

Project Outline

'Nationwide Early Warning System (NEWS)'

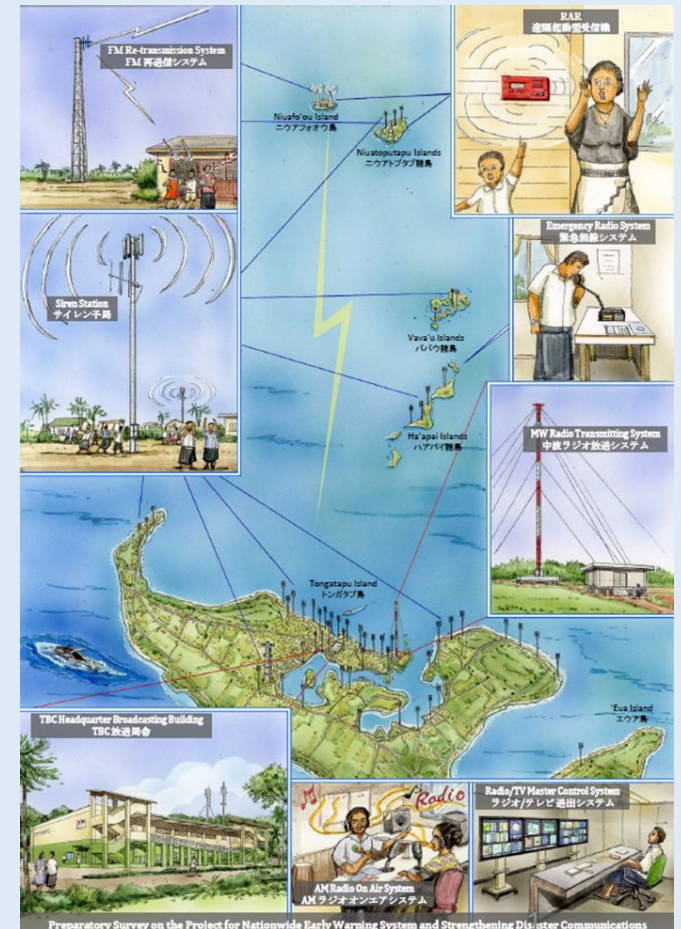
in The Kingdom of Tonga



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Masato TAMURA
Vice President (Engineering)
Japan Telecommunications Engineering and
Consulting Service



Project Summary

Name of the Project:

“The Project for Introduction of Nationwide Early Warning System and Strengthening Disaster Communications”

Purpose of the Project:

- Contribution to the alleviation of damage caused by natural disasters by making improvements in the facilities/equipment for disaster warning information.
- Speed up of information transmission to the general public and expand the transmission range.

Funding scheme: **Grant aid by the Government of Japan**

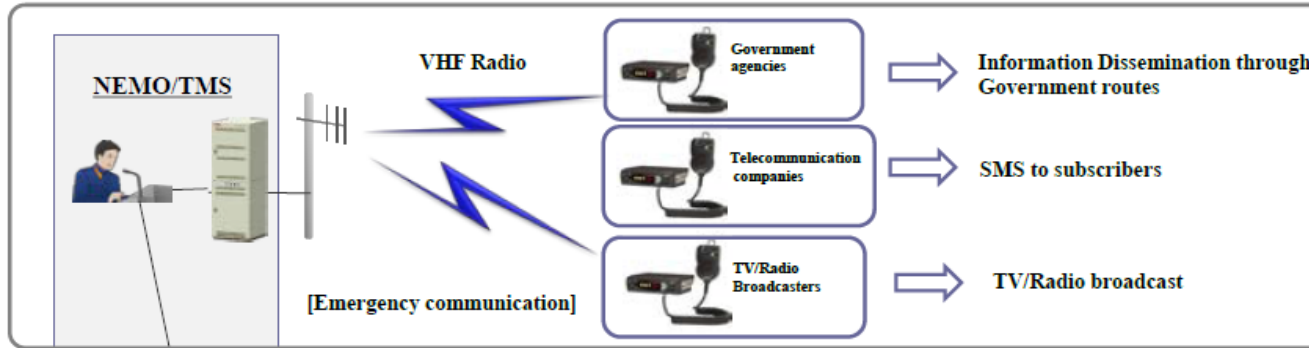
Grant amount: **JPY 3,294 million** (≐ US\$23 million at JPY125/1US\$)

Project schedule : Outline Design Study: January 2017 to June 2018
 Bidding Process: July 2018 to February 2019
 Implementation: March 2019 to September 2022 (Handing over)

Project Components

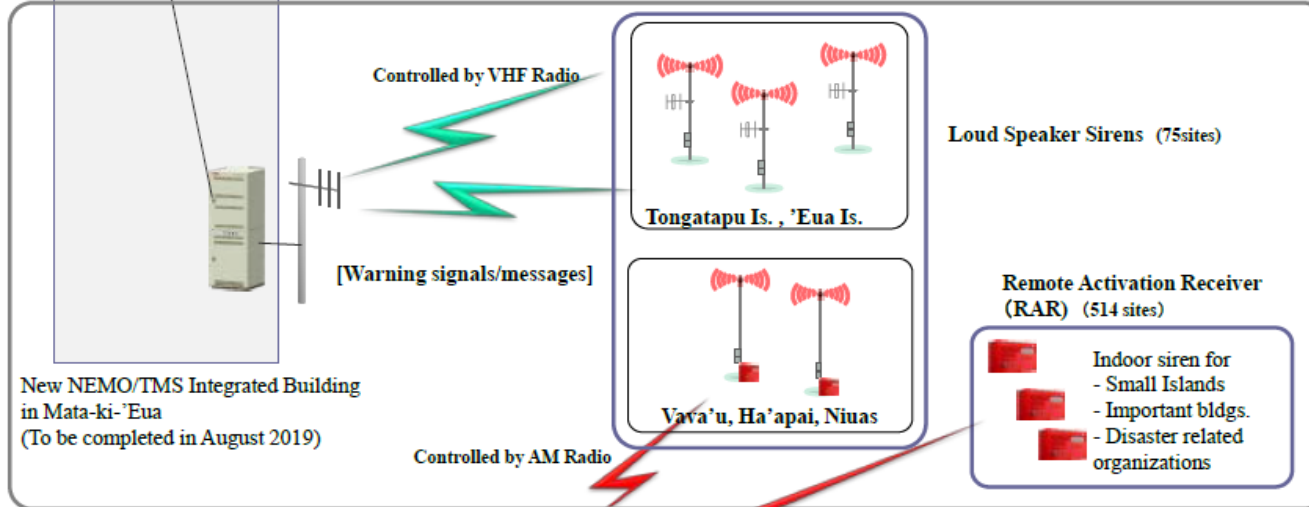
3 VHF Repeaters
76 Transceivers

Component-1
[Emergency Radio
Communication System]



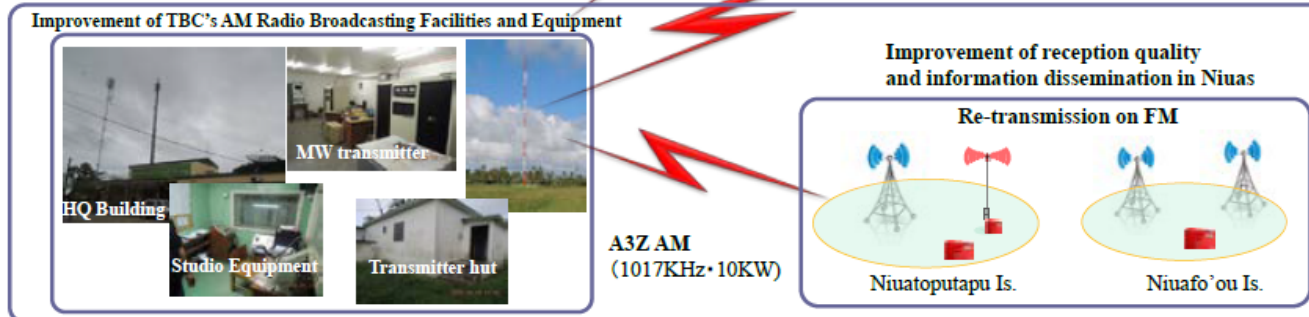
75 Outdoor Sirens
514 Indoor Sirens

Component-2
[Early Warning Sound Alert
System]



Renew of TBC building
and MW systems

Component-3
[MW Radio Broadcasting
System]

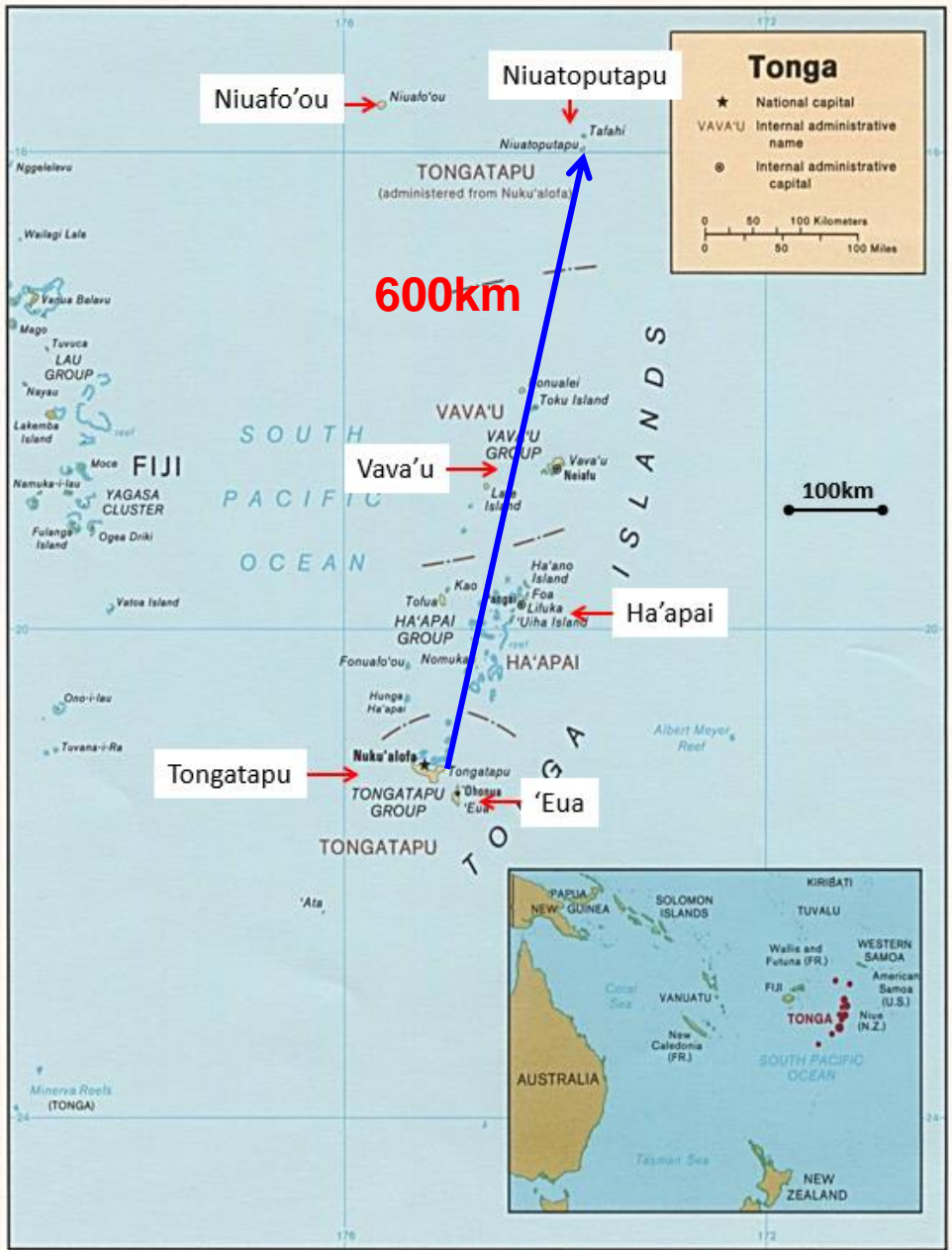


Communities/General public

Key Indicators after the Project

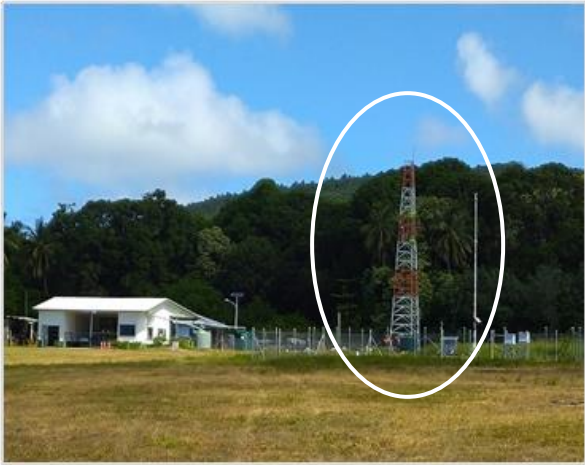
Indicators	Before Project (2017)	After Project (2025, 3 years after handing over)
Number of organizations involved in Emergency Radio Communication System	5 organizations	19 organizations
Population able to hear siren the coverage by sirens and RARs in tsunami hazard area (coverage in Tonga)	12,906 19% (13%)	66,945 100% (69%)
Time for tsunami alert to reach the residents after the tsunami warning issued from TMS	Max. 90 minutes	8 minutes or less
Coverage of AM radio to remote islands located at the northern end of the country (Coverage of AM radio throughout the country)	5.0% (98.8%)	100.0% (100.0%)

New Challenges in Technology



Challenge-1

FM Retransmission System for Remote Islands to expand MW coverage (over 600km distance)



Challenge-2

RAR(Remote Activated Receiver) using EWBS signaling over MW radio broadcasting program for Remote Islands and Indoor locations



History (The path we traced)

- 2012** **APT-J2 (C I) Collaborative Research**
- 2013** **APT-J3 (C II) Pilot System Project**
- 2015-2016** **Proposals for Japanese Grant Aid**
- 2016** **Selected as Japanese Grant Aid Project**
- 2017-2018** **JICA Preliminary Survey (Outline design)**
- 2018-2019** **E/N, G/A, Bidding Process**
- 2019-2022** **Implementation (Delayed for 2 years due to Covid19)**

Completion photos (TBC Building and MW Mast)



Completion photos (Radios for Emergency Communication)



Completion photos (Early Warning Sirens)



Completion photos (FM Retransmission Station)

(For expanding coverage in far remote islands)



Would you like to know more? Please contact us.



Contact point:

Masato TAMURA
tamura@jtec.or.jp