

15.3 TR PREP5 Building Awareness and Community Preparedness - Tsunami Exercise and Drills

Ardito Kodijat
IOC/UNESCO - Indian Ocean Tsunami Information Centre
UNESCO Office Jakarta
a.kodijat@unesco.org

PREP-5: A community tsunami exercise is conducted at least every two years

The community should **conduct tsunami exercise:**

- At least every 2 years.
- Focus only on tsunami hazard or part of multi-hazard exercise that includes tsunami.
- Exercise type could be tabletop, functional, or full-scale, including the communications test.
- Can be part of a regional, national, or local exercise with a response by emergency services.
- Conduct post exercise evaluations to identify gaps and for improvements in preparedness, warning, and response.



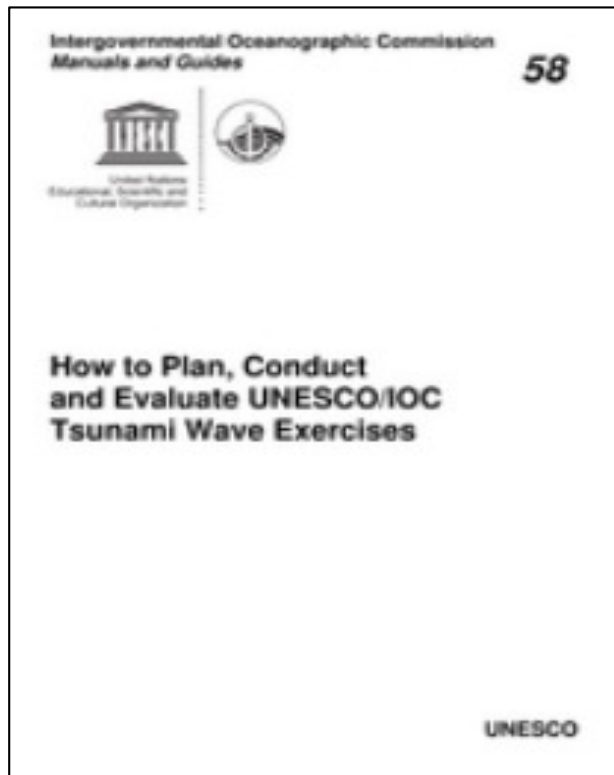
Regional Exercises in Indian Ocean and Caribbean



National Tsunami Exercises in India

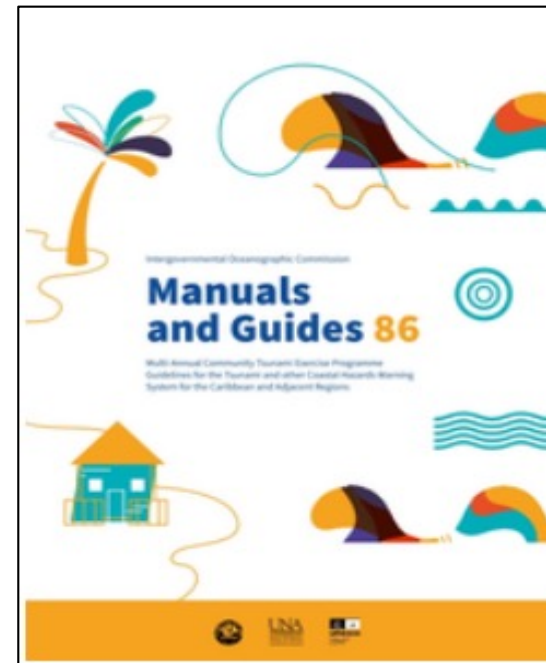
Manual and Guides

Manual and Guide No 58



<https://unesdoc.unesco.org/ark:/48223/pf0000218967>

Manual and Guide No 86



Multi-annual community tsunami exercise programme: guidelines for the tsunami and other coastal hazards warning system for the Caribbean and Adjacent Regions

<https://unesdoc.unesco.org/ark:/48223/pf0000380540.locale=en>

Types of Exercise

Type #1: Orientation Workshop

Type #2: Tabletop Exercise

Type #3: Drill

Type #4: Functional Exercise

Type #5: Full-Scale Exercise

Type #1: Orientation Workshop

- Simple orientation workshop **lays foundation for comprehensive exercise programme.**
- Provides **overview of authorities, strategies, plans, policies, procedures, protocols, resources and ideas.**
- **Brings together organizations** in developing emergency response planning, problem solving, SOP's, and resource integration

Good starting point for organisations that are developing or making major changes to their plans and procedures



Type #2: Tabletop Exercise

- Takes place in an informal, slow-paced environment and is used to assess plans, policies, procedures.
- May involve senior staff members of government /non-government organisations gathered together in one large room.
- Exercise Controller (the moderator) introduces a tsunami scenario via written message, telephone or radio call, or other means. Exercise problems and activities (“injects”) further introduced
- Participants examine / resolve problems, and discuss their actions based on their SOPs
- Participants conduct discussions, resolution agreed upon, then summarized by group



Type #3: Drill

- Drills involve emergency response of single organisations, facilities, or agencies such as hotels, schools or villages or the testing of single operations or functions in single agency (e.g. internal communications and/or field activities)
- Performance can be evaluated in isolation or as a subset of full-scale exercises
- Drills are used to test response time, train personnel, assess capabilities of equipment and assess cooperation between agencies.



Type #4: Functional Exercise

- Designed to test and evaluate individual functions, multiple activities within an agency, or interdependent groups of activities among various agencies
- Organisations test their SOPs using real time simulation tsunami notifications
- Tests command and control activities at locations such as emergency command
- Tests SOPs and internal/external communications with other organisations

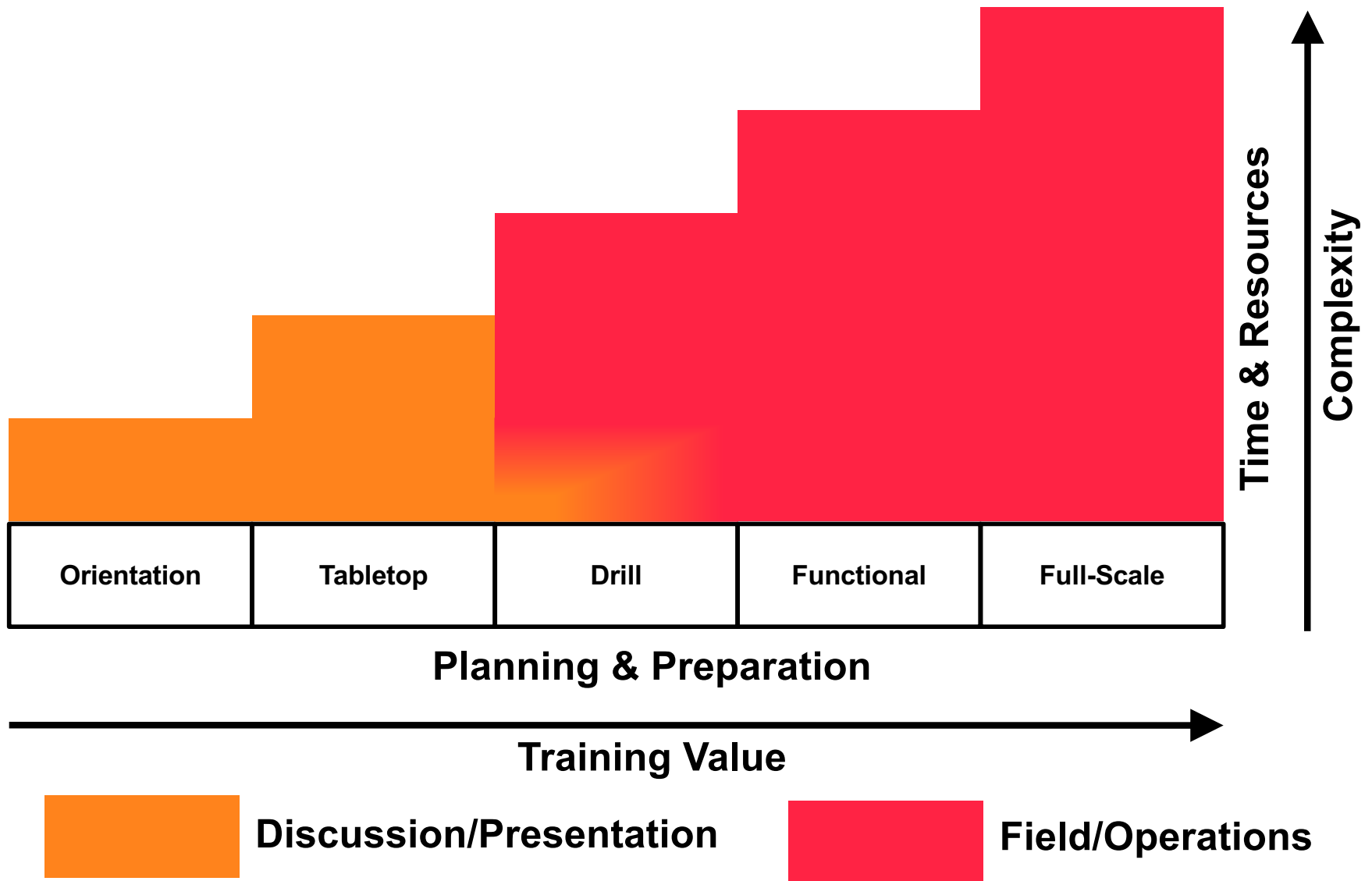


Type #5: Full-Scale Exercise

- The climax of a progressive exercise programme
- Involves multiple layers of government (national, provincial, local)
- All local command centres activated
- Tests all aspects of emergency response and interagency coordination
- Largest, costliest, most complex type of exercise
- May or may not include public evacuations

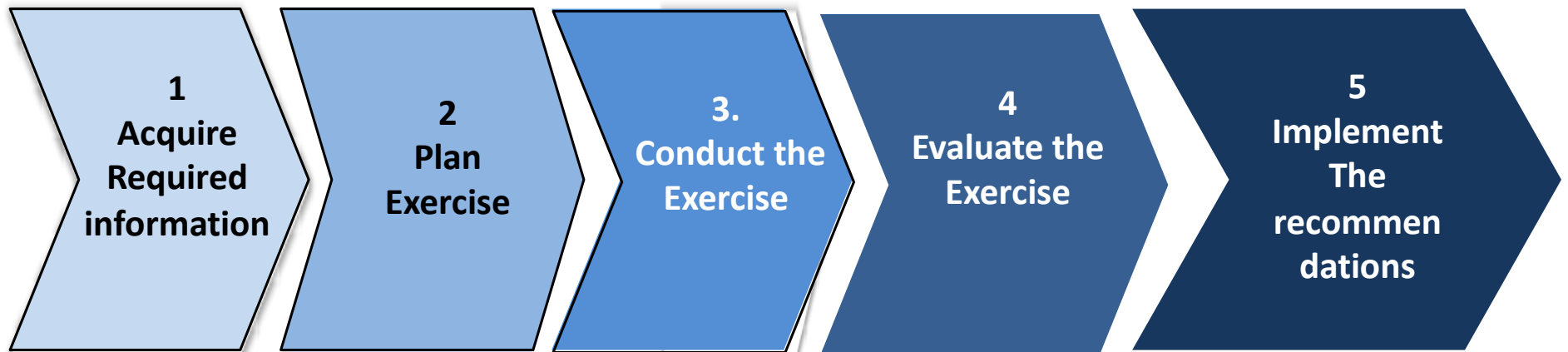


Exercise Planning, Preparation and Complexity



Planning an exercise

Exercises should be part of a Master Plan for readiness within the framework of overall national strategies, established policies, laws, regulations and budget resources. At agency level, exercises may be conducted within the agency's own resources but full scale, multi-agency exercises involving community evacuations require larger budget resources that may require national level funding and coordination. Regular biennial exercises may therefore need to be underpinned by government policy supported by budget appropriations



1. Acquiring the required information

Conduct a needs assessment

- A needs assessment identifies if an exercise activity is required and is informed by reviewing existing plans and SOPs, past exercises and available resources

Establish the aim, objectives and scope

- Aim (Goal) – a broad statement of intent
- SMART Objectives – specific and performance-based
- Scope and boundaries – geographical area and processes covered, when and where it will be held and who will participate

Determine type of exercise

- Orientation
- Tabletop
- Drill
- Functional
- Full scale

2. Exercise Planning (Full)

Establish the Exercise task team

- Responsible for the execution of all aspects of the exercise, including planning, implementation and evaluation

Identify target area of the Exercise

- Take into consideration the risk, vulnerability, and capacity of the community

Establish the scenario

- The scenario should facilitate realization of the exercise objectives. Should not be known by the participants in advance

Training of the Participants / Workshops

- To estimate the level of participation, identify available resources and increase capacities in advance of the exercise

Media Campaign

- Important for community exercises to obtain coverage and increase participation

Preparation of Evacuation Routes, Assembly Points, Safe zones

- Important for community exercises to assure accessibility and to reduce problems during an evacuation exercise

Evaluation and Reporting Criteria

- To capture strengths and weaknesses and identify corrective actions

4. Evaluate the exercise

Post-exercise debriefs provide participants with the opportunity to review the exercise and note the areas that went well and those areas where issues were experienced. If exercise evaluators have been involved, their individual forms and reports should be collated. All individual debriefs and reports are used collectively to determine the evaluation that will be represented in the Exercise Report



Suggested format for the Exercise Report:

1. Aim and scope of the exercise
2. The scenario
3. Summary of the exercise (format, where, when, timeline, participating agencies)
4. Exercise evaluation vs the objectives
5. Recommendations for corrective actions





UNESCO-IOC / NOAA ITIC Training Program in Hawaii (ITP-TEWS Hawaii)
TSUNAMI EARLY WARNING SYSTEMS
AND THE PACIFIC TSUNAMI WARNING CENTER (PTWC) ENHANCED PRODUCTS
TSUNAMI EVACUATION PLANNING AND UNESCO IOC TSUNAMI READY PROGRAMME
15-26 September 2025, Honolulu, Hawaii

Thank You

Ardito Kodijat
IOC/UNESCO - Indian Ocean Tsunami Information Centre
UNESCO Office Jakarta
a.kodijat@unesco.org



Pacific
Community
Communauté
du Pacifique