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# Atoll Adaptation High Level Dialogue

27 - 29 August 2019



**Office of the Prime Minister  
Government of Tuvalu**

# The future costs of adaptation and building fiscal and economic resilience

- Tuvalu is made of 3 reef islands and 6 atolls. There are many islets that form the atolls and all low-lying.
- 3 reef islands (Nanumaga, Niutao and Niulakita) - does not have lagoons.
- 6 true atolls are Funafuti, Nukufetau, Nui, Vaitupu, Nui, Nanumea, Nukulaelae.
- On the atolls an annular reef rim surrounds the lagoon with several natural reef channels.





# Fogafale gravel beach nourishment

- Gravel beach nourishment was implemented as a coastal protection measure to improve three functions:

1. Protection
2. Beach use
3. Environmental using sustainable materials that source locally





# Queen Elizabeth II Park



The Queen Elizabeth II Park, constructed in 2015, is 40,000 m.sq. in size at the height of 3.25m. Two strategically placed groins made out of 2.5m<sup>3</sup> sand containers were also constructed to retain the sand.

Concrete wall of 1.5m in height, together with boulders laying at the foreshore of the reclaimed area has been built to protect the foreshore. This has brought the height of the foreshore protection to approximately 4.75m. Tuvalu observed king tides is around the range of 3 - 3.7 metres.

In addition, works on beach nourishment stretch along a 55,000 m.sq of the foreshore of Fogafale.

It is approximately 115,000m<sup>3</sup> of sand dredged from the nearby lagoon and pumped to a reclamation area on the coastline that is now called the Queen Elizabeth II Park.

Fogafale is only 593 acres in size.



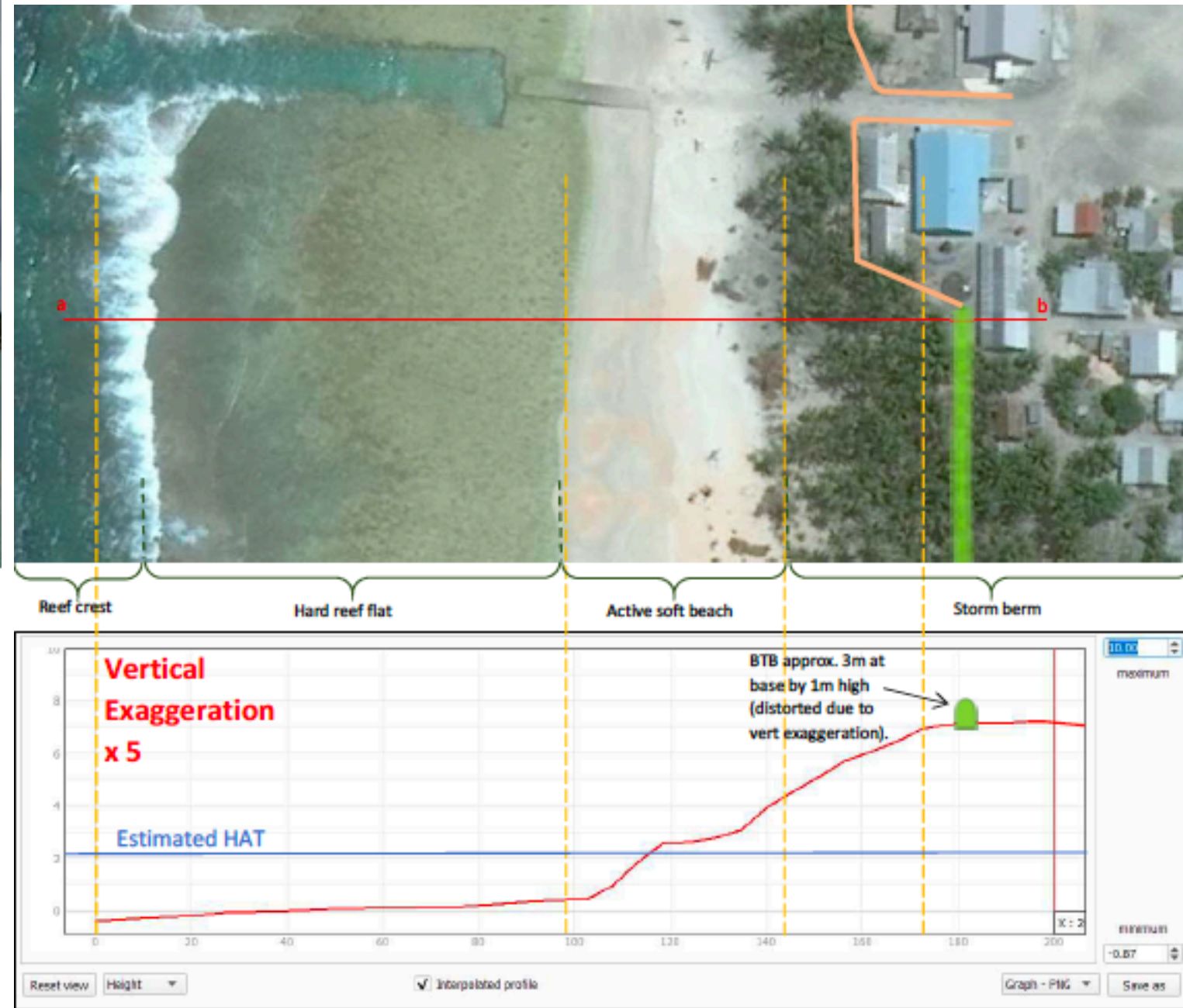
# TCAP\_Funafuti Coastal Protection



TCAP will carry out a foreshore reclamation on Funafuti as part of the coastal protection measure. The reclaim are is expected to be 780m length x 100m wide.



# TCAP\_Nanumaga Coastal Protection



TCAP will provide 670m of Berm Top Barrier and 50m of Sheet piling.



# TCAP\_Nanumea Coastal Protection



TCAP will protect a comparative 1,350m of shoreline with a mixture of Berm Top Barriers ((BTB) - indicated by the green line) and a hard revetment at the main church compound (150m gap in the BTB)



Seabee wall built out of individually small interlocking Seabee units. Assessment indicated that this type of hard revetment may suit the shoreline condition of Nanumea



# Nukufetau Coastal Protection



This is a 500 metre long replacement seawall that is more than 3 metres high was constructed in 2016.



# Pacific Islands Climate Change Insurance Facility

## Key Arrangements for PICCIF

Various risk transfer products will be developed under the auspices of PICCIF. In addition a special facility will be established to monitor the investments by the insurance industry in the fossil fuel industry.

Key elements of PICCIF include:

1. Index/parametric based risk transfer/insurance scheme
2. Indemnity insurance
3. Clearinghouse for product options
4. Insurance industry fossil fuel disclosure facility

- The PICCIF is expected to launch at the next PIF Leaders Meeting in Vanuatu in 2020.





# Tuvalu Survival Fund

- The Tuvalu Survival Fund was established in 2015 after the country was devastated by TC Ula.
- The Fund is governed by its Board, that is taking advice from its Committee.
- The Fund is currently receiving investment only from the Government from Tuvalu
- Development Partners and Institutions are encouraged to invest in the Fund



**Inundation from king tide**

**“If we save Tuvalu we save the world.”**

*–Rt. Hon. Enele Sosene Sopoaga, Prime Minister of Tuvalu*