

USAID/NOAA PSIDS PROJECT:

***Enhancing Capacity for Adaptation to Climate Change
and Variability in the Pacific Small Island Developing
States***

Final Report

December 2014

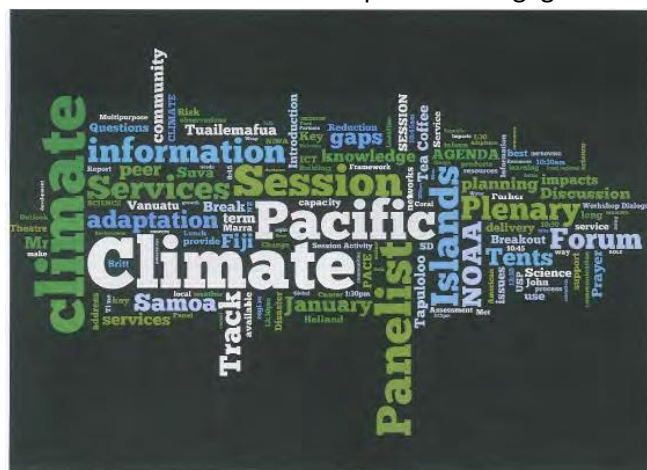


Cover Photos: Participants in Sustaining Coral Reefs and Coastal Fisheries Climate Services Dialogue in Samoa, Dr. William Sweet by NOAA tide gauge in Port Vila, Vanuatu and coastal erosion in the Republic of the Marshall Islands.

Background

Pacific leaders continue to call for assistance as they strive to understand, predict, and adapt to a changing climate. The development and delivery of actionable information about climate patterns and trends - and their impacts on communities, businesses and ecosystems - is essential to many aspects of policy, planning, and decision-making. Consultation with decision makers is critical to ensuring such information is useful, useable and used. The National Oceanic and Atmospheric Administration (NOAA), with its globally recognized scientific and technical expertise, is in a unique position to work with the Pacific Island Meteorological Services and other regional organizations to support robust and sustained capacity development consistent with the Global Framework for Climate Services (GFCs).

NOAA, working through the Department of State and the U.S. Agency for International Development (USAID), undertook a two-year, \$2.0 million program from 2012-2014 to support climate change adaptation in the Pacific Small Island Developing States by conducting a series of activities to enhance scientific and technical capacity. These activities were designed to strengthen end-to-end climate services and adaptation capabilities by helping NOAA's U.S.-focused Pacific Climate Information System (PaCIS, <http://www.pacificcis.org/>) expand into the broader Pacific. With an emphasis on engagement and consultation between service providers and users, activities carried out over the past two years include building of regional networks, packaging and dissemination of existing climate-related products and services; development of new or enhanced products and services; and advancement of sub-regional and in-country training and core capacity-building. Key accomplishments in these areas are highlighted below. As a result, of these efforts



Wordle from Pacific Islands Climate Services Forum Agenda

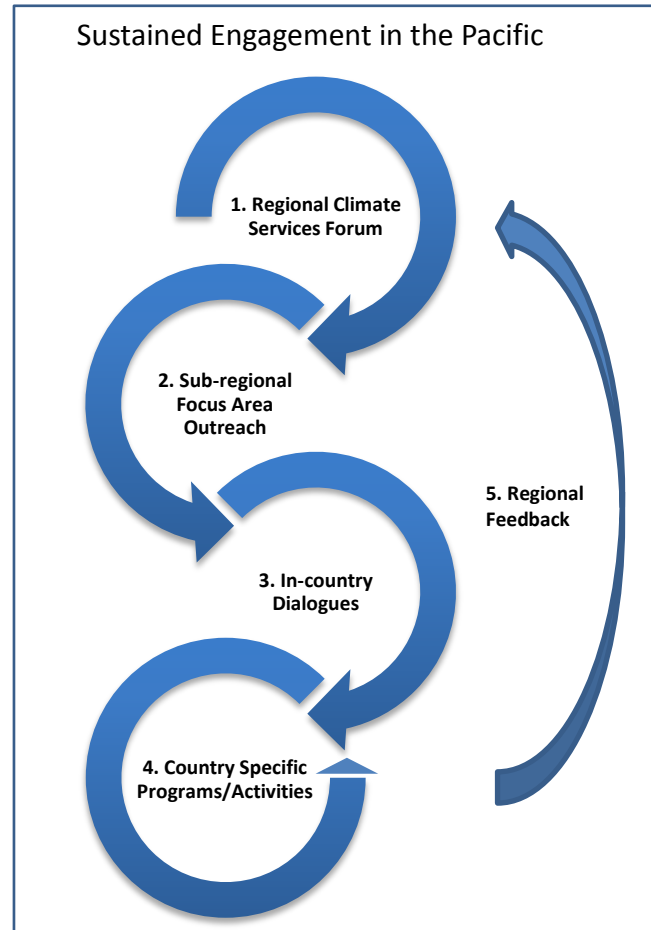
- Climate services users are better informed about the current state of knowledge about climate variability and its impacts, more skilled in understanding, translating, and applying the science behind and consequences of a changing climate, better able to make use of the technical capabilities at their disposal to assess adaptation options and strategies, and as a result able to make better decisions as they set priorities and allocate resources.
- Climate services providers are better informed about what local knowledge, needs, and questions are most relevant and, as a result, are better able to match products and services to user requirements.
- There is an increase in the supply of regional practitioners and trainers to support training-of-trainers and sharing of lessons learned.
- There is a significant increase in regional coordination and collaboration among programs and partnerships across the Pacific, including national governmental counterparts, regional organizations and networks, and stakeholders in multiple sectors.

Key Accomplishments

Activity Area 1. Build a Network of Networks: Regional Consultation and Coordination.

A Partners Meeting was convened as part of the Pacific Islands Climate Services Forum (PICSF) held 21-25 January, 2013 in Suva, Fiji. The meeting was attended by over 30 agencies, institutions, and organizations involved in climate services in the region met to exchange information on and align projects and activities. The information gathered was used to identify opportunities for coordination and collaboration, establish priorities, and shape the details of the activities carried out under this project. A meeting summary can be found on the Forum website (<http://pacificcis.org/picsf/>).

A series of six Focus Area Coordination Team (FACT) virtual meetings took place in July and August 2013 reaching approximately 90 technical experts, Met Service officers, and stakeholders across the Pacific. The discussions served as a follow on to the PICSF. They provided review and input instrumental to the development and delivery climate information, services and technical expertise to the PSIDS consistent with the principle of 'co-production' of knowledge. Discussions focused on describing individual product lines that meet the requirements of unique sets of decision-makers in terms of content, format and timing of services and the identification of synergies with existing efforts and thus opportunities for leveraging and alignment. Note that the series of dialogues describe below were organized around the focus areas, and members of the FACTs were actively engaged in the organization and conduct of the meetings as well as the development of products, presentations, and other such content provided at the meetings. As such **the dialogues were unique in their level of collaboration among partners, as evidenced by the high degree of leveraging that occurred.**



Process of sustained engagement in the Pacific Islands

The project lead conducted a series of activities that led **to a significant improvement in the level of regional coordination and collaboration**, as well as advancing the Global Framework for Climate Services (GFCS) and the US/NOAA role in it within the region.

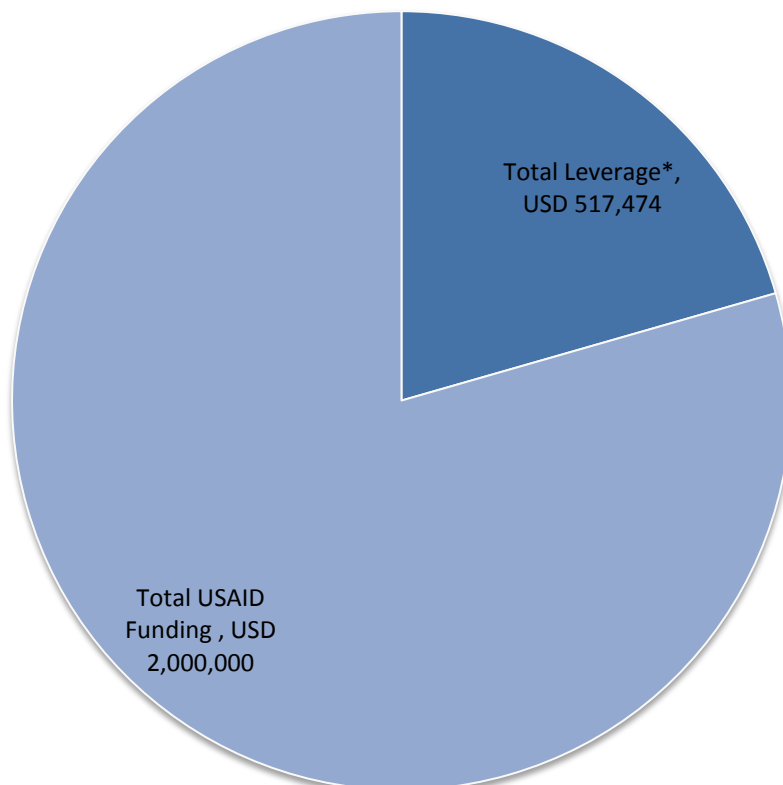
- In July 2013 he attended and presented at the Second Pacific Meteorological Council and the Pacific Climate Change Roundtable, July 1-5, 2013 in Nadi, Fiji. During the former he spearheaded a concept for a Pacific Islands Climates Services (PICS) Panel, a body intended to coordinate and guide climate services-related activities in the region that was subsequently endorsed at the meeting. During this time he also was able to further consult with partners

(University of the South Pacific, SPC, etc.) as well as other USAID program and project staff (USAID Pacific Islands, CCAP, etc.) to identify opportunities to value add to these projects.

- In late March, early April 2014 he attended the WMO Regional Consultation on Climate Services for Pacific Small Island States held in the Cook Islands. This project was highlighted via a presentation during this event. Consultations during this event contributed significantly to the formation of the PICS Panel via the development of a Terms of Reference and its adoption by the Pacific Meteorological Council. Subsequent to this meeting he was designated as the US/NOAA member of the PICS Panel.
- In August 2014 he attended the first meeting of the PICS Panel held in Fiji. This meeting brought together selected experts on climate services and other social and economic development sectors, as well as relevant partners and practitioners supporting and/or using climate services in the Pacific region. A key outcome of this meeting was an Action Plan, based on the draft Pacific Regional Implementation Roadmap for Strengthened Climate Services for the next 3 years.

Program-level consultations with colleagues with the University of the South Pacific, the Secretariat of the Pacific Communities, Australian and New Zealand government agencies, the USAID CCAP project, the Secretariat of the Pacific Regional Environment Program, etc. also took place through regular phone calls and impromptu visits. This robust and sustain communication helped ensure a high level of coordination and collaboration. The level of partnership engagement is evident in the leverage that was brought to the project (Graph 1).

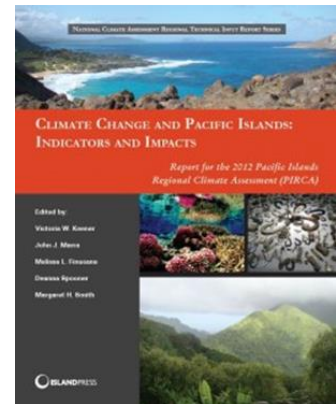
Graph 1: USD Leveraged by USAID PSIDS Project



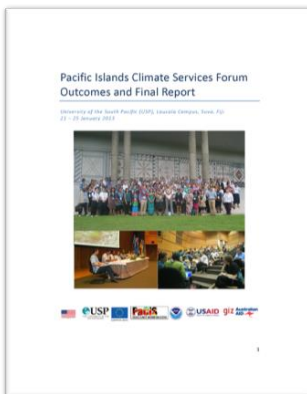
* Approximate and does not include significant in-kind leverage throughout the duration of the project

Activity Area 2. Conduct Assessments as a Sustained Process: PIRCA, Regional Climate Caucus and In-country Directed Dialogues.

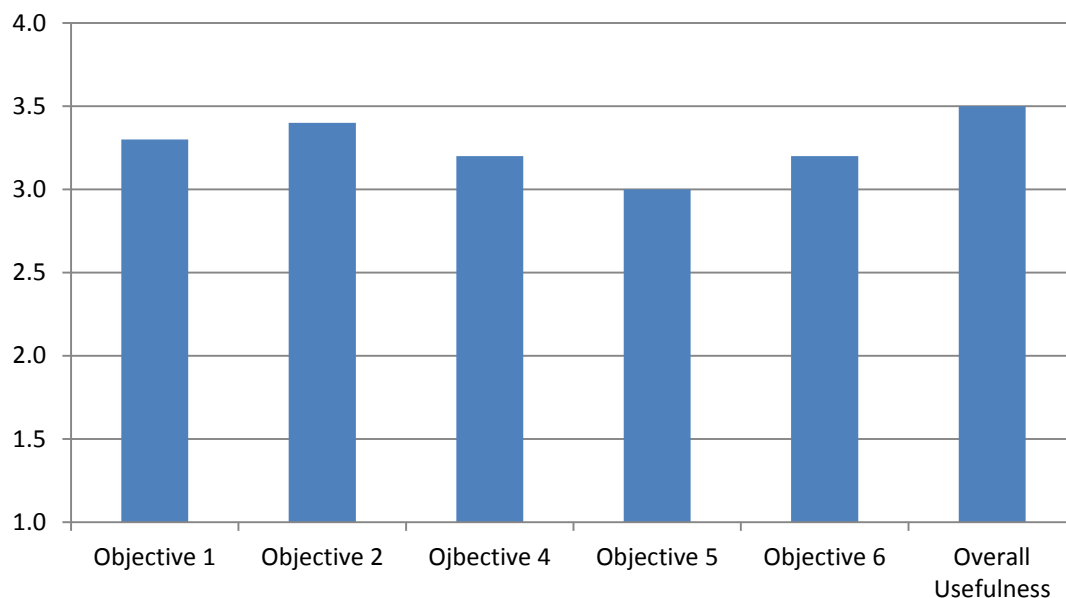
The Pacific Island Regional Climate Assessment (PIRCA) was released in December 2012. It provides state-of-the-science consensus reports in three focus areas, identifies and describes key impacts to diverse and cross-cutting sectors, and considers adaptation activities and capacities. The PIRCA provided a foundation for engagement with the PSIDS through the series of information exchanges that took place over the two-year period. The PIRCA can be found at <http://www.pacificrisa.org/projects/pirca/#.UUiKkTCsjTo>.



The Pacific Islands Climate Services Forum was a regional climate caucus held in Suva, Fiji 21-25 January 2013. It brought together over 200 participants from the Pacific Islands and the world. The Pacific Islands Climate Services Forum raised the awareness of and engaged in a dialogue about climate services, and thereby advanced climate services in the Pacific Islands. The Forum also **strengthened and built new relationships between producers and users of climate information to address issues of critical importance to the region**. Particular attention was given to soliciting input from the PSIDS needed to establish user requirements (information content, format, and timing) within each focus area and/or use sector in each sub-region and thereby guide the in-country dialogues. The PICSF Outcomes and Final Report can be found at <http://pacificicis.org/picsf/>. In addition, a day long training session was held as part of the Forum which trained 78 participants on accessing large data sets, tools for coral reef managers, tropical cyclone climatologies, seasonal outlooks and SCOPIC (Seasonal Climate Outlook for the Pacific Island Countries, Paying for Predictions game (Red Cross), and access to geo-spatial data. Training and Forum participant evaluation results are summarized in graphs 2 and 3 below.



Graph 2: Were the objectives of the Pacific Islands Climate Services Forum met and how useful did you find the Forum overall? Scale of 1 to 4; 4 being the highest)



Objective 1: Raise awareness of the capabilities of meteorological, oceanic and atmospheric knowledge available and used in villages and communities to support climate adaptation.

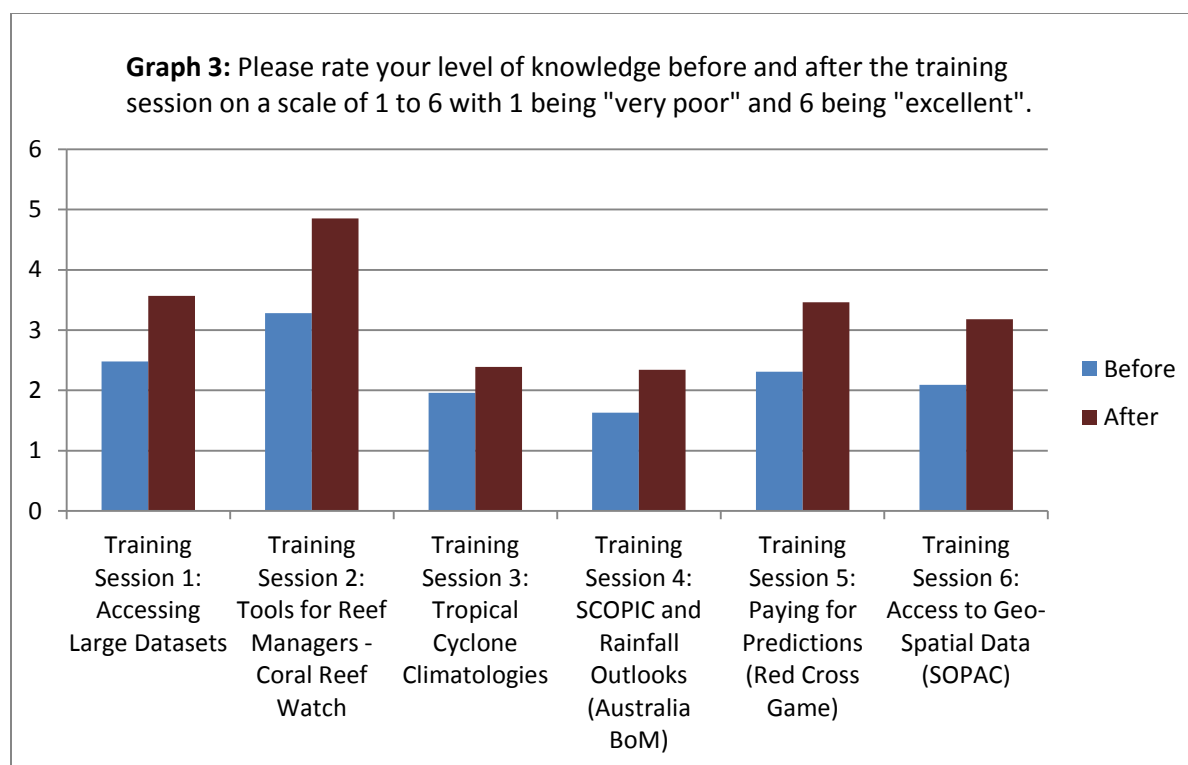
Objective 2: Raise awareness of available climate and weather service products and give a snapshot of the status of climate science, impacts, and adaptation.

Objective 3: Discuss what products and delivery capabilities are needed for community climate adaptation and disaster and risk management planning.

Objective 4: Discuss the development of a long-term strategic plan for the delivery of climate and weather services to the region, considering user requirements and user feedback, to minimize gaps and overlaps and to align climate service activities that already exist in the region

Objective 5: Establish support for peer-to-peer learning networks.

Objective 6: Cultivate the growth of a sustained climate assessment process that is grounded in the iterative 'coproduction of knowledge through dialogs between local experts, key decision makers, and



In 2014 a series of Climate Services Dialogues were held across the Pacific Islands.

- Freshwater Resources: Drought and Inundation - Majuro, RMI in April 2014 (with participation from Micronesia and Palau)
- Sustaining Coral Reefs and Coastal Fisheries in a Changing Climate - Vanuatu in June 2014 (with participants from the Solomon Islands, Papua New Guinea, and the Republic of the Marshall Islands)
- Coastal Erosion and Community Resilience - Vanuatu in June 2014 (with participants from the Solomon Islands, Papua New Guinea, and the Republic of the Marshall Islands)
- Freshwater Resources and Reducing the Impacts of Drought – American Samoa August 2014 (with participants from Samoa and Tonga)
- Sustaining Coral Reefs and Coastal Fisheries in a Changing Climate - Samoa in August 2014 (with participants from American Samoa)
- Freshwater Resources and Reducing the Impacts of Drought – Cook Islands in September 2014 (with participants from Kiribati)
- Sustaining Coral Reefs and Coastal Fisheries in a Changing Climate – Cook Islands in September 2014 (with participants from Kiribati)

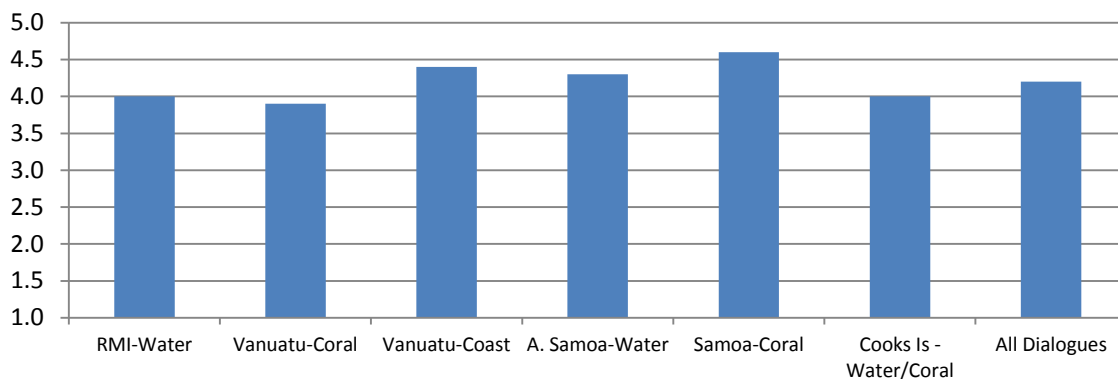
These Dialogues were planned with local Meteorological Services, planning and resource agency partners, and sectoral representatives, and



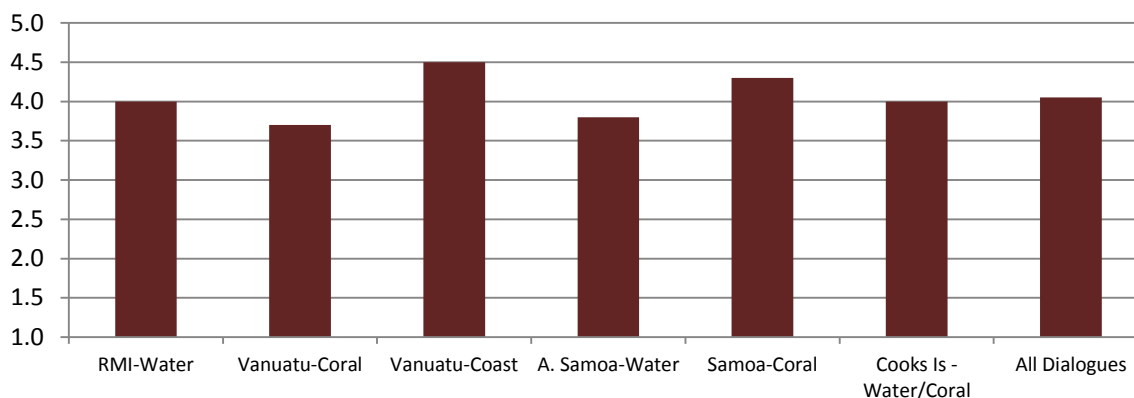
Participants on fieldtrip as part of the Coastal Erosion Dialogue in Vanuatu.

all focused on climate variability and climate early warning given the ENSO status and the local interest in seasonal forecasts. These Dialogues were organized around a set of activities around ‘climate stories’ (case studies that incorporate traditional/experiential knowledge and scientific data; and illustrate lessons learned and best practices; Appendix 1). They involved: sharing stories from across the region to help identify key messages; **training in building climate stories** (Appendix 2; Appendix 3) **as a means to facilitate community problem-solving by helping them understand climate events and impacts, diagnose the situation to identify information needs; and conveying this information in a form appropriate to a variety of audiences** via a climate communications module that was developed and presented. **Almost 200 individuals were trained via these dialogues. This novel approach, which was well received, has broad application in the region.** Outcomes of all the Dialogues included next steps at project level and program level priorities identified by the countries for moving forward. Note that proceedings of all dialogues (which include participant lists, presentations, etc.) can be found at <http://pacificcis.org/> Dialogue evaluations are summarized over a series of graphs (4a – 4h).

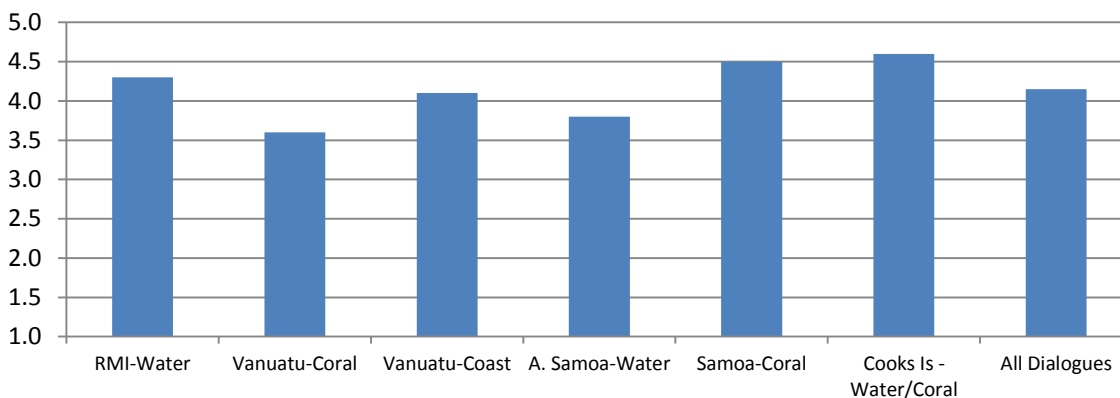
Graph 4a: Did we meet Objective 1 - Exchange information about awareness of the state of climate science, impacts, and adaptation and available climate and weather service products and services to support climate adaptation planning, disaster risk management, and sustainable development. (Scale of 1 to 5; 5 being highest)



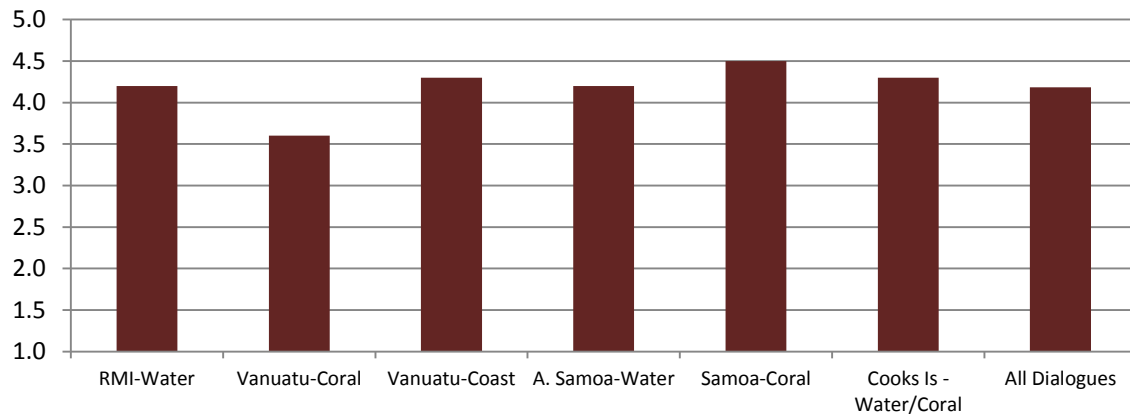
Graph 4b: Did we meet **Objective 2** - Explore and learn about best practices to avoid coastal erosion and sustain marine and coastal resources through the discussion and development of climate stories, which combine experiential, traditional and scientific knowledge. (Scale of 1 to 5; 5 being highest)



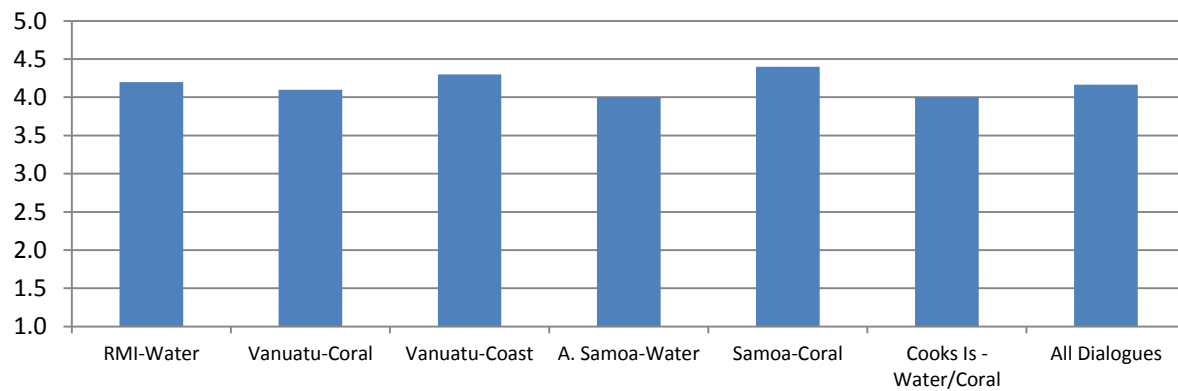
Graph 4c: Did we meet **Objective 3** - Explore and learn about seasonal climate-related science and information. This includes placing current observations and forecasts into a local context and knowledge, and making it easier to access and use by coastal erosion or marine resource managers and fishermen. (Scale of 1 to 5; 5 being highest)



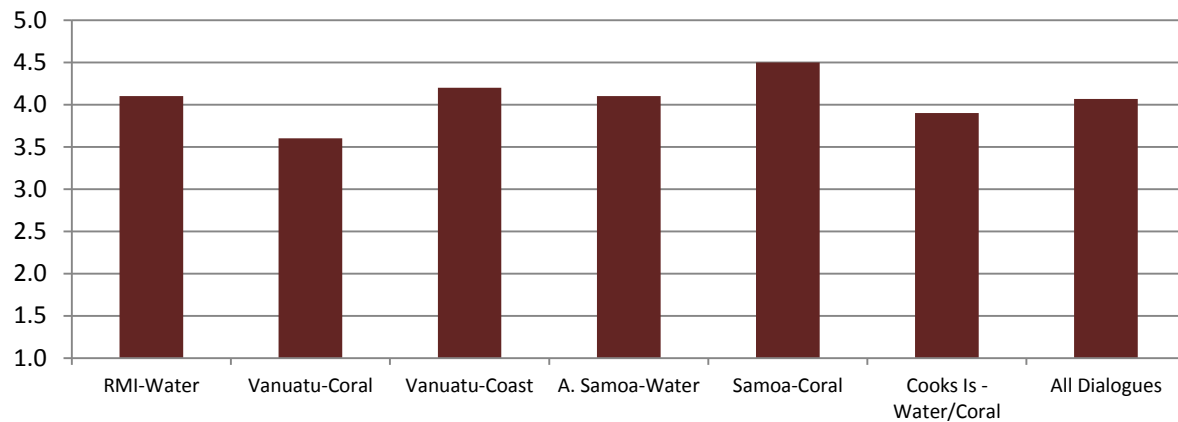
Graph 4d: To what extent did the dialogue meet your expectations. (Scale of 1 to 5; 5 being highest)



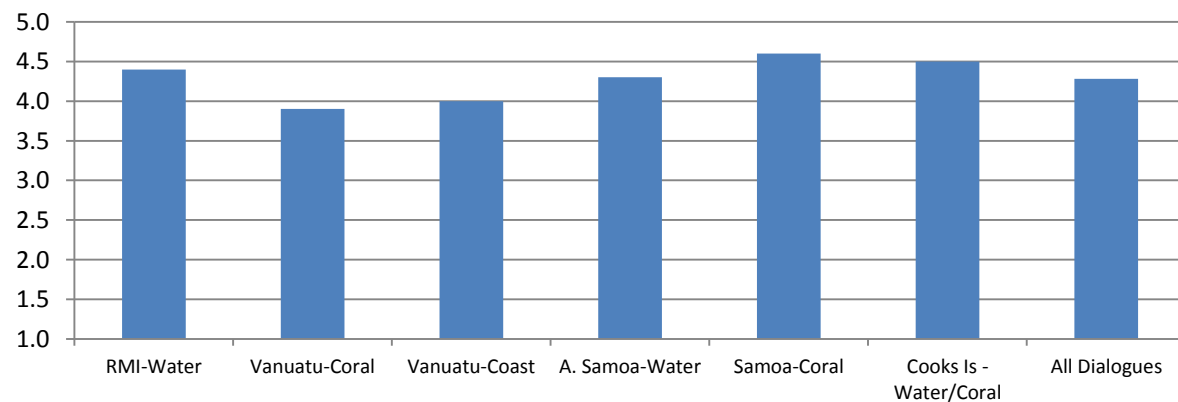
Graph 4e: How useful were the presentations/case studies? (Scale of 1 to 5; 5 being highest)

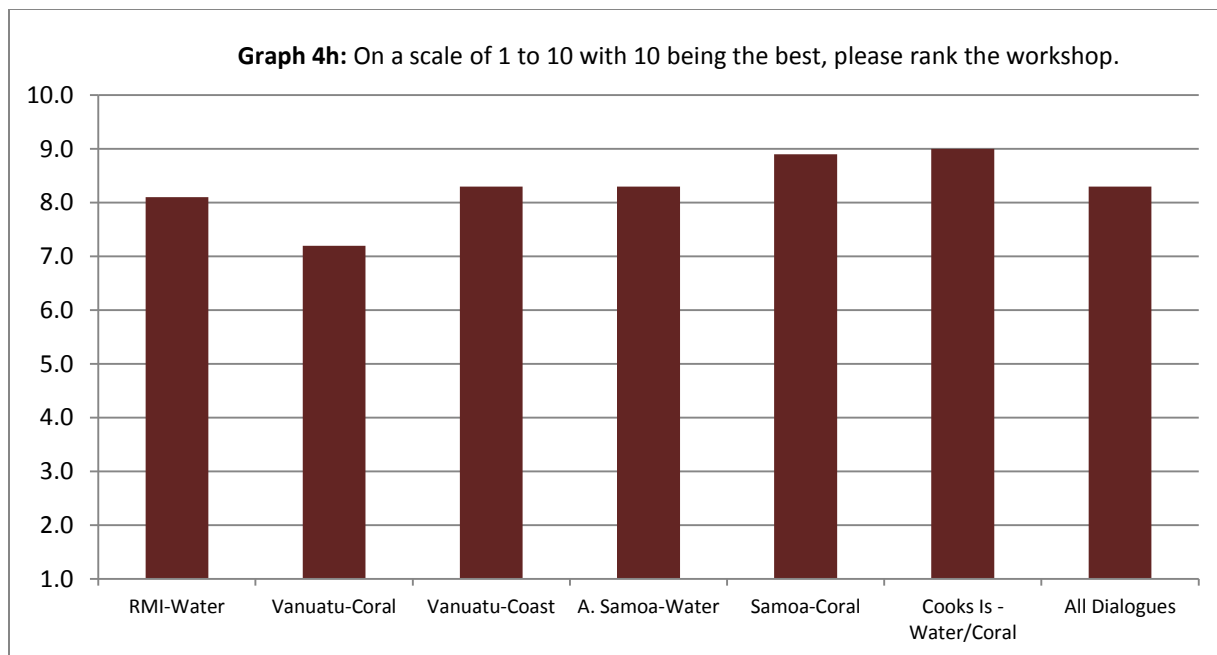


Graph 4f: How appropriate was the amount and relevance of information provided such as handouts, presentations, activities, etc.? (Scale of 1 to 5; 5 being highest)



Graph 4g: Did we provide enough opportunity for participant discussion, questions and participation (use of time)? (Scale of 1 to 5; 5 being highest)

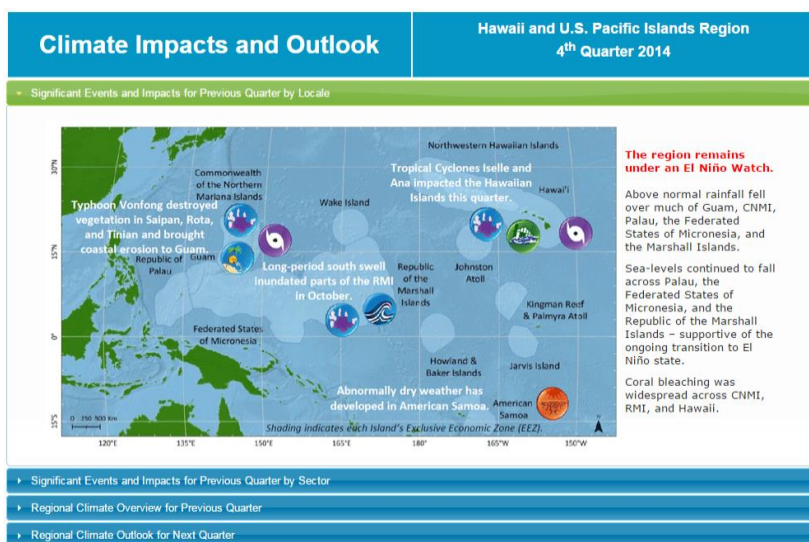




Activity Area 3. Assemble and Advance Core Capabilities to Develop and Deliver Products and Services Focused on Regional Issues: Climate Information Development and Delivery.

Training focused on how to access and use available data, products, and tools to help inform community-based climate adaptation strategies occurred in 2013 as part of the PICSF. A wide range of technical information including products and services available with the region (from NOAA as well as New Zealand, Australia, and other PSIDS) that can be used to support climate early warning and adaptation planning was also conveyed via the 2014 Dialogues. **Packaging of existing data and products** carried out in support of these activities include:

- A Hawaii and Pacific Islands Climate and Impacts and Outlook.** This quarterly 'one-pager' draws on the PEAC Climate Center's Pacific ENSO update quarterly newsletter and other sources to bring together seasonal predictions and projections information alongside recent impacts of weather and climate events in a concise and accessible format. The on-line version of one-pager includes a regional dashboard that aggregates climate variability-related content via links to products and information from a mix of agencies, institutions, and organizations. <http://www.pacificci.org/dashboard/>. This set of products has received considerable interest



Snapshot of the Hawaii and Pacific Islands Climate and Impacts and Outlook

within the region and beyond.

- PacifcIslandsClimate.org (a.k.a. 'piko). This website is a gateway to a broad range of information related to climate in the Pacific Islands. It includes summaries of programs, projects, and activities, as well as products and services. Formed through the collaboration of and contributions from a family of agencies, institutions, and organizations, it is intended to serve as a shared resource for research scientists, service providers, and decision-makers.
- **Pacific Islands Climate [Climatology](#), [Outlooks](#), and [Scenario Catalogs](#).** On these websites, users can search, by region and/or climate variable for example, and find a list of relevant products along with a brief summary and a direct link to each.
- **Coastal Change in the Pacific Islands, Volume 1: A Guide to Support Community Understanding of Coastal Erosion and Flooding Issues and Volume 2: A Guide to Support Community Decision-Making on Coastal Erosion and Flooding Issues.** This [guide](#) was tested and case studies developed as part of the Palau and Vanuatu Dialogues with significant funding from partners. It was designed to support a community-based or local level management and adaptation planning process. It can be used to explore the non-climate change and climate change threats within a defined geographic area or community in which there is a clear governing structure and decision-making process. The area can be large or small as long as the planning team involved in facilitating the process has decision-making authority or has the support from the governing authority of the area.

New or enhanced data and products that transformed and integrated content were also prototyped and evaluated through this process.

- As noted above, the Dialogues involved a novel storytelling and story building process. Through the dialogues various modules within this process were tested and refined. Ultimately **a distinct set of products has been created to facilitate future dialogue trainings**. Key modules include an overview of Climate Change and Variability Concepts, Understanding Climate Events and Impacts to set the scene for Conducting Diagnosis and Treatments to identify and address information needs, and Communicating Climate to convey information in a form appropriate to a variety of audiences, with some still awaiting final build out prior to distribution via a web-based manual for climate service dialogues
- The sharing of case studies or 'climate stories' that incorporate traditional/experiential knowledge and scientific data, and that illustrate lessons learned and best practices were also noted above. These **stories and those developed through the Dialogues are being collected to create a digital storybook**. In addition to providing examples from various locations, the stories cover the key topical focus areas addressed under this effort (e.g., water resources and drought, coastal flooding and erosion, coral reefs and coastal fisheries) as well as the corresponding sectors. These will serve as an important tool to help inform regional and local decision makers about the impacts of climate change and variability as well as measure that can be taken to enhance resilience.
- **Seasonal outlook 'dashboards'** that aggregate and transform existing products so they are made actionable to




Participant at the Pacific Islands Climate Services Forum

- A prototype Water Resources Dashboard for RMI: http://www.pacificcis.org/dashboard_freshwater/
- A prototype Coral Reef Managers Dashboard for Vanuatu: http://pacificcis.org/dashboard_coralreef/

HOME / 'PIKO' / CATALOGS

Marshall Islands Freshwater Resources and Drought Outlook Dashboard



Information in the dashboard is grouped first by climate variable and/or impact and then by time frame. Click on any tab in the dashboard, it will expand to show an associated selection of panes. (Click again and it will collapse). Click on any figure in a pane to view a full-sized version, and click again to reduce it. Click on the "?" button to view the figure caption. Note that figures are automatically updated as often as the original providers post them on their respective websites (the update frequency is included in the caption). This means, the figures in the print version of the outlook may not be fully consistent with those found here. Click on the source URL to go to the site where the figure originated and find additional data and information.

- ▶ Regional View - West North Pacific
- ▼ Sub-regional View - Marshall Islands

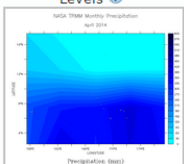
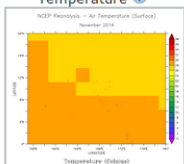
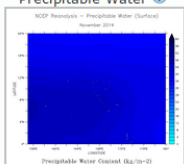
LOOKBACK: The big story of 2013 within the Republic of the Marshall Islands (RMI) was the extraordinary dryness at Wotje, Ulitrik, and several other northern islands during a 7 month period from November 2012 through May 2013. Ironically, while 4th Quarter rainfall totals were actually above average at Wotje and Ulitrik, most other locations throughout the RMI had below average 4th Quarter rainfall.

The RMI was the site of another severe impact from unusual climatic conditions. Around the 25th of June, 2013 and March 3, 2014 high tides combined with large oceanic swell to result in damaging inundation on Majuro and other islands.

OUTLOOK: El Niño Watch. Computer guidance suggests that the rainfall in the RMI will be near average to above average in the RMI over the next 3 months. If El Niño develops during 2014, there is a small chance that a developing tropical cyclone could affect Kwajalein and the other islands north of Majuro in the September to December time frame. The forecasts values of sea level for JFM, FMA, and MAM seasons indicate that most of the stations in the north Pacific region are likely to be 3-4 inches higher than normal in the forthcoming seasons.

▼ Recent/Current Conditions

Temperature / Precipitation

<p>NASA TRMM Monthly Precipitation Levels ?</p>  <p><small>Precipitation (mm)</small></p>	<p>NCEP Reanalysis Model - Surface Temperature ?</p>  <p><small>Temperature (Celsius)</small></p>	<p>NCEP Reanalysis Model - Precipitable Water ?</p>  <p><small>Precipitable Water Content (kg/m^2)</small></p>
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source: <http://disc2.nascom.nasa.gov/openatop/n> source: ftp://ftp.cdc.noaa.gov/Datasets/ncep_rean source: ftp://ftp.cdc.noaa.gov/Datasets/ncep_rean

- Make the **Dialogue Proceedings** and **Final Project Report** available via the web (<http://pacificcis.org/>).



Kicking off the Vanuatu Climate Services Dialogue

- Develop a **Set of Climate Stories** based on those told and created during the Dialogues. Incorporating experiential knowledge and scientific data, the stories will help inform regional and local decision makers about the impacts of climate change and variability. They will highlight key messages from the Dialogues and serve as examples where climate services are being or could be used to support community resilience. Stories will originate from various locations and pertain to the key topical areas (e.g., water resources and drought, coastal flooding and erosion, coral reefs and coastal fisheries) as well as corresponding sectors. The stories will be made available via a **Story Book and Dialogue Webpage**.

- Develop a **Dialogue Process Guide**, modified to reflect input received during the 2014 dialogues. This will include a package of material that can be used to conduct the dialogue process, a novel storytelling and story building process to support climate-related

decision-making. The materials will include a model agenda reflecting process flow, breakout guidance that contains sample questions, and examples of outcomes such as historical timelines. It will also include background and technical presentations associated with the various modules (e.g. Climate Change and Variability Concepts, Understanding Climate Events and Impacts to Set the Scene, Conducting Diagnosis and Treatments to identify and address information needs, and Communicating Climate to convey information in a form appropriate to a variety of audiences) The dialogue process guide will be made available via a **Story Book and Dialogue Webpage**. Additional dialogues in other locations would be carried out by the project team on demand as resources permit.

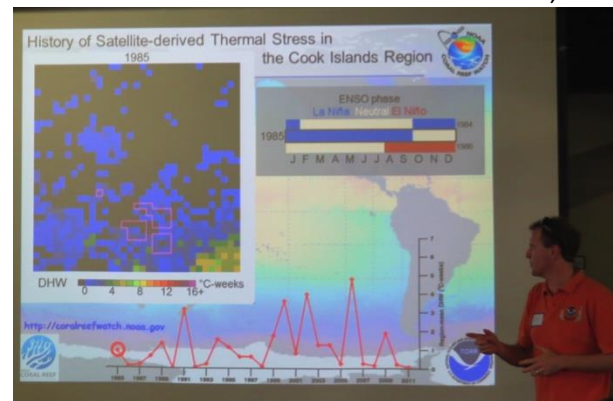
- Continue development of **Seasonal Monitoring and Outlook Dashboards** that aggregate and transform information in support of climate early warning across multiple sectors. Efforts will center on RMI and Vanuatu, with an emphasis on water resources, agriculture/forestry and marine sectors. **Workshops** to refine requirements and exchange technical information are envisioned as part of this effort.



Participants presenting historical timeline in the Cook Islands

- Continue efforts in the area of **Sea Level Indicator/Impacts Monitoring and Outlooks**. This will include work towards the creation of high and low Mean Sea Level Anomaly (MSLA) calendars for locations such as RMI, the Samoa's, and Cook Islands, as well as efforts related to inundation early warning. Efforts to integrate such information into Coral Reef Watch are also envisioned in this context.

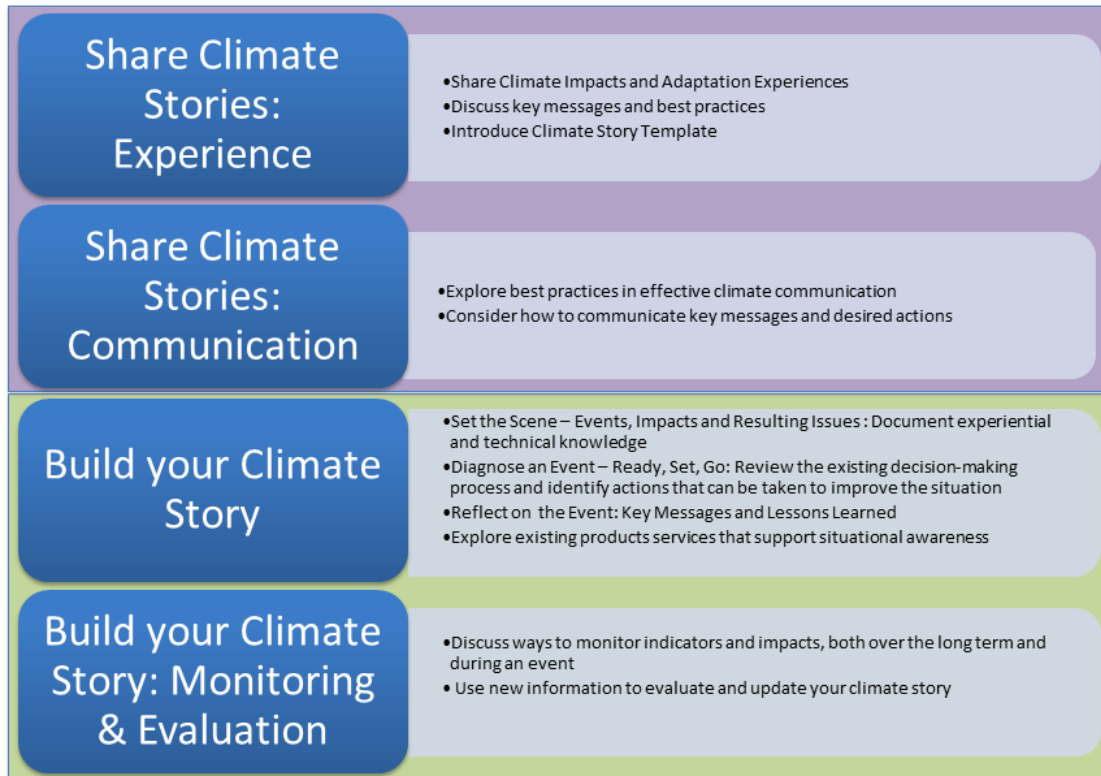
- Conduct quarterly **ENSO webinars** and publish **newsletters, summaries and related materials**, such as location (e.g., Samoa, Cook Islands) and sector (e.g. coastal and marine) specific information sheets and handbooks for a broad range of indicators/impacts (i.e., ocean and coastal as well as atmospheric and terrestrial conditions). Consistent with what is called for in the WMO GFCs, these efforts are intended to support Regional and National Climate Outlook Forums (RCOFs and NCOFs).
- Create **Indicator/Impact products** focusing on the **transformation of information** by placing content in a form that is easily understood and readily accessible, **aggregating and customizing** it so that is specific to sector and locale, and **linking it to local knowledge and terminology** to guide sector-specific actions for climate early warning and adaption planning. The initial focus will be on rainfall, drought, and sea level.
- Continue to **Coordinate and Collaborate** with regional agencies, institutions, and organizations along with national and local partners **to align activities** so as to minimize gaps and overlaps, **facilitate the co-production of knowledge**, and **grow robust and sustained climate services** in the Pacific Islands region. In addition to the Pacific Climate Information System (PaCIS), efforts carried out under the auspices and in support of the Pacific Islands Climate Services (PICS) Panel fall under this activity area.



NOAA products presented at the Cook Islands Climate Services Dialogue

Appendix 1: Flow of a dialogue

Pacific Islands Climate Services Dialogue – Dialogue Flow



Appendix 2: Components of and process for building a climate story case study.

Pacific Islands Climate Services Dialogue - Build Your Climate Story – Climate Variability



BUILD YOUR CLIMATE STORY

OBJECTIVES:

- Document a climate-related event
- Identify best practices and key messages

SUGGESTED OUTLINE:

CLIMATE-RELATED EVENT: [insert date and name of event]

1. SET THE SCENE

- *What is the history of these climate-related events?*
 - *How long have they lasted?*
 - *How often do they occur?*
 - *Where have they occurred?*
 - *What are the patterns and frequency of these events?*
 - *What were the impacts (ecological, socioeconomic, infrastructural, cultural) of the climate-related event?*
 - *What priority issues did you have to deal with as a result of these impacts?*
- [Brief overview narrative of this type of event based on the guide questions and supported by historical timeline and impact map]*
- [Highlight priority issues]*

2. DIAGNOSE THE EVENT

- *How did you find out about the event?*
 - *When did you find out about the event? How far in advance did you know about the event?*
 - *What parameters did you track the event?*
 - *What information did you have to make to take action/make decisions?*
 - *How did you use the information to make decisions/identify actions?*
 - *How did you communicate actions you wanted people to take?*
 - *What actions were taken?*
 - *What worked? What didn't? (information, communication, effectiveness of actions)*
 - *What other parameters/information did you wish you had to take action/make decisions?*
 - *What discoveries did you make? What would you do differently?*
- [Brief overview narrative describing the diagnosis of the event describing the sources and types of information, information flow and timing, and decisions/actions taken]*

3. REFLECT ON THE EVENT

- *What are best practices and key messages?*
- *How should these be communicated?*

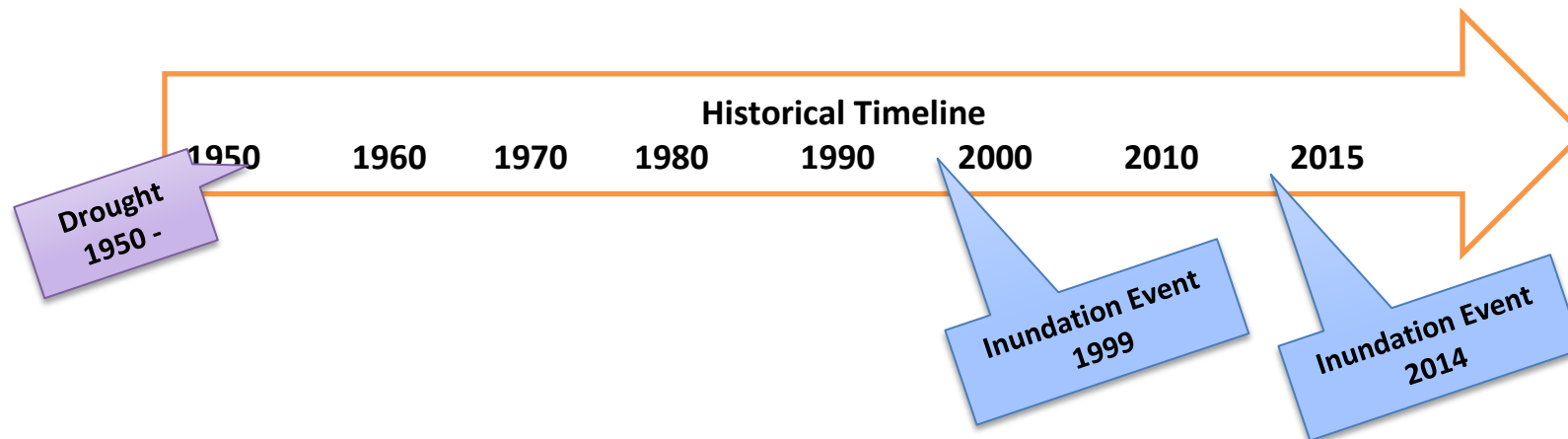
[Brief overview narrative describing key messages and best practices detailing decisions/actions taken that should be continued or changed]

TESTIMONIALS

IMAGES/PHOTOS

CONTACT INFORMATION

Activity #1 –Set the Scene - Historical Events (e.g. drought, inundation, coral bleaching)	
Objective: Participants will document historical climate-related events and impacts related to a climate-related event and identify patterns and reoccurring impacts Output: Historical Event Timeline and Impact Map	<i>Participants: broken out by interdisciplinary groups</i> <i>Materials: Flipcharts, marking pens, sticky dots (various sizes and colors)</i> <i>Facilitator: guides participants through focus questions</i> <i>Recorder: prepares summary of historical events for the Climate Story outline</i>
Focus Questions: <ul style="list-style-type: none"> • What is the history of climate-related events? • How long did they last? • How often do they occur? • Where have they occurred? • What are the patterns and frequency of these events? • Have these climate-related events occurred at the same time? 	<ul style="list-style-type: none"> • Use a large sheet of paper to document historical events – meta cards can be used to have people write down discrete events and place on the historical timeline • Map areas affected on satellite images using stickers, sharpies, develop a legend • Facilitator leads group discussion around each timeline to discuss the events and identify similarities or differences among the breakout groups






Stakeholder Engagement Strategies for Participatory Mapping (NOAA CSC)

Activity #2 – Set the Scene - Impacts and Resulting Issues	
<p>Objective: Participants will Identify impacts and issues related to the historical events identified in Activity 1</p> <p>Output: 2 flipcharts, one each for inundation and drought, listing impacts and priority issues</p>	<p><i>Participants: broken out by interdisciplinary groups</i></p> <p><i>Materials: Flipcharts, marking pens, sticky dots (various sizes and colors)</i></p> <p><i>Facilitator: guides participants through focus questions</i></p> <p><i>Recorder: prepares summary of impacts and resulting issues for the Climate Story outline</i></p>
<p>Focus Questions:</p> <ul style="list-style-type: none"> • What were the types of impacts of the climate-related event (drought and inundation)? <ul style="list-style-type: none"> ○ What were the ecological impacts? ○ What were the socioeconomic impacts? ○ What were the cultural impacts? ○ What were infrastructure impacts? • What priority issues did you have to deal with as a result of these impacts? 	<ul style="list-style-type: none"> • Brainstorm all impacts by climate event type and category, then go back to identify the priority issues.
Report out	Each group reports out on priority issues as these are the basis for decision making

Impacts of Event (Drought) (ecological, socioeconomic, infrastructure cultural	Priority Issues

Activity #3 – Diagnose an Event - Decisions and Actions related to a specific event	
<p>Objective: Participants will diagnose the decisions and actions made relative to the specific event to document the timing of information flow and decisions/actions taken relative to a specific event</p> <p>Output: Ready-Set-Go Diagnosis</p> 	<p><i>Participants: broken out by sector</i></p> <p><i>Materials: Flipcharts, marking pens, sticky dots (various sizes and colors)</i></p> <p><i>Facilitator: guides participants through focus questions</i></p> <p><i>Recorder: prepares summary of the diagnosis for the Climate Story outline</i></p>
<p>Focus Questions:</p> <p>Review of Past Event</p> <ul style="list-style-type: none"> • How did you find out about the event (sources and types of information)? • How far in advance did you know about the event (months, weeks, days)? • What parameters did you use to track the event? • What information did you have to make to take action/make decisions? • How did you use the information to make decisions/identify actions? • How did you communicate actions you wanted people to take? • What actions were taken? <p>Planning for Future Event</p> <ul style="list-style-type: none"> • How would you plan for a similar event in the future? • What worked? What didn't? • What other parameters/information did you wish you had to take action/make decisions? • What discoveries did you make? What would you do differently? 	<p>Participants diagnose a past event using the ready-set-go timeline. Based on the diagnosis, participants identify areas for improvement and develop an improved plan for a future similar event.</p>

Diagnosis	Ready <ul style="list-style-type: none"> • Begin planning and monitoring of forecasts • Update contingency plans • Sensitize communities • Enable early-warning systems 	Set <ul style="list-style-type: none"> • Continue monitoring • Adjust plans • Warn communities • Local preparation activities 	Go <ul style="list-style-type: none"> • Activate response • Instruction to communities to evacuate, if needed
Review of Past Event			
Planning for Future Event			

TELL YOUR CLIMATE STORY

OBJECTIVES:

- Identify key messages and best practices
- Develop a communication strategy to disseminate key messages and best practices

Activity #4: Reflect on the Event - Key Messages	
<p>Objective: Participants describe what worked, what did not work, and what needs to be changed (plus, delta) by Sector based on their ready-set-go diagrams</p> <p>Output: Summary of Key Messages and Best Practices</p>	<p><i>Participants: broken out by interdisciplinary groups</i></p> <p><i>Materials: Flipcharts, marking pens, sticky dots (various sizes and colors)</i></p> <p><i>Facilitator: guides participants through focus questions</i></p> <p><i>Recorder: prepares summary of key messages and best practices for the Climate Story outline</i></p>
<p>Focus Questions:</p> <ul style="list-style-type: none"> • What are best practices and key messages (past and future conditions, actions taken or can take) in the topic (water resources, coastal erosion, coral reefs) • How should these be communicated? 	<p>Participants draw on presentations and build your climate story activities to identify key messages and best practicesFacilitator records best practices on a flip chart</p>

Activity #5: Develop a Communication Strategy (if time permits)	
Objective: Participants develop a strategy to communicate messages using best practices in communication Output: Communication Strategy	<i>Guest Speaker: Presentation on communication best practices</i> <i>Participants: broken out by interdisciplinary groups</i> <i>Materials: Flipcharts, marking pens, communication strategy template</i> <i>Facilitator: guides participants through focus questions</i>
Part 1: Scope of Communication Message	
<i>What would you like to communicate about adaptation in your message?</i>	
<i>Who would you like to communicate with?</i>	
Part 2: Describe Target Population Characteristics	
Target population's current stage of change:	
Message Framing (what is the perspective(s) of your message):	
Other Considerations:	
Part 3: Message Controls and Delivery Methods	
Terminology (words to use or stay away from):	
Images (graphs, pictures of impacts, etc. – what visual aid(s) can help deliver your message):	
Media (in-person meetings, written materials, website, etc.):	

Messenger(s):
Part 4: Draft Message