

# **The BATTLE on CLIMATE CHANGE: *GLIMPSES FROM THE FRONTS***

## **26<sup>th</sup> Pacific Islands Environment Conference**

Saipan, CNMI

Saipan World Resort

22 – 25 June, 2009

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FSM Office of Environment & Emergency Management

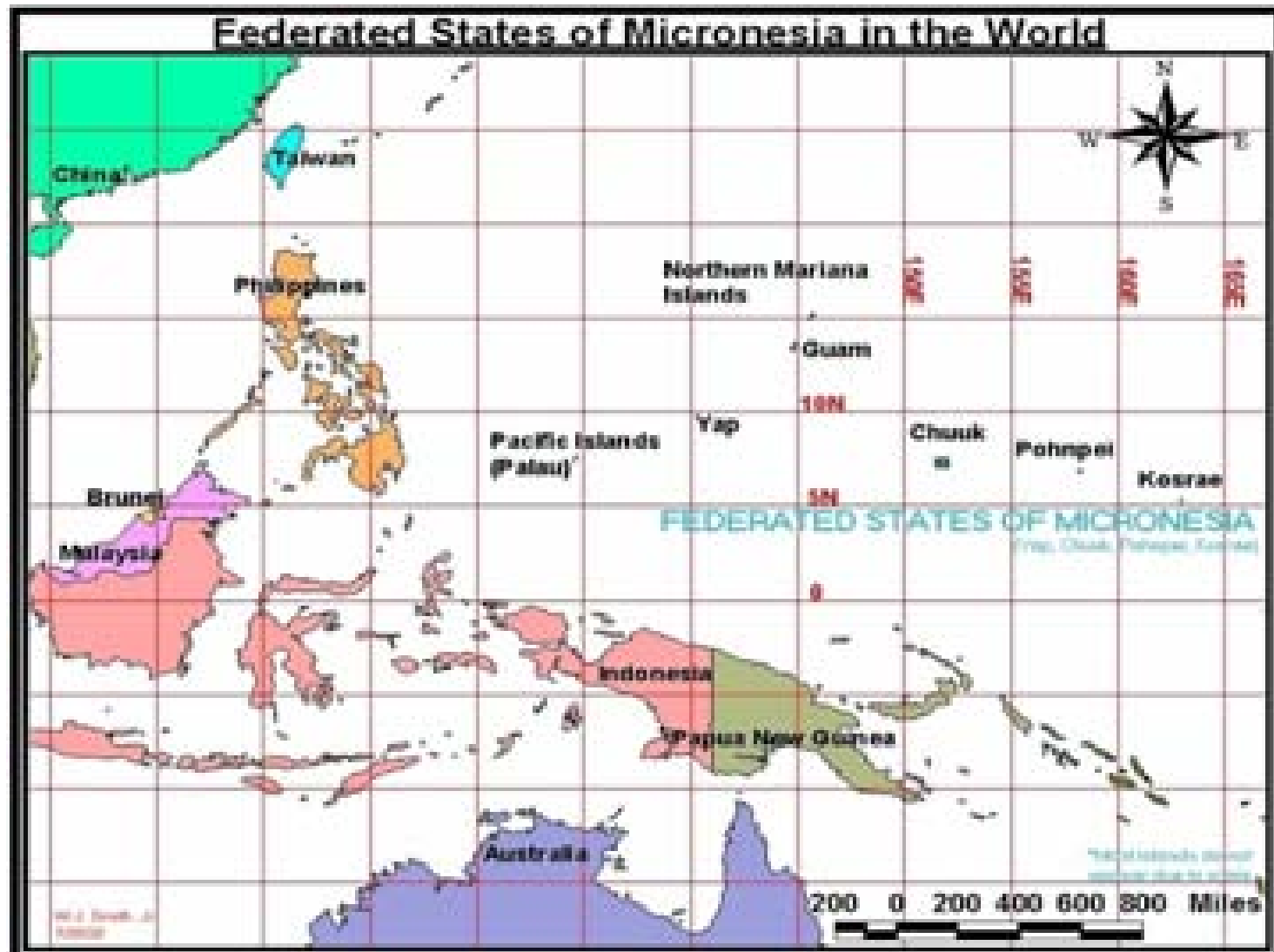
Palikir, Pohnpei, FSM

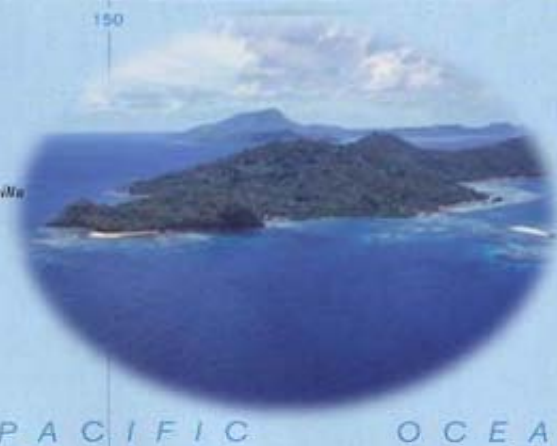
# OUTLINE

1. OVERVIEW of FSM
2. The Battle on the Local Front
3. The Battle at the International Front
4. Challenges:
5. Q&A

# Federated States of Micronesia

- 607 Islands
- 30 high, 33 atolls
- Total area about 3 million sq. km.
- Total Land Area= 4,840 sq. km.
- Atolls to 791 meters above sea level
- Population (2000) =107,000

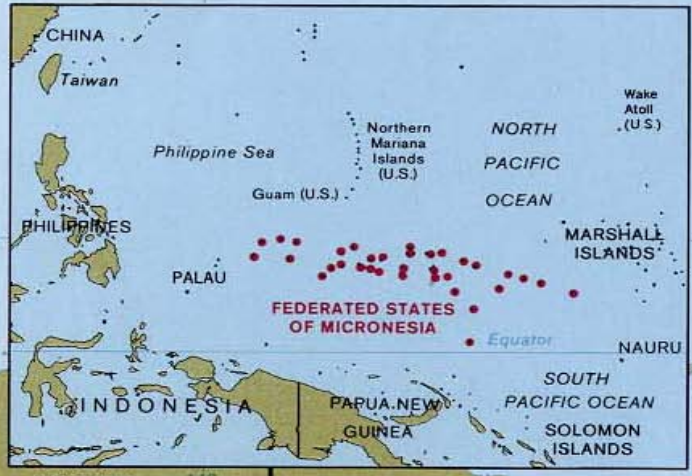
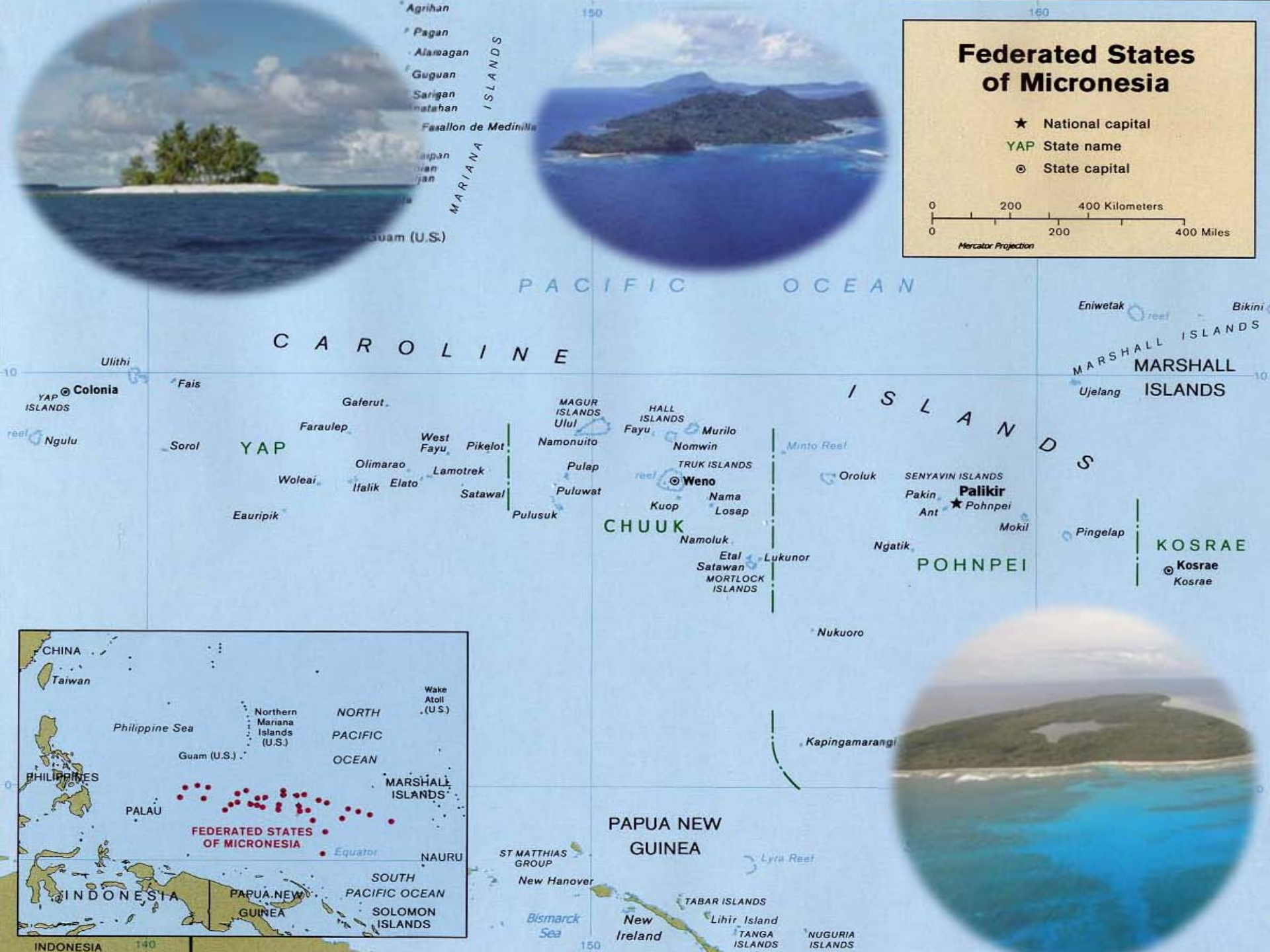




## Federated States of Micronesia

- ★ National capital
- YAP State name
- ⊙ State capital

Mercator Projection





**PARADISE, NEXT TO HEAVEN.....**



SPECIAL REPORT GLOBAL WARMING

# TIME

**BE WORRIED.  
BE VERY WORRIED.**

Climate change isn't some vague future problem—it's already damaging the planet at an alarming pace. Here's how it affects you, your kids and their kids as well

**EARTH AT THE TIPPING POINT  
HOW IT THREATENS YOUR HEALTH  
HOW CHINA & INDIA CAN HELP  
SAVE THE WORLD—OR DESTROY IT  
THE CLIMATE CRUSADERS**

## PACIFIC ISLANDS

APRIL/MAY 1989

### THE GREENHOUSE EFFECT

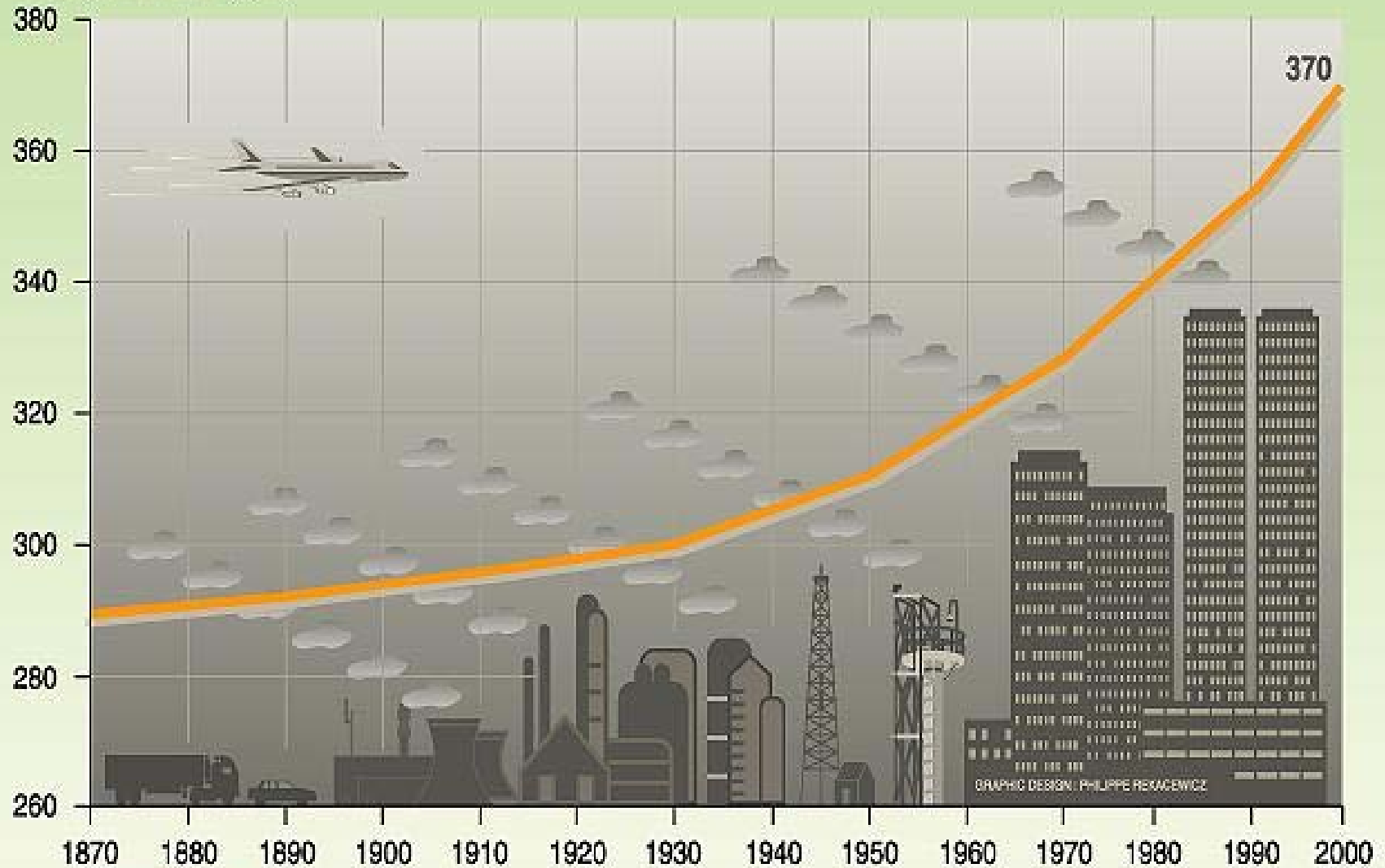
**SAY GOODBYE TO KIRIBATI, THE MARSHALL ISLANDS, TOKELAU, TUVALU, THE GREAT BARRIER REEF**

8-page

**.....then why worry?**

# Global atmospheric concentration of CO<sub>2</sub>

Parts per million (ppm)

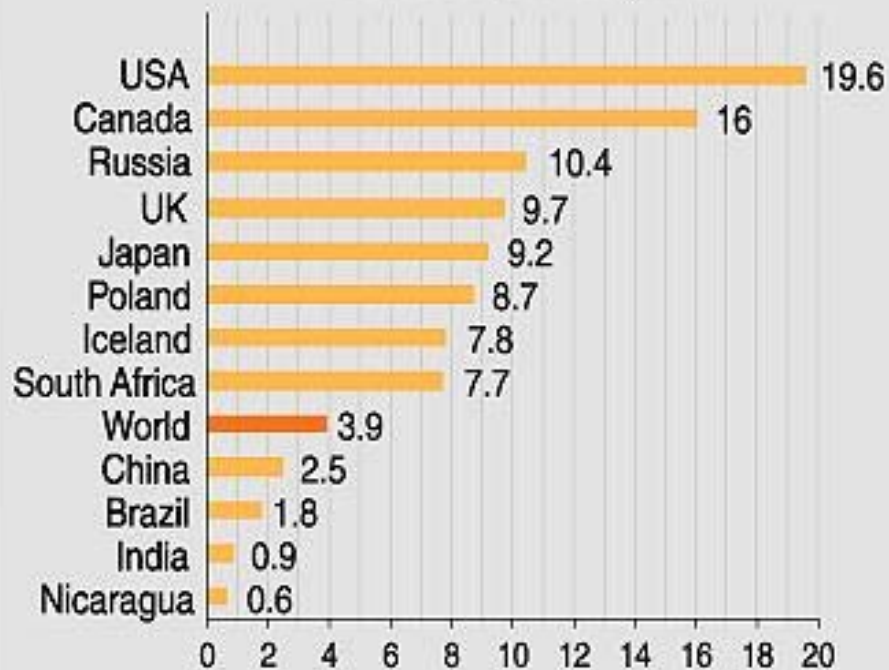


GRID  
Arendal

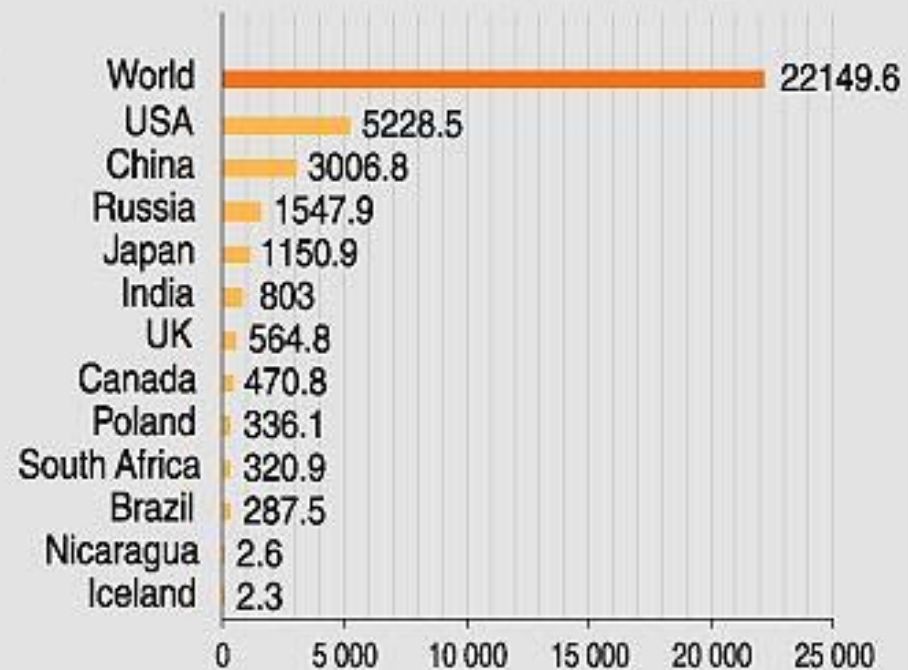
UNEP

## Emissions of CO<sub>2</sub> - selected countries (1995)

### Tonnes per capita



### Total million tonnes



GRAPHIC DESIGN : PHILIPPE REKACIEWCZ

# Projections

- GHGs will continue to increase
- GHGs already in atmosphere will continue to impact climate system (even if stopped now)
- SLR will continue to rise (IPCC AR4) and later projections (up to 2 meters)
- Extreme events: more frequent/intense
- Rainfall may decrease in yearly total but more intense
- Increase ocean acidification





**KOSRAE STATE  
FLOODING HOME IN TAFUNSAK**





**KOSRAE STATE  
MAIN ROAD FLOODING**





YAP



POHNPEI



YAP



YAP







**SAMPLE ROTTEN TARO**  
**ETTAL, MORTLOCKS REGION & FANANU, NORTHWEST**  
**REGION**













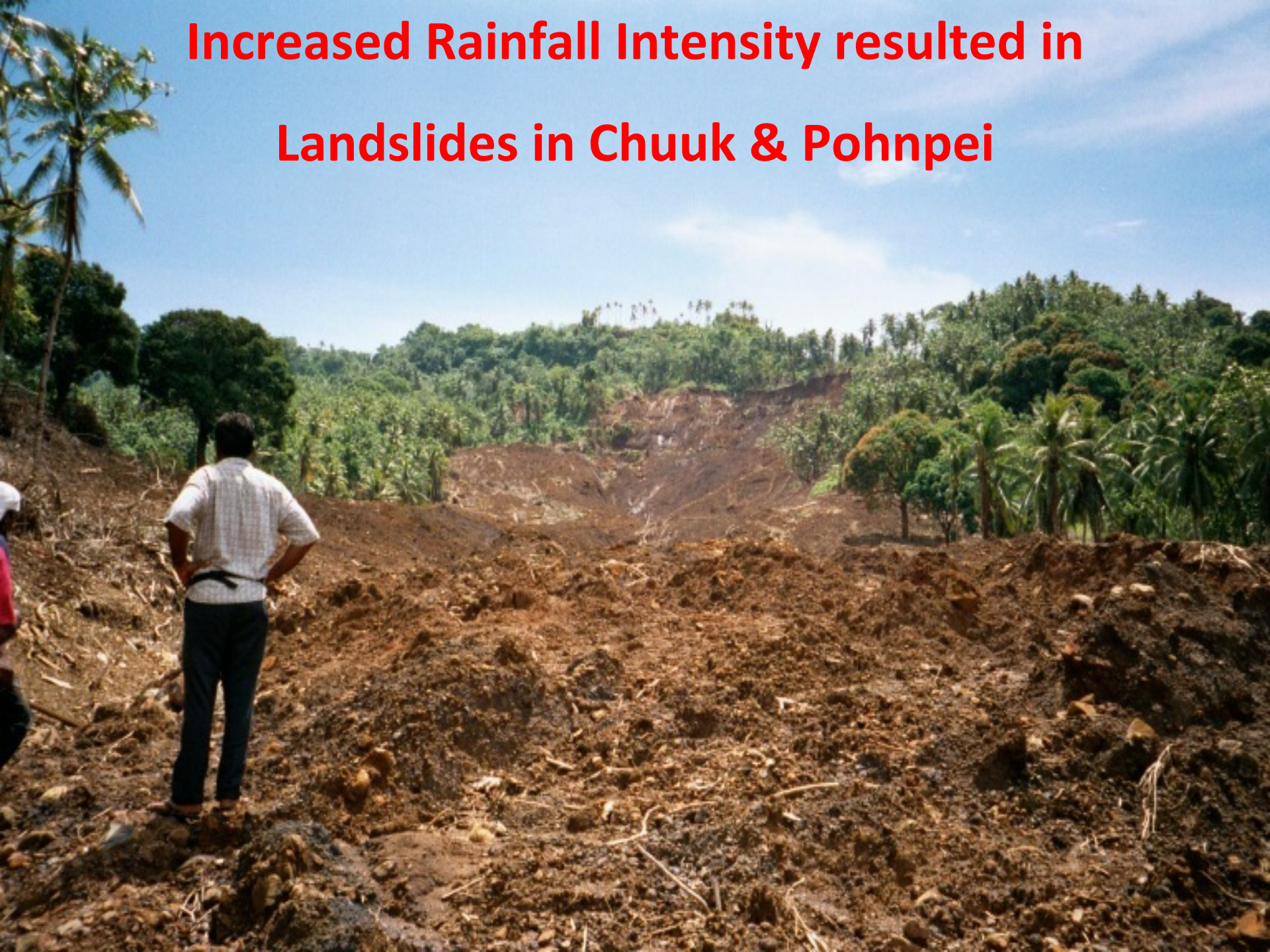




**COASTAL EROSION CAUSING COCONUT TREES TO FALL &  
WATER TANK AND HOUSES TO FALL INTO OCEAN**



# Increased Rainfall Intensity resulted in Landslides in Chuuk & Pohnpei

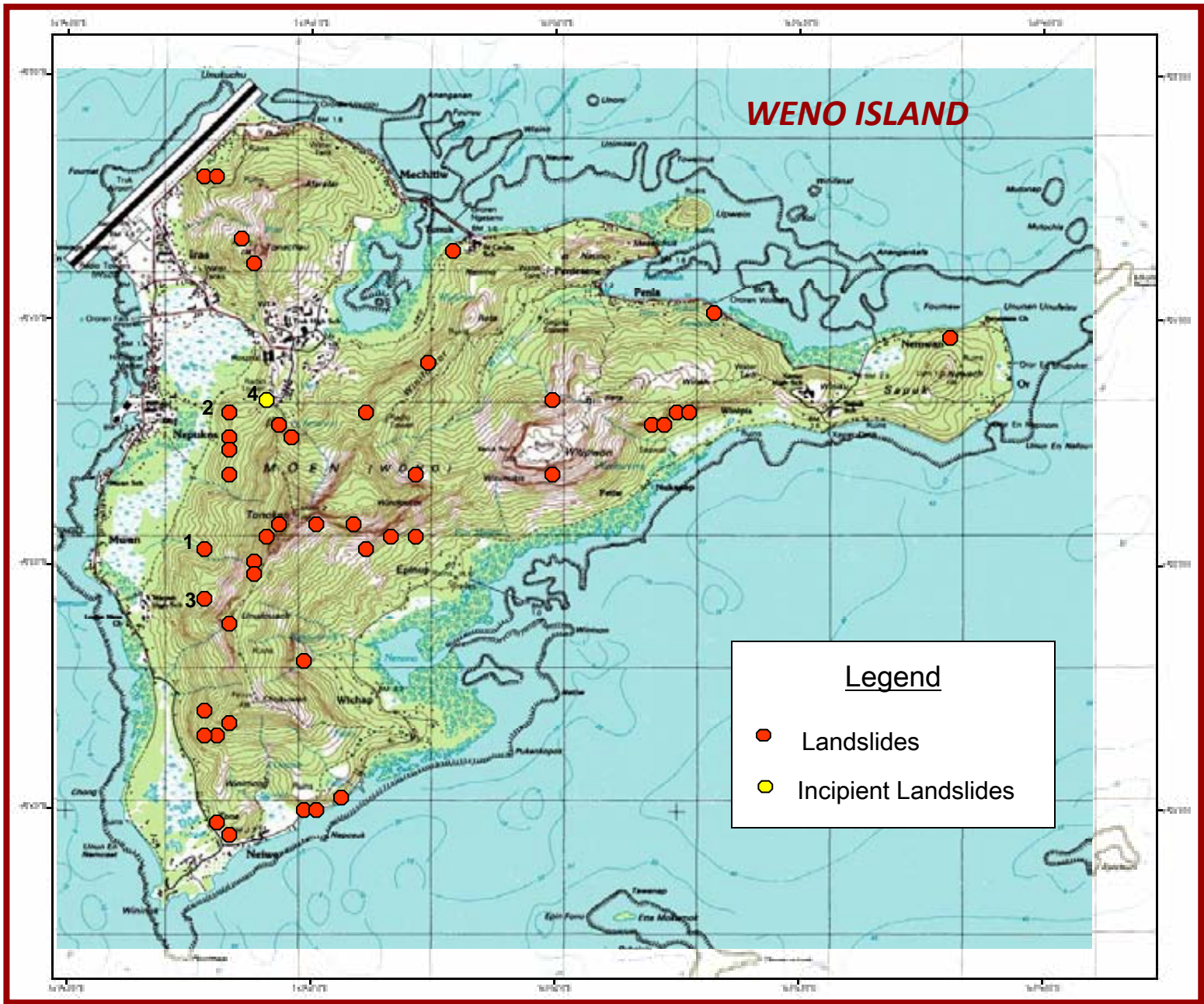






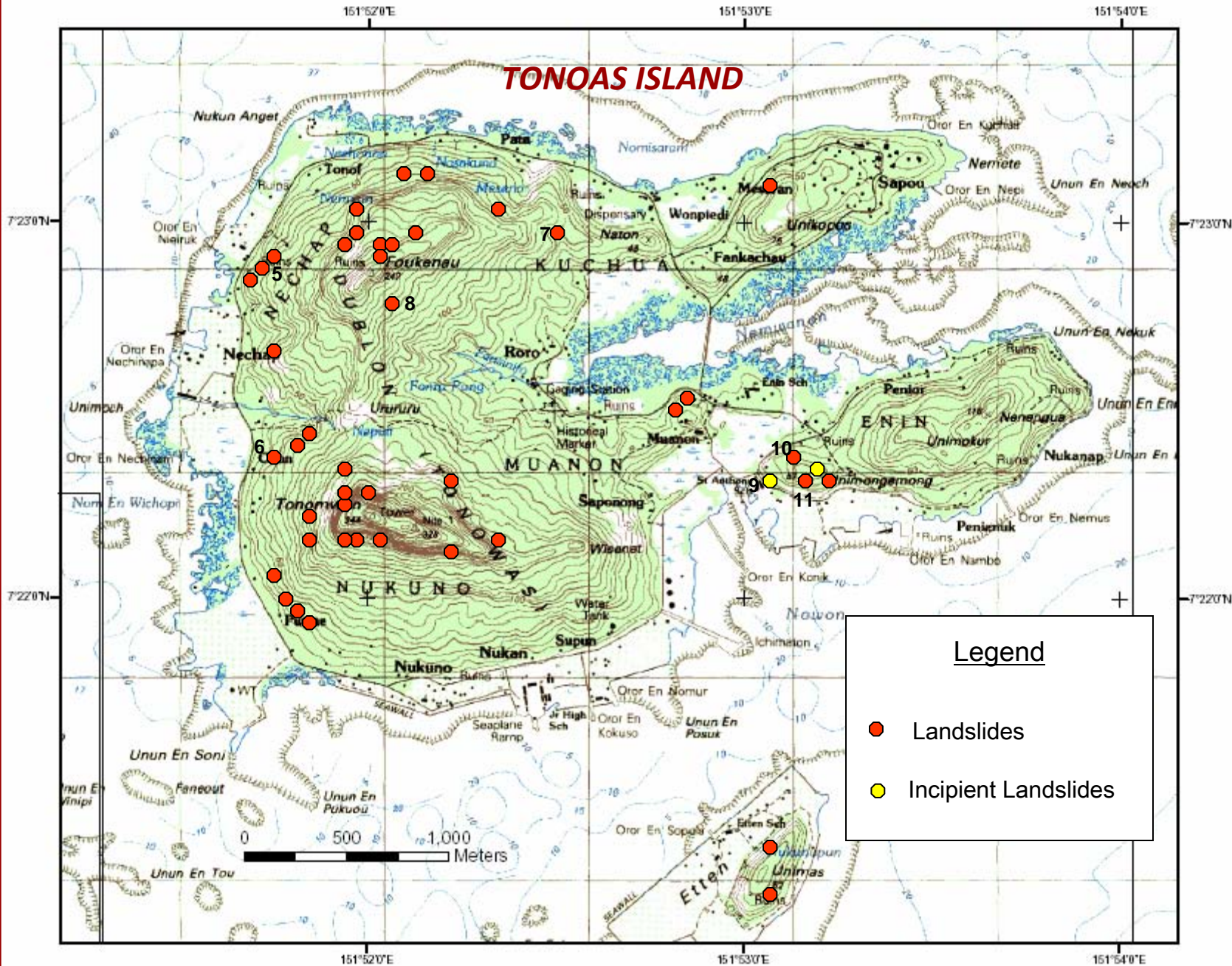
***MWAN LANDSLIDE***







# TONOAS ISLAND



## Legend

- Landslides
- Incipient Landslides





# International Front

1. Rio UNFCCC (no teeth)
2. Kyoto Kyoto Protocol (too low)
3. Bali Bali Roadmap (post KP)
4. Bonn/others (1-6) Targets & others
5. Copenhagen 45% by 2020, 95% by 2050 (FSM/AOSIS) (350 ppm/1.5 deg. C)
6. Montreal Protocol, CBD and others



# UN Framework Convention Climate Change (UNFCCC)

● **OBJECTIVE** (Art. 2): The ultimate objective of this Convention .. is to achieve.. **Stabilization of GHG concentration** in the atmosphere at a level that would **prevent anthropogenic interference** with the climate system. Such a level should be achieved within a timeframe sufficient to **allow ecosystem to adapt** naturally to climate change, to **ensure that food security production is not threatened** and to **enable economic development to proceed in a sustainable manner.**

# UNFCCC

- **COMMITMENT (Art 4.8):** Parties shall give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance, transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of CC especially on:
  - (a) Small island countries;
  - (b) Countries with low-lying coastal areas;
  - (d) Countries with areas prone to natural disasters;
  - (g) Countries with areas of fragile eco-systems....

# Addressing CC in MP & Others

1. Targets under CC/post KP will not be enough especially to avoid reaching “tipping points”
2. CC under Montreal Protocol (M &M)
  - a) To accelerate phase-out of Hydrochlorofluorocarbons (HCFCs) (16 b tones of CO<sub>2</sub> e by 2040)
  - b) Collect/destroy banks of ODS
  - c) US EPA 2009 CLIMATE AWARD for Micronesia & Mauritius
  - d) Regulate Hydrofluorocarbons (HFCs) under MP (non ODS ...cover under KP)
  - e) Others: biochar, reduction of black carbon soot, Technology transfer etc
3. CBD: Micronesia Challenge (20/30) by 2020

# CHALLENGES.....

1. Acceptance

2. Change behavior

3. Political will & Political Leadership



*Pray hard.....for the heavens that to  
provide for us....*

***Is turning against us!***