

# CLIMATE CHANGE & CORAL REEF – TUVALU EXPERIENCE

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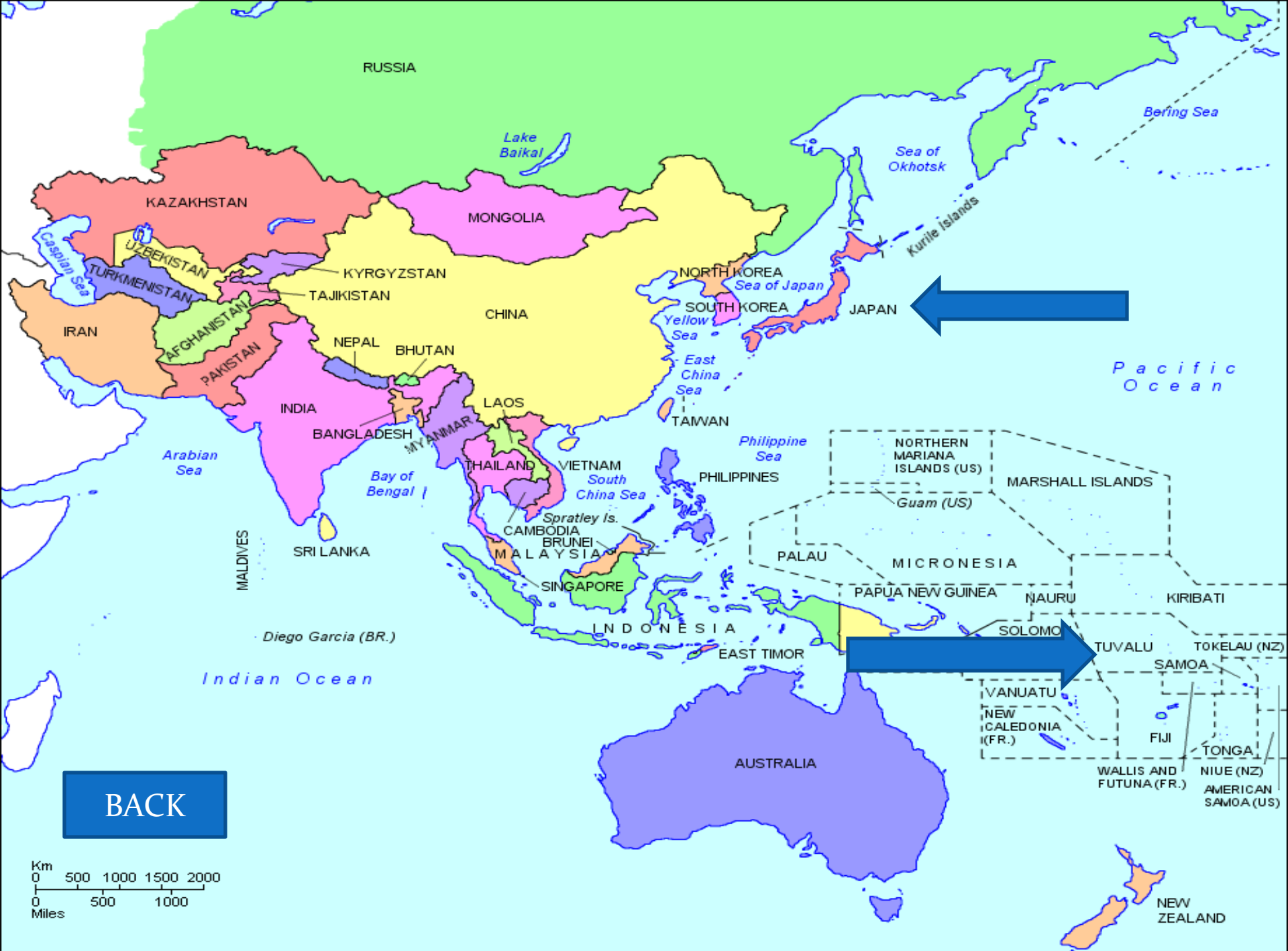
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# BRIEF BACKGROUND OF TUVALU

- Tuvalu is located in the South Pacific



BACK

Km  
0 500 1000 1500 2000  
Miles  
0 500 1000

# 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 :  $26^{\circ}$  ~  $32^{\circ}$  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







## IMPACTS OF CLIMATE CHANGE (King Tides)



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