



Preparedness Indicators - How to achieve, challenges and solutions

5.6 Exercises - Components, Types, Documentation – PREP 5

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Tsunami Ready Indicators

TSUNAMI READY INDICATORS	
I	ASSESSMENT (ASSESS)
1	ASSESS-1. Tsunami hazard zones are mapped and designated.
2	ASSESS-2. The number of people at risk in the tsunami hazard zone is estimated.
3	ASSESS-3. Economic, infrastructural, political, and social resources are identified.
II	PREPAREDNESS (PREP)
4	PREP-1. Easily understood tsunami evacuation maps are approved.
5	PREP-2. Tsunami information including signage is publicly displayed.
6	PREP-3. Outreach and public awareness and education resources are available and distributed.
7	PREP-4. Outreach or educational activities are held at least 3 times a year.
8	PREP-5: A community tsunami exercise is conducted at least every two years.
III	RESPONSE (RESP)
9	RESP-1. A community tsunami emergency response plan is approved.
10	RESP-2. The capacity to manage emergency response operations during a tsunami is in place.
11	RESP-3. Redundant and reliable means to timely receive 24-hour official tsunami alerts are in place.
12	RESP-4. Redundant and reliable means to timely disseminate 24-hour official tsunami alerts to the public are in place.

8. PREP-5
A Community Tsunami
Exercise is conducted
at least every two
years



Produced by
NOAA, in collaboration with UNESCO IOC, Chile,
and countries of Pacific



Introduction

Exercising is important to test the warning system and the evacuation plan to ensure that it is operating effectively and “fit for purpose”

Without conducting exercises, it is impossible to know if the community understands what action has to be taken when a warning is issued

Exercising also provides the opportunity to review the evacuation plan and fine tune it if necessary. More can be learnt from putting the plan into action and finding any gaps or weak points

The indicator requires that a community exercise should be conducted every 2 years at a minimum. It can be conducted during the regional “Wave” exercises organised by the regional UNESCO IOC ICG to test the end-to-end warning system, or it can be conducted at a national level only

Introduction continued...

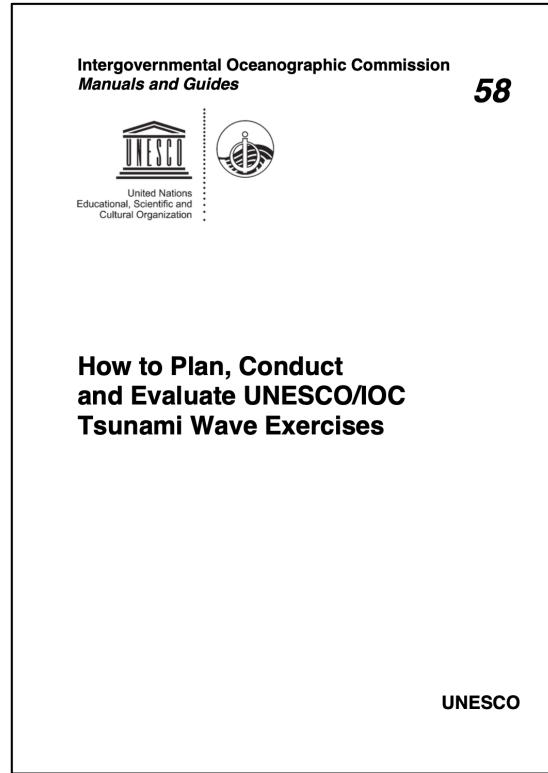
The exercise can focus **solely on the tsunami hazard** or can be a **multi-hazard exercise** that also addresses the tsunami hazard combined with a fire, hurricane and volcano exercise

The exercises could be **tabletop, functional or full-scale** and should include a **communications test** between the components of the tsunami warning system

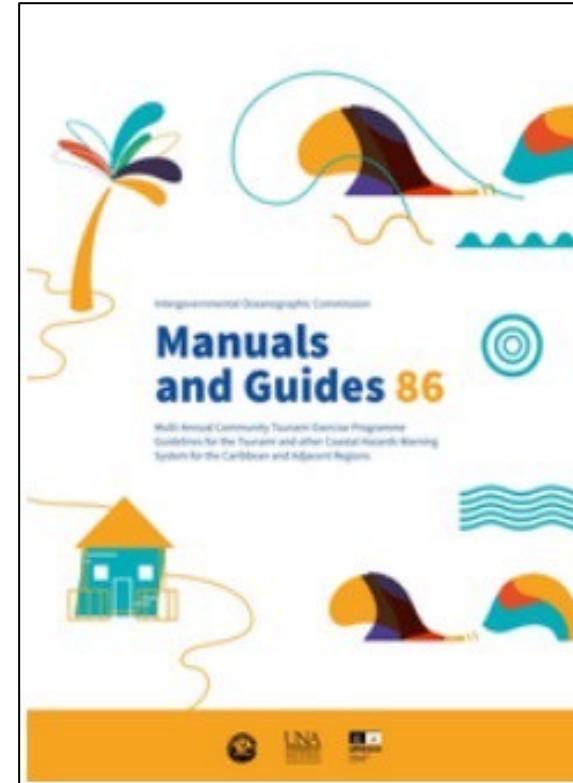
An effort should be made for the **schools within the mapped evacuation zone** to participate by conducting an **evacuation drill**

Manual and Guides

Manual and Guide No 58



Manual and Guide No 86



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

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](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 organisations 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 centres, command posts, master communications centres, etc.

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)

Involves activation of EOC and the field mobilisation and deployment of response personnel

All local command centres activated

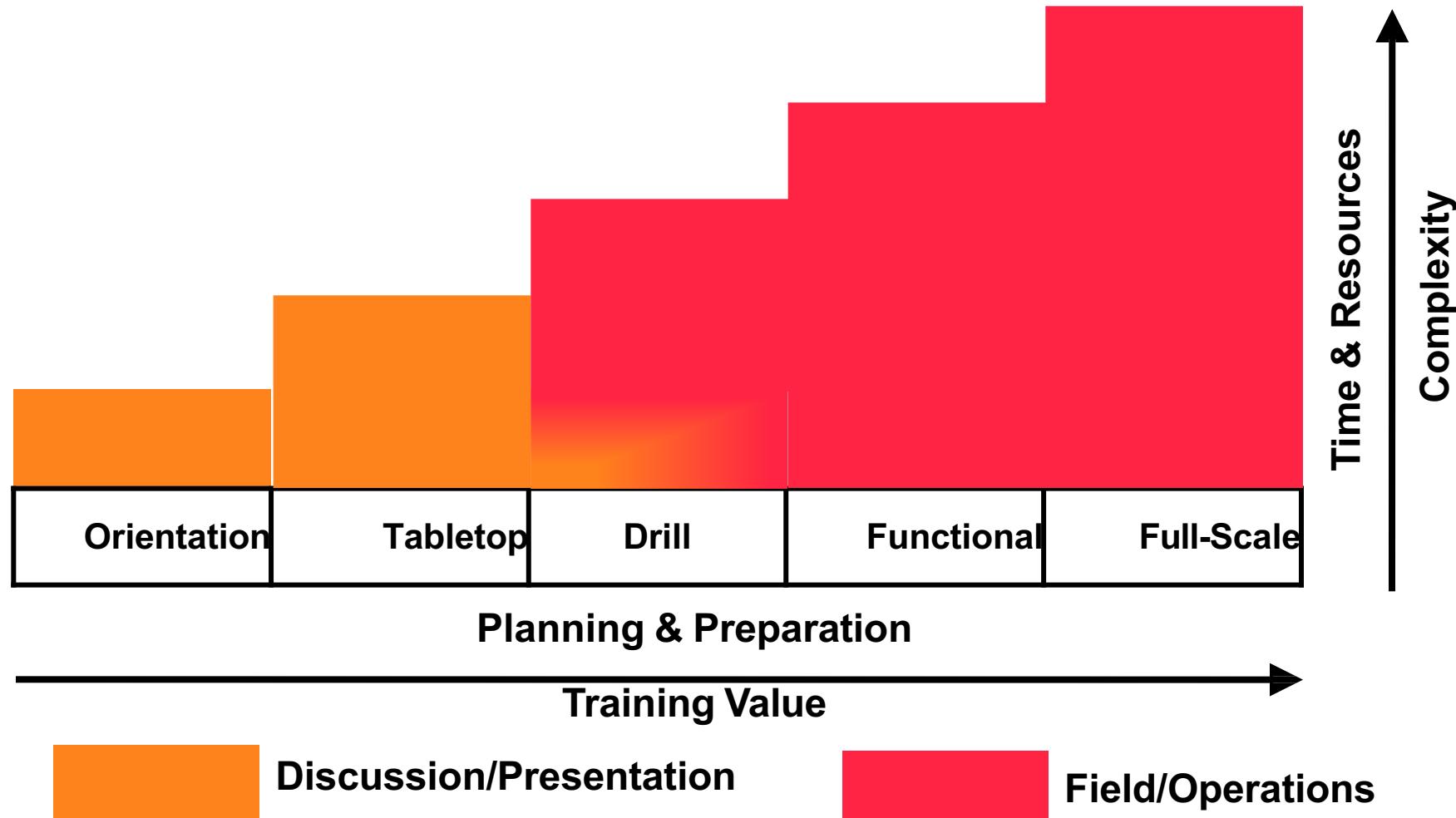
Tests all aspects of emergency response and interagency coordination

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. Full Exercise Planning

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

- To capture strengths and weaknesses and identify corrective actions

3. Conduct the Exercise



UNESCO/OC/NOAA SHOA
International Tsunami Information Center

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 to 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



Summary of PREP-5

- ✓ Conducting tsunami exercises is **important to test the warning system and the evacuation plan** to **verify** that it is **operating effectively** and ensure that the **community understands** what actions have to be taken when a warning is issued.
- ✓ Exercising also provides the opportunity to **review the evacuation plan and fine tune** it. More can be learnt from putting the plan into action and finding any gaps or weak points
- ✓ There are **five types of exercise** ranging in complexity, time to organise and cost:
 - Type #1: Orientation workshops
 - Type #2: Tabletop exercises
 - Type #3: Drills
 - Type #4: Functional exercises
 - Type #5: Full scale exercises

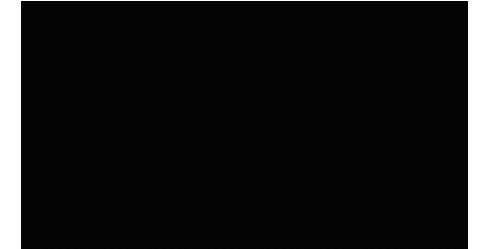
Summary of PREP-5

- ✓ **Full scale exercises** represent the **culmination of a progressive exercise programme** and should not be attempted without first conducting at least a tabletop and a functional exercise
- ✓ **Detailed planning** is **vital** to the success of any exercise, particularly when the public in involved, and a **risk assessment** should be conducted before engaging the public in evacuation drills
- ✓ **Exercise evaluation** is an important component of exercising to observe, record and report on the conduct of the exercise - **what went right, what went wrong, what lessons were learned and what changes should be made to the evacuation plan**

Community Evacuation Exercise



Cedeño, Honduras (Feb 2017)

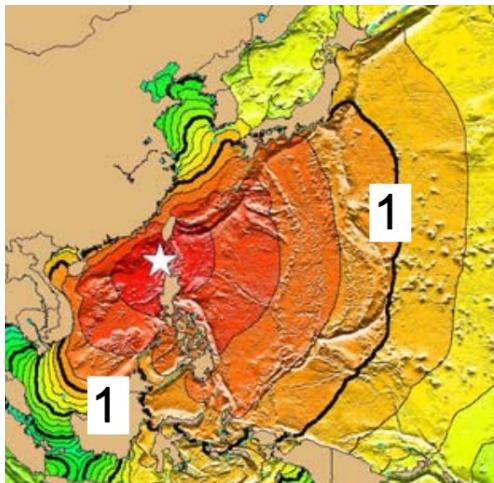


*ITIC Essential Community Preparedness
Capacity Building, Honduras, Central America, 2015-16*

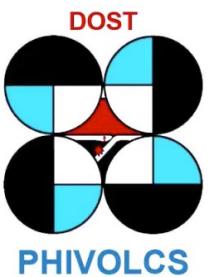


Exercise Pacific Wave 2006

M 8.8 earthquake north of Philippines, 20N, 120E, May 17, 2006 at 0200UTC



- 1st end-to-end Pacific-wide tsunami exercise
- Purpose:
 - Evaluate ability of Pacific countries to respond to ocean-wide tsunami (2 scenarios)
 - Opportunity to exercise operational lines of communications, review tsunami response procedures, and promote emergency and tsunami preparedness
- Who: 44 countries, 5 countries public evac (to “last mile.”)
- Philippines
 - **Albay Province.** National to local (PHILVOLCS (TWFP) to Natl Disaster Coord Council / Ofc of Civil Defence, to Albay Prov Disaster Coord Council, conclude in public response / evac
 - **Regional cross-learning sharing - observers to end-to-end communications** (Indonesia, Maldives, Sri Lanka)



Thank you Salamat po

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