



NCM

المركز الوطني للأرصاد
National Center of Meteorology



ديوان الرئاسة
PRESIDENTIAL COURT

First Regional Workshop on Tsunami Inundation Modelling in the North West Indian Ocean

By
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Data Availability

Data	Bathymetry	DEM
Availability	YES	YES
Resolution	15 arcsecond	5m and 15m
Resolution in pilot area	15 arcsecond	5m and 15m

Note: In progress to get bathymetry data in higher resolution from local entity.

	Availability in pilot area	comments
Digital land use information, development information, zoning map	YES	Residential & Industrial buildings, Transportation, Utilities...etc

	Scenarios	Worst case scenario	Probabilistic hazard information
Availability	YES	YES	YES

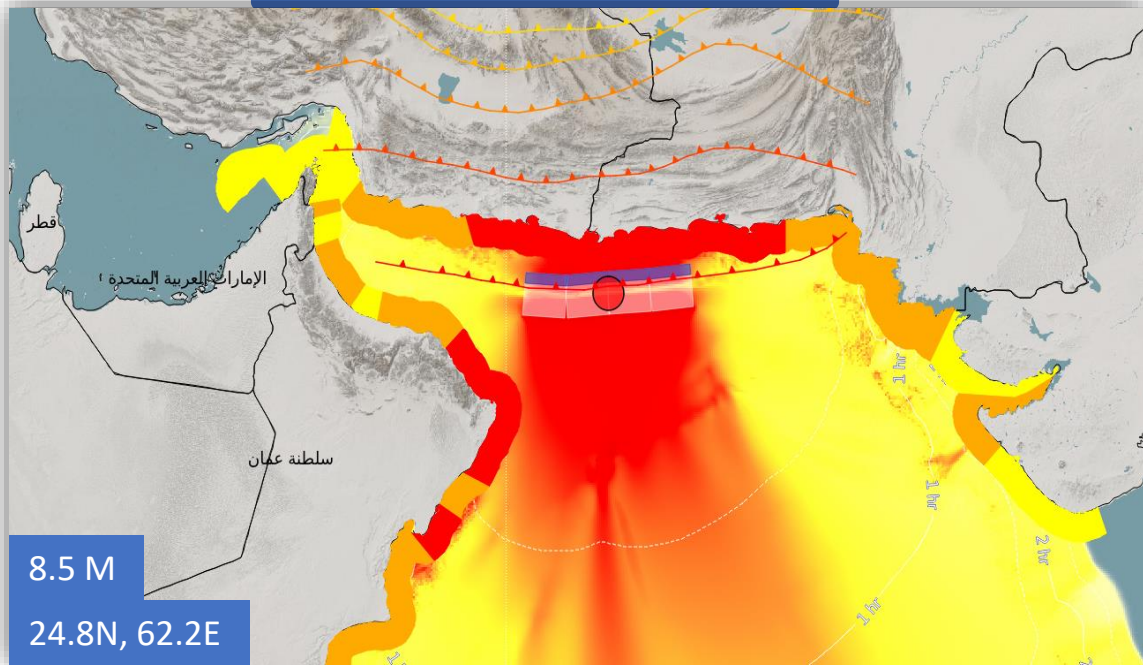
Pilot Areas

Pilot area : Kalba, Dibba and Khor Fakkan



Hazard Information for Pilot Areas

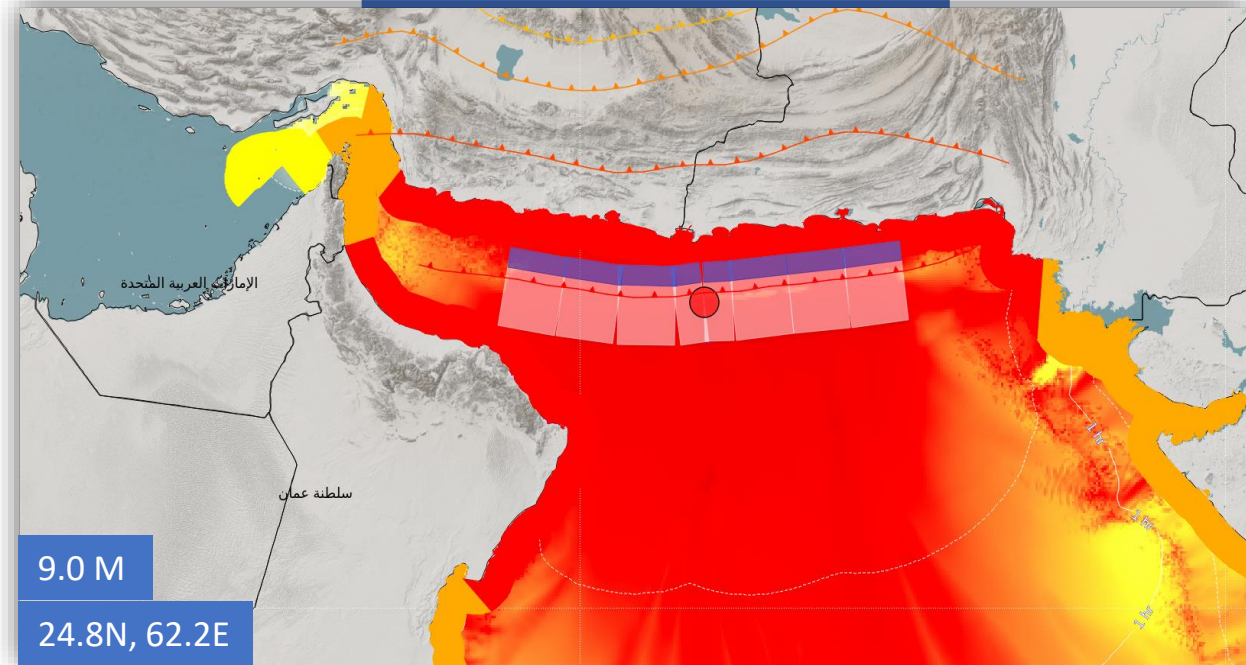
Worst case scenario



THERE IS THE POSSIBILITY OF A TSUNAMI IN THE FOLLOWING AREAS :

Location	Warning Level	ETA (GST)	EWH (m)
Dibba Coast	Watch	2022-09-06 10:43:55	0.58
Khor Fakkan Coast	Advisory	2022-09-06 10:39:40	0.45
Fujairah Coast	Advisory	2022-09-06 10:35:40	0.38
Kalba Coast	Advisory	2022-09-06 10:35:40	0.36
Ras Al Khaimah Coast	No threat		0.03

Pre calculated scenario



THERE IS THE POSSIBILITY OF A TSUNAMI IN THE FOLLOWING AREAS :

Location	Warning Level	ETA (GST)	EWH (m)
Dibba Coast	Watch	2022-09-06 10:23:12	2.76
Khor Fakkan Coast	Watch	2022-09-06 10:19:12	2.45
Fujairah Coast	Watch	2022-09-06 10:14:27	2.27
Kalba Coast	Watch	2022-09-06 10:14:12	1.75
Ras Al Khaimah Coast	No threat	2022-09-06 12:13:27	0.20

Map for Kalba area

Pilot Area

Arc GIS

DTM 5m

IOWAVE20
9.0 M
(24.8N, 62.2E)

Wave height in Kalba

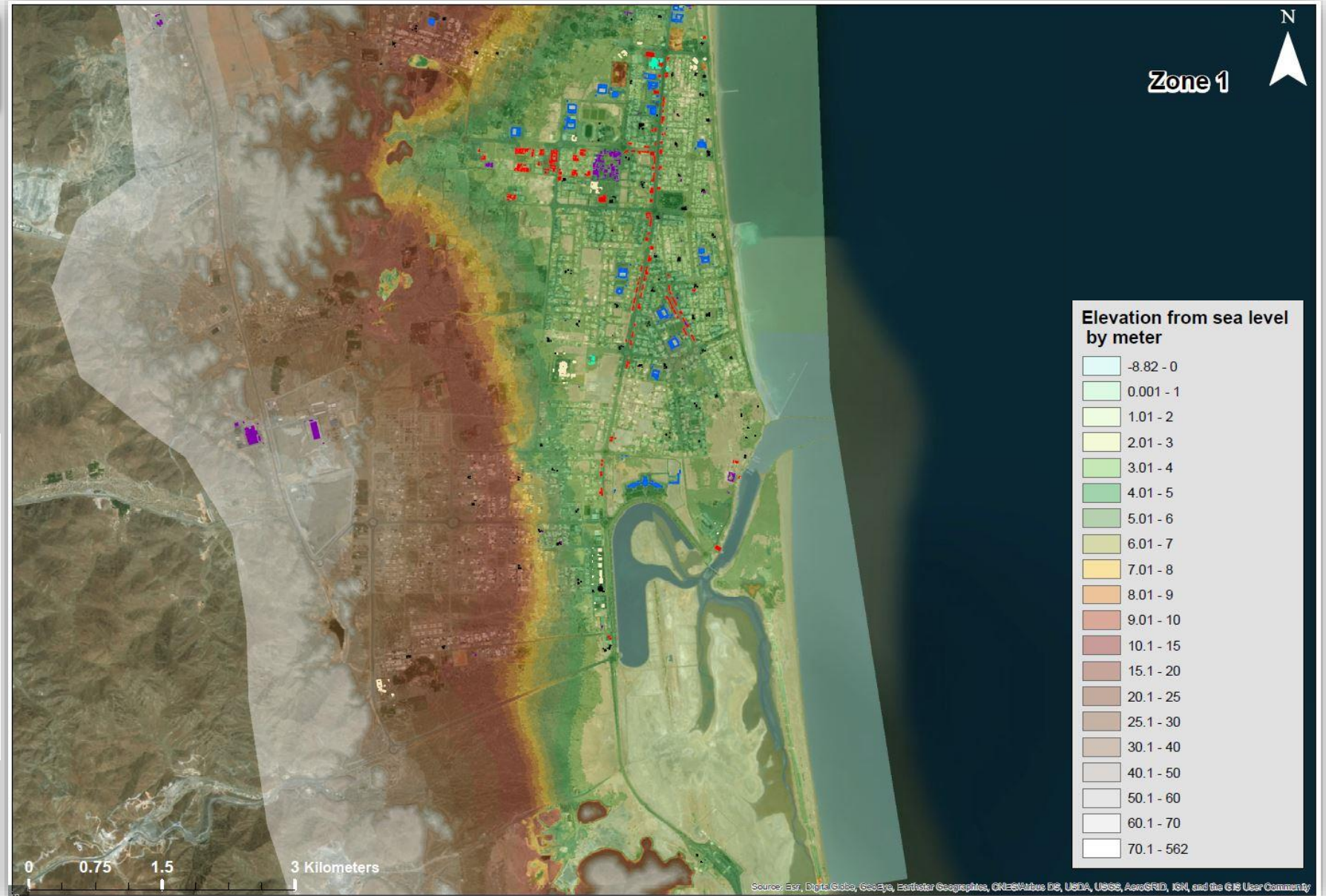
TSP Australia

1.49 m

TSP Indonesia

4.12 m

Note: First wave arrival in 22 min



Inundation Group

Inundation Modeling Group

Seismologists

GIS experts

Software

TOAST

Mirone

ComMIT

Arc GIS

Gaps

Final results of the probabilistic hazard assessment

Higher resolution of the bathymetry in pilot areas

Limited recourses in modeling

Thank You
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