C-CAP public relations activities and production of communications products—such as this very newsletter!—that target the donor community, general public, and national governments/actors. Beyond monthly newsletters, Sylvia coordinates outreach events and implements the project's overall communications strategy. Readers will also recognize Sylvia's work across social media platforms. "Be sure to ask our readers to like us on Facebook," reminded C-CAP's resident PR expert.

Sylvia sees C-CAP's work as a way to empower communities to be in a better position to assist communities to understand and response to the incremental effects and embrace climate change to improve their quality of life. In her role as Development Outreach Coordinator, Sylvia is excited to share news of how the American people's generous support is helping Pacific Island communities to adapt to the impacts of climate change and build a more sustainable future. *Pictured above: Sylvia discussing with PNG CM- Isimel Tuembe. Photos by C-CAP.*



Kerryn Chung- C-CAP Graduate Engineer Kerryn Chung works alongside Infrastructure Specialist Sanjay Prasad on climate-smart infrastructure design and management; they will oversee implementation of small scale infrastructure projects in up to 90 communities. Kerryn's responsibilities include tracking and documenting infrastructure activities and coordinating between the C-CAP infrastructure design subcontractor NRW Macallen, the C-CAP technical team, and community representatives. Kerryn assists with the development of quality assurance plans, environmental monitoring and mitigation plans, and safety standards, and supports monitoring of construction activities.

Kerryn was attracted to C-CAP's work in coastal communities, saying that the project paves a crucial path to sustainability that can help to protect traditional aspects of Pacific Island life. "The work of C-CAP is not only addressing the issue of climate change in the communities but is providing a platform for future reforms or sustainable initiatives that do not diminish the traditional aspects of the community but rather compliment them," explains Kerryn. Kerryn's favorite aspect of the job is visiting community project sites. Kerryn brings experience in civil engineering, construction supervision, and project management to C-CAP. Outside of work, she is passionate about the education and professional development of young Fijians, particularly women. Starting in 2011, she organized an engineering awareness program in Fiji high schools, and hosted an annual conference for young women professionals

Pictured above: Kerryn on one of her trips out in the field (C-CAP sites). Photo by C-CAP.



David Komba- C-CAP Procurement & Subcontracts Manager David Komba coordinates infrastructure subcontracting and other procurement activities across C-CAP's 12 partner countries. David's responsibilities include managing the bidding, evaluation, and subcontracting processes; overseeing compliance with contract terms and USAID regulations; advising on procurement decisions; and documenting project procurement records.

David brings over eight years of procurement and contracts experience, most recently from the mining and natural gas sectors. He was interested in C-CAP for its community-based activities that provide needed services to Papua New Guineans. He likes the idea of working on projects with specific goals to give assistance to others. As Procurement & Subcontracts Manager, he is a vital link

between the C-CAP staff and local partners – helping with site visits and working directly with the subcontractor's implementing activities. On a personal level, David is a talented musician, playing drums, guitar, and singing. *Pictured above: (L-R) David with Program Associate Andrew Whiteman. Photo by C-CAP.*

For further information about C-CAP and other USAID Pacific Islands projects visit www.usaid.gov/pacific-islands

NAURU: THE C-CAP ISLAND



C-CAP Facilitates Climate Change Risk Mapping and Data Collection in Each of the Country's 14 Communities.

Welcome to Nauru, an 8-square mile coral atoll located just west of Kiribati.

Known in most circles for its phosphorous mines, C-CAP has come to associate the small island country for its efforts to ensure that C-CAP tools are used sustainably long after the project closes.

Work in Nauru exemplifies how C-CAP makes its mark engaging stakeholders all the way from government counterparts to local community members.

Impressed with C-CAP's activities, Nauru's government partner, the Department of Commerce, Industry and Environment (CIE), has expressed interest in using project data to better understand climate change risk in Nauruan communities.

While C-CAP had only planned to work with 10 partner communities, the Nauru CIE requested that C-CAP assist the CIE to complete Climate Change Risk & Asset Mapping and data collection in all 14 of the nation's communities to create a complete "national catalog" of climate change vulnerability.

C-CAP will also support CIE in developing a national baseline of climate change awareness with data from across Nauru's 14 communities. Through its standard data collection process, C-CAP conducts climate

ABOVE: Pictured is a loading structure of phosphate mining that was once a thriving economy for Nauru. Like most low lying island countries in the Pacific, Nauru is also facing coastal erosion.

BELOW: An example of rapid coastal erosion taking place in one of the coastal communities. (L-R) Rainwater catchment in Nauru and the road along the shoreline with a seawall.

Photos by C-CAP.



change baseline surveys designed to measure how knowledge of climate change has changed over time through its interventions.

Supporting CIE's priorities will help institutionalize C-CAP methodologies as the national climate change risk assessment protocol. The community-led sessions and baseline surveys help ensure that those most affected by the impacts of climate change are educated and consulted on their most immediate needs.

Currently, communities are in the process of identifying infrastructure options, which C-CAP will use to plan suitable interventions. Thus far, communities have identified coastal protection, climate-proofed housing, drainage, marine protection and a number of issues related to water as their priorities.

In evaluating options, C-CAP will work with both the communities and the national government to choose interventions that have a sustainable, coordinated impact.



USAID
FROM THE AMERICAN PEOPLE

Around the Pacific



USAID assistance in the Pacific region covers 12 nations and supports programs that mitigate the negative impacts of global climate change and environmental degradation. USAID has a growing portfolio of climate change related projects. This new feature of the C-CAP Newsletter captures some additional highlights from other USAID projects to provide readers a broader perspective of how USAID is supporting healthy environments and addressing climate change needs in the Pacific region.



LEFT: USAID LEAF's John Pena assisting PNG Forest Research Institute (FRI) Kevin to measure the diameter of trees as part of assessing the above ground biomass.

Photo by LEAF.

USAID LEAF Advances Papua New Guinea's First Biomass Training

From July 17 – 25, Urumarave Village Chief Kelly Basebas and his community hosted Papua New Guinea's first training on forest biomass measurement, led by USAID LEAF. The training welcomed more than 30 participants from government agencies, universities and NGOs. The trained individuals will adopt the emerging standards and protocols currently being developed under PNG's National Forest Inventory. USAID LEAF has also completed biomass trainings in Laos, Malaysia and Vietnam, furthering its regional approach to capacity building for key stakeholders who manage forests and natural resources.

USAID LEAF Project Supports Planning for Papua New Guinea's Forest Policy

Engagement and energy were in abundance as USAID LEAF welcomed an overflow crowd of more than 120 stakeholders – including government agencies, NGOs, community representatives and private citizens – to Papua New Guinea's National Consultation of Forest-Related Policy and Legislation on Friday, July 25 in Port Moresby. The consultation was designed to provide feedback on a USAID LEAF/UN-REDD review of PNG's current national forest policy and legislation, a critical next step to address climate change through legal reforms and improved governance. Participants provided recommenda-

tions on the first draft of the review to the USAID LEAF review team and government agencies. USAID/RDMA Regional Environment Director Alfred Nakatsuma and US Ambassador to Papua New Guinea Walter North were on hand to support LEAF's efforts.

Consultation feedback will be incorporated into the review, with a final version delivered to the PNG government before the end of the year. USAID LEAF will continue to provide input on the process as the review moves from advice to action. The consultation is part of USAID LEAF's regional approach to facilitate multi-stakeholder forums that promote policy reforms and low emission land use planning.

SPREP and Government of Kiribati Lead Installation of Internationally Recognized "Tamana Pumps" in Kiribati

The atoll of Tamana, in Southern Kiribati, is the origin of a pump design that has helped thousands of communities in the Pacific Island region. Known across Kiribati and internationally as the Tamana Pump, the design is a simple hand powered

AROUND THE PACIFIC continued...

system that can greatly reduce water contamination by ending the practice of “bucket dipping” from open wells. The Tamana Pump allows the community to pump from closed wells and is ideal for outer island communities as spare parts are easily available and the design is so simple that a technician is not required for maintenance; waiting for specialised imported spare parts or a technician can take many months on these remote outer atoll islands.

SPREP has undertaken assessments on Abaiang atoll which included water testing that confirmed superior water quality at sites with existing Tamana Pump systems. There is great potential for improved water supply solutions on the atoll as 92% of households there reported using hand held buckets to obtain water from open wells. Sites have now be identified where new Tamana Pumps will be installed.

SPREP and the Kiribati Ministry of Public Works and Utilities, with project funding from USAID, are aiming to improve water resources capacity in Abaiang. The project will enable communities on the atoll to manage their water supply and better understand the vulnerabilities they are facing from climate change and non-climate related risks.

USAID/MARSH supports inclusion of marginalized groups through trainings with stakeholders

A key deliverable of the USAID/ Mangrove Rehabilitation for Sustainably-Managed Healthy Forests (USAID/MARSH) project is to ensure inclusion of marginalized groups (including persons with disabilities, women and youths) in all aspects of



ABOVE: Communities using the ‘Tamana Pump’ to get water from underground wells.

Photo by SPREP.

the project implementation. As such MARSH Project Management Unit (PMU) has been supporting its partner, Assembly of Disabled Persons, to conduct Human Rights and Disability Inclusion Trainings.

In line with the key activity, the trainings aim to broaden the understanding of Disability and Basic Human Rights links with the UNCPRD (United Nations Convention of Rights of Persons with Disabilities) for Disability Inclusive Development and adaptation/integration to strengthen the disability inclusion or inclusive understanding concept for the local MARSH implementing partners to allow for equal community participation in the Mangrove community based Rehabilitation for Sustainably Managed, Healthy Forests.

A total of 60 participants, including 26 females, have been trained in

Port Moresby, Kavieng and in Manus. Participants included representatives from MARSH Partners, community members in MARSH project sites in NCD, Central, Kavieng and in Manus Districts, and representatives from Manus and Kavieng Provincial Government and local Community Based Organizations.

A draft Disability Inclusion Training Module has been developed and tested by MARSH at these trainings. USAID/MARSH hopes to have this training module finalized and published in FY15.

Note from the Editor:

*These short project highlights will be a regular feature in our newsletter highlighting USAID partners activities addressing climate change issues across different sectors throughout the Pacific region. Full details can be obtained either from project websites or by contacting project offices.
MARSH: MARSH@iucn.org
LEAF: <http://www.leafasia.org/>
SPREP Website: <http://www.sprep.org>*

ADAPTATION IN MOTION

CHECKING WITH C-CAP COMMUNITIES: SAMOA, PAPUA NEW GUINEA AND NAURU.

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

In Samoa...

This July, C-CAP partners in Manase, Samoa signed a community agreement for the installation of a coastal erosion and shoreline protection system. The system will help reduce a community-owned tourism resort's vulnerability to climate change impacts like sea level rise, storm surge and precipitation-induced flooding. Representative members from youth, women and men's groups signed the agreement alongside C-CAP Deputy Chief of Party Nick Hobgood and Country Mobilizer Cecilia Amosa.

C-CAP also hosted a bidders' conference in Manase; five (5) construction companies participated to learn about the proposed project and express interest in submitting a proposal. The

successful bidder – PPG Engineering & Construction - will install the infrastructure this fall.

In PNG...

In June, C-CAP's partner communities in New Ireland Province welcomed the USAID/Pacific Islands' Acting Contracting Officer's Representative Dani Newcomb and Regional Director Maurice Knight, who were visiting to participate in an engineering scoping assessment. The team was accompanied by Easu Kabin, a Climate Change Manager for New Ireland Province and expert in designing water catchment systems. During the visit, C-CAP explored potential water security interventions and erosion control measures. The team is in the process of finalizing intervention designs and will issue a construction solicitation this fall.

In Nauru...

The C-CAP team quietly celebrated the addition of their 74th partner-

ship community in the final week of August when Senior Technical Advisor Jerry Cole and Country Mobilizer Christal Vorbach facilitated Climate Change Risk and Asset Mapping and Infrastructure Prioritization activities in Nibok, Nauru. Nibok is the 10th partner community in Nauru. C-CAP communities now stretch more than 2,500 nautical miles east to west from Taelefa, Samoa to Lealea, Papua New Guinea; this is greater than the distance between Los Angeles and Washington, D.C. From North to South, C-CAP communities span more than 1,500 nautical miles from Borotiam, Kiribati to Tatakamotonga, Tonga; this is nearly the distance, north to south, of much of the continental United States!



LEFT: USAID Regional Director Maurice Knight heads out to Unakum Island with the C-CAP team.

RIGHT: (top) from right C-CAP Deputy Chief of Party Nick Hodgood with Manase community signing the community agreement, and (bottom) holding up the signed agreement. Photos by C-CAP.



stay informed

THE COASTAL
COMMUNITY
ADAPTATION PROJECT

C-CAP

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