

# Climate Services for the Pacific Islands



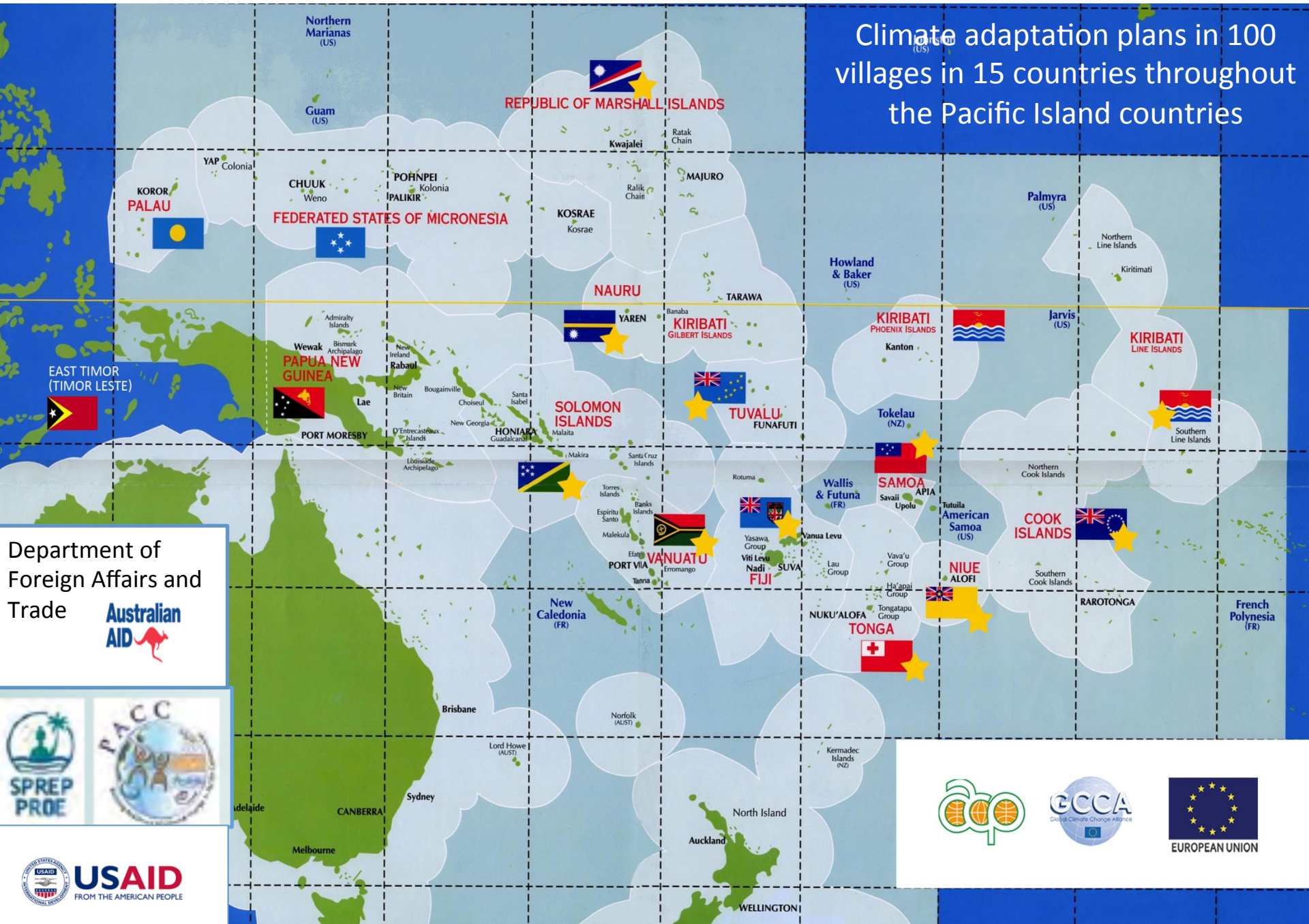
Professor Elisabeth Holland

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Director, E-mail [holland\\_e@usp.ac.fj](mailto:holland_e@usp.ac.fj)

International Conference on Climate Services  
10-12 Deciembre, 2014, Montevideo, Uruguay



# Climate adaptation plans in 100 villages in 15 countries throughout the Pacific Island countries



Department of Foreign Affairs and Trade  
**Australian AID**



# Water Security

# Coastal Protection and Food Security



PACIFIC CENTRE FOR  
ENVIRONMENT AND  
SUSTAINABLE DEVELOPMENT



➤ 80

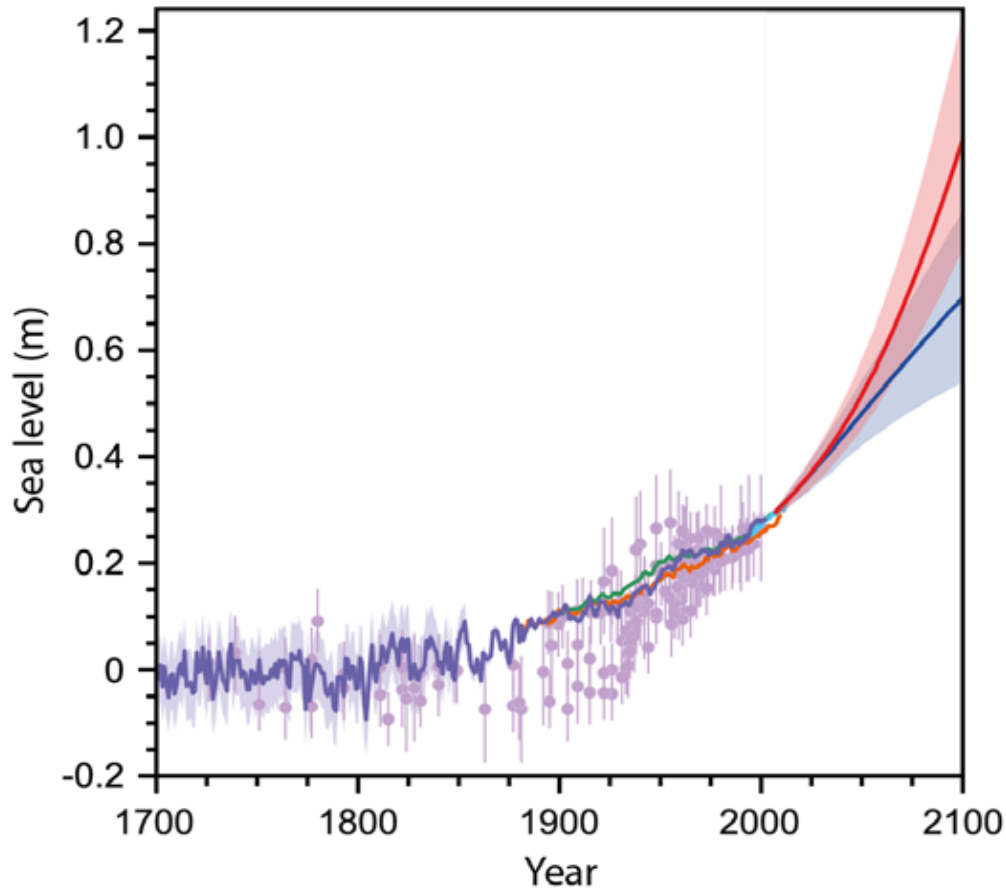
# Communities choose Water Security





Drought Ailuk Atoll,  
Republic of the Marshall Islands

# Sea Level Rise



Total Sea level rise to date globally since 1850:  
**20 cm**

Total Sea Level rise to come by 2100: **50-120 cm**  
by 2300: as much as **300 cm (3m)** if atmospheric carbon dioxide exceeds 500 ppm, now 400 ppm

Since Rio/UNFCCC in 1992 Global sea level has risen:  
**5.5 cm**

# Tuvalu



King Tide in Fanufuti, capital of Tuvalu. At 1 m of sea level rise, more than 90% of Tuvalu will be under water

# Majuro, Republic of the Marshall Islands



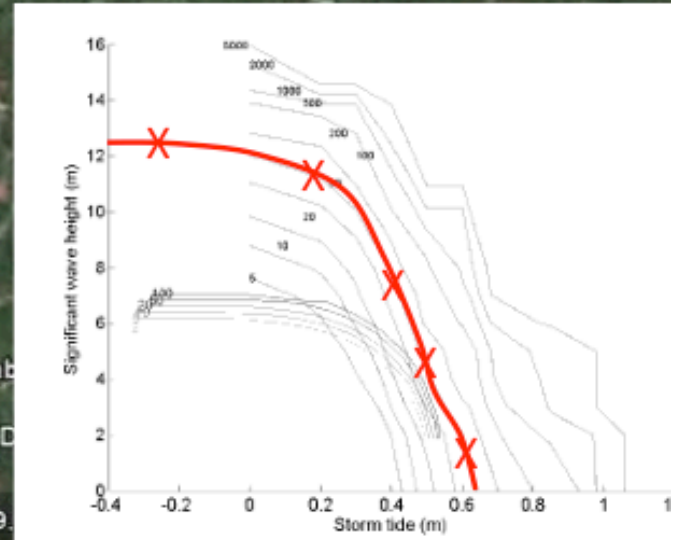
3 inundations in the capital of Majuro in 18 months



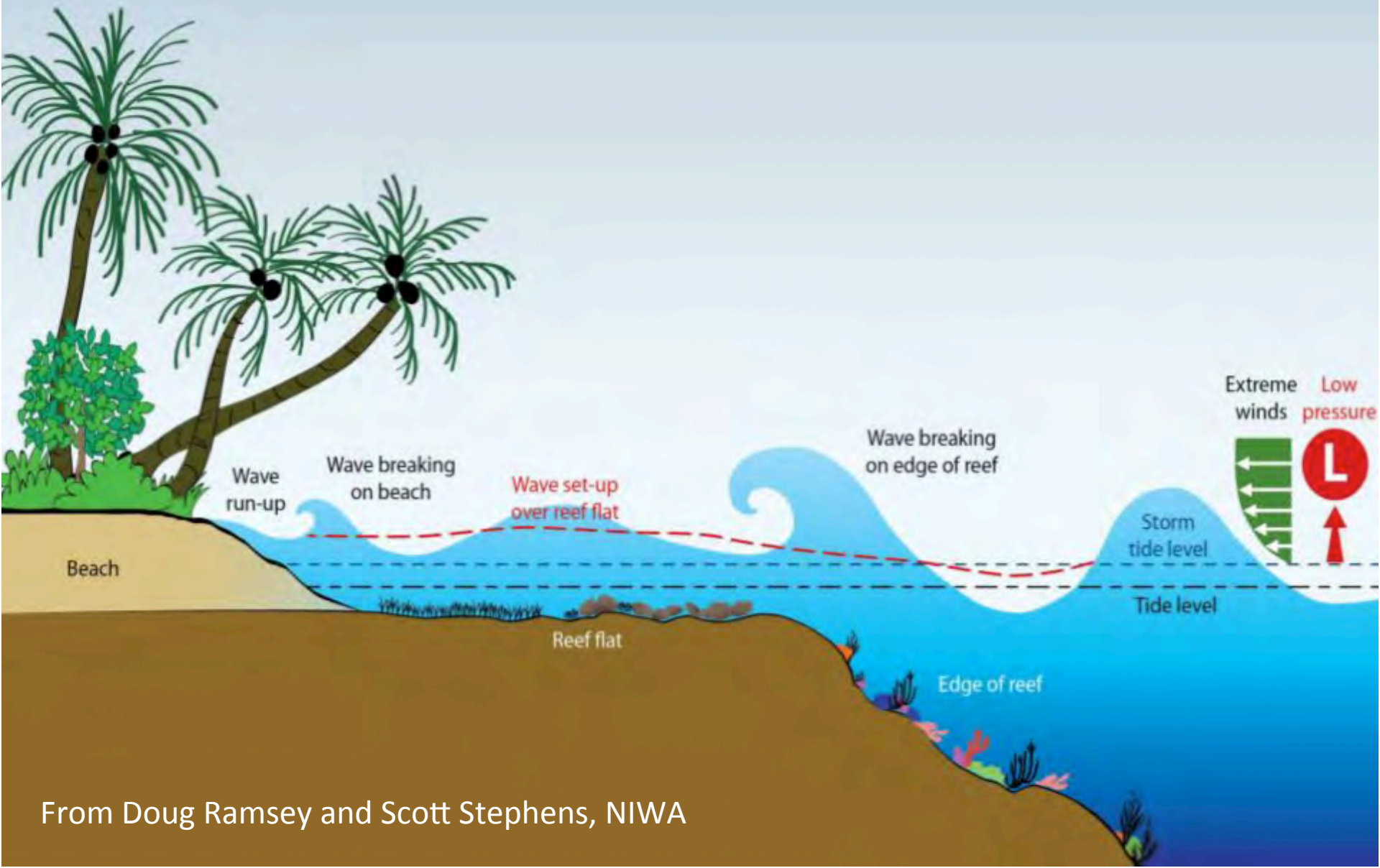
# Coastal Inundation Oneroa Village Mangaia Village, Cook Islands

Database of extreme wave & water levels

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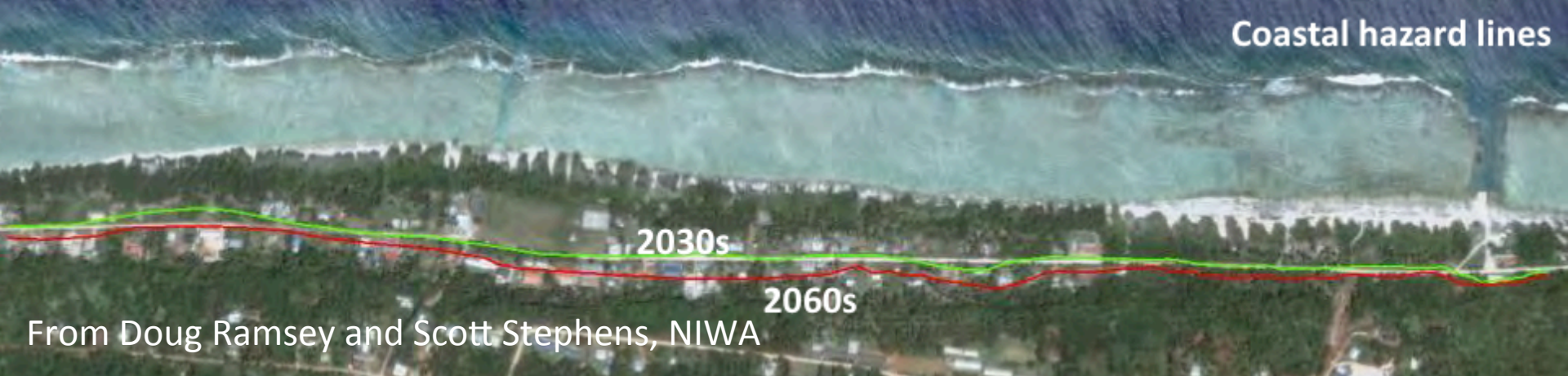
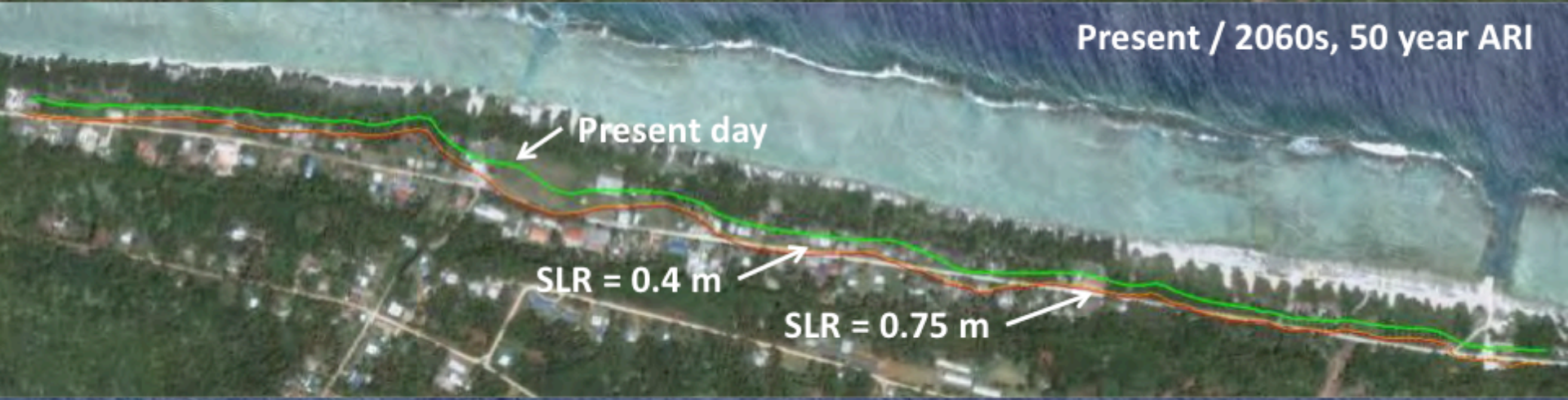
From Doug Ramsey and Scott Stephens, NIWA



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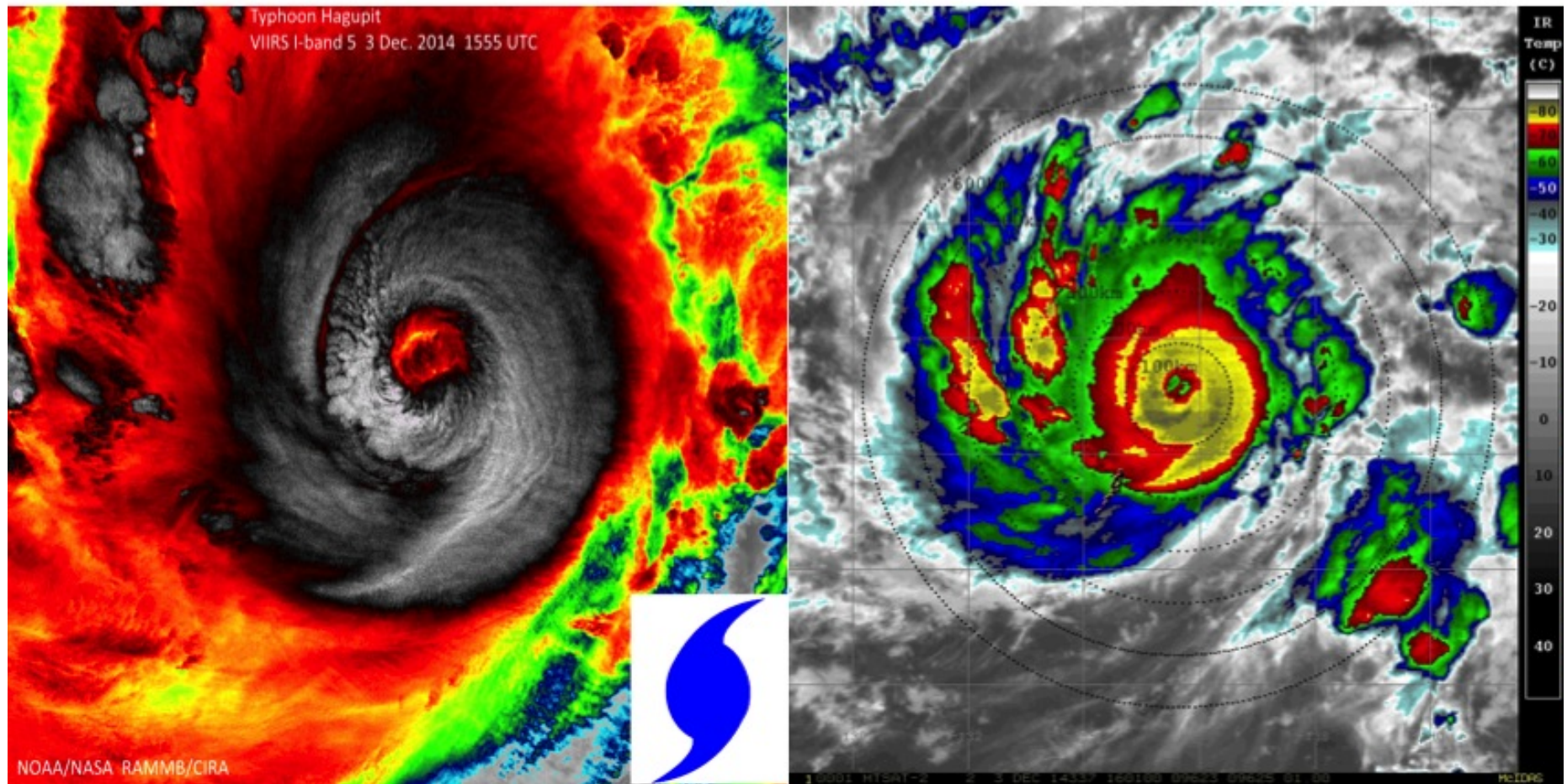
Historic cyclone run-up

# Coastal Inundation Oneroa Village Mangaia Village, Cook Islands



From Doug Ramsey and Scott Stephens, NIWA


# Tropical Cyclone/Typhoon Preparedness



2012-2014: Tropical Cyclone Evan: Samoa and Fiji, Tropical Cyclone Ian: Tonga;  
Tropical Cyclone Eta: Honiara, Solomon Islands; Typhoons Hagupit/Ruby,  
Haiyan/Yolanda, Bopha/Pablo

# Beyond 2015 - Strategy for Climate and Disaster Resilient Development in the Pacific (SRDP)





Our canoe has two  
hulls:  
Cultural Wisdom  
and Scientific  
Wisdom

Vinaka Vakalevu,  
<http://pace.usp.ac.fj>