

# Climate Impacts in Polynesian Islands October 2023 – March 2024

**Seluvaia 'Ilolahia**

Chief Data Management Officer

Tonga Meteorological Service





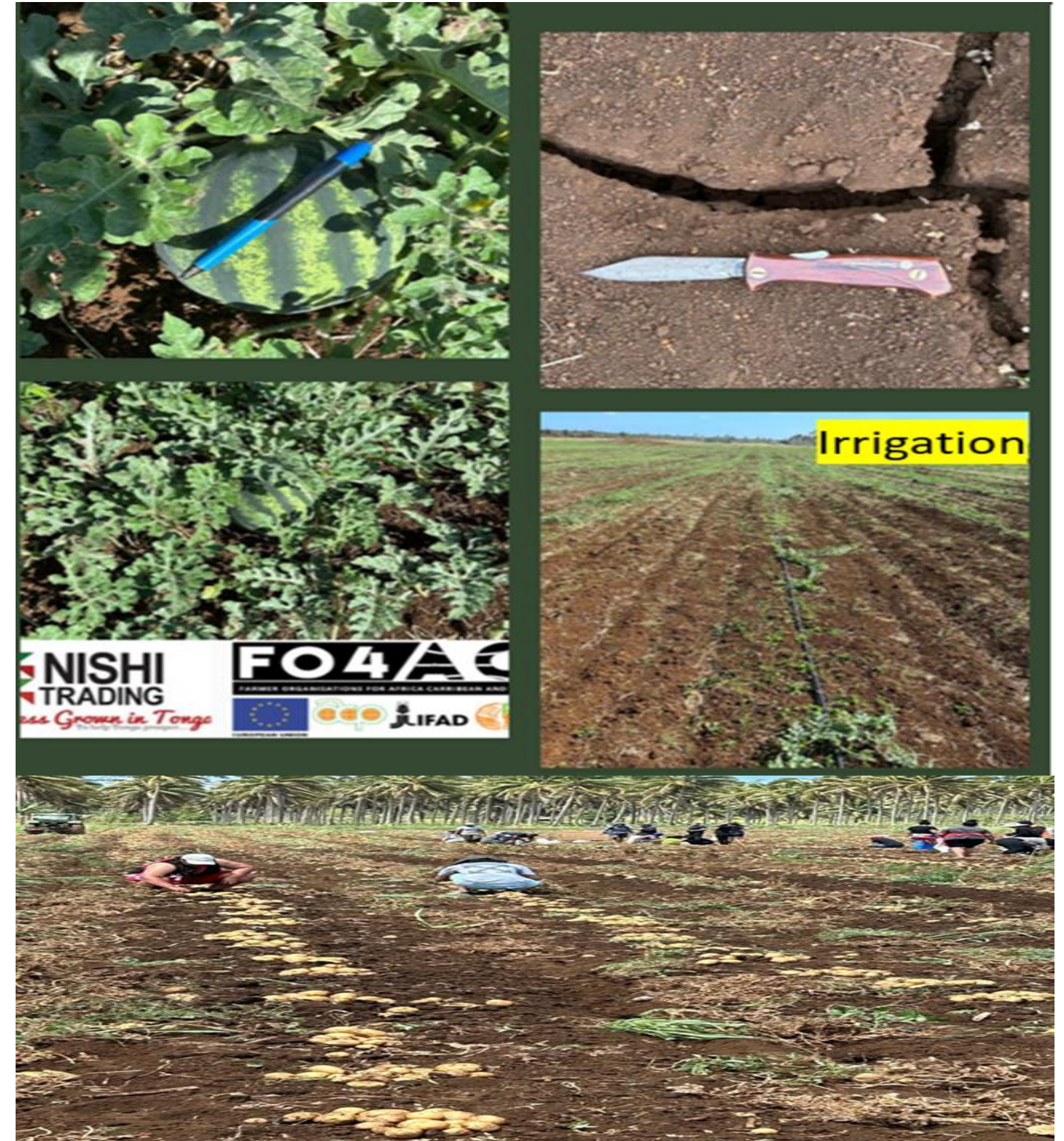
*Website: [tuvmet.tv](http://tuvmet.tv) Email: [tuvalumet@gmail.com](mailto:tuvalumet@gmail.com) [tuvalumet@gov.tv](mailto:tuvalumet@gov.tv) Facebook: [Tuvalu Meteorological Service](#)  
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# Climate impacts on the last 6 months

**Table 1. Rainfall totals from last 6 months, October 2023 – March 2024 (mm)**

Station name	October	November	December	January	February	March
Niufo'ou	69.5	89.5	211.5	138.0	362.0	158.0
Niuatoputapu	84.0	65.5	138.5	175.0	390.5	172.0
Vava'u	13.4	83.9	136.0	277.5	257.1	633.5
Ha'apai	11.2	74.5	63.1	195.4	106.8	567.6
Fua'amotu	18.9	165.8	75.3	625.1	134.0	637.6
Nuku'alofa	17.0	135.5	44.0	464.5	141.5	739.0
'Eua	19.5	159.0	98.5	544.0	149.5	890.0
Below average		Average (usual)		Above average		

Rainfall totals from October 2023 – March 2024 from the main centers.



Minouru Nishi Farm: Water Melon & Potatoes:

Source: Nishi Trading

# Positive impacts of El Niño 2023-2024



Source: Albert Guttenbeil Vanilla, Vava'u

Vanilla Vava'u (left) - Photos taken during August to November 2023. Shows how vanilla is positively responding to more drier weather. Produce very good vanilla beans.

Vanilla 'Eua (right) - Photos taken November 2023. Again showing vanilla plants producing more flowers when there is less rainfall.



Source: MAFFF, Tonga

# Flooding from king tide



Damage caused by stormy rains in western French Polynesia on December 6 and 7. (flooded roads and houses, roads cut by falling trees, power cuts, landslides)



Tide coming up to the guest houses in Matangi, Feb 2024:  
Source: Tokelau Met Service

Rising the sea level contributing to flooding toward the land, Funafuti, Tuvalu

Source: Tuvalu Meteorological Service



On 11<sup>th</sup> February the king tide flooded and damaged household areas and inundated main land.

# More Climate Impacts from the last 6 months



Fig 1. Damage to roads and bridge in 'Eua island due to heavy rain.



- Coral bleaching in Tuvalu

# Summary

- **Drought**
  - **Negative impacts.**
    - Water shortage – rain water tanks
    - Agriculture - root crops, water melon, kava plants
      - The impacts to agriculture cause high price to water melons and kava.
  - **Positive Impacts**
    - Vanilla - Flowering of vanilla is very good with less rain
- **Heavy rain,**
  - Flooding of low lying areas -
  - Infrastructure, damage to roads,
  - Delay in flights to outer islands due to bad weather, low clouds and poor visibility
- **Sea level rising, king tides- soil erosion, soil water intrusion**
- **Swells : flooding from swells**
- **High winds/ gusts**
  - **Temperature** - High STTs would harm marine species and ecosystems also may cause fish to migrate to different location.
  - Human activities would harm coral to bleaching, eg pollution, reclaim lands and overfishing.

## Predicting El Niño & La Nina is important

- Better predictions of the potential for extreme likelihood of droughts and floods – save costs.
  - Improved climate predictions will also result in significantly enhanced economic opportunities, particularly for agriculture and climate related sectors as well as social benefits.
- **In response to the impacts;**
    - NDRMO shipped and distributed water to small islands and villages that were experiencing water shortage.
    - National Disaster Risk Management Committee Meeting to Assess Situation and Response Readiness due to the Heavy rain and flash flood alert issued.



# Contact



[seluf@met.gov.to](mailto:seluf@met.gov.to)



[www.met.gov.to](http://www.met.gov.to)

