Hawaii-based Climate Data Products in Palau

During the National Framework for Climate Services Workshop, held April 17-18 in Koror, the gap between existing climate data and accessible and easily digestible and impact driven climate data products was identified. The Hawai'i-based projects outlined below are collaborating on climate information - specifically on the development of impact driven data products and visualizations for sector specific adaptation and mitigation planning in Palau. A brief outline and scope as well as the main contact points are outlined below.

Island led peer to peer exchange through the Local2030 Island Network Dashboards

The Local2030 Island Network seeks to support island communities in developing and implementing localized sustainable development strategies, building resilience to climate change through fostering partnerships between islands, and providing a platform for technical knowledge and capacity building for its members in the Communities of Practice (CoPs). Further the Network aims to help islands stand up their own green growth initiatives (based on that of Hawaii Green Growth and Guam Green Growth) and SDG Dashboards that track local and country-level progress towards the SDGs. The Network provides the platform, technology, and model for scaling and replication in other island contexts, as well as technical support, training, and in many cases, funding and licensing.

Project Contact:
Samantha Happ, Strategic Portfolio Manager, Local2030 Islands Network
Kaimana Bingham, Data & Innovations Director, Hawai'i Green Growth UN Local2030 Hub

Climate Indicators for SDG Dashboards

This project aims to operationalize climate services in a specific sector via the Dashboard tool. Pacific RISA, NOAA and APDRC are collaborating with Local203 IN and a broad stakeholder network across the Pacific to support the translation of climate data into impactful indicators for data-driven decision making, management application, and adaptation planning. The end goal of this project is to develop a set of impact driven indicators in one or more specific climate fields (e.g. flooding, drought, etc.) that contribute to informing SDG 13 (Climate Action) and SDG 14 (Life Below Water) related goals on the SDG Dashboard in Palau.

Project Contact:
Paula Moehlenkamp, Project Specialist, Pacific RISA, East-West Center
Dr. John Marra, Regional Climate Services Director, Pacific Region, National Oceanic and Atmospheric Administration, National Centers for Environmental Information

National Ocean Portal

UH with support from the GCF is leading efforts to develop a centralized portal to provide relevant data and data-derived products concerning ocean-focused climate variations and predictions, each specifically tailored for the region, allowing local managers to readily access climate information. The UH and EWC teams will coordinate to determine the appropriate content and presentation styles.

Project Contact:
Dr. Jim Potemra, Manager, APDRC; Faculty University of Hawai'i
Dr. John Marra, Regional Climate Services Director, Pacific Region, National Oceanic and Atmospheric Administration, National Centers for Environmental Information
One Jae Lee, PacIOOS, University of Hawaii

Sector-specific climate early warning systems (CLEWS)

Pacific RISA, UH, and NOAA are collaborating to develop web-based, sector-specific climate early warning systems focused on drought and health. This product will leverage existing data, downscaling climate information and tailoring it to support decision-makers. The output will provide users with actionable, locally relevant climate information in a clear format such as real-time observations, forecast, long-term trends, and adaptation actions.

Project Contact:
Chelsey Bryson, Project Specialist, Pacific RISA, East-West Center

PacIOOS Climate and Oceanographic Services

PacIOOS maintains a suite of oceanographic, data, and ocean observing assets, models, and forecasts for Palau. PacIOOS partners strongly with the Palau WSO to deploy and support wave buoys (wave, temperature, current data), satellite data products, and other remotely sensed data. One Datawell Wave Rider buoy is currently deployed off of Ngaraard, Babeldaob Island. Additionally, as part of the UNEP GCF project, PacIOOS is leading development of multi-resolution atmospheric, wave, ocean (preliminary version here), and wave run-up inundation forecasts. An existing 6-day high sea level forecast for Malakal Harbor can be found here. Initial 3-day atmospheric forecasts should be operational by late May 2023.

Project Contact:
Jordan Watson, Deputy Director, Pacific Islands Ocean Observing System (PacIOOS)

UH Sea Level Center

UHSLC is collaborating with Pacific RISA on a project that involves "Tracking and Communicating Sea Level Conditions for Coastal Disturbances in Palau". We aim to monitor sea level conditions and develop tracking metrics to support NOAA reporting activities while

providing training on the use of sea level information. This project will improve the communication of sea level information with stakeholders in Palau, especially on seasonal variability scales, by developing enhanced sea level tracking products and a dashboard that contains sea level indicator products.

In addition to sea level tracking, this project will perform surveys of impact-based water level thresholds, which will be used to categorize extreme events. The information will be included in the tracking products. The primary deliverable will be a digital report card on the sea level conditions in Palau, containing standardized indicators for tracking sea level variability automatically generated to provide current, quarterly, and annual updates for island locations. Training modules will accompany the reporting metrics, which will add value to information about sea level conditions and support capacity building for coastal communities.

Project Contact:
Matthew Widlansky, Associate Director, UH Sea Level Center (UHSLC)