

***Launch of Phase 2c of the UNESCAP Funded Project:
Strengthening Tsunami Warning in the North-West
Indian Ocean Through Regional Cooperation***

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Strengthening Tsunami Warning in the North West Indian Ocean through Regional Cooperation

Timely delivery of national tsunami warnings to at-risk coastal communities who are prepared to respond effectively (*Tsunami Ready*)

- Phase 1: Hazard and risk assessment and National tsunami warning chain development (India, Iran, Pakistan + Oman and UAE self-funded)
- Phase 2: Inundation and evacuation mapping capacity development which is the topic of the present meeting: Here we discussed the work plan for Phase 2C. The main focus will be on the development of tsunami inundation maps and tsunami evacuation plans for previously agreed Pilot Communities, utilizing the outputs and outcomes from previous phases of the project.
- Phase 3: At-risk coastal community preparedness

Phase 1: Hazard and risk assessment National tsunami warning chain development

Objectives

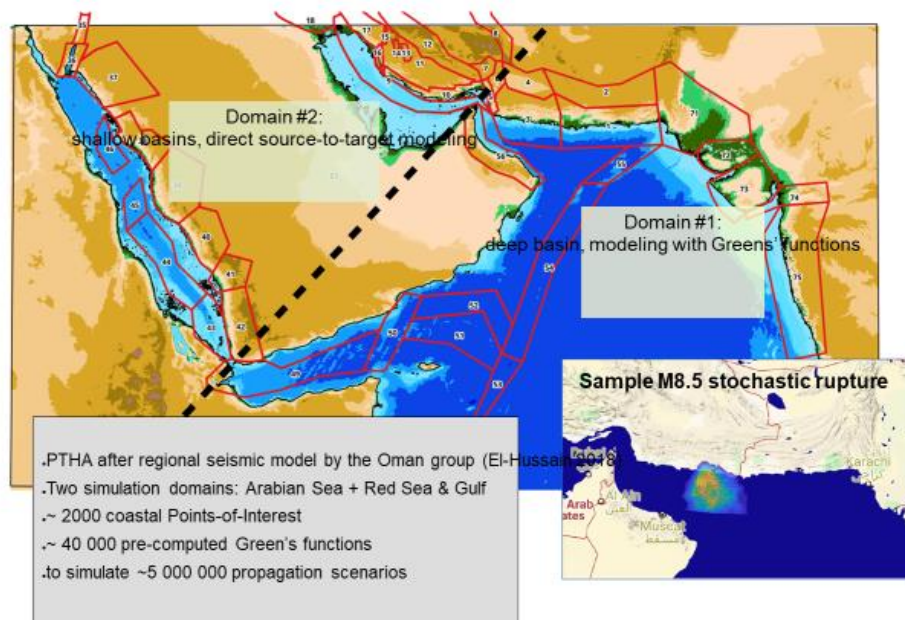
1. Better understanding of the risk knowledge to inform and underpin warning and mitigation systems in the NWIO to enable appropriate and effective community responses to the tsunami threat.

1. **Expert Team 1** to jointly develop a seismo-tectonic model for the Makran region to be used for the unified PTHA. The main outcome should be a catalogue of representative tsunamigenic scenarios with recurrence rates.
2. **Expert Team 2** to consider and identify tsunami propagation models, existing and required data sets, amplification factors, etc., to be used for the unified PTHA and future inundation modeling.
3. **Expert Team 3** to provide guidance on the inclusion of tsunamis generated by non-seismic effects such as landslides, mud volcanoes, etc.) and the inclusion of the Red Sea and Persian Gulf in the proposed PTHA framework, or through other measures to inform risk assessments and decision makers.

Progress on Activities

UNESCAP Project

Probabilistic Tsunami Hazard Assessment extended over the whole region and all earthquake sources



- Initial benchmark PTHA model simulations run at INCOIS [India] with guidance from GFZ [Germany], INGV, and the University of Malaga.
- Examining the possibility of the tsunami threat in the neighbouring Persian Gulf, especially Metotsunami, and Red Sea.
- Working towards data exchange through MOUs
- To consider hazards from atypical tsunamis from non-seismic sources (eg submarine landslides, splay faults, meteotsunami,...)

Progress on Activities

UNESCAP Project

3: At-risk coastal community preparedness. Tsunami Ready implementation

- Standard Operating Procedures (SOPs) completed or in development for NTWCs, DMOs, and Broadcast Media
- Pilot communities identified and Local Disaster Management Organizations and other stakeholders engaged
- Several Workshops and Webinars: February 2020, November 2020, June 2021, September 2021, twice in October 2021,

- It is highly desirable to use the uniform model (regional) in the local sense.
- UNESCAP Project knowledge transfer implementation. Which should include all phases of the project. Especially the present phase.
- **Identify new projects on the Non-Seismic and complex sources in regional senses.**
- Utilize National Tsunami Working Groups established by the UNESCAP Project to further coordinate, maintain, and develop national tsunami warning chains
- **Engage local communities in pilot areas identified by the UNESCAP Project**
- **Tsunami Ready implementation is a major action and needs to be introduced and implemented at least in the identified pilot area in the NWIO region.**
- It is vitally important that may use the existing Regional working group and task team in the knowledge transfer.
- It is highly advisable that local scientists be invited and be present during part of the main tasks during Phase 2C. This is to ensure that the result could be used locally in the tsunami-ready community, at the same time the local governments must be more involved in this process.