

*ICG/IOTWMS
Working Group 1 Meeting
12-13 July 2022*



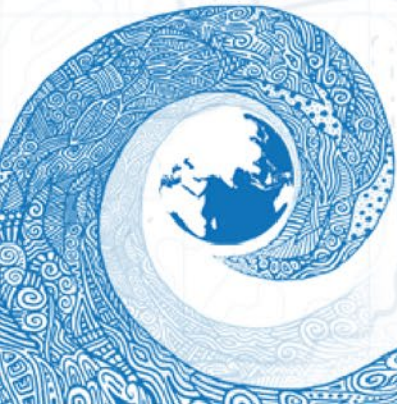
UNESCAP Project Report: **Strengthening Tsunami Warning in the North West Indian Ocean Through Regional Cooperation**

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Phase 1 UNESCAP TTF-29 Project

Project Funder: UNESCAP Tsunami Trust Fund

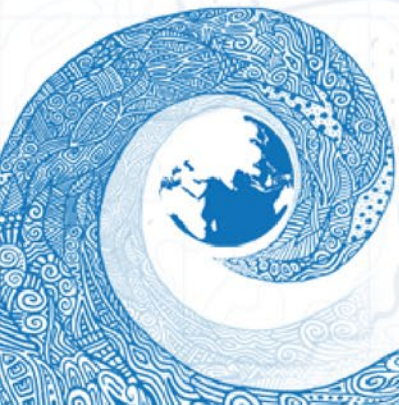
Participating Member States: India, Iran, Pakistan, *Oman & UAE as self-funded*

Target Groups: NTWCs, DMOs, Media, Communities, Response Agencies

Project Duration: 24 Months - completed

Outcomes: **1** Better understanding of the risk knowledge based on scientific research

2 Improvement of warning services at NTWC level and the organization of the national warning chains to assure timely warnings and rapid response with due emphasis on self-protection for near source events.



Phase 2 UNESCAP TTF-29 Project

Project Funder: UNESCAP Tsunami Trust Fund

Participating Member States: India, Iran, Pakistan, *Oman & UAE as self-funded*

Target Groups: NTWCs, DMOs, Media, Communities, Response Agencies

Project Duration: 12 Months: December 2021 - November 2022

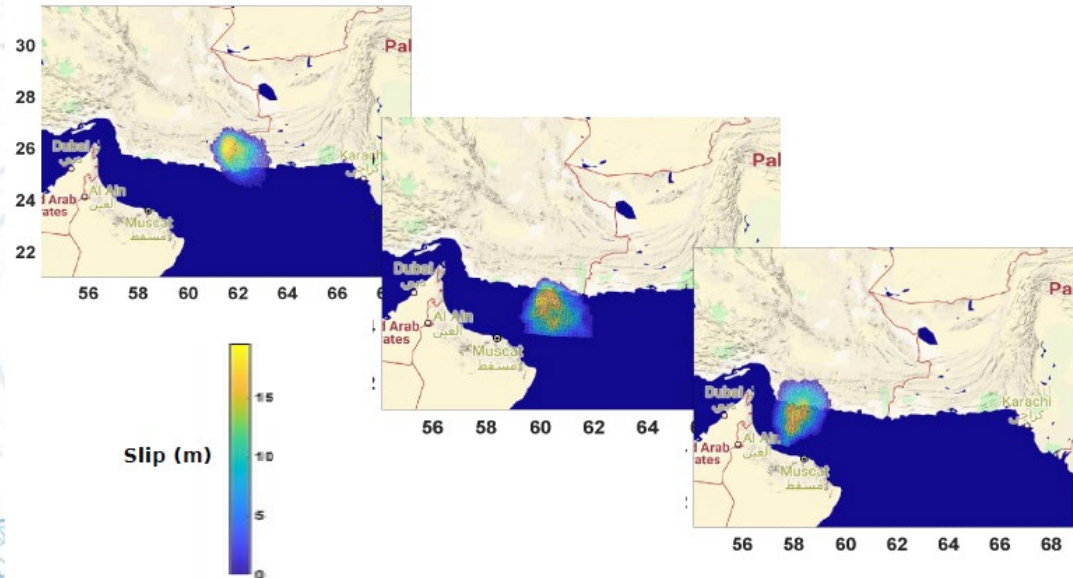
- Outcomes:**
- 1** Finalisation of Phase-1 activities in tsunami risk knowledge and strengthening of national tsunami warning chains.
 - 2** Gap analysis and development of guidance on tsunami inundation mapping and evacuation planning in the NWIO region.



Phase 1 - Probabilistic Tsunami Hazard Assessment

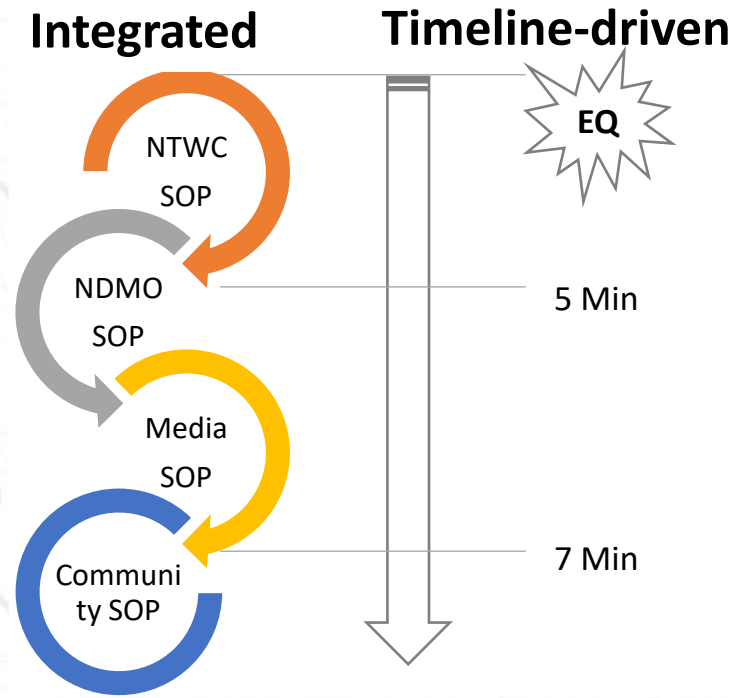
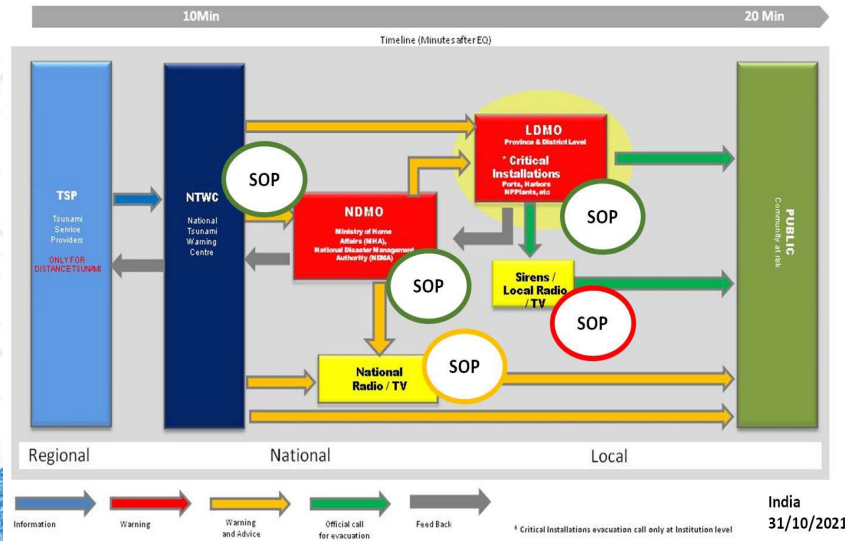
- Identification of seismic zones
- Green's function in deep ocean & Arabian Sea
- Direct calculation method in Persian Gulf and Red Sea

Makran subduction M8.5 slip distribution examples



Hackathon to be held in Rome during 19 August to 9 September 2022.

Phase 1 - National Tsunami Warning Chains & SOPs



Final SOP NTWC/DMO/Broadcast Media Training Workshop to be held online during 19-23 September

Phase-1 - Science Exchange Meeting

Topic = Understanding the tsunami hazard of the Makran region

Content

- Share the Probabilistic Tsunami Hazard Assessment model and a regional tsunami hazard map with the region for adoption
- Report on the latest regional/international studies on the tsunami hazard of the Makran subduction zone

Output = The current scientific insights on the tsunami hazard from the MSZ can be used for future risk assessment activities in the countries

Makran Source Zone Science Exchange Meeting to be held online with a possible face-to-face meeting in Oman during 17-18 October 2022.



New Activity related to Phase-1: NWIO Regional tsunami exercise

Activity

- Table-top exercise
- NWIO region

Output

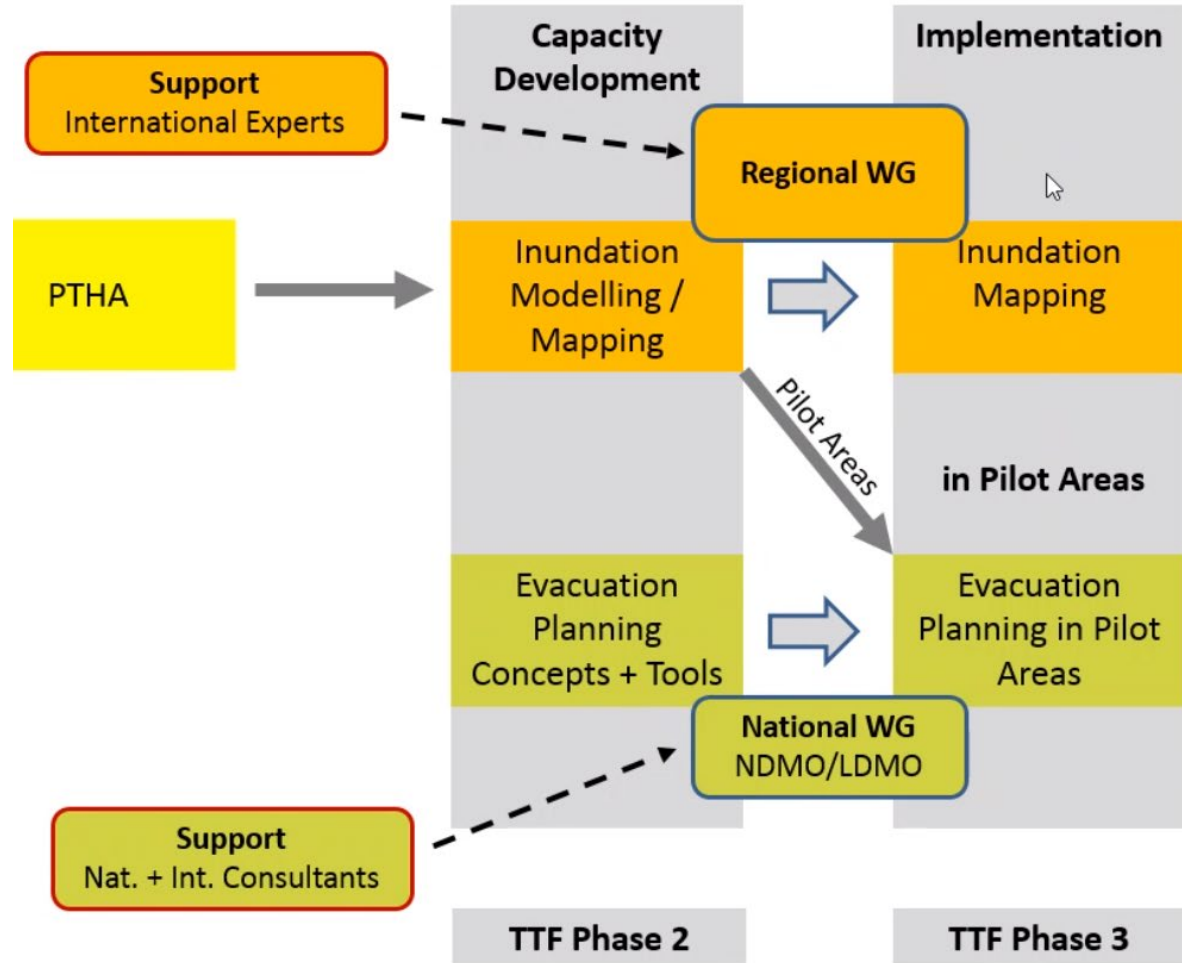
- Test and refine national tsunami warning chains established during Phase-1 of project.

NWIO Table-top SOP Exercise to be held in hybrid formation (regional online & national face-to-face meetings during 1-3 November 2022.



Phase 2 –

Gap analysis and development of guidance on tsunami inundation mapping and evacuation planning in the NWIO region.



Tsunami Inundation Mapping:

Gap analysis and development of guidance

Activity

- Included in WG-NWIO activities
- Underpinned by PTHA model of Phase-1
- Cooperation and exchange of knowledge on tsunami modelling and inundation mapping
- Gap analysis of tsunami inundation capabilities in the region

Output

- Development of a unified approach and method for tsunami modelling and inundation mapping for the NWIO region.

Key Players

- Regional Reference Group
 - Agencies that hold data: bathymetry and topography
 - Modellers
 - National Tsunami Warning Centers, Regional Researchers/Academics, and International Experts
 - Consultant to undertake a NWIO Region Inundation Modelling Gap Analysis



Tsunami Evacuation Planning:

Gap analysis and development of guidance

Activity

- Synthesise existing information on tsunami evacuation planning: approaches, standards, methodologies & best practices
- Guide development of national tsunami evacuation planning policies, standards and approaches
- Support establishment of national working groups on tsunami evacuation planning to facilitate implementation in each participating country

Output

- Set of national policies, standards and approaches for tsunami evacuation planning in participating countries

Key Players

- National Reference Groups
 - Disaster Management Organisations
 - Emergency Managers
 - Community Leaders and other local-level stakeholders
 - International consultant supported by national consultants to assist with compilation of National Tsunami Evacuation Mapping Gap Analysis

National and Regional Workshops and Meetings

Sharing and Developing Best Practices

Activity	Modality	Date
Regional Evacuation Gap Analysis Workshop	Online	16 August
Regional Working Group on Inundation Modelling Meeting	Online	8-9 September
National Tsunami Evacuation Group meetings	Hybrid, national	12-16 September
Makran Source Zone Science Exchange Meeting	Online	17-18 October
NWIO Regional Inundation Science Meeting	Hybrid, national	19-20 October
Evacuation Mapping Workshop	Hybrid, Bali, Indonesia	23 November

Consultancies

Key Tasks

- *Development of training & briefing materials*
- *Identification of best practices in inundation & evacuation mapping*
- *Workshop & meeting preparation*

Consultants

- *Indian National Center for Ocean Information Services (INCOIS)*
- *Mr. Medhi Masoodi (Iran)*
- *Ms. Ghazala Naeem (Pakistan)*
- *Dr. Jorn Lauterjung (International)*
- *Mr. Harald Spahn (International)*



Thank
you.



UNESCAP TTF-29 Project – Launch of Phase 2, 16 May 2022