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Professor of Climate Change and Director

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USP

- Established 1968
- Premier provider of tertiary education in the Pacific region
- Jointly owned by governments of 12 Pacific Island countries
- International centre of excellence for teaching, research consulting and training on all aspects of Pacific culture, environment and human resource development needs







USP 2013 - 2018 Strategic Plan

The overarching themes of the University's activities are: Human Security and Sustainable Development.

 based on the Pacific's needs, USP outlines Learning and Teaching, Research and Regional and Community Engagement to focus on several areas, one of which is:

Environment, Sustainable Development and Climate Change





PaCE-SD

Founded in 2001, we have established ourselves as a *Centre of Excellence* for Environment and Sustainable Development in the Pacific region

PACE-SD Vision

• Excellence in sustainable development for Pacific Islands people

Mission:

 Empowering Pacific Island people in learning and knowledge creation through effective partnerships

M







PaCE-SD Thematic Areas

- Postgraduate Training
- Research
- Community Engagement
- Capacity Building
- Communication



6 C's of Climate Change Resilience



- Collaboration
- Community
- Conduct
- Culture
- Conservation
- Commitment





Tuvalu

Contraction of the









AusAID Enhancing Climate Change Adaptation (ECCA) Project

- 12 Communities since 2010
- Implement climate change adaptation measures in an integrated manner to vulnerable sectors and internalize climate change adaptation in rural communities of Fiji









Future Climate Leaders : Building a Community of Expertise

- 90 PG Diploma Students
- 30 MSc Students
- 8 PhD Students





- Capacity for the Pacific Islands Region
- Postgraduate Degrees in Climate Change : PGdip, MSc, PhD
 - Course Development

Climate Leaders: PaCE-SD students and staff







PaCE-SD Graduates

PACIFIC CENTRE FOR ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

GARETH QUITY

Lecturer for the new Diploma in Climate Change, Solomon Islands National University

KILIFI O'BRIEN

Assistant Secretary - Ministry of Home Affairs of the Government of Tuvalu

SAINIVALATI S. NAVOTI

Now: G77 lead negotiator Formerly AOSIS Lead Negotiator Permanent Mission of Nauru –NY Former Director Political and Treaties at Fiji Foreign Affairs



MARY TAHU Pursuing further studies in Trinidad and Tobago



OLAI ULUDONG AOSIS Climate Change Lead Negotiator Permanent Mission of Nauru, New York



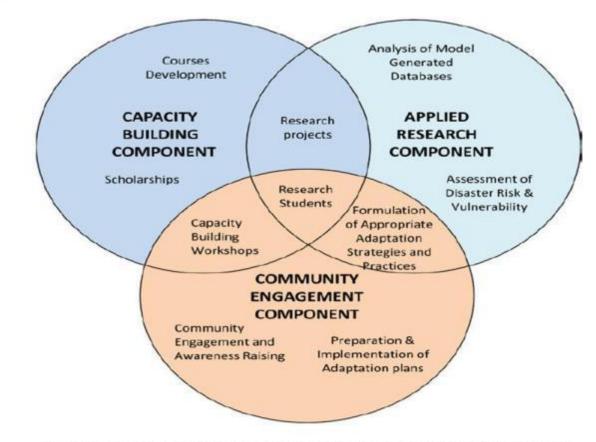


USP- EU Global Climate Change Alliance Project - USP EU GCCA

- Challenges: Vulnerable small island countries with the least capacity to react and adapt to climate change impacts.
- Response: USP European Union Global Climate Change Alliance project, 40 communities, 15 countries, 4 years, 3 components, 8 million euros.
- 15 Pacific ACP Countries:
 - Melanesia: Fiji, Papua New Guinea, Vanuatu, Solomon Islands
 - Micronesia: Marshall Islands, Federated States of Micronesia, Nauru, Kiribati, Palau
 - Polynesia: Tuvalu, Cook Islands, Samoa, Tonga, Niue, East Timor







The three components of the EU-GCCA project and their interactions







USAID - The Coastal Community Adaptation Project (C-CAP)

- 5 year plan
- 12 Pacific Island nations
- More than 90 communities
- Energy, Environment and Climate Change
- Through C-CAP, USAID will help build the resilience of vulnerable coastal communities in the Pacific region







European Consortium for Pacific Studies Pacific Islands People and Climate Change Symposium

10-12 December 2013 The University of the South Pacific Suva, Fiji http://www.pacific-studies.eu/ ECOPAS (European Consortium for Pacific Studies) is a multidisciplinary designed project to provide coordination and support to research and policy communities on issues connected to climate change and related processes in the Pacific Islands region, in order to define better options sustainable for development.



Key Points

• Carbon dioxide emissions continue to increase faster than ever

 We, the Pacific Island countries, have provided a global carbon service to the planet by absorbing the emitted carbon dioxide into our oceans

Yet, we are the countries most vulnerable to climate change







Ways forward

• Understand the Climate Science to anticipate the risks and plan for a resilient future:

Build Capacity

- Develop our own Pacific understanding of Climate Science. We need:
 Pacific Islands Climate Scientists
- Focus needs to be:

Increasing Community Resilience



With local and scientific wisdom together we can weave a sail for the future





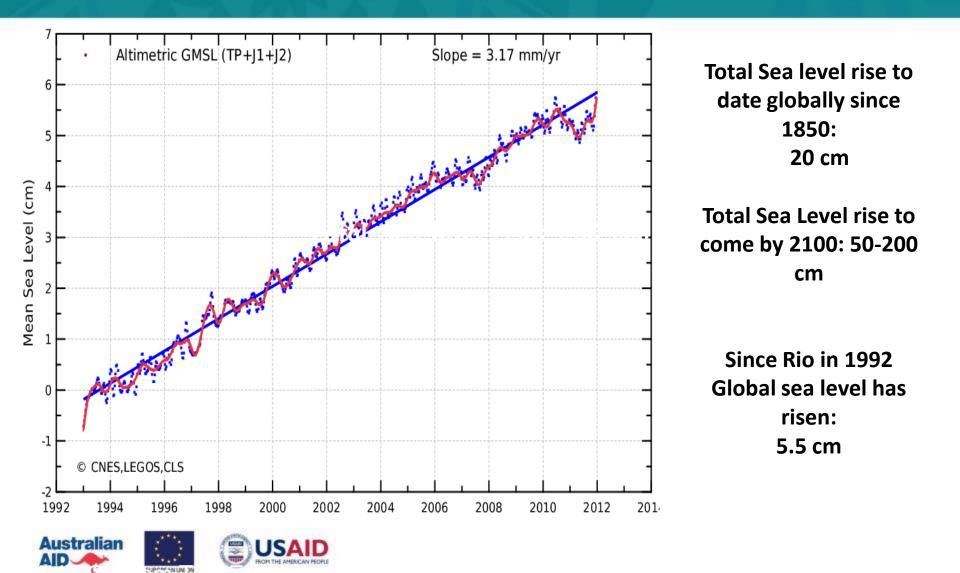


Vinaka Vakalevu Merci beaucoup



Sea level is rising: from ocean expansion (60%) And melting glaciers (40%)







Regional Mean Sea Level Rise

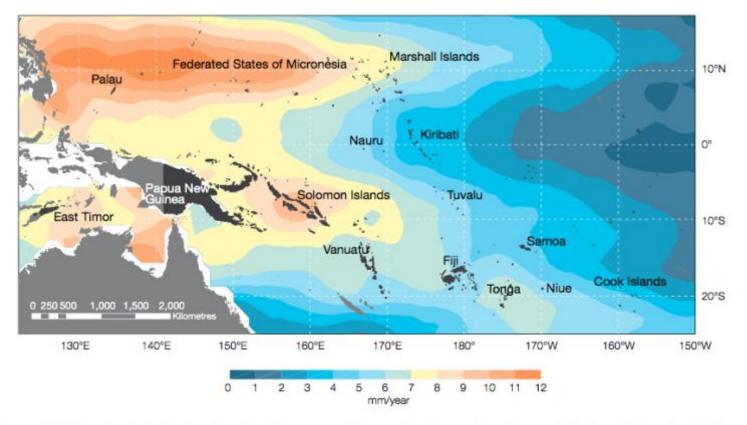


Figure 3.23: The regional distribution of sea-level rise measured by satellite altimeters from January 1993 through December 2009.

Sea level rise 1993-2009

Fate of Anthropogenic CO₂ Emissions (2002-2011 average)



90% 8.3 ± 0.4 PgC/yr



1.0±0.5 PgC/yr 10%



Source: Le Quéré et al. 2012; Global Carbon Project 2012

4.3±0.1 PgC/yr 46% 2.6 ± 0.8 PgC/yr 28% Calculated as the residual of all other flux components 26%

 2.5 ± 0.5 PgC/yr

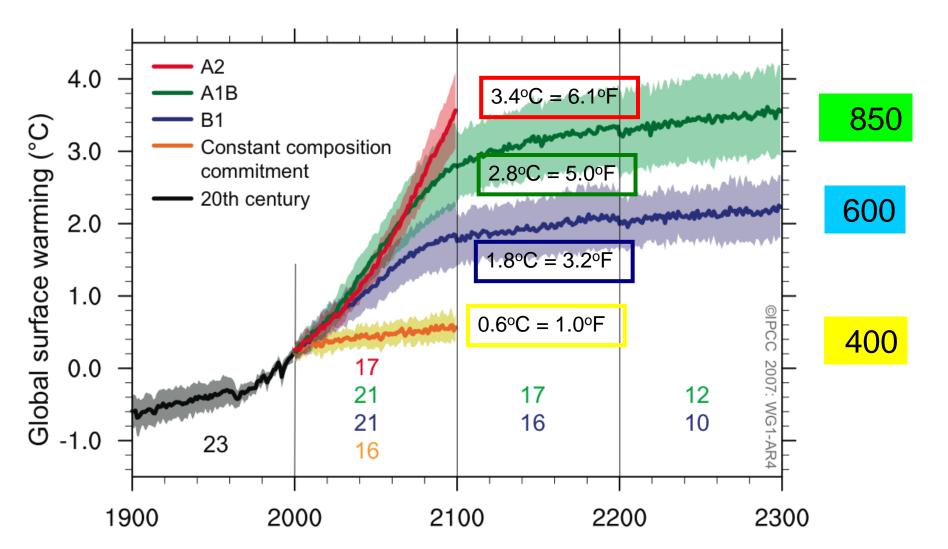




What's in the pipeline and what could come?

Warming to Date: $0.8 \degree C (1.3 \degree F)$ Additional warming: $0.6 \degree C (1 \degree F)$

Warming will increase if Greenhouse Gases increase.



Community Work

PNG ZERO HERO 2006

96

zero



OMODO

RIGONS



ROPEAN UNIO



Preparing for Tropical Cyclones



"First of all, you have to close the shutters, and you have to accumulate food and water, clean water. If you have a gas stove, we keep it ready. Need light, torch, radio and enough kerosene. We cut down big trees near our house. With our food, what we do with cassava we make stems short and also yaqona cut down low. Very little damage to our plantation because as soon as hear warning (for Cyclone) Thomas), he (husband) runs to plantation to cut it down. Here in Taveuni, we have wild food too to eat." (pers. comm, wife Nasalesele Village High Chief - 68 years old)





Preparing for Tropical Cyclones



Turaga ni Koro ('village headman'; 43 years old) illustrates where to 'cut' the root crops when preparing for a cyclone event to minimise damage to the root crop and preserve the roots.







iTaukei- understanding climate change in Fiji

- **'Draki veisau or Draki veiveisau or Veiveisau ni Draki**' literally means that the climate changes. The assumption is that it would return to its previous stage.
- **'Toki ni Draki'** –a total shift in climate which also affects everything related to climate
- 'Veisau Tudei ni Draki'- a permanent change in the weather and climate and everything related to it from the USP Student Climate Change Forum





Climate Service Tools

- Improved Tropical Cyclone/ Typhoon forecasting and delivery of information, including storm surge forecasts.
- Quantification and mapping of the impacts sea level rise and sea level projections-next IPCC projections will likely be 0.5-2 m.
- Weather, Drought, Rainfall and Fine Scale Climate Projections are much needed at country and community level throughout the Pacific Islands

