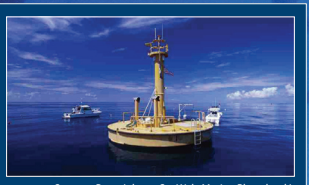
Pacific Islands Climate Change Portal

◆ THE GOAL

The Portal is being designed to enable Pacific Island coastal managers to incorporate readily-accessible climate information and tools into their decision-making processes, resulting in communities more resilient to climate variability and the impacts of climate change.

◆ THE PROBLEM

Climate change-related resources relevant to the decision-making needs of coastal resource managers currently exist but are scattered in many different locations, making access difficult and time-consuming. The need for climate change information is particularly acute in the Pacific Islands. For this reason, several components of NOAA are collaborating on the development of a web-based portal to make climate information readily available in one location. Staff are working in cooperation with the Pacific Climate Information System (PaCIS) partners and other interested organizations to ensure that the portal is integrated with existing climate change information management efforts in the region.



Support Buoy (photo: SeaWeb-Marine Photobank)

◆ Resource types may include:

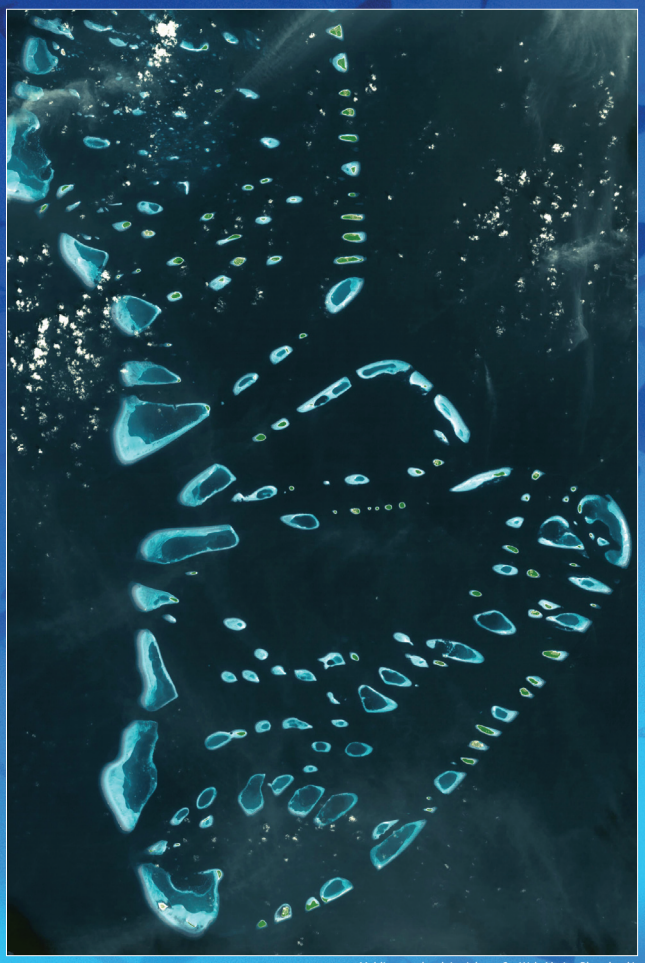
- peer-reviewed literature
- case studies
- handbooks and guidance documents
- decision support tools
- monitoring and map products
- methodologies for assessing vulnerability
- adaptation strategies
- traditional knowledge and best management practices
- model legislation, policies, and regulations
- information on regional initiatives
- links to training, education, and partnership opportunities

◆ Portal Technology:

The portal will be developed using Joomla, an open source content management system. Benefits of Joomla include: freely available to anyone; websites can be managed easily; it handles all types of content and images; powerful application framework; an active user community; and used internationally. Extensions enable non-technical users to add and manage critical data and information for their own community or organization. These include: blogging software, email newsletters, calendars, forums and chat software, and more.
www.joomla.org

◆ Virtual Library Technology:

The Virtual Library will be developed using JabRef, an open source bibliography reference manager, and BibTex, an open source text-based format. Perl scripts convert the database records to XML. The XML file is then indexed and searched using Zebra, a high-performance, general-purpose structured text indexing and retrieval engine.
http://jabref.sourceforge.net/
http://www.indexdata.dk/zebra/



Maldives sea level rise (photo: SeaWeb-Marine Photobank)

◆ THE PORTAL'S STRUCTURE AND CONTENT

The backbone of the portal will consist of a searchable virtual library that provides links to information and tools on specific thematic areas. Based on input, these themes will include, but are not necessarily limited to:

■ Sea level rise

"Sea level rise is expected to exacerbate inundation, storm surge, erosion and other coastal hazards, thus threatening vital infrastructure, settlements and facilities that support the livelihood of island communities." *(from Table SPM.2) (photo: Stephen Frano)*

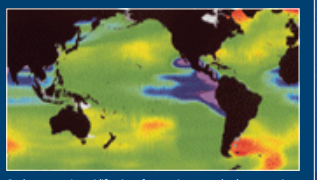
■ Freshwater supply

"By mid-century, climate change is expected to reduce water resources in many small islands to the point where they become insufficient to meet demand during low-rainfall periods." *(from Table SPM.2) (photo: Stephen Frano)*

■ Ocean warming

"Deterioration in coastal conditions, for example through erosion of beaches and coral bleaching, is expected to affect local resources." *(from Table SPM.2) (NOAA photolibrary)*

■ Ocean acidification



"…the progressive acidification of oceans is expected to have negative impacts on marine shell-forming organisms (e.g., corals) and their dependent species." *(from page 9 of SPM) (photo: Scott Doney)*

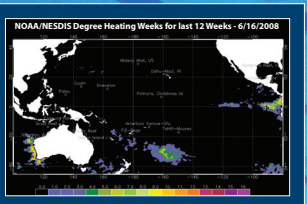
The quotes cited above were obtained from the following source:
Climate Change 2007: Synthesis Report. Summary for Policymakers. An Assessment Report of the Intergovernmental Panel on Climate Change.

◆ THE AUDIENCE

The portal is being tailored initially for Samoa and American Samoa and will focus on the information needs identified by the islands' coastal managers. However, it is anticipated that most of the information will be of interest to coastal managers throughout the Pacific and other regions as well. The portal is being designed as a prototype that can be easily expanded and transported to additional geographies.

◆ THE PROCESS

NOAA team members are working with island and regional partners to identify the most useful types of resources to address these issues. The team is also meeting with other NOAA program and subject matter experts to identify appropriate products and other climate information that are available or anticipated for inclusion in the portal.



◆ Virtual Library Record Template

Title: NOAA's Coral Reef Watch Satellite Coral Bleaching Monitoring

Author(s): NOAA National Environmental Satellite Data and Information Service (NESDIS)

Publication Date: current

Resource Category: Decision Support Tools/Operational Coral Bleaching Monitoring Products

Description: NOAA's NESDIS provides a series of near real time, operational, Web-accessible, satellite-derived sea surface temperature (SST) products for coral reef managers in the Atlantic, Pacific, and Indian Oceans. These products include SST anomalies, bleaching HotSpot anomalies, Degree Heating Weeks (DHW), and Tropical Ocean Coral Bleaching Indices. Also available are SST and coral bleaching DHW Time Series charted over a time period from December 2000 to the present for selected reef sites—the Island of Ofu in the case of American Samoa. The monthly mean SST climatologies are also plotted to show the normal SST condition at the site.

Resource URL: http://coralreefwatch.noaa.gov/satellite/index.html
http://www.osdpd.noaa.gov/PSB/EPS/CB_indices/samo0map.htm

RSS Feed: http://coralreefwatch-satops.noaa.gov/SBA.html

Expert Contact: Dr. Mark Eakin, Oceanographer
NOAA/NESDIS Center for Satellite Applications and Research
1335 East-West Highway E/RA3
Silver Spring, MD 20910
(301) 713-2857 x 109 or via email at mark.eakin@noaa.gov

Language: English

Resource type: dataset

Resource category: warning and seasonal forecast products/mapping product

Resource habitat type: coral reefs

Resource topic: ocean warming

Geographic Coverage: Pacific Ocean - American Samoa - Ofu

Keywords: bleaching index, bleaching outbreaks, corals, sea surface temperature, SST, American Samoa-Ofu

Rights: public domain

Authors: Mary Lou Cumberpatch[1], Marjorie Ernst[2], Stephanie Fauver[3], Carrie Hall[2], Sarah van der Schalie[2]

Affiliations: 1 NOAA Central Library/National Oceanographic Data Center
2 NOAA Ocean Service/Office of Ocean and Coastal Resource Management
3 NOAA Coastal Services Center

http://docs.lib.noaa.gov/vlib/PICCP.html

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