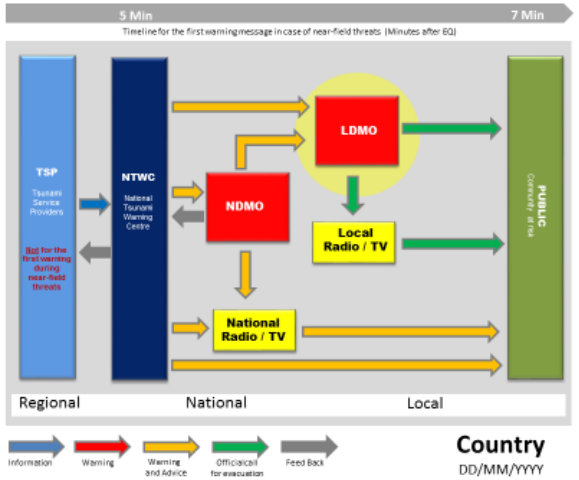
Feedback on

Tsunami warning chains

in the Eastern Indian Ocean countries

Follow-up Preparation Workshop on 4-6 August 2025



Chathura Liyanaarachchige

Director Preparedness

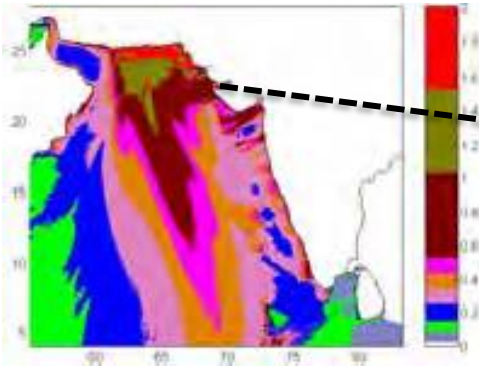
Disaster Management Center

Sri Lanka

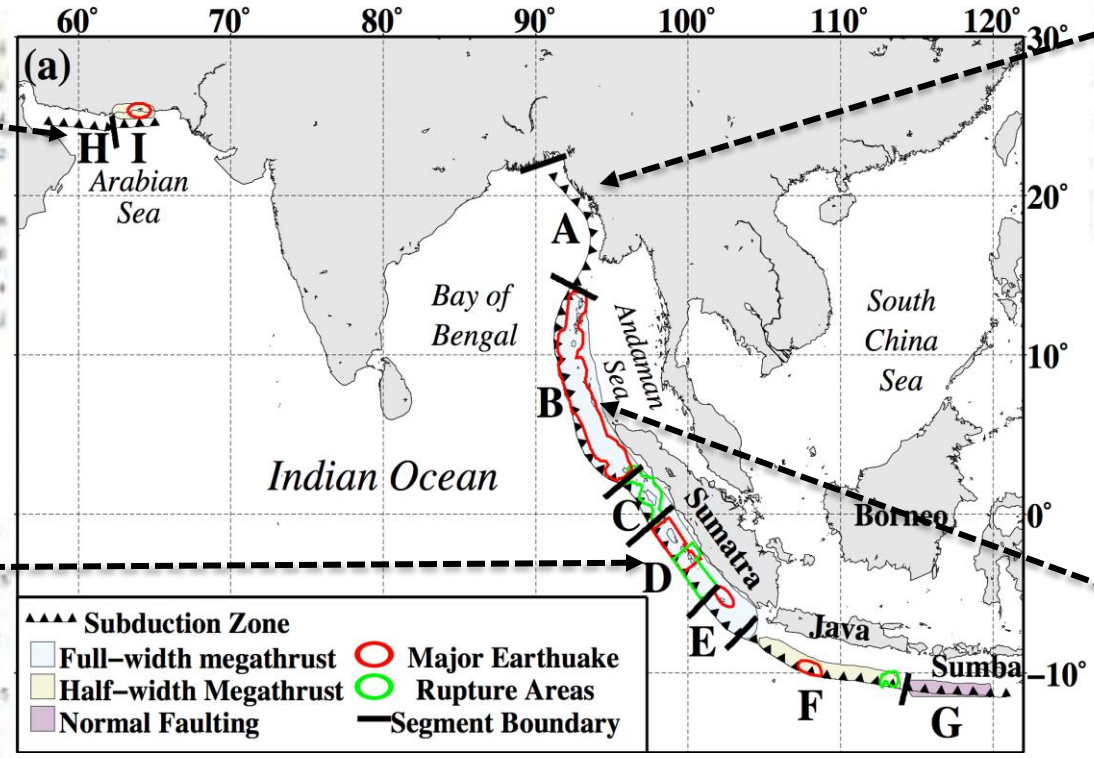
Tsunami Vulnerability

Tsunami Hazard Zones

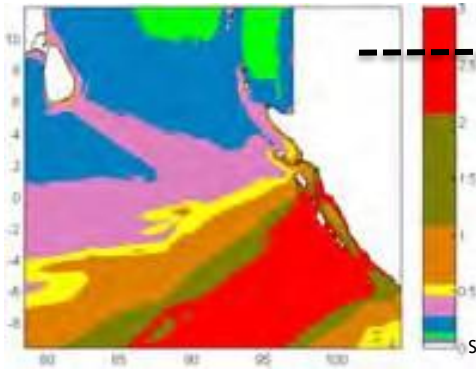
Makran Trench



Arrival Time 300Min

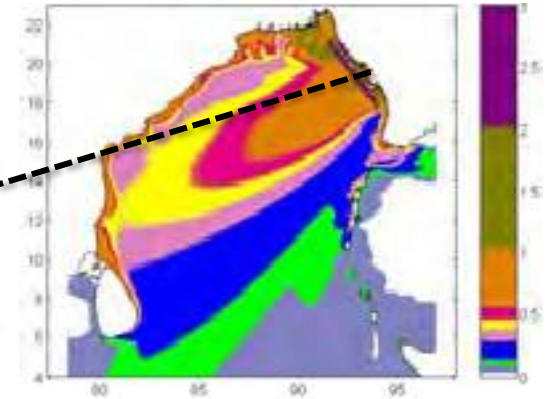


Sumatra Trench



Arrival Time 180Min

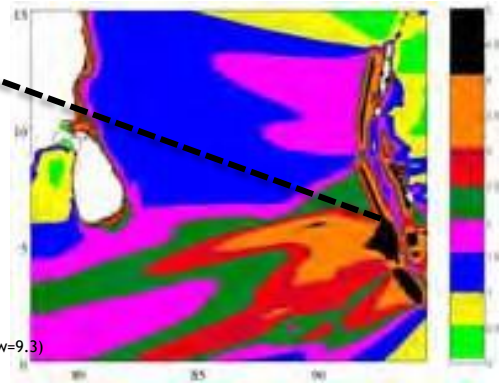
Southern Sumatra (Mw=9.3)



Arrival Time 150Min

Arakan off Myanmar (Mw=8.8)

Andaman Trench



Arrival Time 90Min

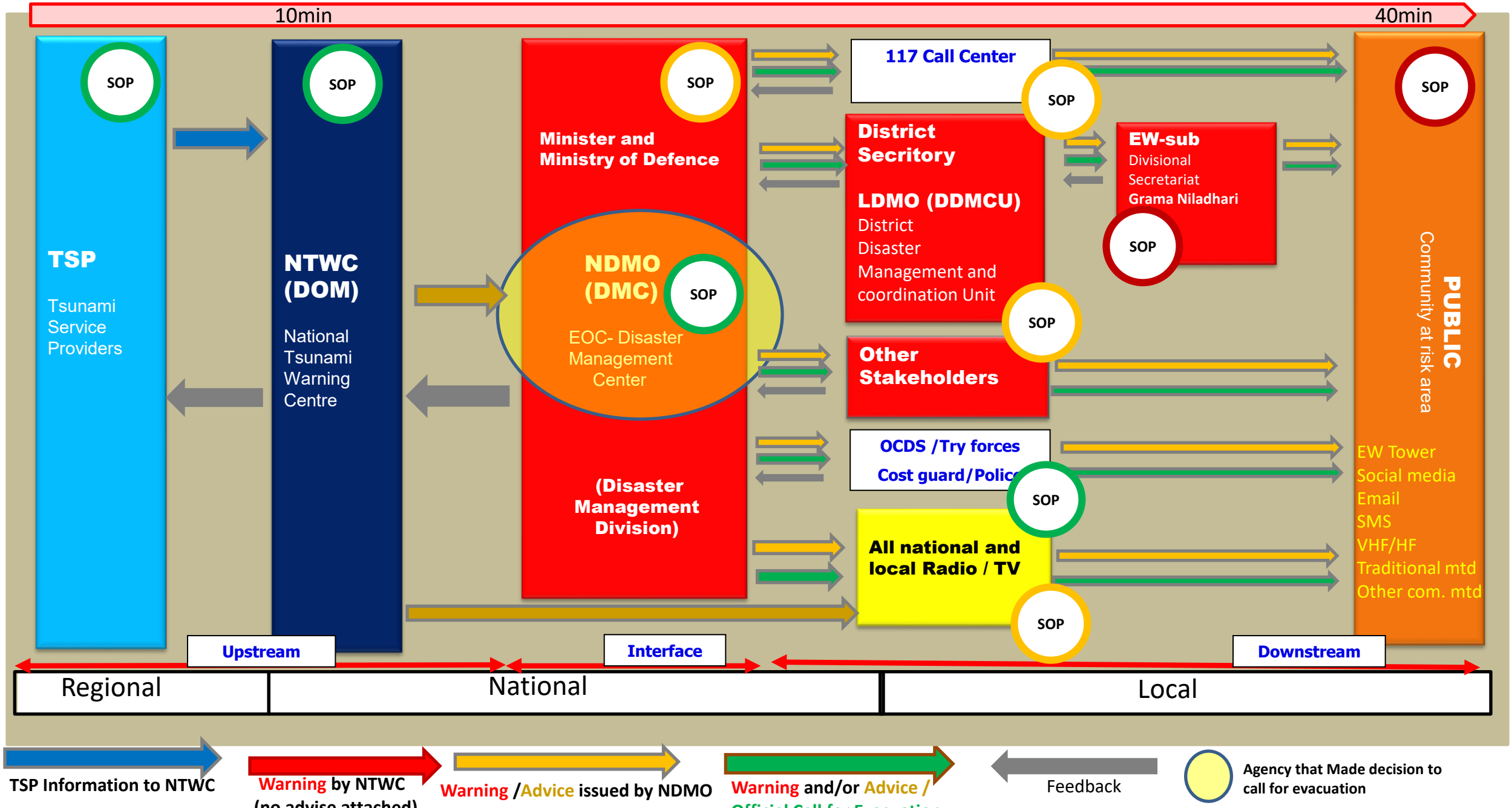
Northern Andaman - Sumatra (Mw=9.3)

14 coastal districts, 78 Divisional Secretariat divisions, 1508 GNDs and over 1.2 million coastal population

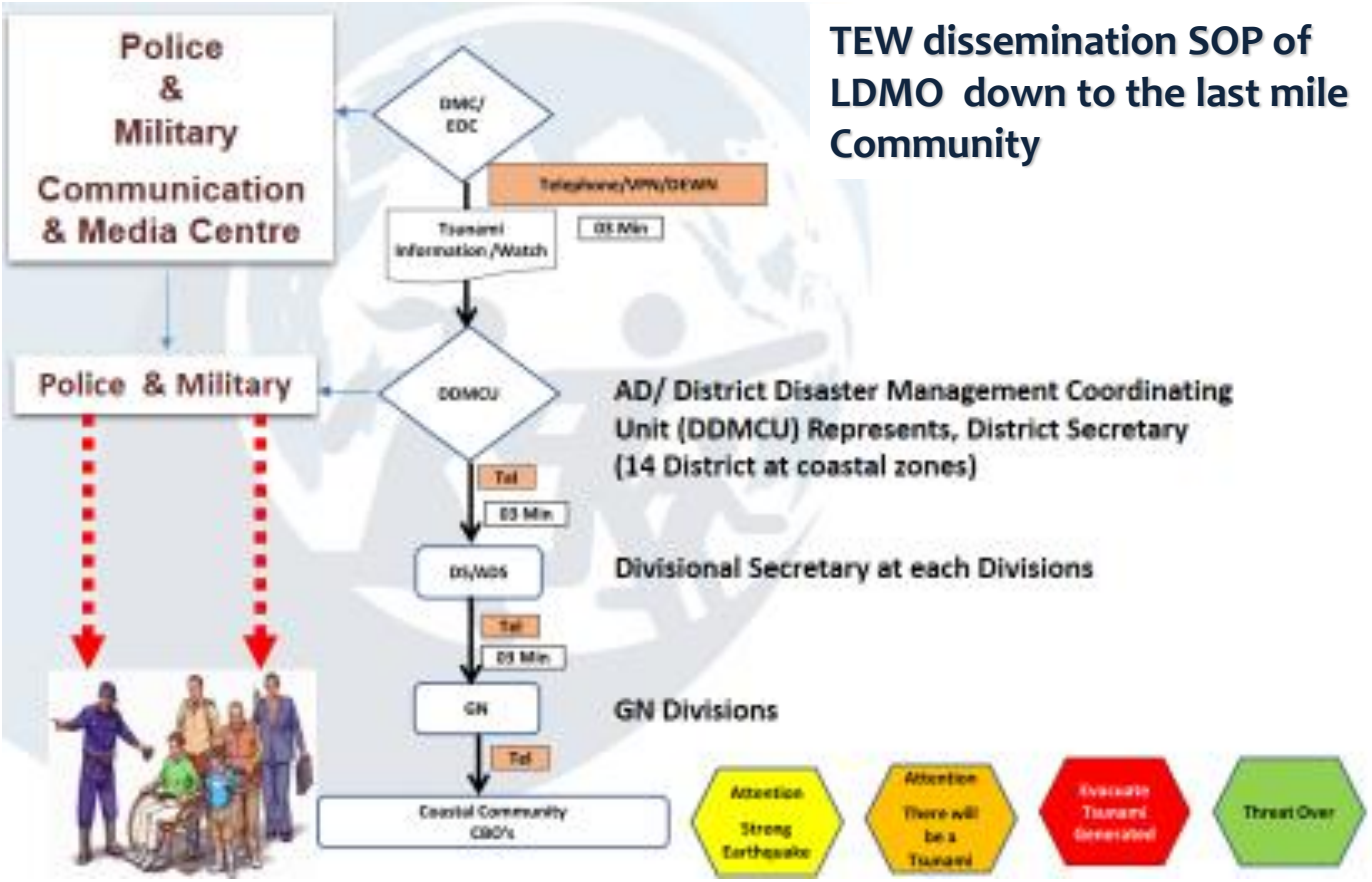
The island country is susceptible to the threat of tsunami and in fact scores a high 8.2 in the disaster risk index of 2017.

Sri Lanka

12.07.2023

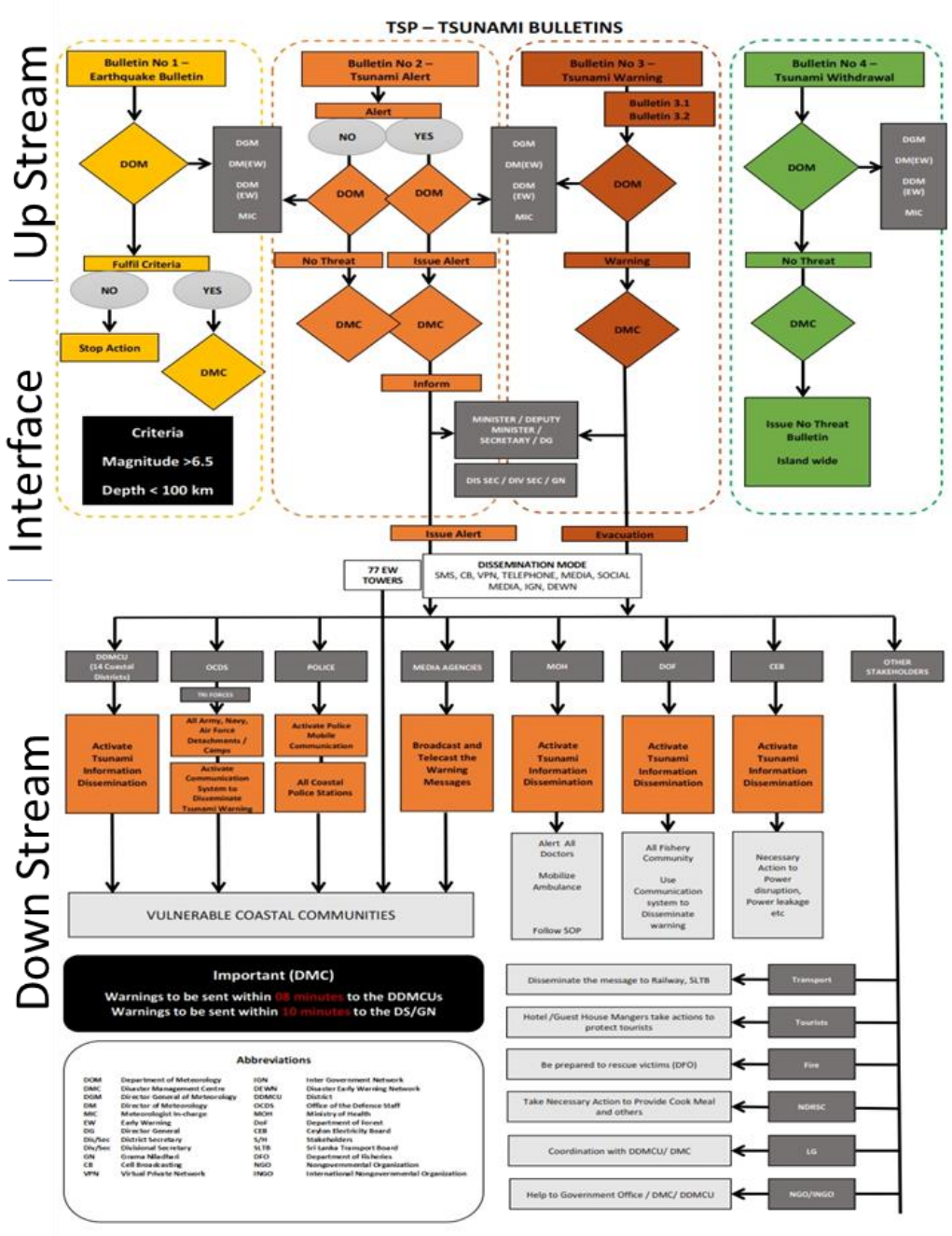


Tsunami EW mechanism of Sri Lanka



TEW dissemination SOP of LDMO down to the last mile Community

TEW dissemination SOP of NDMO down to the last mile



Decision Making Template - NDMO

Location	Magnitude	Action	Responsibility
Indian Ocean Andaman and Sumatra trenches Earthquake Depth below 100Km	Over 9.0 Richter scale	Immediate Evacuation	DG-DMC(TNC) under the permission of the Secretary and the Council or the TAC
	Between 8.0 – 8.9 Richter scale	Alert and Evacuation if necessary	
	Between 7.5 – 7.9 Richter scale	All three Bulletins Alert & Evacuation if necessry	
	Marginal scenarios Between 6.5 - 7.4 Richter scale	All three Bulletins Alert. Evacuation order if necessary	TNC and DG-MET under the permission of the Secretary and the Council or the TAC

Early Warning Communication Systems

- Disaster Early Warning Network – DEWN System (SMS/CB- Message / APP)
- Early Warning Communication Cell (Mobile Service Providers Connected with one platform)
- Radio communication Systems (HF/VHF)
- Inter Government Network(IGN)
- VPN / Telephone / Fax
- Early warning through Media
- School – Tsunami -Early Warning Communication Systems(at the moment 6 schools)
- Early Warning Communication with Military and police communication systems.
- Official Web site
- Electric and Manual Sirens /Megaphone & Public Addressing Systems.etc
- Traditional Methods(temple bells, Messengers etc.)
- Disaster Management Call center - 117

Challenges

- Frequency of Tsunami is low; hence sustaining readiness of village level committees is difficult
- Weather forecasters on duty at the National Meteorological Centre (NMC) are required to engage in Tsunami preparedness activities amidst a heavy workload of other assigned duties
- Inadequate level of preparedness for near field Tsunamis
- Simulation exercises at nighttime
- Predictions given by astrologers creating unnecessary panic and misconceptions among the public

Lessons learned

- Importance of proper and well-defined communication mechanism to pass down EW messages
- Adopting swift measures in mitigating incident of disaster related “fake news” on social media platforms which create panic among the communities
- Identifying the importance of proactive approach and advance preparedness to minimise the time taken for EWs
- Need of conducting frequent simulation exercises at community level to improve the level of preparedness
- Need for a well coordinated effort of all key stakeholders
- Importance of community-based disaster risk reduction approaches

THANK YOU