

# CLIMATE CHANGE & CORAL REEF – TUVALU EXPERIENCE

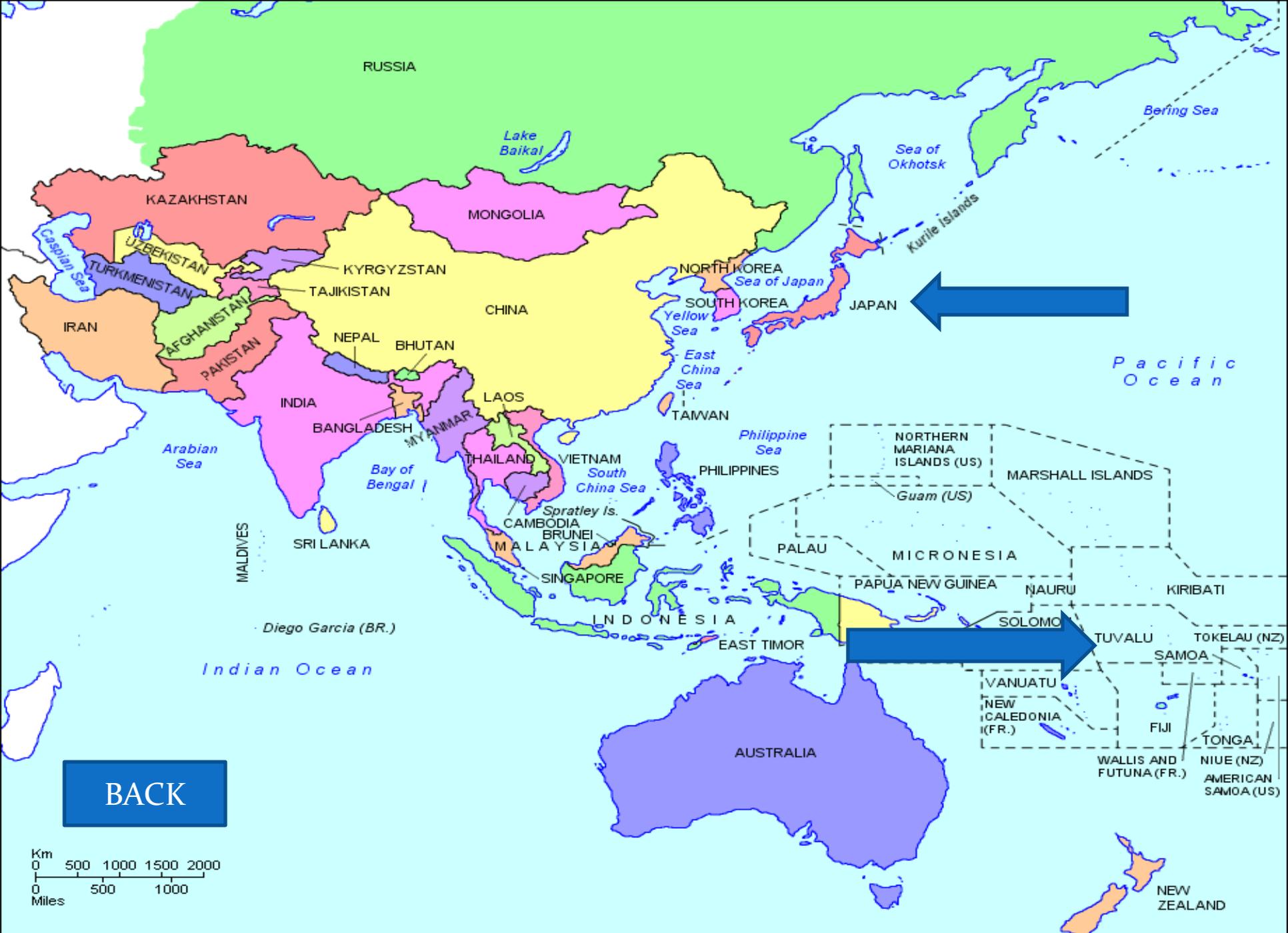
PRESENTATION BY  
FAKASOA TEALEI  
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# BRIEF BACKGROUND OF TUVALU

- Tuvalu is located in the South Pacific



RUSSIA

Lake Baikal

Bering Sea

Sea of Okhotsk

KAZAKHSTAN

MONGOLIA

Kurile Islands

Caspian Sea

UZBEKISTAN

KYRGYZSTAN

NORTH KOREA

Sea of Japan

TURKMENISTAN

TAJIKISTAN

SOUTH KOREA

JAPAN

IRAN

CHINA

Yellow Sea

Pacific Ocean

AFGHANISTAN

NEPAL

BHUTAN

TAIWAN

PAKISTAN

INDIA

LAOS

Philippine Sea

Arabian Sea

BANGLADESH

MYANMAR

THAILAND

VIETNAM

PHILIPPINES

NORTHERN MARIANA ISLANDS (US)

MARSHALL ISLANDS

MALDIVES

SRI LANKA

Bay of Bengal

South China Sea

Guam (US)

PALAU

MICRONESIA

Indian Ocean

Diego Garcia (BR.)

Spratley Is.

CAMBODIA

BRUNEI

MALAYSIA

SINGAPORE

INDONESIA

EAST TIMOR

PAPUA NEW GUINEA

NAURU

KIRIBATI

SOLOMON

TUVALU

TOKELAU (NZ)

VANUATU

NEW CALEDONIA (FR.)

WALLIS AND FUTUNA (FR.)

NIUE (NZ)

FIJI

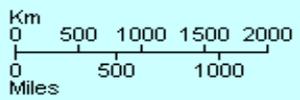
TONGA

AMERICAN SAMOA (US)

AUSTRALIA

NEW ZEALAND

BACK



# BRIEF BACKGROUND OF TUVALU

- Tuvalu is located in the South Pacific
- Land Mass: 26 square kilometers
- Population: Not more than 11,000 people
- Highest Point: not more than 2 meters above sea level
- Source of water: Rain
- Temperature : 26° ~ 32° Celcius

# WHY CORAL REEFS ARE IMPORTANT

- Are homes to 25% of all marine fish species (rainforest of the ocean)
- Protect us from eroding and destructive force of the sea
- Source of food/income/pharmaceuticals/beach nourishment
- Good indicator of environmental damage
  - Storm, overfishing, algal production



# IMPACTS OF CLIMATE CHANGE

# More frequent tropical cyclones





Alofa Tuvalu



EXTRA HIGH TIDE FLOODS ROAD, FUNAFUTI, TUVALU (PACIFIC OCEAN) © 2005 GARY BRAASCH  
RISING SEA LEVEL DOCUMENTED BY: WORLD VIEW OF GLOBAL WARMING

## IMPACTS OF CLIMATE CHANGE (King Tides)



[http://www.tuvaluaislands.com/photos/2006\\_tides/2006tides.html](http://www.tuvaluaislands.com/photos/2006_tides/2006tides.html)



Islets have **DISAPPEARED** on some of the Islands



# CLIMATE CHANGE AND CORAL REEFS

- Sea level rise
  - Has risen by 22mm per year
  - Can coral keep up with sea level rise?
- Ocean acidification
  - Ocean more acidic with increasing CO<sub>2</sub> –prevents formation of the hard calcium carbonate skeleton
- Severe weather conditions
  - More frequent
- Warmer oceans
  - Water temperature is likely to increase-coral bleaching

# ADAPTATION MEASURES

1. In 2011, Tuvalu Climate Change Policy and Strategy was formulated
2. Set up of Fish Aggregated Device (FADs)
3. Setting Up of Marine Protected Areas (MPAs)
4. FALEVATIE Composting Toilet Project
5. Tuvalu National Adaptation Programme of Action (NAPA)



# RECOMMENDATION

LEARN, AND ACCEPT TO ADAPT



THANK YOU