



UNESCO-IOC

Regional Workshop on Standard Operating Procedures for Tsunami Warning and Emergency Response for East African and Western Indian Ocean Countries

15-19 November 2010
Blue Pearl Hotel
Dar es Salaam, Tanzania

Lecturers:

Tony Elliott, Head of ICG/IOTWS Secretariat, UNESCO IOC Tsunami Unit
Masahiro Yamamoto, Senior Advisor, UNESCO IOC Tsunami Unit
Dr. Laura Kong, Director, International Tsunami Information Centre, UNESCO IOC - NOAA
Amir Mohyuddin, Director, National Disaster Management Authority, Pakistan

AGENDA

Session	Start Time	End Time	T W C	T E R	TOPIC	Lecturer
1-3					DAY 1: SESSIONS 1-3	
1					MORNING: PLENARY	
1.1	9:00	9:30			Opening Ceremonies	TMA/IOC
1.2	9:30	9:40			Course Overview	Elliott
1.3	9:40	9:45			Logistics and other administrative items	Elliott
2					Tsunami Warning and Emergency Response – Overview	
					Science, Hazards, and Warning Centres	
2.1	9:45	10:30			End-to-End Tsunami Warning and Emergency Response – Overview	Kong
	10:30	11:00			COFFEE / TEA BREAK	
2.2	11:00	12:00			Earthquake and Tsunami Science for tsunami warning	Yamamoto
2.3	12:00	12:45			End-to-end Tsunami Warning – Stakeholders, Roles and Responsibilities, Standard Operating Procedures, and their linkage	Mohyuddin
	12:45	14:00			LUNCH	
					AFTERNOON: PLENARY	
3					Country Standard Operating Procedures	
3.1	14:00	15:30			Country Presentations (Comoros, Kenya, Mauritius, Mozambique, Seychelles, Somalia, South Africa, Tanzania, Yemen)	Countries
	15:30	16:00			COFFEE / TEA BREAK	
	16:00	17:00			Country Presentations continued	Countries

				DAY 2: SESSION 4	
				MORNING: PLENARY	
4				Tsunami Warning and Emergency Response – Overview	
				Tsunami Warning	
4.1	9:00	9:30		The Indian Ocean Tsunami Warning and Mitigation Systems (IOTWS)	Elliott
4.2	9:30	10:30		Lessons Learned from past tsunami. Use of timelines for assessing information flow effectiveness	Kong
	10:30	11:00		COFFEE / TEA BREAK	
4.3	11:00	11:30		National Tsunami Warning Centres Standard Operating Procedures - Overview	Kong
4.4	11:30	12:00		Discussion: TWC SOPs	All
				Emergency Response and Preparedness	
4.5	12:00	12:45		Tsunami Emergency Response Standard Operating Procedures - Overview	Mohyuddin
	12:45	14:00		LUNCH	
				AFTERNOON: PLENARY	
4.6	14:00	14:45		Warning Dissemination and Public Alerting mechanisms and technologies – Message Scheduling and Message Content, Warnings through GTS, RANET, and other existing reliable methods	Kong
4.7	14:45	15:30		Warning Dissemination and Public Alerts – Responsibilities to decision-makers, media, and the public. – Japan and US examples	Yamamoto
	15:30	16:00		COFFEE / TEA BREAK	
4.8	16:00	17:00		Breakout Groups: Information Flow SOPs - Media and Public Information	All
				DAY 3: SESSIONS 4-5	
				MORNING: PLENARY	
4.9	9:00	10:00		Use of Exercises in Tsunami Preparedness: Exercise Development / Regional and National Exercises and Post-Exercise Evaluations, Exercise Indian Ocean Wave '09	Elliott
4.10	10:00	10:30		Tsunami Preparedness - Education and Awareness	Mohyuddin
	10:30	11:00		COFFEE / TEA BREAK	
	11:00	11:45		Indian Ocean Interim Advisory Service (PTWC and JMA) SOPs	Yamamoto
4.11	11:45	12:45		Tsunami Warning Decision Support Tools: Earthquake Monitoring, PTWC SMS Alerts, Historical Databases, TideTool, IOC Sea Level Monitoring	Kong
	12:45	14:00		LUNCH	
				DAYS 3 and 4: TWC and TER (DMO) MEET SEPARATELY FOR SPECIFIC TOPICAL AND TECHNICAL DISCUSSIONS	
5				DAY 3: TSUNAMI WARNING CENTRE SESSION	
				AFTERNOON	
5.1.1	14:00	14:45		Fundamental TWC SOPs for a Timely Tsunami Warning: TWC Operations - Tsunami Event Activity Timelines: Cases 1 and 2 – Centres with real-time seismic processing	Kong
5.1.2	14:45	15:30		TWC Operations – Active seismic monitoring and real-time earthquake source characterization	Yamamoto
	15:30	16:00		COFFEE / TEA BREAK	
5.1.3	16:00	17:00		TWC Operations - Sea level monitoring, tsunami confirmation and wave forecast	Elliott

5-6				DAY 4: TSUNAMI WARNING CENTRE SESSION	
5.1.4	9:00	9:45		SOP Guidance - How to Guidance, including Analysis Processes, Flow Charts and Checklists in SOP	Kong
5.1.5	9:45	10:30		Tsunami Event Case Studies – Successes and Continuing Challenges. TWC and DMO interactions: Hawaii example between PTWC, Tsunami Advisor Scientists, Emergency Management for distant and local threat cases	Yamamoto
	10:30	11:00		COFFEE / TEA BREAK	
5.1.6	11:00	12:45		Breakout Groups: Using Templates to Create TWC SOPs (Roles & Responsibilities, Routine Operations, Ensuring Data Quality Control and Telecommunications Reliability, and other requirements)	Small Groups
	12:45	14:00		LUNCH	
5.1.7	14:00	14:30		Creating SOPs: Timeline-driven SOPs	Yamamoto
5.1.8	14:30	15:30		Break out Groups: Using Templates to Develop Timeline of Processes and Actions as SOPs (Messages, Checklists, Information Dissemination)	Small Groups
	15:30	16:00		COFFEE / TEA BREAK	
5.1.9	16:00	16:45		Presentation of Break out Group SOPs	Breakout Group Chairs
6.1	16:45	17:00		Table Top Exercise – Background and Scenarios for Day 5	Exercise Controller
5				DAY 3: TSUNAMI EMERGENCY RESPONSE SESSION	
				AFTERNOON	
5.2.1	14:00	14:45		Understanding and acting on TWC Messages, DMO Actions and Use of Timelines in Emergency Response	Elliott
5.2.2	14:45	15:30		Evacuations: Alerting and Moving People, Inundation maps, Evacuation Routes and Signage, Safe return	Mohyuddin
	15:30	16:00		COFFEE / TEA BREAK	
5.2.3	16:00	16:30		Community-level preparedness and response	Mohyuddin
5.2.4	16:30	17:00		Case Studies on experiences in developing and using SOPs	Kong
5-6				DAY 4: TSUNAMI EMERGENCY RESPONSE SESSION	
				MORNING	
5.2.5	9:00	9:30		Tsunami Emergency Response – Distant and Local Tsunami Threat – Case Studies	Elliott
5.2.6	9:30	10:00		SOP Guidance Manual – Explanation of Templates, Distant and Local Threats	Mohyuddin
5.2.7	10:00	10:30		Creating SOPs - How to Guidance, including Response Processess, Flow Charts and Checklists in SOPs	Kong
	10:30	11:00		COFFEE / TEA BREAK	
5.2.8	11:00	12:00		Breakout Groups: Using Templates to Create General Roles and Responsibilities for SOPs	Small Groups
5.2.9	12:00	12:45		Breakout Groups: Using Templates to Create Evacuation Checklists for SOPs	Small Groups
	12:45	14:00		LUNCH	Small Groups
5.2.10	14:00	14:30		Creating SOPs: Timeline-driven SOPs	Kong
5.2.11	14:30	15:30		Break out Groups: Using Templates to Develop Timeline of Processes and Actions as SOPs	Small Groups
	15:30	16:00		COFFEE / TEA BREAK	
5.2.12	16:00	16:45		Presentation of Break out Group SOPs	Breakout Group Chairs
6.1	16:45	17:00		Table Top Exercise – Background and Scenarios for Day 5	Exercise Controller

6-7				DAY 5: SESSIONS 6 and 7, PLENARY	
6				Table Top Exercise and Summary	
6.2	9:00	9:30		Table Top Exercise Set-up according to Stakeholder Warning and Response Groups	Exercise Controller
6.3	9:30	11:30		Table Top Exercise	Small Groups
	11:30	12:00		COFFEE / TEA BREAK	
6.4	12:00	12:45		Table Top Exercise - Post exercise report preparation	Small Groups
	12:45	13:45		LUNCH	
6.5	13:45	15:00		Table Top Exercise – Evaluation	Breakout Group Chairs Exercise Controller
	15:00	15:30		COFFEE / TEA BREAK	
6.6	15:30	16:00		Table Top Exercise – Summary and Next Steps	Exercise Controller All
6.7	16:00	16:30		Workshop Summary Discussion	All
7				CLOSING CEREMONIES	
	16:30	16:45		Presentation of Certificates	All
	16:45	17:00		Closing	IOC, TMA