



**Regional Workshop on  
Strengthening Multi-Hazard Risk  
Assessment and Early Warning  
System with Applications of Space  
and Geographic Information Systems  
in Pacific Islands Countries**

Nuku'alofa, Tonga,  
26-27 April 2018



# Brief update on project activities

- Project focuses on improving forecasting capability.
  - Aims to provide multi-hazard early warning system for the Solomon Islands.
  - Flood Forecast Early Warning System(FFEWS)



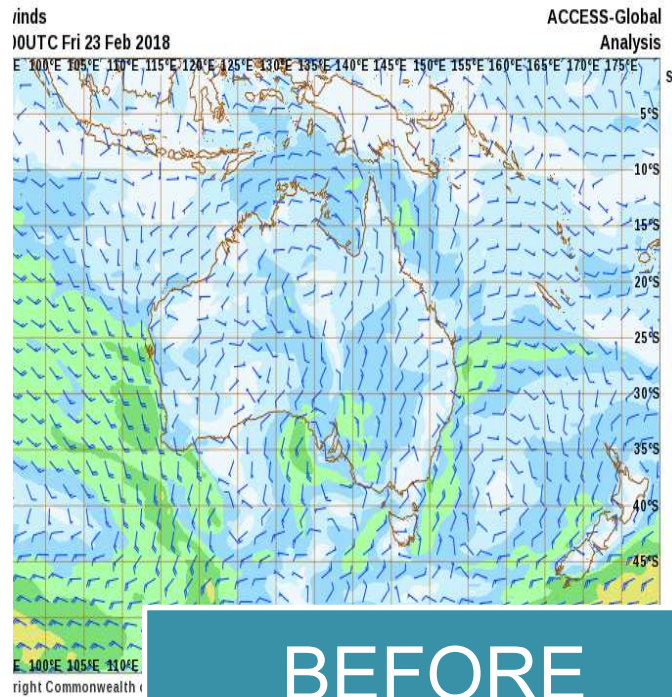
## Outcome 1 - NWP

- Installation of High resolution WRF weather model (7km).
- Installation of Ocean wave model Wavewatch3 with the domain of Solomon Islands.
- Both models are currently been used with other global models that are accessed through SWFDDP.

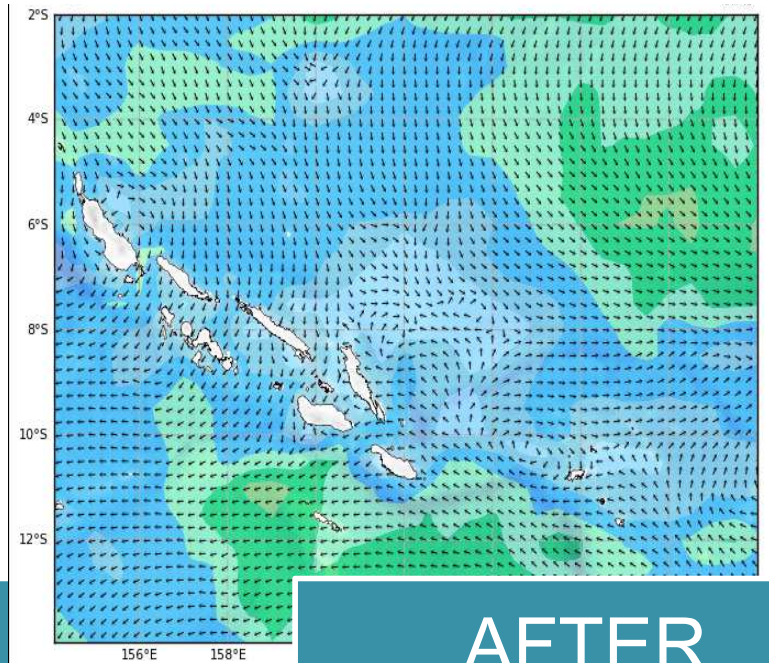


# MODEL OUTPUT

## 10m Surface Winds speed & Direction



BEFORE



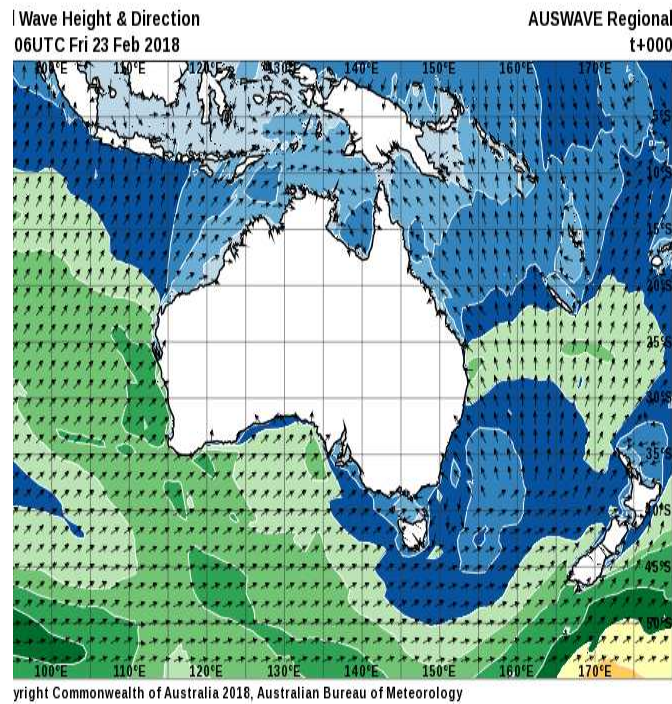
AFTER



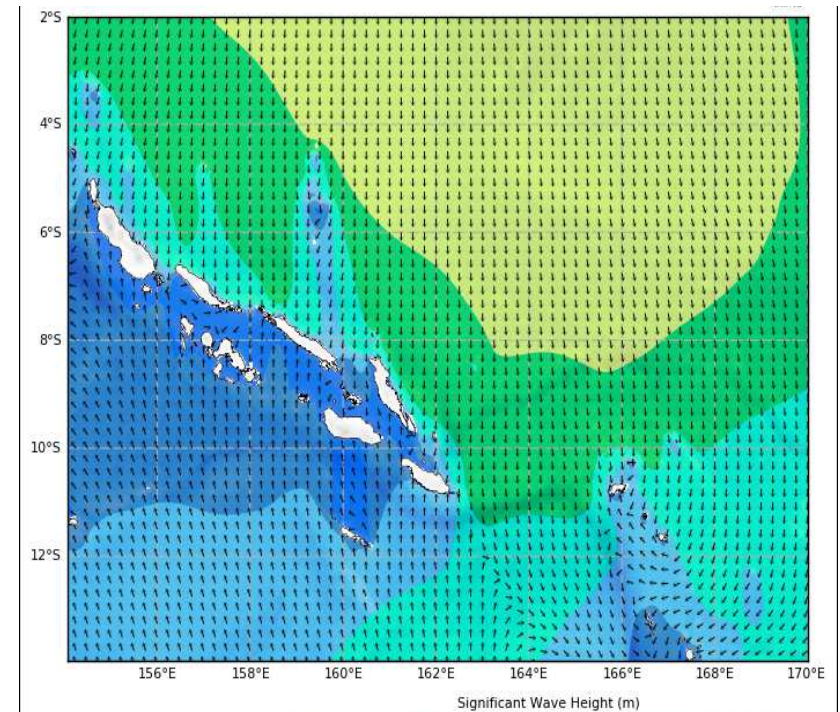


# Ocean Model Output

## Significant wave Height



Before



After



## Outcome 2 - Capacity Building

- Training - 2 officers from MECDDM attended all regional trainings.
- BMKG staff visited Solomon Islands on 12<sup>th</sup> to 19<sup>th</sup> December 2017 – In Country Trainings
  - Basic theory and utilization of WRF and GrADS
  - Common Alerting Protocol (CAP) standard format
  - Concept of Flood Early Warning System (FEWS)
  - Basic theory of ocean wave modelling and utilization of Wavewatch3
  - Conceptual model framework.



## Future Plan

- Need a dedicated server
- Model verification
- SIMs new tools integrated into future flood forecasting model
- Relevant IT and computer programming training.
- Strengthen collaboration with lead agencies-WRD, SIMS and NDMO on flood early warning



# Tankio Tumas

