



Pacific Adaptation to Climate Change

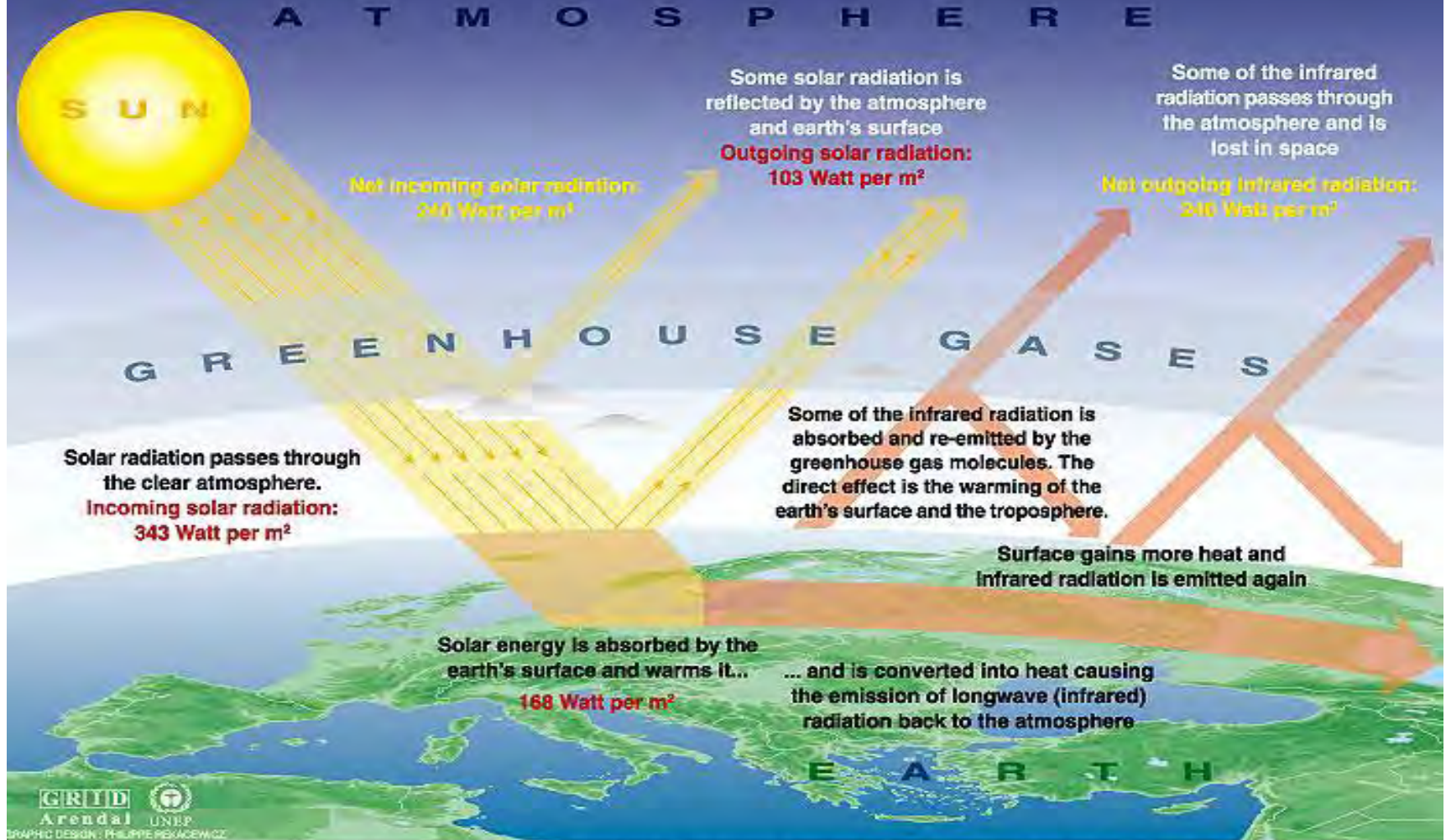
An Introductory Presentation



Gabor Vereczi, UNDP
source: Taito Nakalevu
SPREP RPM



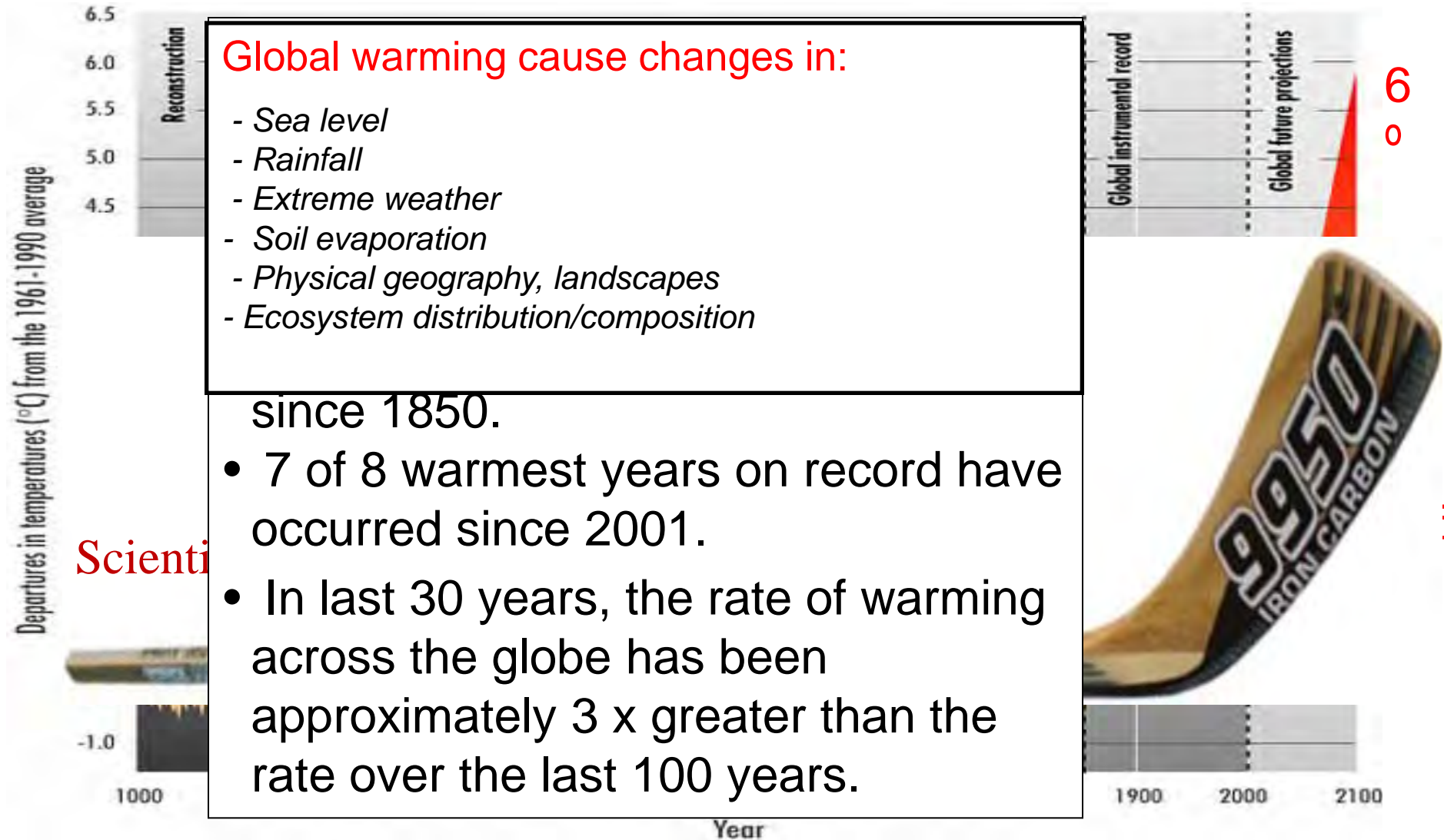
The Greenhouse effect



Sources: Okanagan university college in Canada, Department of geography, University of Oxford, school of geography; United States Environmental Protection Agency (EPA), Washington; Climate change 1995, The science of climate change, contribution of working group 1 to the second assessment report of the intergovernmental panel on climate change, UNEP and WMO, Cambridge university press, 1996.

This natural effect is responsible for the comfortable living conditions on earth, with a mean global temperature of 15 °C.

'The warming of the climate system is unequivocal' (IPCC-WG1-AR4 2007)



Climate change is a development issue

It means we need to do development differently!

Changes in forest composition, extent, health & productivity

Variability in water supply, quality and distribution. More competition and conflicts over water resources

Erosion, inundation, salinisation, stress on mangroves, marshes, wetlands

PUBLIC HEALTH

AGRICULTURE

FORESTRY

WATER RESOURCES

COASTAL SYSTEMS

ECOSYSTEM SERVICES



Increasing incidents of infectious, water-borne and vector-borne diseases, heat stress & mortality, additional public health costs

Less predictability in crop yield, changing irrigation demand, growing risk of pest infestations

Loss of habitat, species and protective ecosystems, migratory shifts

Adaptation as an opportunity to support livelihoods and make them resilient to long-term impacts of CC





The PACC Project

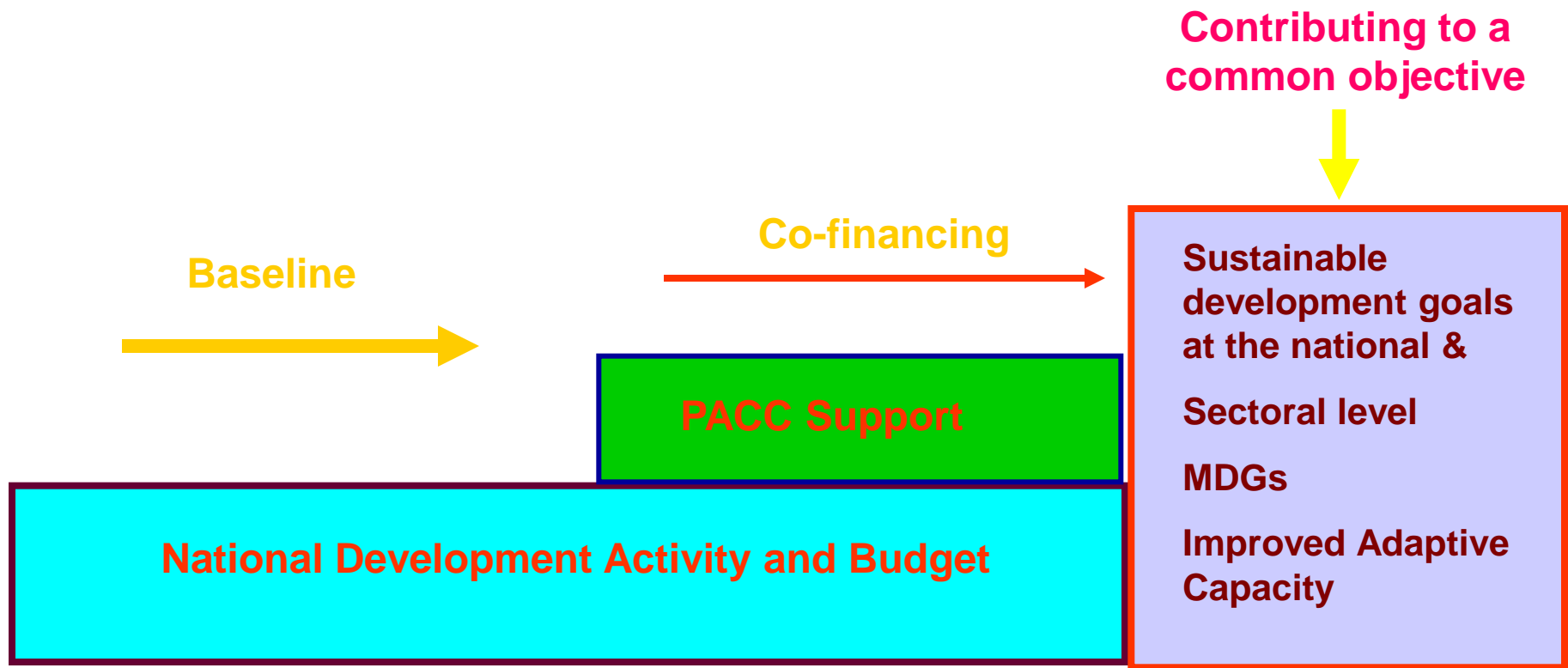
The PACC is an initiative / opportunity to **materialize the GEF support to adaptation** into actual adaptation implementation in the Pacific Region (GEF Special Climate Change Fund – SCCF)

The PACC is a **direct response** of UNDP and SPREP to PICs' expressed wish to implement adaptation.

PACC is implemented in **13 Pacific Island Countries, during 2009-2013**



PACC approach and links to National Sustainable Development





OBJECTIVES, OUTCOMES OF THE GEF COMPONENTS

Objective: To enhance the capacity of the participating countries to adapt to climate change, including variability, in selected key development sectors.

Outcomes	Country / Site
<p>COMPONENT 1: National adaptation capacity development (MAINSTREAMING) Outcome 1: Policy changes to deliver immediate vulnerability- reduction benefits in context of emerging climate risks implemented.</p>	<p>National Activity; Cook Islands, FSM, Fiji, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu,</p>
<p>COMPONENT 2: DEMONSTRATION Measures to reduce VULNERABILITY Outcome 2: Demonstration measures to reduce vulnerability in coastal areas (Cook Islands, FSM, Samoa and Vanuatu) and crop production (in Fiji, Palau, Papua New Guinea and Solomon Islands) and in water management (in Marshall Islands, Nauru, Niue, Tonga and Tuvalu) implemented.</p>	<p>National Activity; Cook Islands, FSM, Fiji, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu,</p>
<p>COMPONENT 3: Technical assistance & Regional Cooperation Outcome 3: Capacity to plan for and respond to changes in climate-related risks improved.</p>	<p>National Activity; Cook Islands, FSM, Fiji, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu,</p>



The PACC Project

The PACC is a **regional adaptation project** that targets **national implementation** in 13 PICs.

Countries and key sectors:

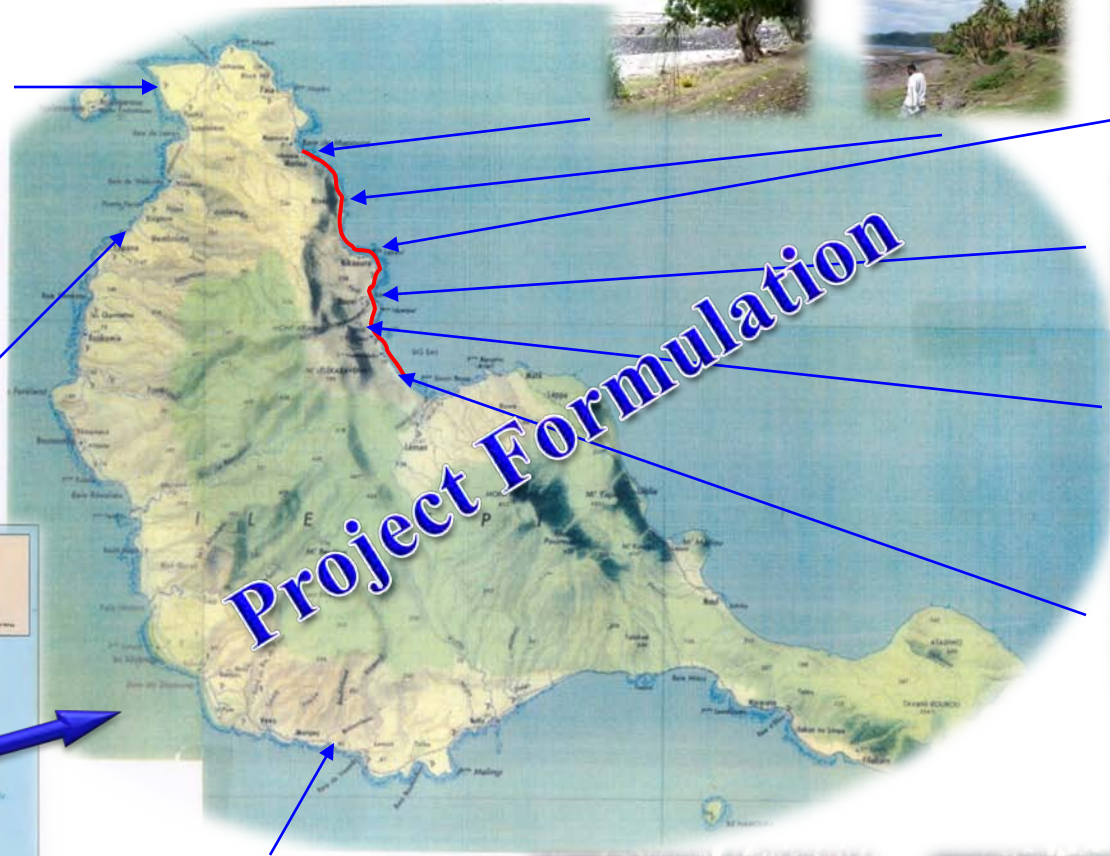
- I. Coastal Zone Management - Cook Islands, FSM, Samoa, and Vanuatu

- II. Food Production and Food Security – Fiji, Palau, Papua New Guinea and Solomon Islands

- III. Water – Marshall Islands, Nauru, Niue, Tuvalu and Tonga

Pilot Demonstration Project Site, Vanuatu

- 66 Km of Road
- Mostly coastal
- Cyclones/inundation
- Erosion of roads
- Redesign & Relocation of road sections
- 4554 Population
- Subsistence/Semi-subsistence farming
- 41% Kava SHEFA production
- Major cattle producer

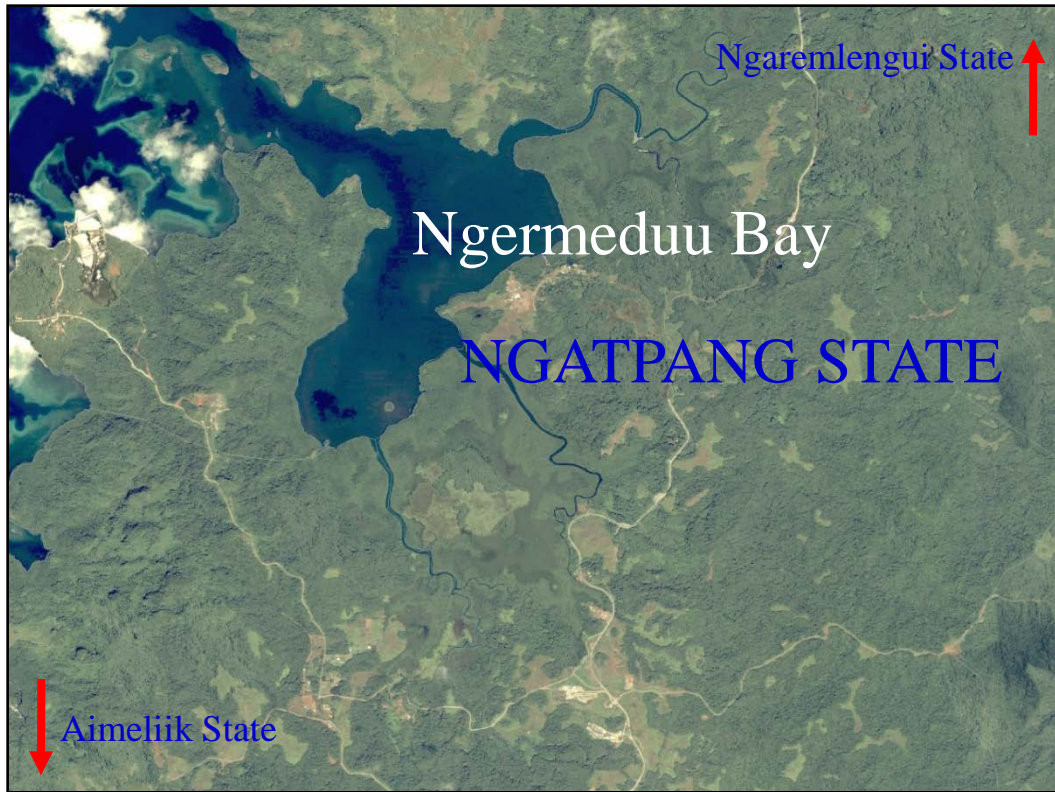


TYPICAL AFTERMATH OF TROPICAL CYCLONE

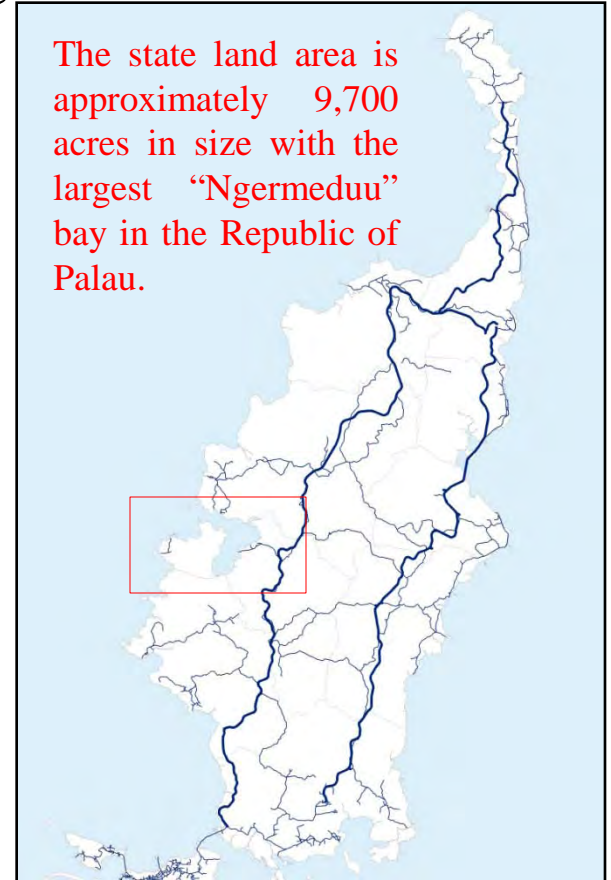
Palau



Ngatpang State was chosen as the PACC's pilot project in Palau due to its coastal area fringed with mangroves land uses including residential, subsistence agriculture and some small-scale commercial agriculture and mari-culture.



The state land area is approximately 9,700 acres in size with the largest "Ngermeduu" bay in the Republic of Palau.



Portions of the land surrounding the bay have been designated as Ngeremeduu conservation area and are co-managed by the states of Aimeliik, Ngatpang and Ngaremlengui.



There are a total of 389 acres of wetland habitat in Ngatpang, occurring for the most part along the low-lying areas in addition to a total of 1,190 acres of mangrove forests ringing bay. The state has proposed a development of an aqua culture facility in the degraded area.



Both wetlands and mangroves are considered an island-wide resource, warranting coordinated management planning among the states. Ngatpang has a rich and diverse marine resources due to the bay and the associated outer and inner reefs.



Rabbit fish, sea cucumbers and mangrove crabs are examples of prevalent species. Ngatpang, like most states on Babeldaob, consist on relatively flat ridge top, steep stream valleys and flatter lands near the coast. The near-coastal lands adjacent to Ngatpang village and some of the ridge top land near the island-wide National Road alignment makes agriculture and aquaculture the primary economy of the state.



Nauru





PACC Approach

- PACC even though regionally coordinated will be nationally executed.
- Technical backstopping will be provided by SPREP and its Partners.
- Technical support can also be sourced from PICs.

Regional support tools:

- V&A
- Mainstreaming Guide
- Socio-economic guide
- PACC Communication Strategy
- Multi-year Work Planning framework

Vanuatu



Radio talk back show

Donor partners and stakeholders meeting

Local TV Station



Project Launching



Local News Paper

Communication Strategy



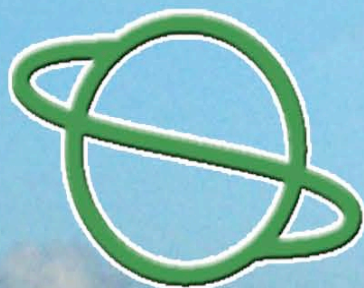
PACC PARTNERS

UNDP and SPREP have been working **collaboratively** with **Countries** and **CROP** to develop this initiative.

CROP – SPC, SOPAC, USP have commented on country reports and participated in PACC workshops.

New Partners: SEI, MIND, UNITAR, Rhode Is. University (under discussion)

PACC Implementing Partner:
Secretariat of the Pacific Regional
Environment Programme
P O Box 240, Apia, Samoa
www.sprep.org



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Building resilience to climate change in Pacific communities