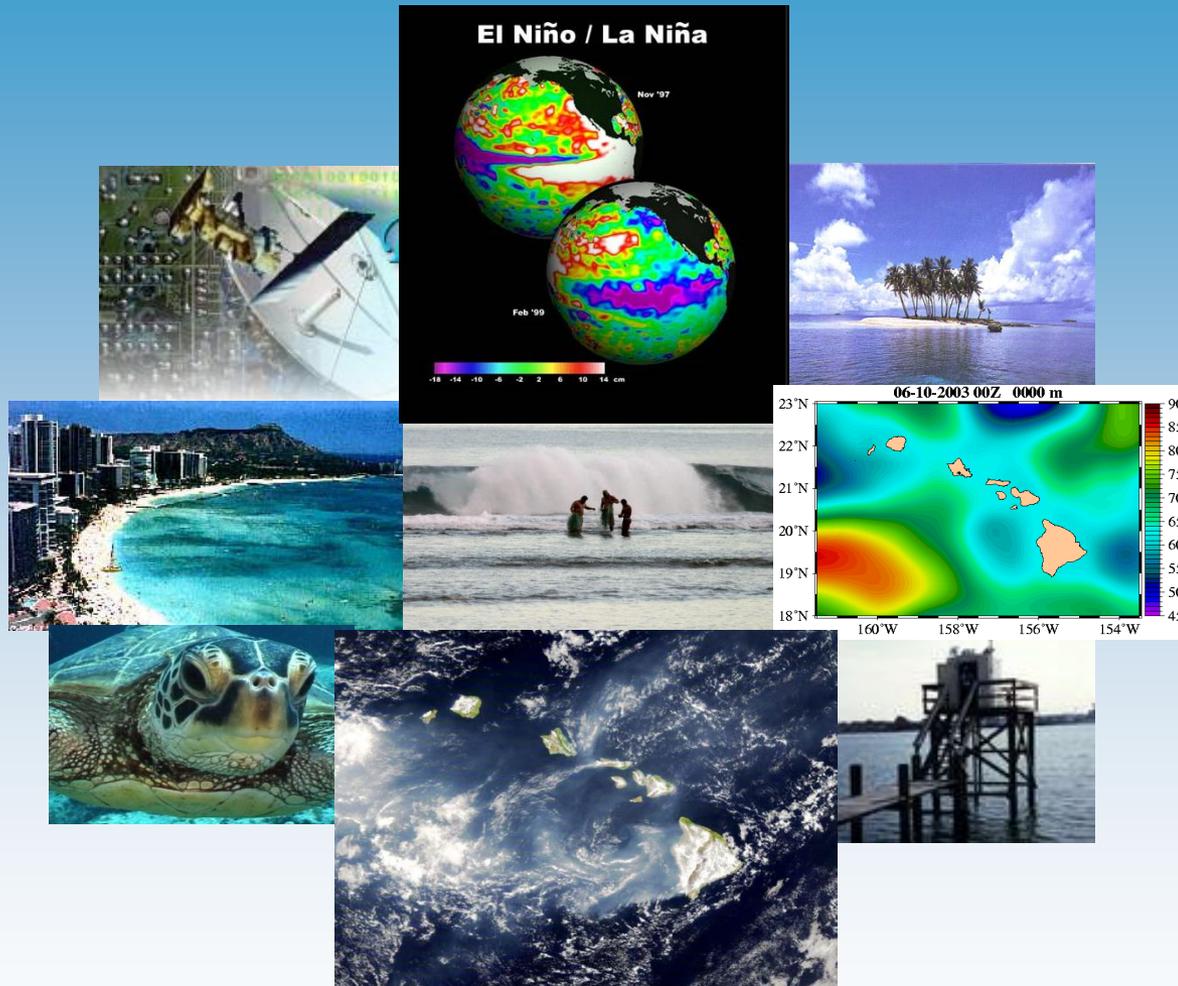


Federal Efforts in Climate Change and Variability



Briefing to the Hawaii State Legislature

Tuesday, January 17, 2012 State Capitol, Honolulu, Hawaii



Climate Services

“A mechanism to identify, produce, and deliver authoritative and timely information about climate variations and trends and their impacts on built, social-human, and natural systems on regional, national, and global scales to support decision making.” (NRC, 2009)

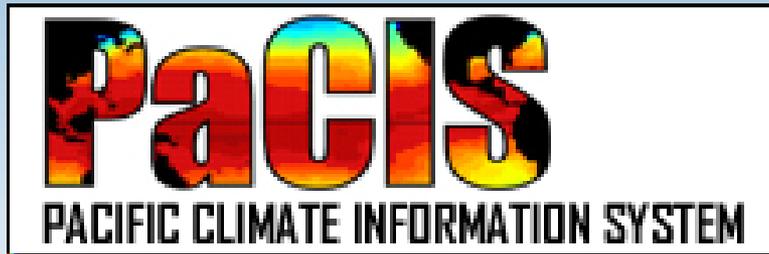
Core Capability	NOAA					Other Federal Agencies	Academic Institutions	International	Private Sector	NGO's
	NESDIS	NWS	OAR	NOS	NMFS					
Outreach	Low	High	High	Moderate	Moderate	Low	Low	Low	Low	Low
Education	Low	Low	High	High	Moderate	Low	High	Low	Low	Low
Training and Capacity Building	Low	High	Moderate	High	Low	High	High	Low	Low	Low
Observing Systems, Data Stewardship and Data Services	High	High	Low	Moderate	Moderate	High	Moderate	High	Low	Low
Climate Variability and Change Operational Products and Services	Low	High	Low	Moderate	Low	Low	Low	Moderate	High	Low
Historical Observations	Low	High	Low	Moderate	Low	Low	Low	Moderate	High	Low
Projections	Low	High	Low	Moderate	Low	Low	Low	Moderate	High	Low
Research and Development	High	Moderate	High	Low	Low	Low	High	High	Moderate	Low
Historical Observations	High	Moderate	High	Low	Low	Low	High	High	Moderate	Low
Projections	High	Moderate	High	Low	Low	Low	High	High	Moderate	Low
Climate Impacts and Adaptation	Low	Moderate	Low	High	High	High	High	Moderate	High	High
Climate Impacts	Low	Moderate	Low	High	High	High	High	Moderate	High	High
Historical Observations	Low	Moderate	Low	High	High	High	High	Moderate	High	High
Projections	Low	Moderate	Low	High	High	High	High	Moderate	High	High
Climate Adaptation	Low	Moderate	Low	High	Moderate	High	High	Moderate	High	High
Assessment and Evaluation	High	Moderate	High	Moderate	Moderate	Low	Moderate	Moderate	Low	Low

High
 Moderate
 Low



PaCIS

The Pacific Climate Information System (PaCIS) provides a **programmatic framework** to bring together climate observations, operational forecasting services and climate projections, research, assessment, data management, outreach, and education – **an integrated system of climate services** – to address the needs of the Pacific Islands. It provides **a forum for sharing the expertise, experience, and perspective** needed to guide integrated program planning and product development.



VISION: Resilient and sustainable communities using climate information to manage risks and support practical decision-making in the context of climate variability and change.



Pacific RISA

Goal: To integrate flexible processes for **building adaptive capacity to climate variability and change** in diverse island settings.



Main objectives:

- Assess risk and vulnerabilities and develop adaptation strategies (place-based)
- Support the implementation of adaptation strategies for Pacific Islands communities
- Evaluate adaptation plans and policymaking in the Pacific region

PRiMO

Enhancing Community Resilience To Hazards Through Collaboration

The Pacific Risk Management 'Ohana (PRiMO) is a **coalition of organizations with a role in hazard risk management in the Pacific** region. The agencies, institutions, and companies that comprise PRiMO recognize the value of collective action and are **committed to enhancing cooperation, coordination, and collaboration to strengthen and sustain hazard resilient communities.**



2012 Pacific Partners Meeting
March 2012 - Honolulu, HI

PICCC

The PICCC provides a range of scientific and technical **tools to help managers** in Hawaii, the Mariana Islands, American Samoa, and other Pacific Island groups **make informed decisions for landscape-scale conservation of natural and cultural resources** including climate models at the archipelagic and island scales, ecological response models, and implementation and monitoring strategies for island species, resources, and communities. Our **goal is to help managers reach explicit bio-cultural conservation objectives in the face of climate change** and ongoing threats such as fire, land conservation, and invasive species.

Pacific Islands Climate Change Cooperative



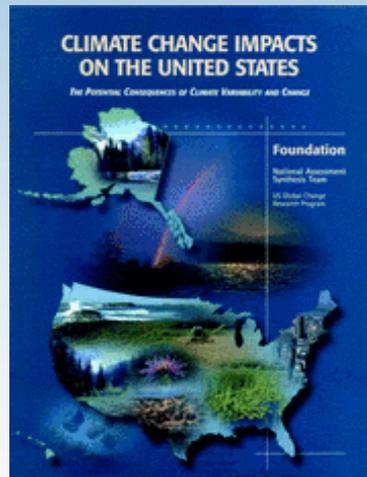
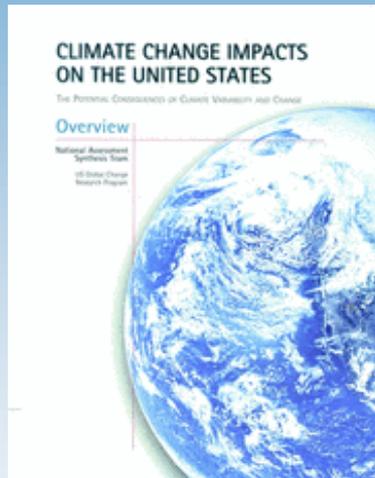
Global Change Research Act (1990), Section 106

- **...not less frequently than every 4 years**, the Council... shall prepare... an assessment which –
 - **integrates, evaluates, and interprets the findings of the Program and discusses the scientific uncertainties** associated with such findings;
 - analyzes the effects of global change on the **natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity**; and
 - **analyzes current trends in global change, both human- induced and natural**, and projects major trends for the subsequent 25 to 100 years.

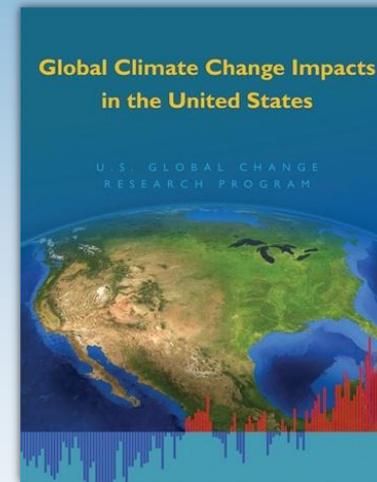


Previous National Climate Assessments

Climate Change Impacts on the United States (2000)



Global Climate Change Impacts in the United States (2009)



Target date for next NCA: 2013



The Next National Climate Assessment (NCA)

Objectives

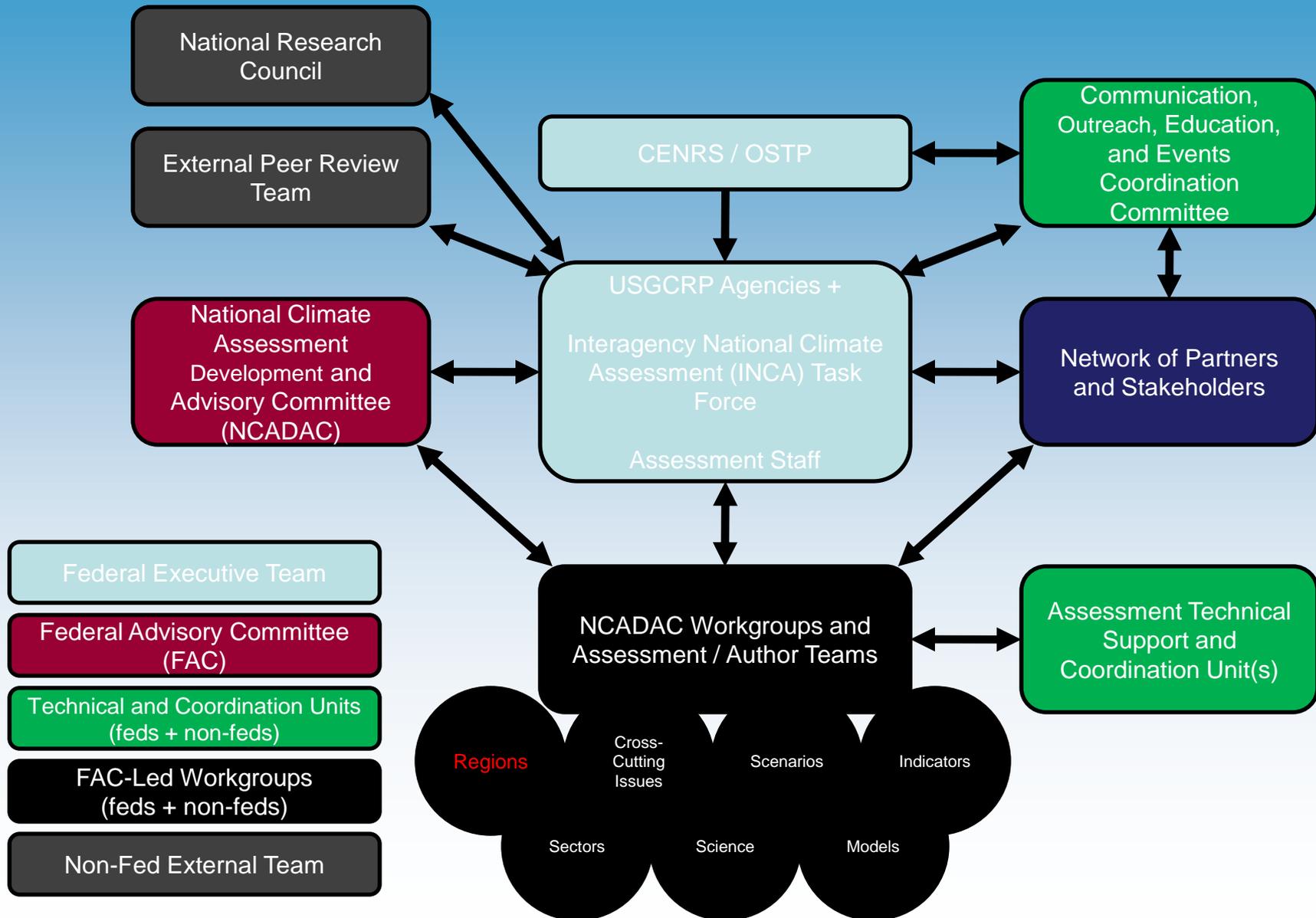
- **Sustainable process** with multiple products over time
- New topics, **cross-sectoral studies**
- Consistent national matrix of **indicators**
- Central coordination, multiple **partners**
- Regional and sectoral **networks** building assessment **capacity**
- Recognizes **international context**
- Education and **communications focus**
- Web-based data and **tools for decision support**
- Process workshops to establish **common methodologies**

Outcomes

- A report or reports to Congress
- Web-based, vetted data and products
- Assessment and science translation capacity at multiple scales
- Ongoing national evaluations of changes in climate trends, impacts, risks and vulnerability
- Process documentation and evaluation
- Communications and education products

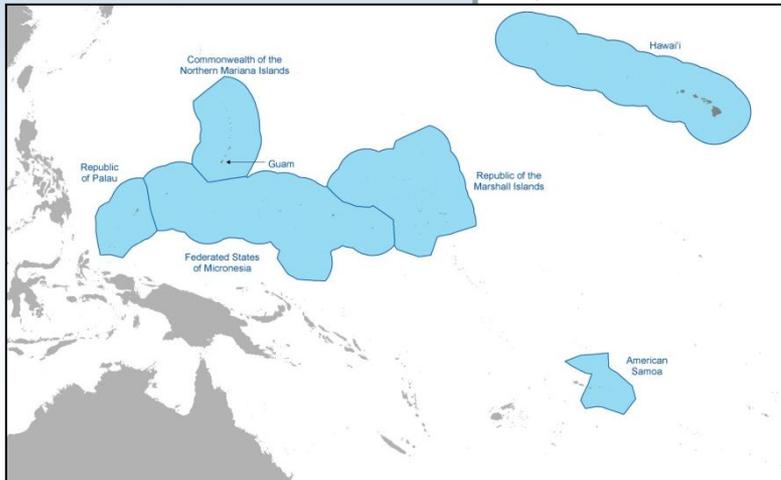
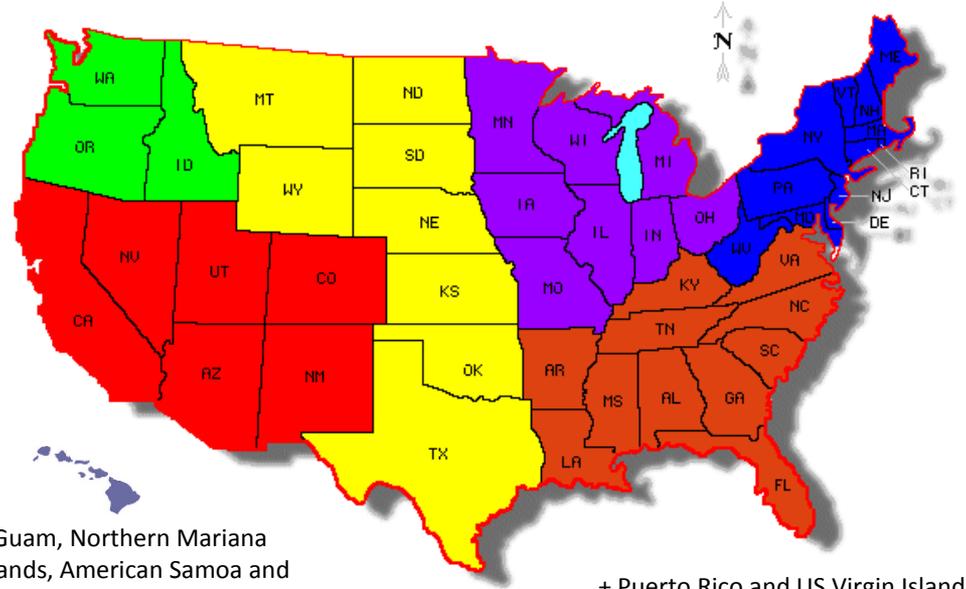


The NCA Structure



NCA Regions

- Northeast
- Southeast and Caribbean
- Midwest
- Great Plains
- Northwest
- Southwest
- Alaska and Arctic
- Hawaii and Pacific Islands



Hawaii and Pacific Islands

Pacific Islands Regional Climate Assessment (PIRCA)

The PIRCA is a **collaborative effort** aimed at assessing **the state of climate knowledge, impacts, and adaptive capacity** in Hawai'i and the US-Affiliated Pacific Islands. The PIRCA engages federal, state, and local government agencies, non-government organizations, businesses, and community groups to inform and prioritize their activities in the face of a changing climate. The PIRCA represents a **'network of networks'** that relies on the regional culture of communication and collaboration to support a sustained climate assessment process.

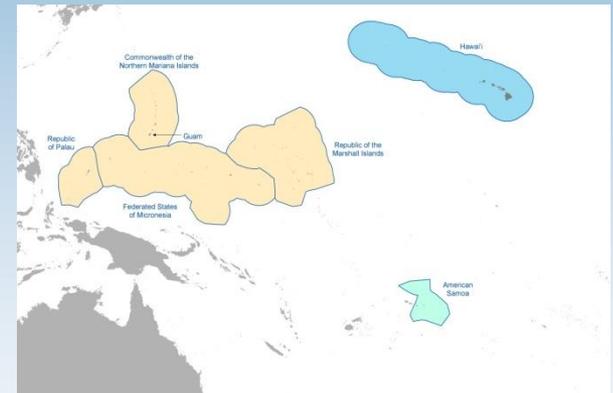
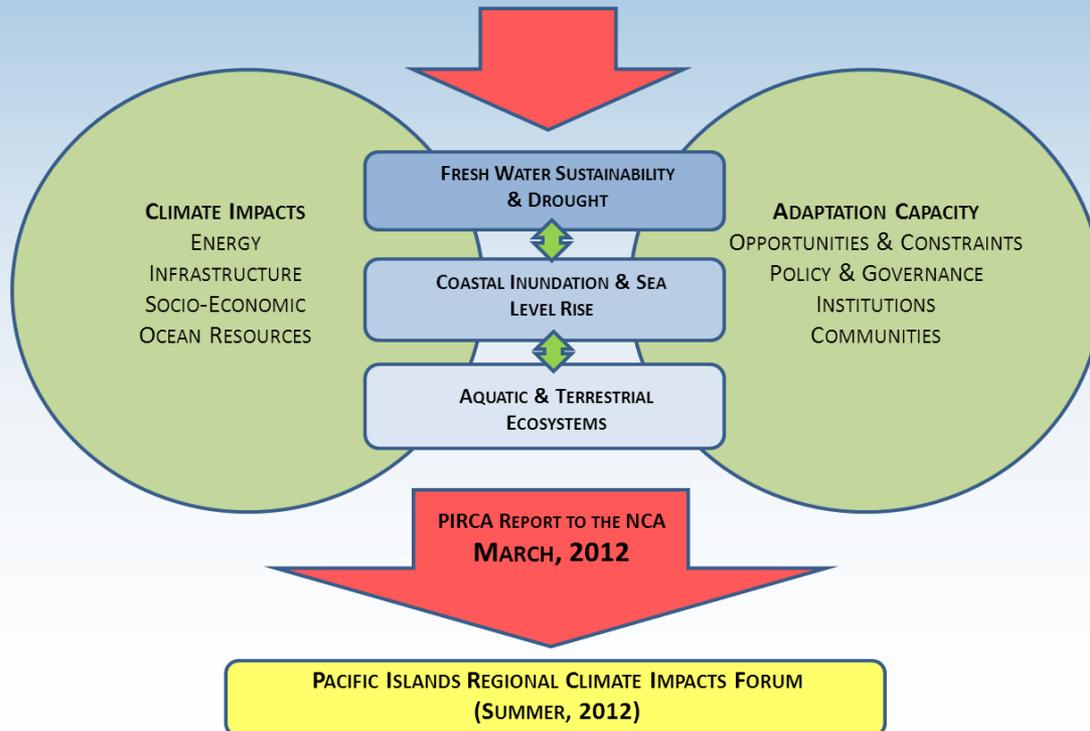


PIRCA Activities

PIRCA activities include dialogs, **workshops**, and other forums to facilitate sharing, analyzing, and reporting on scientific consensus, knowledge gaps, sectoral needs, and adaptive capacity for addressing the changing climate. The **immediate focus is bringing together scientific experts and practitioners to generate an integrated report that will provide a regional contribution to the National Climate Assessment (NCA) by March 2012.**

The PIRCA Framework

REGIONAL CLIMATE PROGNOSSES: (1) WESTERN NORTH PACIFIC (2) CENTRAL NORTH PACIFIC (3) CENTRAL SOUTH PACIFIC



The PIRCA Sub-regions



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For more on the PIRCA:

<http://www.eastwestcenter.org/PIRCA>

For more on the NCA:

<http://www.globalchange.gov/what-we-do/assessment>