



The US Coral Reef Task Force Climate Change Working Group Presents a Workshop:

“Planning for Climate Change”

Moderator: Dr. C. Mark Eakin, NOAA Coral Reef Watch
August 25, 2008, Kona, Hawai'i

Overview of the Afternoon

Panel 1: Climate Change Impacts, Management, and Adaptation

Dr. C. Mark Eakin, NOAA Coral Reef Watch
"Responding to Climate Change Workshops"

Susan Julius, EPA Global Change Research Program
"SAP 4.4"

Dr. Greta Aeby, Asst. Researcher, Hawaii Institute of Marine Biology
"Eyes on the Reef & Hawaii's Rapid Response Plan for Coral Bleaching & Disease"

Dr. Rod Salm, Director, Tropical Marine Conservation Asia Pacific Region, TNC
"Resilience in MPA Design: Kimbe Bay Project"

Dr. Kitty Courtney, Marine Environmental Scientist, Tetra Tech EM, Inc.
"Coastal Community Resilience and Climate Change"

Ben Namakin, Environmental Educator, Conservation Society of Pohnpei
"Climate Change and Small Island Communities"

Announcement

Pacific Islands Climate Change Portal

~COFFEE BREAK~

Panel 2: Renewable Energy

Andrea T. Gill, State of Hawaii, Energy Conservation Analyst

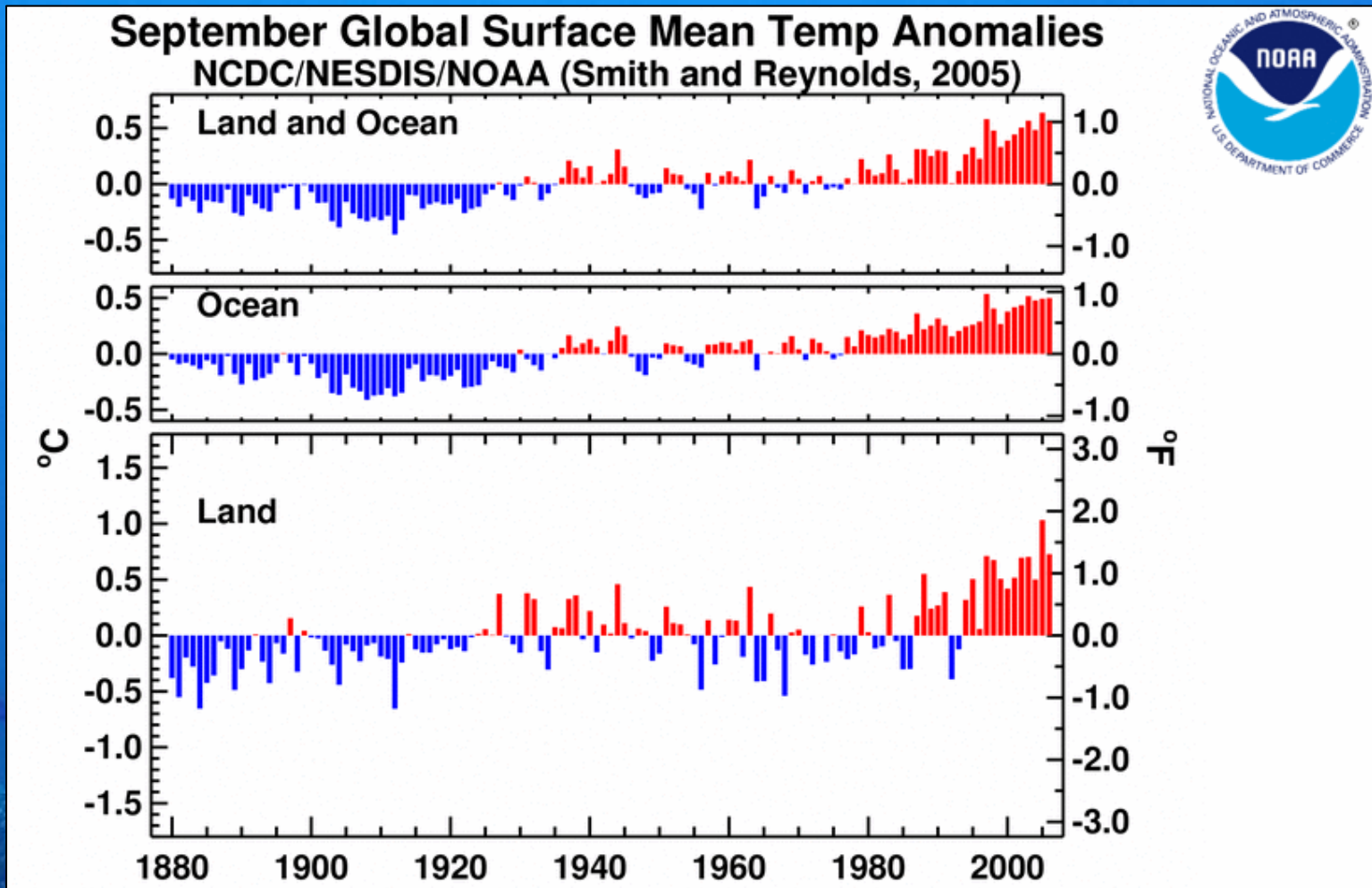
D. Noelani Kalipi, Director, Government & Community Relations, First Wind, Maui

Micheal L. Kaleikini, Plant Manager, Puna Geothermal Venture

James Loux, Vice President, Bio Energy Systems of Hawaii, Inc.

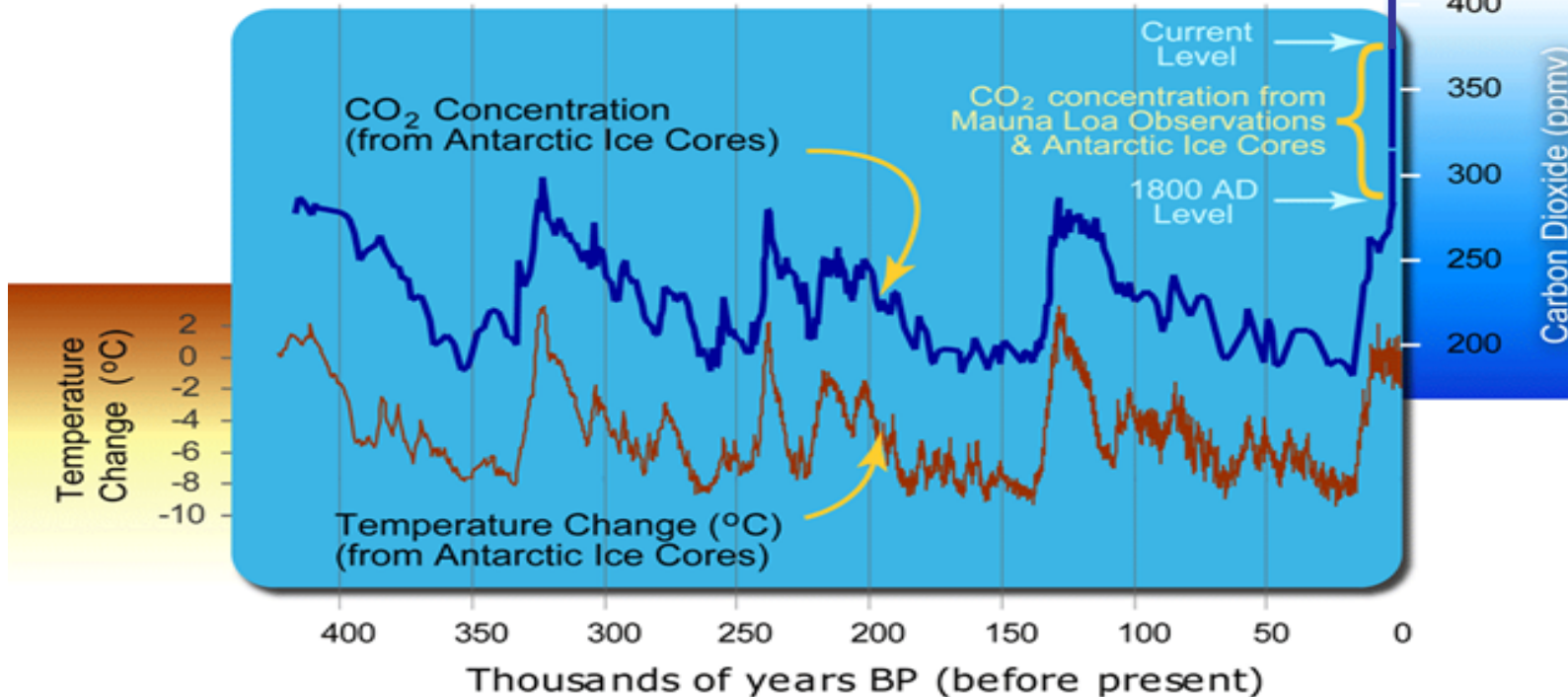


Climate Change: the Science



Climate Change: the Science

400 Thousand Years of Atmospheric Carbon Dioxide Concentration and Temperature Change



Current CO₂ highest in 650,000 years of ice core data and 24 million years from soil data

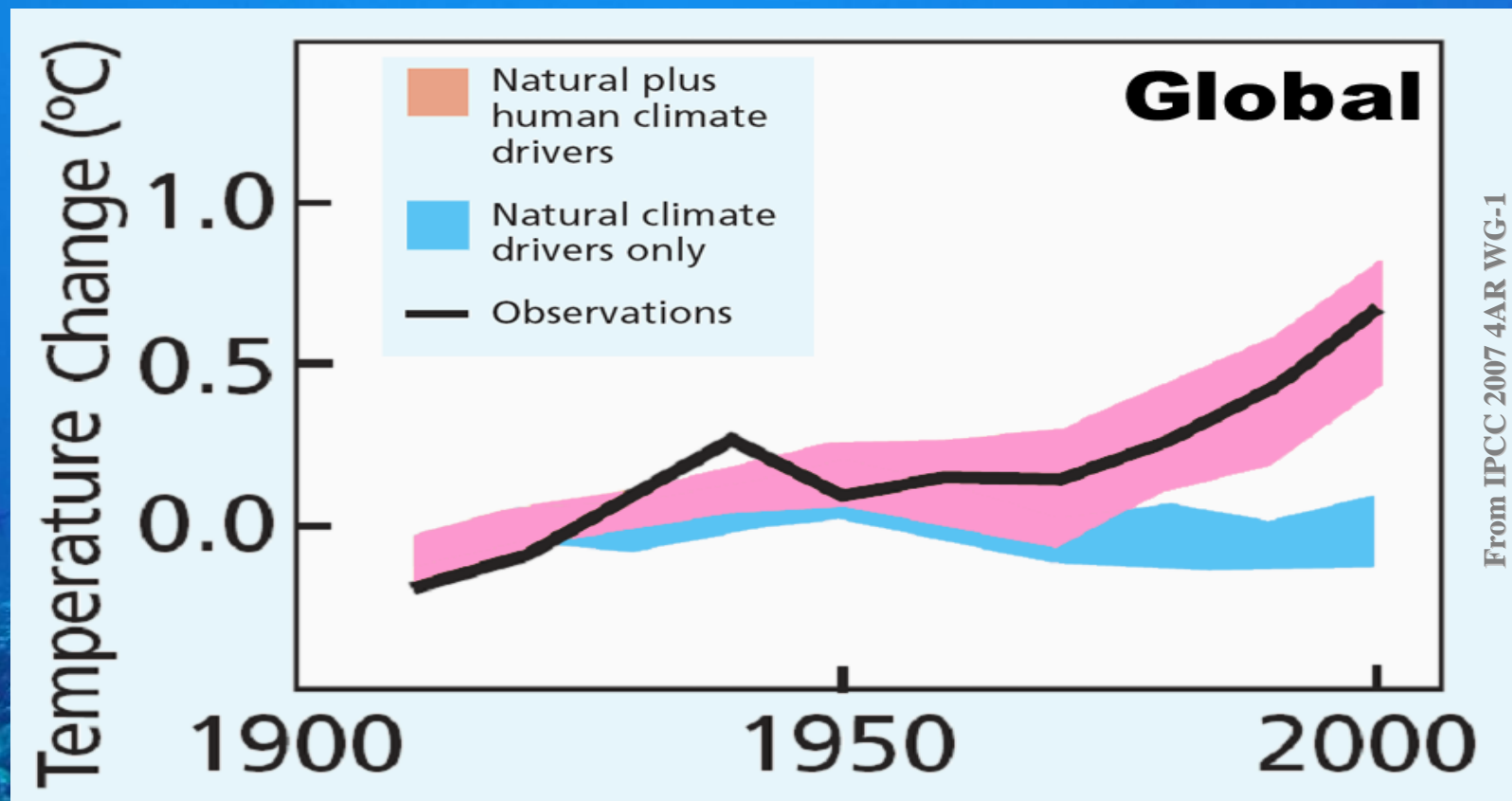
Data Source CO₂: <ftp://cdiac.ornl.gov/pub/trends/co2/vostok.icecore.co2>
Data Source Temp: <http://cdiac.esd.ornl.gov/ftp/trends/temp/vostok/vostok.1999.temp.dat>

Graphic: Michael Ernst, The Woods Hole Research Center

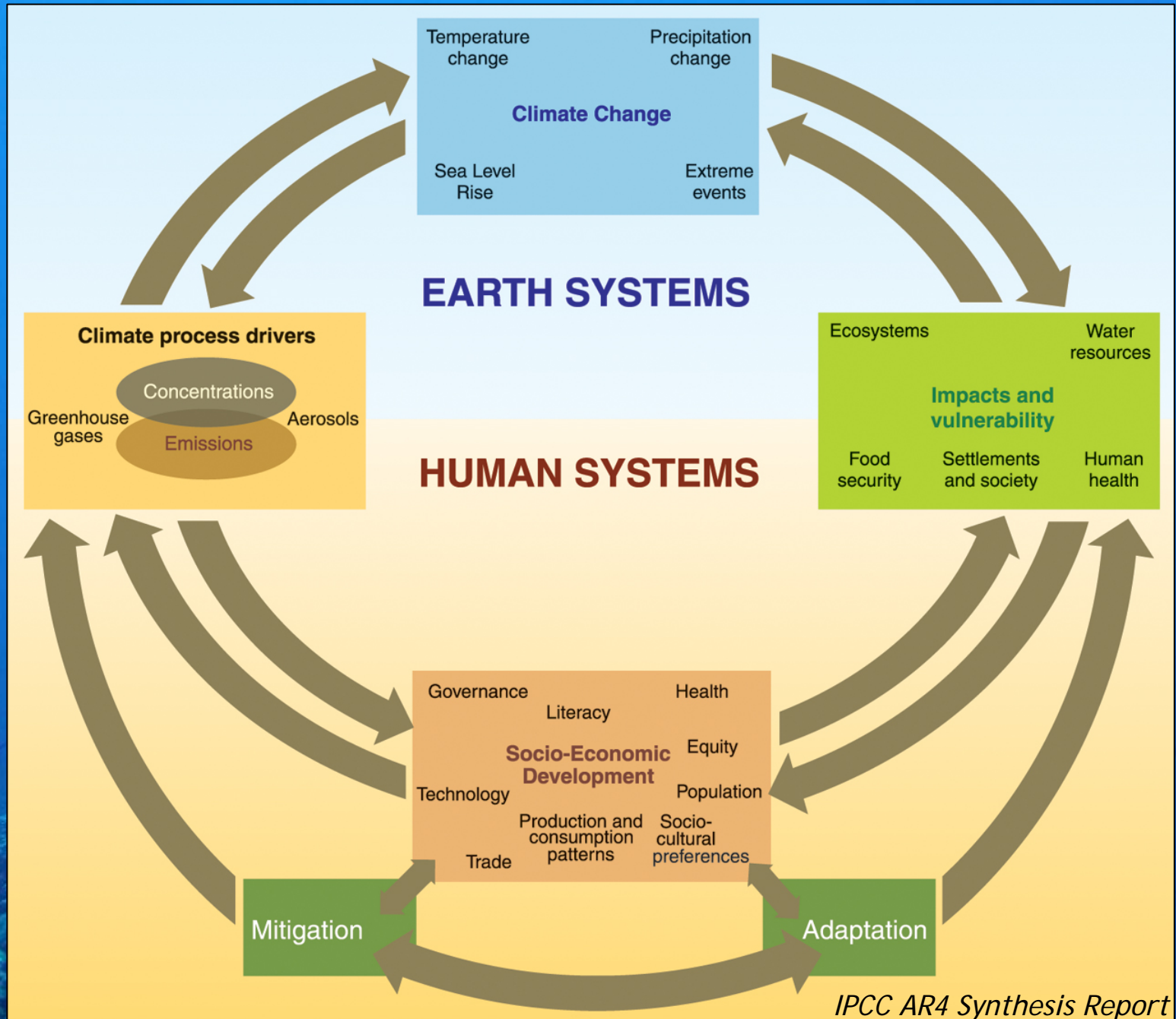


Climate Change: the Science

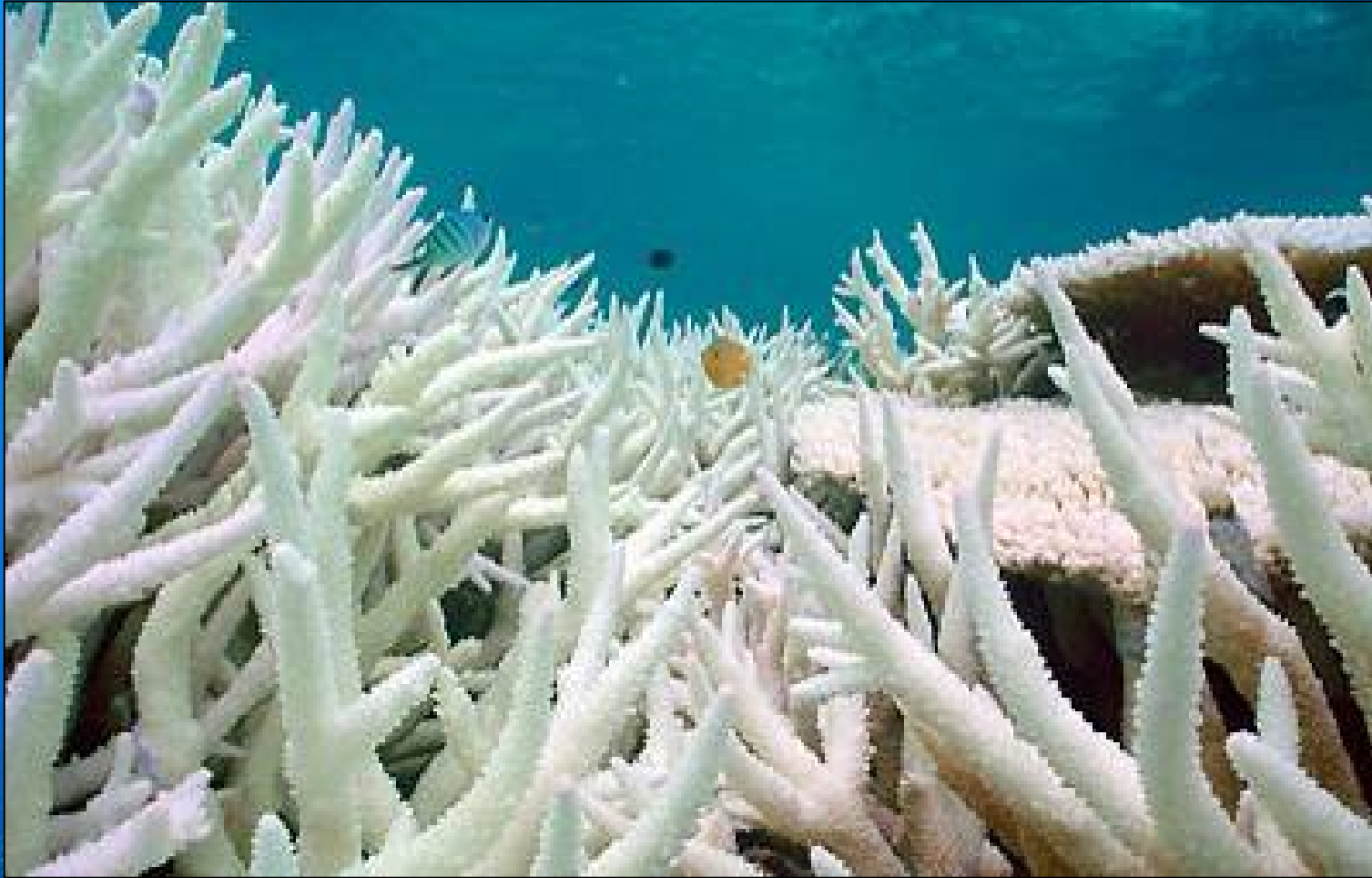
“Most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.” - *IPCC 2007 4th Assessment Report, WG 1*



Climate Change: the Human Element

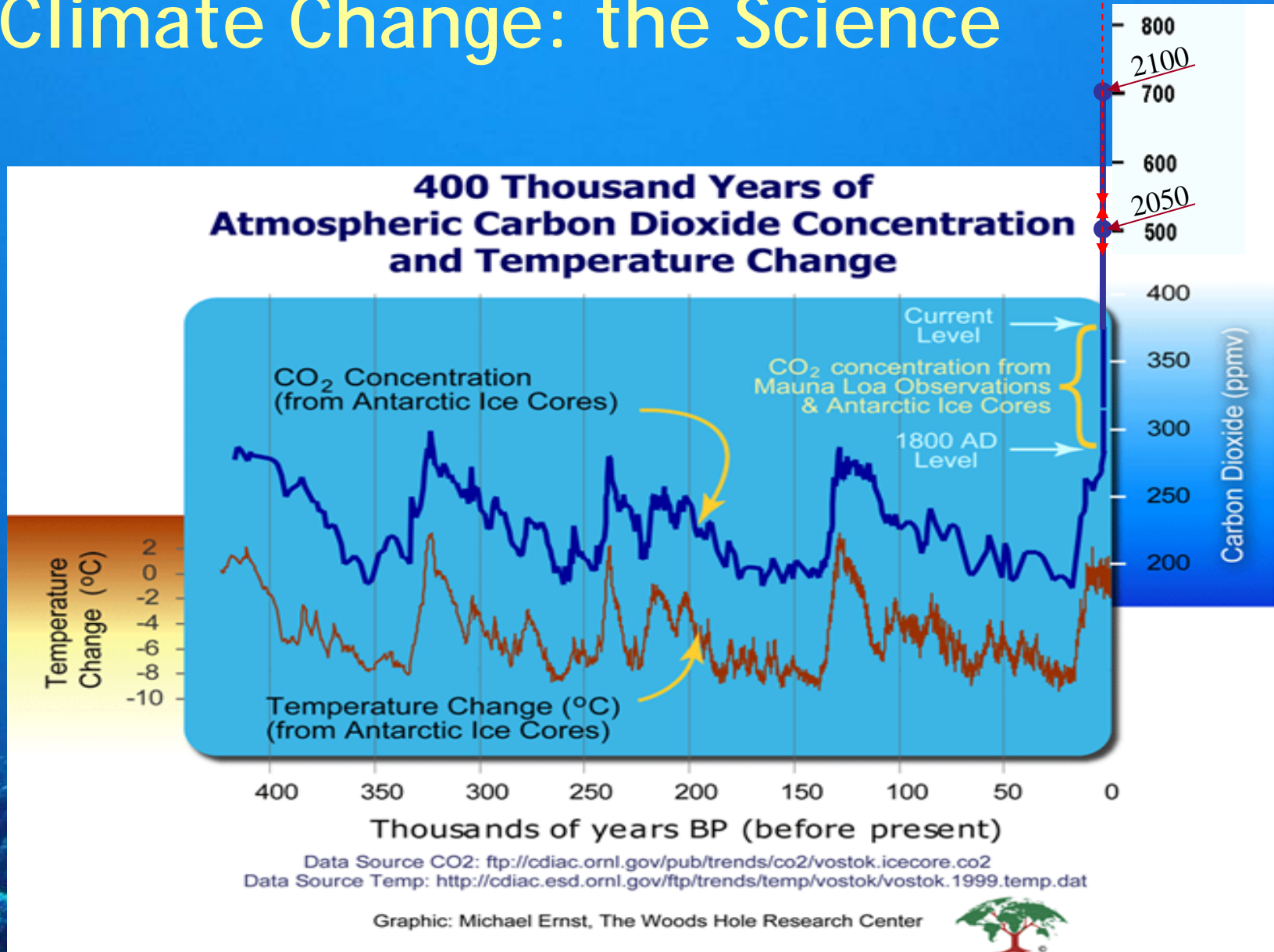


Corals and Climate Change

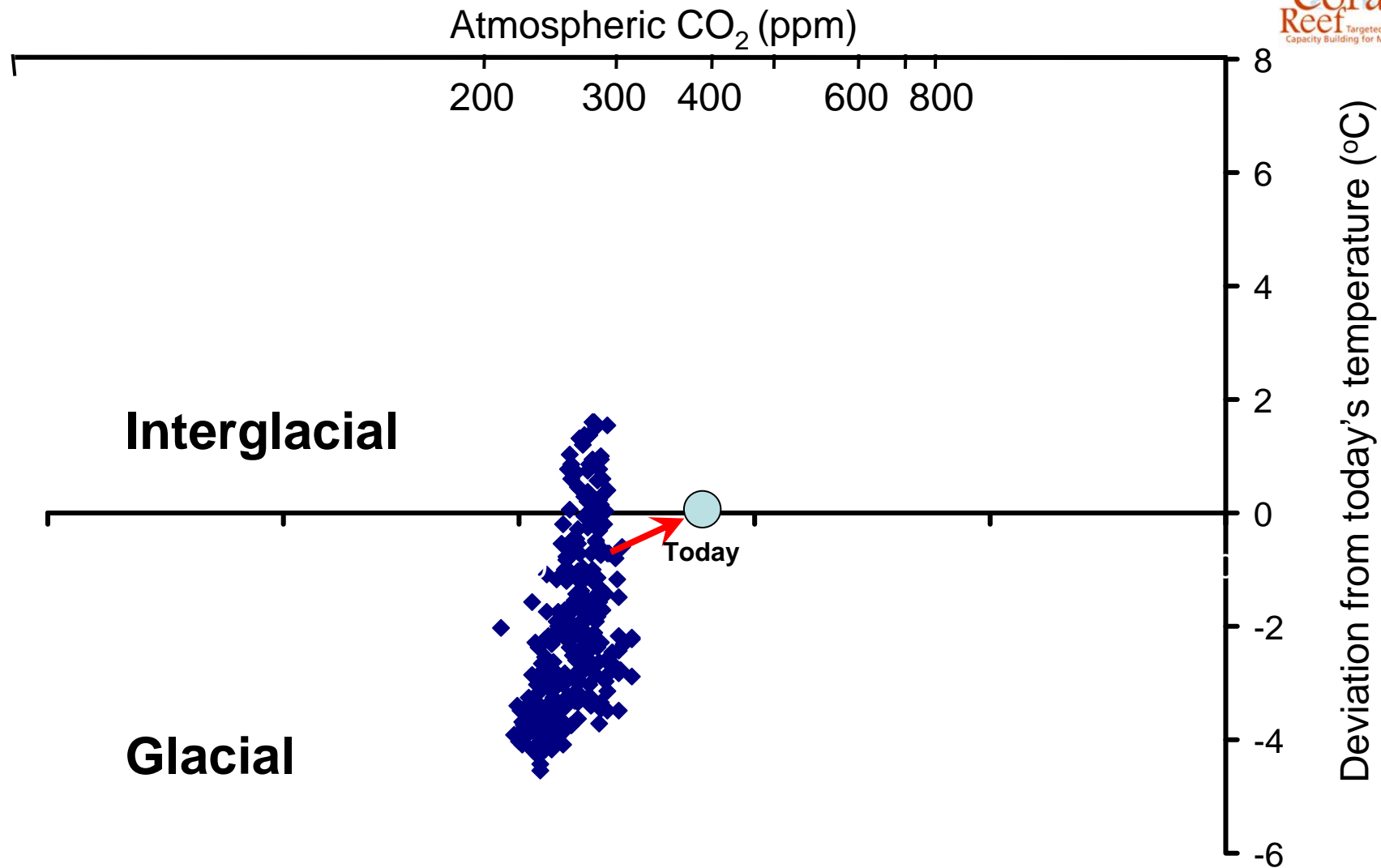


Climate Change: the Science

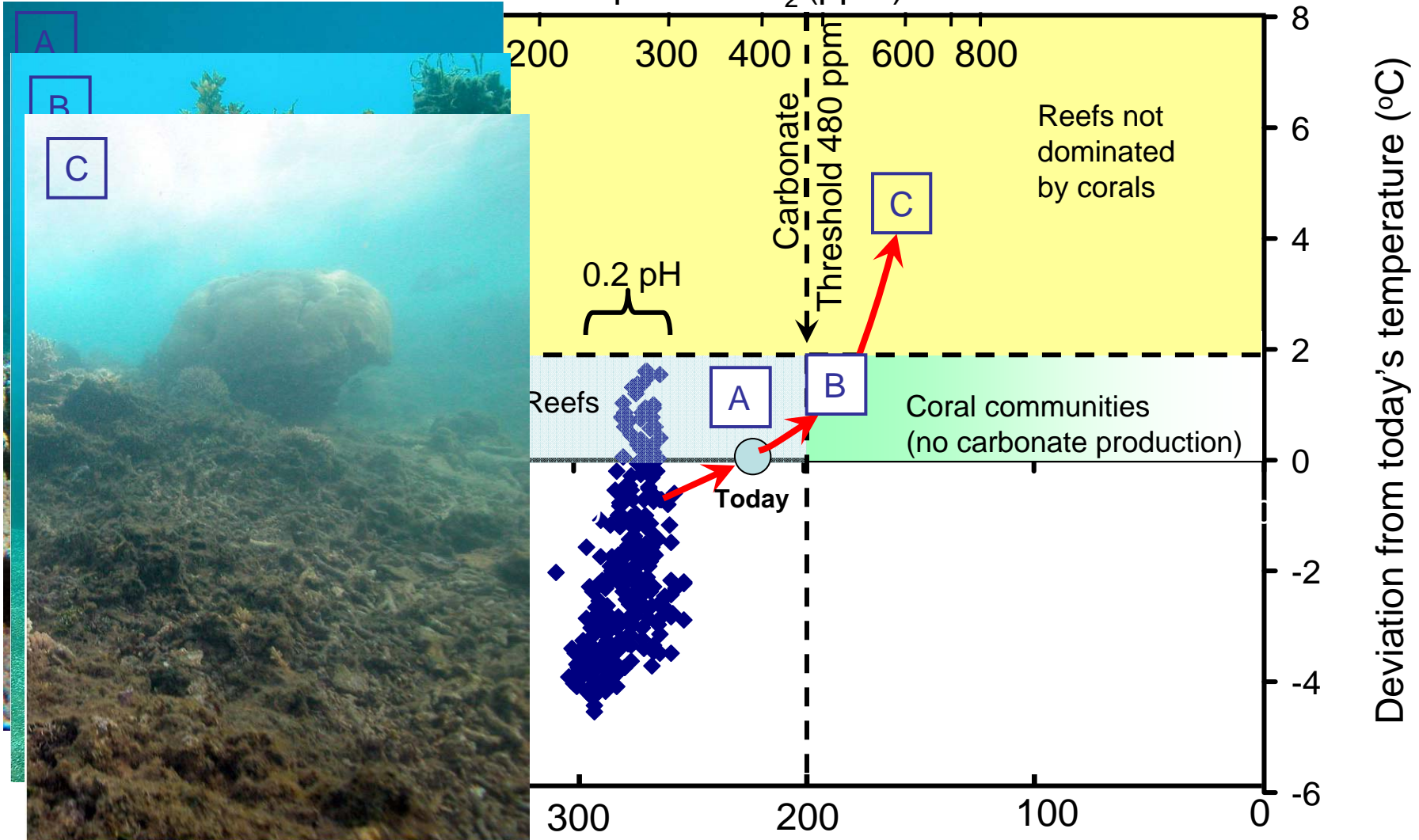
400 Thousand Years of Atmospheric Carbon Dioxide Concentration and Temperature Change



Past CO₂ and Temperature Variability



480 ppm CO₂ atm and 2°C: Thresholds for Coral Reefs



Building on the Past: USCRTF Efforts

2nd USCRTF Meeting, Maui, Hawai'i - 1999

Resolution 2.3 Support the Department of State's statement on coral bleaching and climate change

8th USCRTF Meeting: San Juan, Puerto Rico - 2002

Resolution 8.5 Coral Reefs and Climate Change

10th USCRTF Meeting: Guam & CNMI - 2003

Resolution 10.6 Support for Coral Reefs, Climate, and Coral Bleaching Initiatives

14th USCRTF Meeting: Koror, Republic of Palau - 2005

Resolution 14.2 Call for Action to Respond to Caribbean/Atlantic Bleaching Event

Building on the Past: USCRTF Efforts Workshops

9th USCRTF Meeting, Washington, DC - 2003

Corals, Climate Change and Coral Bleaching

16th USCRTF St Thomas, USVI - 2006

Rethinking local responses to mass coral bleaching:
A Reef Manager's Guide to Coral Bleaching

Panel: Responding to Bleaching Events
NPS, USGS, NOAA FKNMS, GBRMPA, NOAA CRW

Resolution 16.8 Support Development and
Implementation of Response Plans to Coral Bleaching

Building on the Past: USCRTF Efforts Workshops

18th USCRTF American Samoa - 2007

Panel: Coral Reef Ecosystems in a Changing Climate
CEQ, USGS, NOAA CRW, SPREP

Resolution 18.1 Coral Reef and Climate Change

**Responding to Climate Change: A Workshop
for Managers**



Building on the Past Hawai'i Efforts

June 8, 2007

Hawaiian Electric Company, Inc
Integrated Resource Planning Advisory Group
Technical Session

March 26, 2008

Forum on Climate Change in Hawai'i

Sponsored by the Hawai'i Conservation Alliance
U.S. Fish and Wildlife Service
U.S. Geological Survey



Glossary

Adaptation

Adaptation to *climate change* refers to adjustment in natural or human systems in response to actual or expected climatic *stimuli* or their effects, which moderates harm or exploits beneficial opportunities.

Mitigation

An *anthropogenic* intervention to reduce the *sources* or enhance the *sinks* of *greenhouse gases*.

<http://www.ipcc.ch>

20th USCRTF: Kona, Hawai'i

Panel 1: Adapting to Climate Change

Steps for Managements

Community Monitoring Programs

Community Resilience

Panel 2: Mitigating Climate Change

Renewable Energy

