

India Presentation on DMO's SOP & dissemination

Incident Response System

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REGIONAL STANDARD OPERATING PROCEDURE WORKSHOP
FOR DISASTER MANAGEMENT ORGANISATIONS IN THE TSUNAMI WARNING CHAIN

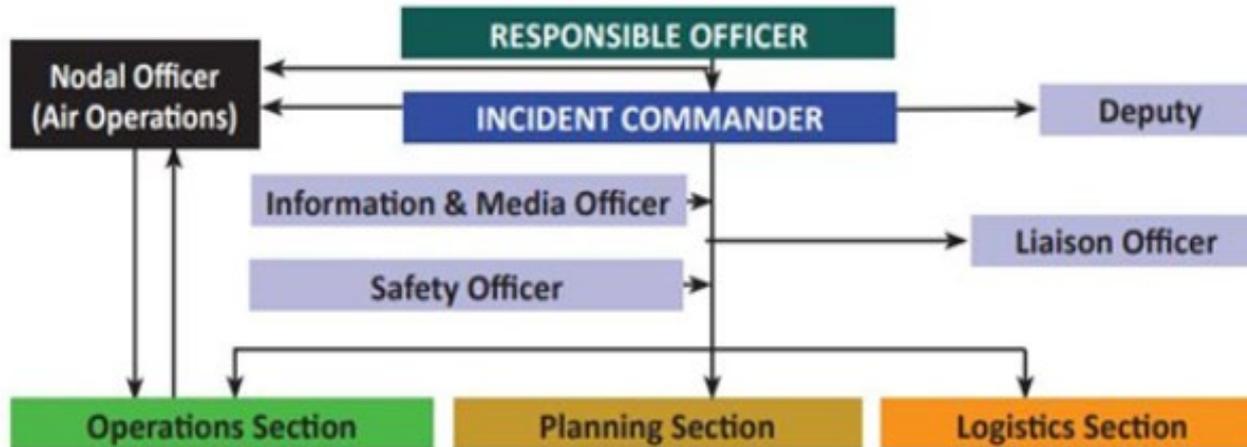
*UNESCAP Project on Strengthening Tsunami Warning
in the North West Indian Ocean through Regional Cooperation*

12-14 OCTOBER 2021

About IRS

The National Disaster Management Authority (NDMA) has issued the [Guidelines on the Incident Response System \(IRS\)](#) under Section 6 of the DM Act, 2005 for effective, efficient and comprehensive management of disasters in India.

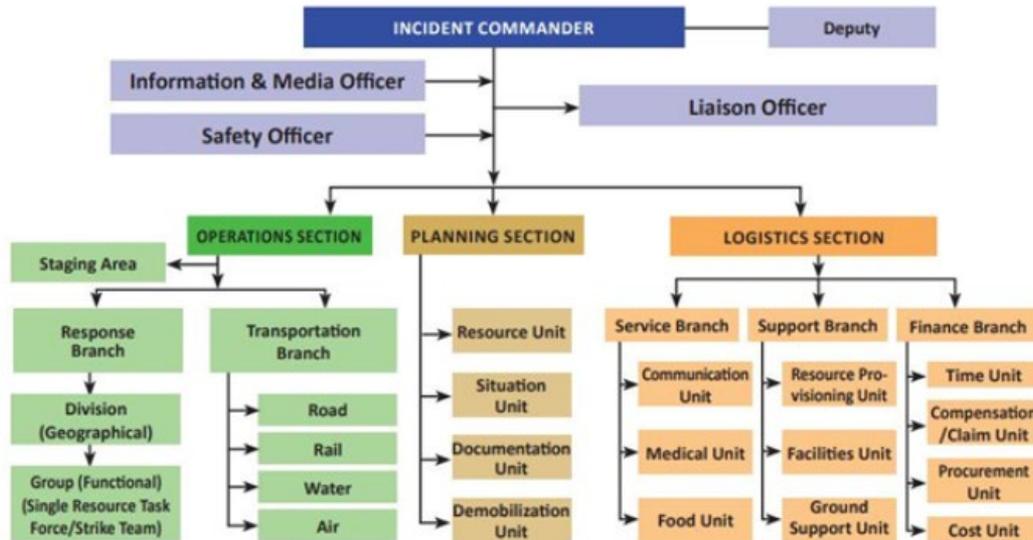
IRS Organisation



About IRS

Responsible Officers (ROs) have been designated at the State and District level as overall in charge of the incident response management. The Responsible Officer may delegate responsibilities to the Incident Commander (IC), who in turn will manage the incident through Incident Response Teams (IRTs).

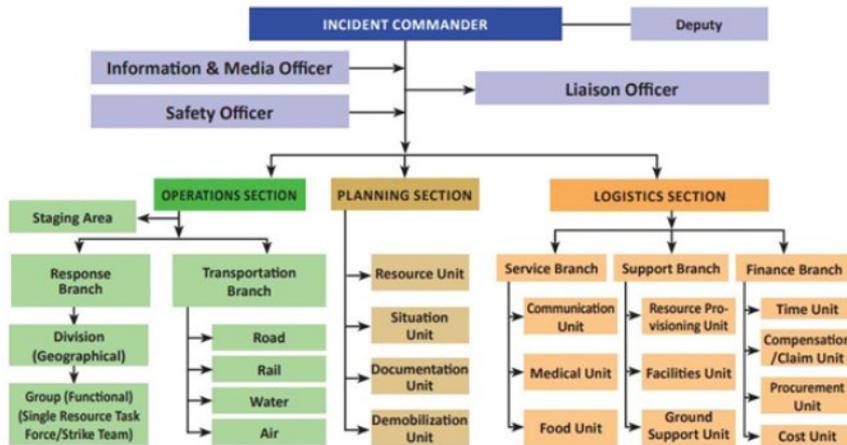
Incident Response Teams



About IRS

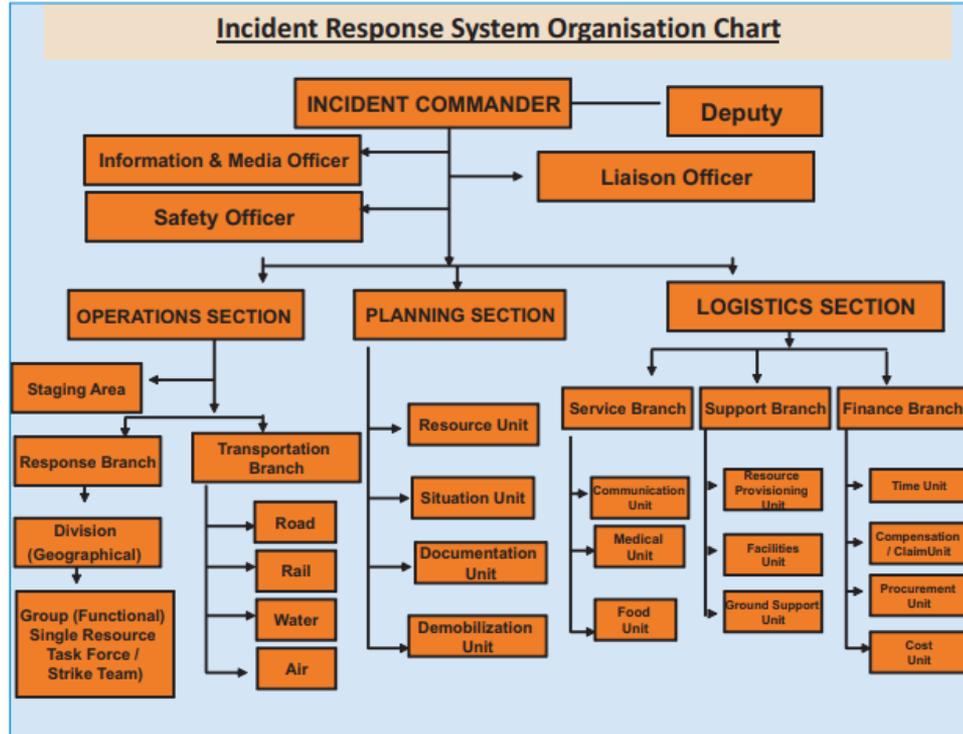
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Incident Response Teams

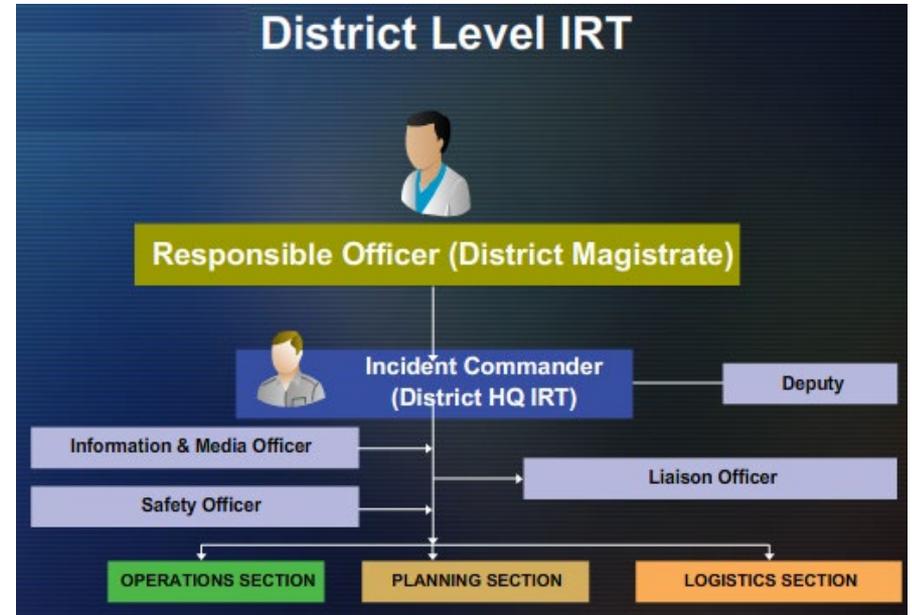
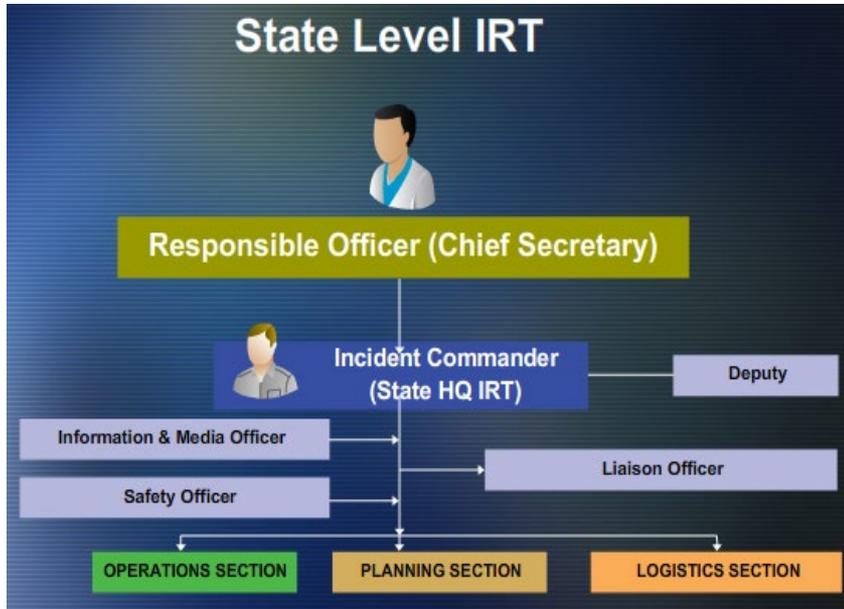


In case a disaster occurs without any warning, the local IRT will respond and contact the Responsible Officer for further support, if required.

Incident Response System Major Organizational Elements



IRT OVERVIEW



PUBLIC RESPONSE AND THREAT LEVEL DISSEMINATION

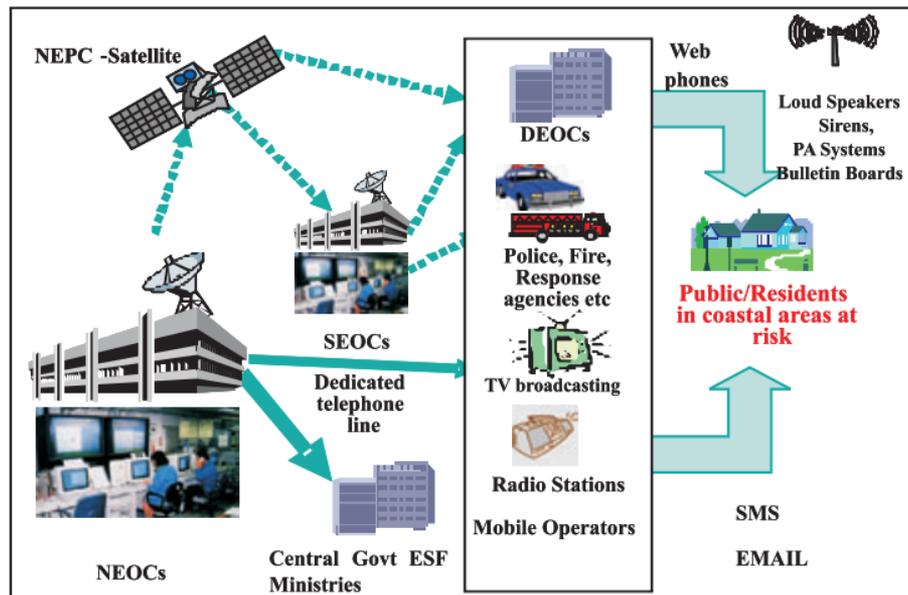
Threat Status	Action to be taken	Dissemination to		
WARNING	Public should be advised to move inland towards higher grounds. Vessels should move into deep Ocean	MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Public, Media	WARNING	
ALERT	Public should be advised to avoid beaches and low-lying coastal areas. Vessels should move into deep Ocean	MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Public, Media	ALERT	
WATCH	No immediate action is required	MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Media	WATCH	
THREAT PASSED	All clear determination to be made by the local authorities	MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Public, Media	THREAT PASSED	

Roles and Responsibilities in Warning Dissemination

Institution	Role	Responsibilities
IMD	Seismic Network	Monitoring Earthquake, rainfall, flooding to provide drainage paths
INCOIS	Watch & National Tsunami Warning Centre	Monitor and provide information based on predictive models
MHA	Warning & information bulletins	Issue warning & periodic bulletins
State Relief Commissioner (SRC) / Secretary (DM)	Watch & warning	Issue site specific warning in the State based on the inundation warning and feedback to MHA
District Collectors	Watch & information feed back	Issue site specific warning within the district based on SRC & ground level feed back to SRC
Ports / harbours / coast guard/ marine enforcement and other local public offices	Warning & feed back	Sign boards & announcements. Feed back to District Collector
Police (local)	Warning & feed back	Voice announcements at the site. Feed back to District Collector
Local NGOs and groups	Warning & feed back	Voice announcements at the site
Visual media & radio	Warning & feed back	Direct broadcast and feed back to all
Mobile/SMS/VHF	Warning & feed back	Direct broadcast and feed back to all

Early Warning Time Line & Dissemination

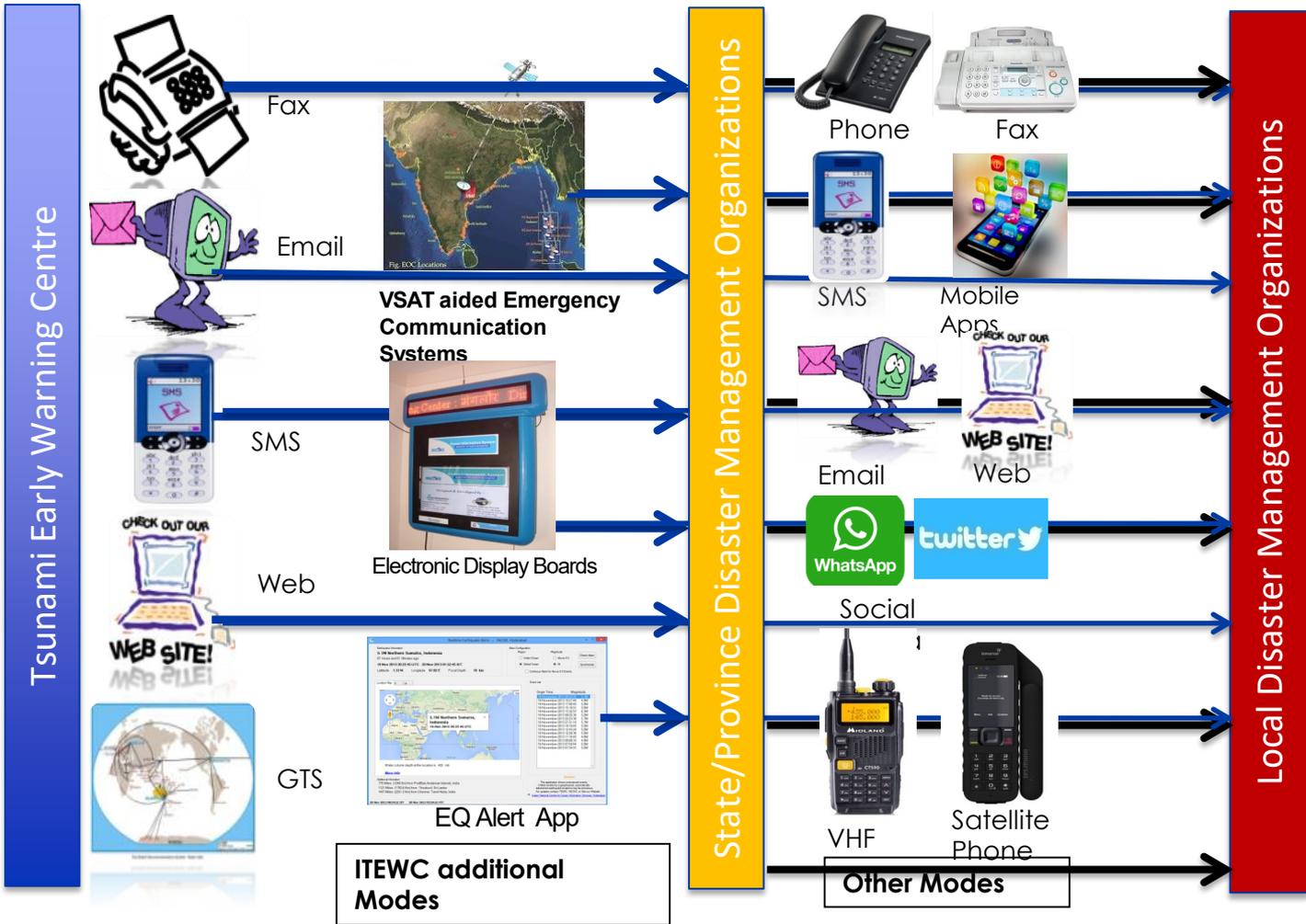
T_0	Earthquake Occurrence
$T_0 + 20$	<p>Detection of Tsunamigenic Earthquake: Earthquake Information Bulletin:</p> <ul style="list-style-type: none"> A ROUTINE Tsunami Information Bulletin to be issued by NEWC to MHA, NDMA, NCMC, NDRF Battalions and MoES. This also contains preliminary evaluation of tsunami potential based on the magnitude. (Regular status reports may be issued to MHA, NDMA, NCMC, MoES as required by NEWC).
$T_0 + 30$	<p><i>Earthquake expected to generate Tsunami, (on ocean, >6.5 Richter magnitude, <100 km Depth):</i></p> <ul style="list-style-type: none"> A Warning/Alert/Watch will be issued by the NEWC based on scenario database results <u>Near Coastal Areas (< 60 min travel time of waves).</u> <ul style="list-style-type: none"> Warning: > 2 M Expected Run-up - FLASH - MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Public, Media Alert: 0.5 - 2M Expected Run-up - Emergency - MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC, Public, Media Watch: < 0.5 M Expected Run-up - Ops - MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC <u>Far Coastal Areas (> 60 min travel time of waves).</u> <ul style="list-style-type: none"> Alert: > 2M Expected Run-up - Emergency - MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC Watch: 0.5 - 2 M Expected Run-up - Ops - MoES, MHA, NDMA, NCMC, NDRF Battalions, SEOC, DEOC
$T_0 + 30 - T_0 + 120$	<p>Confirmation of Tsunami Generation</p> <p><i>Tsunami not Triggered</i></p> <ul style="list-style-type: none"> NEWC to withdraw Tsunami Alert and Tsunami Watch Bulletins and issue Tsunami Cancellation Bulletin to NEOC, MHA, NDMA, NCMC, NDRF Battalions, MoES and concerned near area SEOCs and DEOCs, public and media.
$T_0 + 30 - T_0 + 120$	<p><i>Tsunami Triggered</i></p> <ul style="list-style-type: none"> NEWC to issue upgraded Tsunami Bulletins to various coastal regions. Upgrade Tsunami Advisory Bulletin to Tsunami Watch Bulletin and Tsunami Watch Bulletins to Tsunami Alert Bulletin to NEOC, MHA, NDMA, NCMC, NDRF Battalions, MoES and concerned SEOCs and DEOCs.



National Emergency Communication Plan

Dissemination mechanism

- NTWC to DMOs



Dissemination mechanism

- DMOs to Public

Local Disaster Management Organizations



SMS



Radio



Television



Social Media



Mobile Apps



Sirens



Public Alert System



VHF/ Mega phone



Tom-tom (traditional methods)

Door-to-door

Police

Village volunteers

Lifeguards or beaches

Any other modes

Public at Risk



Thank you