

Regional SOP Training on End to End Tsunami Early Warning System
11-15 August 2008
Jakarta, Indonesia

SESSION PLAN

Length (min)	Session	Start	End	TWC	TER	TOPIC	Session Chair, Lecturer, Venue
	1.0					DAY 1: OPENING, TSUNAMI WARNING AND EMERGENCY RESPONSE OVERVIEW	Fauzi
						MORNING: PLENARY	NAM Flr 2
30		8:30	9:00			Registration	BMG
45	1.1	9:00	9:45			Opening Ceremonies	UNDP, IOC, BMG
		9:45	10:00			COFFEE / TEA BREAK	
30	1.2	10:00	10:30			Introduction and Objectives	Sanny Jegillos
30	1.3	10:30	11:00			Overview: InaTEWS: Current Progress and Plans, and involvement as a RWTP <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Provide an overview of BMG Indonesia's Operations Center ○ <u>Topics</u> <ul style="list-style-type: none"> ○ InaTEWS current progress development ○ InaTEWS agenda ○ InaTEWS for RTWP ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> ○ InaTEWS handouts 	Prih Harjadi
30	1.4	11:00	11:30			Overview: BNPB: New BAKORNAS (BNPN) with the new role and law <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Provide an overview of BNPB role in tsunami warning ○ <u>Topics</u> <ul style="list-style-type: none"> ○ How to receive information/warning ○ Introduce new BAKORNAS (BNPN) including its new role and law; ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> 	Sugeng Triutomo
						TSUNAMI WARNING AND EMERGENCY RESPONSE OVERVIEW	
60	1.5	11:30	12:30			End-to-End Tsunami Warning and Emergency Response – Overview <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Review the components of the end-to-end tsunami warning followed by response by public officials and the public ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Requirements and activities of tsunami warning centres ○ Requirements and activities of tsunami disaster management and emergency response organizations and the public sector during an alarm ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> ○ Tab 4: TEWS Overview, especially <ul style="list-style-type: none"> i. A Global Tsunami Reduction Strategy: Building Effective Tsunami Warning and Mitigation Systems ii. Guarding Against Tsunamis iii. End-to-End Tsunami Warning – Stakeholders ..., 	Laura Kong

					Public Alert Systems iv. Developing Early Warning Systems: A Checklist ○ Tab 5: Tsunami Warning Centres – An overview ○ Tab 7: 10 Steps to Enable a Successful Tsunami Emergency Response	
60		12:30	13:30		LUNCH	
					AFTERNOON: PLENARY	NAM Flr 2
30	1.6	13:30	14:00		Earthquake and Tsunami Science for Tsunami Warning. Tsunami Hazards generated near and in Indonesia <ul style="list-style-type: none"> • <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Learn the difference between tsunami and normal sea wave ○ Learn key science information for tsunami warning decision-making • <u>Topics</u> <ul style="list-style-type: none"> ○ Mechanism of tsunami source ○ Fault type and source dimension ○ Propagation speed ○ Energy of the tsunami; Deep and Shallow Sea ○ Tsunami Simulation ○ Other sources and their frequency; volcano, landslide • <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> ○ PowerPoint and CD • <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> ○ Tab 5: PTWS Operational Users Guide, Annex I: Tsunamis, 2007 ○ Understanding Tsunamis, 2006 (P.Liu and L. Kong) DVD: TsunamiTeacher 	Fauzi
45	1.7	14:00	14:45		End-to-end Tsunami Warning – Stakeholders, Roles and Responsibilities, Standard Operating Procedures, and their Linkage <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Provide a holistic view of tsunami warnings. Understand the types of warnings, the stakeholders in tsunami warning, inter-dependencies and relationships and how each relates to SOPs. ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Types of warning ○ Stakeholders ○ Relationships- stakeholders ○ Relationships- SOPs ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> Tab 4: End-to-end Tsunami Warning – Stakeholders, Roles and Responsibilities, Standard Operating Procedures, and their Linkage 	Brian Yanagi
75	1.8	14:45	16:00		Case Study: Indonesia's Tsunami Warning and Emergency Response (INA-TEWS Local level) <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Describe processes in the development of InaTEWS at the local level ○ <u>Topics</u> <ul style="list-style-type: none"> ○ BMG Message content – current and future ○ GTZ newsletter evaluation of current message content as a means for improving the understanding and usefulness of tsunami alert messages. ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> ○ Newsletter Evaluation Summary 	Fauzi (BMG), Harald Spahn (GTZ)
15		16:00	16:15		COFFEE / TEA BREAK	
	1.9				Visit BMG operational center	

SESSION PLAN – DAY 2

	2.0				DAY 2: TSUNAMI WARNING AND EMERGENCY RESPONSE STANDARD OPERATING PROCEDURES (SOP)	Jegillos
					MORNING: PLENARY	NAM Flr 4
30	2.1	8:30	9:00		Review and Announcement	Sanny Jegillos
60	2.2	9:00	10:00		Lessons Learned from past tsunami - Indonesia (17 July 2006 Pangandaran, 12 Sep 2007 Bengkulu) - Use of timelines for assessing information flow effectiveness <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Building from Session 1.8, discuss and provide examples of how every tsunami is unique and has unique challenges, focusing on earthquakes and tsunamis that have affected Indonesia Highlight the necessity for preparedness, and responses and actions of the DMO and people Illustrate the challenges of providing alerts Discuss TWC Alert contents - evacuate or just clear the beach? Topics <ul style="list-style-type: none"> Present the cases of Pangandaran and Bengkulu to illustrate lessons learned and how the BMG has responded to improve its services, including the dissemination to interface institutions, initiation of 5-in-1 communications tool (such as through RANET, Media (TV, Radio), Police HQ, TNI HQ, etc) Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 6: Lessons Learned from Past Tsunami 	Fauzi (BMG), Harald Spahn (GTZ)
15	2.3	10:00	10:15		Interim IO Tsunami Advisory Service – Standard Operating Procedures <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Understand the service and meanings of the international messages from the PTWC and JMA Topics <ul style="list-style-type: none"> SOPs and criteria for action Message content and interpretation Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 4: IOTWS and PTWS Operational Users Guide - including PTWC and JMA Communications and Message Content 	Laura Kong, Nobuo Hamada
15		10:15	10:30		COFFEE / TEA BREAK	
45	2.4	10:30	11:15		National Tsunami Warning Centres – Overview on Standard Operating Procedures - Daily Operations, Flow Charts, Timelines <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Identify the routine and emergency activities of TWC, and how these are most efficiently described through written, pre-decided standard operating procedures in order to carry out rapid, efficient, and responsible tsunami warning response. Topics <ul style="list-style-type: none"> What are SOPs What activities are typically covered by SOPs Examples Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 5: NTWC SOP Templates, Guidance and Samples, PTWC Operations Manual 	Laura Kong
45	2.5	11:15	12:00		Country Presentation: Existing Standard Operating Procedures (Maldives, Sri Lanka, Thailand) <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Learn the SOPs of each country 	Participants (Sanny Jegillos)

					<ul style="list-style-type: none"> ○ <u>Topics</u> <ul style="list-style-type: none"> ○ General description-overview, scope and coverage ○ Authority and link with other Disaster Management plans ○ Links with international and other countries ○ What was the process of development? Is testing done regularly- lessons learned? ○ Agencies involved and their roles and responsibilities ○ Agencies who are planned to be involved and how ○ Your assessment of your country's progress ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> ○ PowerPoint and Group Discussion ○ <u>Handouts / Reference Materials</u> Country summary handouts 	
90		12:00	13:30		LUNCH	
					AFTERNOON: PLENARY	NAM Flr 4
45	2.6	13:30	14:15		Country Presentation: Existing Standard Operating Procedures <i>(continued from Session 2.5)</i>	Participants (Sanny Jegillos)
15	2.7	14:15	14:30		Summary Comments and General Discussion on SOPs Questions for discussion: <ul style="list-style-type: none"> ○ Which other stakeholders need to be added - why and how? ○ What improvements are needed? 	Participants (Sanny Jegillos)
15		14:30	14:45		COFFEE / TEA BREAK	
					TSUNAMI WARNING DISSEMINATION	
30	2.8	14:45	15:15		Warning Dissemination and Public Alerting mechanisms and technologies – Message Scheduling and Message Content, Warnings through GTS, RANET, and other existing reliable methods <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Describe effective and reliable methods for timely dissemination of tsunami warnings to authorities and for dissemination to remote and rural communities ○ <u>Topics</u> <ul style="list-style-type: none"> ○ What is the time order of information that should be given for tsunami warnings by TWC? ○ What should be contained in each message? ○ What communication methods are being used and what are their timeliness and reliability? ○ Examples ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> ○ Tab 4: IOTWS and PTWS Operational Users Guides ○ Tab 4: PTWS Section 4.9 PTWC Product Dissemination Services ○ Tab 4: End to End Tsunami Warning Considerations; Public Alert Systems; Alerting Technologies: RANET example 	Laura Kong
120	2.9	15:15	17:15		Case Study: Indonesia Warning Dissemination and Alerting mechanisms and technologies, including information flow, use of RANET and 5-in-1 communications tool <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Describe the issuance of national tsunami alerts through the BMG 5-in-1 system and through the RANET satellite dissemination from the NTWC (BMG Jakarta) downstream to local governments ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Technical explanation about flow of information to the dissemination server ○ Technical explanation about flow of information to the receivers; TNI, POLICE, TV, Media, SMS server etc ○ RANET, 5 in 1 application ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint and demonstration ○ <u>Handouts / Reference Materials</u> Tab 4: Public Alert Systems; Alerting Technologies: RANET example Indonesia Case Study: Status of Tsunami Warning Chain on 	Karyono, Priyatna and Fauzi

					Community Level (GFZ, Oct 2007)	
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SESSION PLAN – DAY 3

	3.0				DAY 3: MEDIA INTERACTIONS, EXERCISE, AWARENESS, EDUCATION	Jegillos
					MORNING: PLENARY	NAM Flr 4
30	3.1	8:30	9:00		Review and Announcement	Sanny Jegillos
45	3.2	9:00	9:45		Warning Dissemination and Public Alerts – Roles of the Media – US and Japan examples <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Highlight the importance of collaboration and good communication with mass media for quick dissemination of warning and for not generating unnecessary rumor/panic ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Quick broadcasting immediately after an earthquake and for disseminating tsunami warning messages ○ Emergency Alert Systems and involvement of the media as part of effective dissemination system (NHK-JMA example, Hawaii Emergency Alert System) ○ Role of the media in public education ○ Media plan for engaging and interacting; example products (news releases, interview, TV, print tips, fact sheets, FAQa, press kits) ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> ○ Powerpoint ○ DVD showing actual TV broadcasting during an earthquake ○ <u>Handouts / Reference Materials</u> Tab 10: Case Studies, Japan and USA; Media Plan, Templates, and examples 	Laura Kong, Troy Kindred, Nobuo Hamada
30	3.3	9:45	10:15		Breakout Groups: Information Flow SOPs - Media and Public Information: Frequently-asked questions and Media SOPs during an tsunami event <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Discuss priorities, needs, and resources and create a Media / Public Information Plan and templates, concentrating on SOPs on information flow before, during, and immediately after the event ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Emphasize timeline-driven Media SOP for different scenarios (local, regional). For time constraints for response (fast information flow), e. g., 10 min - 2 hrs for local – regional events), how should government agencies manage information flow (who speaks, what to say, when, how)? What should be the role of the media starting immediately after the event occurs? ○ SOPs should consider: <ul style="list-style-type: none"> – Weaknesses(gaps, challenges, limitations) of the system, – What message (action) is wanted to convey – How to minimize confusion and misinterpretation – How to convey limitations of TWC to DMO/public ○ In Plenary, brainstorm to create a list: What are FAQs asked to TWC/DMO (in event/outside event)? ○ In Small Groups, discuss and write SOPs to cover how you will interact with the media and public during a during a local/regional scenario? ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> Discussion Groups and report back ○ <u>Handouts / Reference Materials</u> Tab 10: Japan and US examples, Media Plan and Template; examples 	Participants (Sanny Jegillos)
15		10:15	10:30		COFFEE / TEA BREAK	

30	3.3	10:30	11:00		Breakout Groups: Information Flow SOPs - Media and Public Information: Report back from Media SOP breakout (continued of Session 3.3)	Participants (Sanny Jegillos)
60	3.4	11:00	12:00		Use of Exercises in Tsunami Preparedness: Exercise Development / Regional and National Exercises and Post-Exercise Evaluations <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Emphasize the importance of stakeholder groups to conduct routine tsunami training exercises Understand the different types of exercises Review post-exercise results of EPW06 and plan of EPW08 Topics <ul style="list-style-type: none"> Goal of tsunami training exercises Five types of exercises EPW06 and EPW08 Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint and video of examples of different drills Handouts / Reference Materials <ul style="list-style-type: none"> Tab 9: Exercise Types, Tabletop Exercise Development Steps, Planning Templates 	Troy Kindred, Brian Yanagi
90		12:00	13:30		LUNCH	
					AFTERNOON: PLENARY	NAM Flr 4
45	3.5	13:30	14:15		Tsunami Preparedness - Education and Awareness - Examples from Indonesia <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Emphasize the importance of education and awareness. Understand concept of preparedness; learn different type off awareness and education tools and format Topics <ul style="list-style-type: none"> Issues in education and awareness Education format and activities Outreach and public policies Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 4: Tsunami Education and Awareness Tab 11: Tsunami Awareness and Educational Material; Indonesia, New Zealand, USA materials Hard and E-copy examples 	Ardito Kodijat, Irina Rafliana,
45	3.6	14:15	15:00		Discussion- Comparative Practices and Experiences in Tsunami Preparedness, Awareness and Exercise <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Share examples and experience of other countries Topics <ul style="list-style-type: none"> Discuss and identify: What are the common goals, methods/techniques, products/materials in building preparedness, awareness and education of the different groups, and in the use of exercises. Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> Discussion 	Participants (Irina Rafliana, Ardito Kodijat)
15		15:00	15:15		COFFEE / TEA BREAK	

					DAYS 3 and 4: TWC and TER (DMO) MEET SEPARATELY FOR SPECIFIC TOPICAL AND TECHNICAL DISCUSSIONS	
	3.0				DAY 3: TSUNAMI WARNING CENTRE SOPS	Hamada
					AFTERNOON: TWC	NAM, Breakout 1
45	TWC 3.7	15:15	16:00		TWC Operations: Fundamental TWC SOPs for issuing timely Tsunami Warning - Timeline-driven activities and procedures during event alarms <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Review NTWC tsunami operations for centres which will and will not carry out seismic evaluations 	Fauzi

					<ul style="list-style-type: none"> Emphasize response time as the catalyst for SOPs activities <u>Topics</u> <ul style="list-style-type: none"> Activities, time frame of action, and actions and procedures Local and distant earthquake cases – differences Discuss different implementations of activities by countries <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> PowerPoint Group Comparative discussion <u>Handouts / Reference Material</u> <ul style="list-style-type: none"> Tab 5: NTWC SOP Templates 	
45	TWC 3.8	16:00	16:45		TWC Operations – Active seismic monitoring and real-time earthquake source characterization <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> Summarize TWC operations procedures, using Indonesia as an example <u>Topics</u> <ul style="list-style-type: none"> Seismic network Real time data processing system Definition and criteria of different alert levels / warnings Development of SOP <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> PowerPoint <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> Tab 5: NTWC SOP (Guidance and Samples), NTWC SOP Templates; PTWS Operational Users Guide, Annexes I Sea Level Measurement, and V Methods of Tsunami Travel Time Calculation by PTWC, WC/ATWC, and JMA; TWC Operations Manual example (PTWC Operations Manual) 	Nakano (NIED)
60	TWC 3.9	16:45	17:45		TWC Operations - Sea level monitoring, tsunami confirmation and wave forecast <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> Review TWC sea level and wave forecast operations procedures <u>Topics</u> <ul style="list-style-type: none"> Sea Level network Real time data processing system Tsunami Travel Time calculation Tsunami Database by tsunami simulation Definition and criteria of different alert levels / warnings Cancellation based on non-danger Development of SOP <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> PowerPoint <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> Tab 5: NTWC SOP (Guidance and Samples), NTWC SOP Templates; PTWS Operational Users Guide, Annexes II Earthquake Source Characterization; TWC Operations Manual example (PTWC Operations Manual) 	Budi, Fauzi, Mastur (BMG)

	3.0				DAY 3: TSUNAMI EMERGENCY RESPONSE SOPS	Jegillos
					AFTERNOON: TER	NAM, Breakout 2
30	TER 3.7	15:15	15:45		10 Steps to Enable a Successful Tsunami Emergency Response <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> Learn the key components to enable a rapid tsunami emergency response Understand short term and long term planning considerations <u>Topics</u> <ul style="list-style-type: none"> Description of 10 Steps Terminologies <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> Discussion of Handout <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> Tab 7: 10 Steps Handout, Tsunami Planning Template, Disaster Management Organizations Glossary 	Troy Kindred

45	TER 3.8	15:45	16:30		<p>Understanding and acting on TWC Messages and DMO Use of Timelines in Emergency Response</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Understand international TWC Messages (Pacific and Indian Ocean) Interpret TWC Messages into emergency response actions To introduce the concept & explain how they are developed. Participants will be able to produce Timelines and Flowcharts in the tabletop exercise at the end of the course. <u>Topics</u> Review of IOC Users Guides Why Timelines & Flowcharts? Two types of Timelines How to create Timelines. What should be in them? How to create Flowcharts <u>Methodology</u> PowerPoint <u>Handouts / Reference Materials</u> Tab 5: PTWS Operational Users Guide, Annex III. Interpretation of PTWC Messages and Emergency Response Guidance Tab 7: NZ SOP: NZ Tsunami Flowchart 	Brian Yanagi
60	TER 3.9	16:30	17:30		<p>Evacuations: Alerting and Moving People, Inundation maps, Evacuation Routes and Signage, Safe return</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Understand the concepts and processes to enable a successful tsunami coastal evacuation Identify stakeholder agencies to produce evacuation products <u>Topics</u> Defining tsunami evacuation zones Facilitating public “buy in” to planning process Signage & maps, examples and variety and standards Threat levels, Considerations when determining Evac Zones <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint, DVD <u>Handouts / Reference Materials</u> Oregon, USA Signage Guidance (electronic) Sri Lanka Signage Guidance (electronic) 	Troy Kindred, Brian Yanagi

SESSION PLAN – DAY 4

	4.0				DAY 4: TSUNAMI WARNING CENTRE SOPS	Hamada
					MORNING: TWC and TER PLENARY	NAM Flr 4
45	TWC 4.1	8:30	9:15		<p>Review and Announcement</p> <p>Case Study: Indonesia National End-to-End Tsunami Exercises, 2005-2007 Banten Tsunami Simulation, Dec 26, 2007</p>	Sanny Jegillos Harkunti (ITB), Edi (Banten local govt)
					MORNING: TWC	NAM Breakout 1
30	TWC 3.7	9:15	9:45		<p><i>(Continue from Day 3 Session TWC 3.7, 3.8)</i></p> <p>Indonesia Case Study TWC Operations: Fundamental TWC SOPs for issuing timely Tsunami Warning - Timeline-driven activities and procedures during event alarms</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Review NTWC tsunami operations for centres which will and will not carry out seismic evaluations Emphasize response time as the catalyst for SOPs activities <u>Topics</u> Activities, time frame of action, and actions and procedures Local and distant earthquake cases – differences Discuss different implementations of activities by countries <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint 	Fauzi

					<p>Group Comparative discussion</p> <ul style="list-style-type: none"> Handouts / Reference Material <p>Tab 5: NTWC SOP Templates</p>	
30	TWC 3.9	9:45	10:15		<p>(Continue from Day 3 Session TWC 3.9)</p> <p>TWC Operations - Sea level monitoring, tsunami confirmation and wave forecast</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Review TWC sea level and wave forecast operations procedures <u>Topics</u> Sea Level network Real time data processing system Tsunami Travel Time calculation Tsunami Database by tsunami simulation Definition and criteria of different alert levels / warnings Cancellation based on non-danger Development of SOP <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint <u>Handouts / Reference Materials</u> Tab 5: NTWC SOP (Guidance and Samples), NTWC SOP Templates; PTWS Operational Users Guide, Annexes II Earthquake Source Characterization; TWC Operations Manual example (PTWC Operations Manual) 	Laura Kong, Budi, Fauzi, Mastur (BMG)
30	TWC 4.2	10:15	10:45		<p>Developing TWC Standard Operating Procedures – Guidance and Samples for Routine and Crisis (Event) operations, including procedures for operational readiness, real-time data collection, event alarm response and warning dissemination</p>	Laura Kong, Nobuo Hamada
15		10:45	11:00		COFFEE / TEA BREAK	
60	TWC 4.3	11:00	12:00		<p>Breakout Groups: Using Templates to Create TWC SOPs (Roles & Responsibilities, Routine Operations, Ensuring Data Quality Control and Telecommunications Reliability, and other requirements)</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Identify and discuss non-evaluation activities of TWC <u>Topics</u> <ul style="list-style-type: none"> Concept of Operations - Roles & Responsibilities Routine Operations Ensuring Data Quality Control and Telecommunications Reliability Training In Groups, develop SOPs according the Chapters 2 and 5 in NTWC SOP (Guidance and Samples) - Tab 4 <u>Methodology (PowerPoint, CD, DVD, Other)</u> Group Discussion <u>Handouts / Reference Materials</u> <ul style="list-style-type: none"> Tab 5: NTWC SOP (Guidance and Samples) Chapter 2 and 5, TWC Operations Manual example (PTWC Operations Manual) <p>PTWS Operations Manual (v0.88, Nov 2007); Electronic documents: JMA Manual on Operations and Systems for Tsunami Warning Service (March 2007); WC/ATWC Users Guide (2007)</p>	Small Groups (Laura Kong, Nobuo Hamada, Fauzi)
90		12:00	13:30		LUNCH	
					AFTERNOON: TWC	
90	TWC 4.4 4.5	13:30	15:00		<p>Creating SOPs: Timeline-driven SOPs – Using Templates to Develop Timeline of Processes and Actions as SOPs (Messages, Checklists, Information Dissemination)</p> <p>Breakout and Group Discussion on improving present country SOPs</p> <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Develop a TWC Timeline of detection, alarming, evaluation, decision-making, messaging, dissemination, and cancellation <u>Topics</u> In Groups according for local, regional and teleseismic cases, develop SOPs according to Chapters 3 and 4 in NTWC SOP (Guidance and Samples) – Tab 4: 	Small Groups (Laura Kong, Nobuo Hamada, Fauzi)

					<ul style="list-style-type: none"> Develop timeline-drive SOP, Checklists, and Message template Identify timeline actions based on number of minutes after earthquake occurrence, types of actions to be undertaken within the timeline; Identify appropriate processes and techniques within the timeline Develop Media/Public Information Flow SOP <u>Methodology (PowerPoint, CD, DVD, Other)</u> Group Discussion <u>Handouts / Reference Materials</u> Tab 5: NTCW SOP (Guidance and Samples) Chapter 3 and 4, NTCW SOP templates; TWC Operations Manual example (PTWC Operations Manual) 	
15		15:00	15:15		COFFEE / TEA BREAK	
60	TWC 4.6	15:15	16:15		Creating SOPs: Timeline-driven SOPs – Using Templates to Develop Timeline of Processes and Actions as SOPs (Messages, Checklists, Information Dissemination) Breakout and Group Discussion on improving present country SOPs <i>(continuing from TWC 4.5)</i>	Small Groups (Laura Kong, Nobuo Hamada, Fauzi)
60	TWC 4.7	16:15	17:15		Presentation of Break out Group SOPs	Breakout Group Chairs
15	TWC 4.8	17:15	17:30		Table Top Exercise – Background and Scenarios for Day 5 <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> Use of Exercises to improve TWC and TER SOPs for distant and regional responses to tsunami <u>Topics</u> <ul style="list-style-type: none"> Tabletop Exercise General Instruction Assign discussion groups <u>Methodology</u> <ul style="list-style-type: none"> PowerPoint and discussion <u>Handouts / Reference Materials</u> Tab 9: Exercise Jakarta 08 General Instruction 	Exercise Controller
					DINNER	

	4.0				DAY 4: TSUNAMI EMERGENCY RESPONSE SOPs	Jegillos
					MORNING: TWC and TER PLENARY	NAM Flr 4
45	TER 4.1	8:30	9:15		Review and Announcement Case Study: Indonesia National Tsunami Drills Banten Tsunami Drill, Dec 2007	Sanny Jegillos Harkunti (ITB), Edi (Banten local govt)
					MORNING: TER	NAM Breakout 2
60	TER 4.2	9:15	10:15		Case Studies on experiences in developing and using SOPs - Wakayama, Japan (Wakayama); Indonesia (Aceh) <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> Understand the timeline differences in reacting to local, regional, distant tsunami scenarios Understand processes to develop SOPs to enact emergency response <u>Topics</u> Review of Japan and Indonesia <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint <u>Handouts / Reference Materials</u> Tab 8: Wakayama SOP, Banda Aceh SOP 	Brian Yanagi, Aceh local government
30	TER 4.3	10:15	10:45		SOP Guidance Manual – Explanation of Templates, Distant and Local Threats; Creating SOPs - How to Guidance, including Response Processes, Flow Charts and Checklists in SOPs <ul style="list-style-type: none"> <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> Learn that separate SOPs are to be developed for local and distant tsunami threats Understand template guidelines to design SOP 	Brian Yanagi

					<ul style="list-style-type: none"> processes <ul style="list-style-type: none"> Understand concepts of Response Processes Learn how to transform Response Processes into Flow Charts and Checklists Topics <ul style="list-style-type: none"> Overview of SOP templates 24/7 arrangements Thresholds Templates Activation of Public Alert Systems Evacuation procedures All Clear procedure Review of tsunami planning templates Case Study: City of Galle, Sri Lanka. Flow Chart Process Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 7: TER SOPs templates; Case Study: City of Galle, Sri Lanka 	
15		10:45	11:00		COFFEE / TEA BREAK	
30	TER 4.4	11:00	11:30		SOP Guidance Manual – Explanation of Templates, Distant and Local Threats; Creating SOPs - How to Guidance, including Response Processes, Flow Charts and Checklists in SOPs <i>(continued from TER 4.3)</i>	Brian Yanagi
45	TER 4.5	11:30	12:15		Breakout Groups: Using Templates to Create General Roles and Responsibilities for SOPs <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Identify agency general roles and emergency response actions Identify agency gaps in implementing necessary actions Identify critical decision making points Identify communication pathways between agencies Topics – Division of Breakout Groups <ul style="list-style-type: none"> Breakout Group A: Countries that experience local tsunamis within 0-1 hour wave travel time from a known earthquake source region Breakout Group B: Countries that experience distant tsunamis of 3+ hours wave travel time from a known earthquake source region Review Roles and Responsibilities Matrix Template Review Emergency Response Matrix Template Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 7: Roles and Responsibilities Matrix Template, Emergency Response Matrix Template 	Small Groups (Brian Yanagi, Troy Kindred)
90		12:15	13:45		LUNCH	
					AFTERNOON	NAM, Breakout 2
60	TER 4.6	13:45	14:45		Breakout Groups: Using Templates to Create Evacuation Checklists for SOPs <ul style="list-style-type: none"> Objectives / Outcomes <ul style="list-style-type: none"> Identify steps to enable a successful evacuation Review existing evacuation procedures and processes Identify gaps in evacuation procedures Identify information and resource needs Topics <ul style="list-style-type: none"> Tsunami Planning Template Tsunami Occurrence List Template Tsunami Evacuation Checklist Template Methodology (PowerPoint, CD, DVD, Other) <ul style="list-style-type: none"> PowerPoint Handouts / Reference Materials <ul style="list-style-type: none"> Tab 7: Tsunami Evacuation Checklist Template, Tsunami Occurrence Checklist Template 	Small Groups (Brian Yanagi, Troy Kindred)
30	TER	14:45	15:15		Creating SOPs: Timeline-driven SOPs	Brian Yanagi

	4.7				<ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> Understand how timelines drive TWC key response actions ○ <u>Topics</u> Review Case study timelines to highlight <ul style="list-style-type: none"> ○ Key points where TWCs are required to respond ○ What information customers want ○ When do customers want the information ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> PowerPoint ○ <u>Handouts / Reference Materials</u> Tab 6: Lessons Learned – Pacific and Indian Ocean tsunamis Tab 5: NTWC SOP Templates, TWC Operations Manual (PTWC Checklists) 	
15		15:15	15:30		COFFEE / TEA BREAK	
45	TER 4.8	15:30	16:15		Break out Groups: Using Templates to Develop Timeline of Processes and Actions as SOPs	Small Groups (Brian Yanagi, Troy Kindred)
60	TER 4.9	16:15	17:15		Presentation of Break out Group SOPs	Breakout Group Chairs
15	TER 4.10	17:15	17:30		Table Top Exercise – Background and Scenarios for Day 5 <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Use of Exercises to improve TWC and TER SOPs for distant and regional responses to tsunami ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Tabletop Exercise General Instruction ○ Assign discussion groups ○ <u>Methodology</u> <ul style="list-style-type: none"> ○ PowerPoint and discussion ○ <u>Handouts / Reference Materials</u> Tab 9: Exercise Jakarta 08 General Instruction 	Exercise Controller
					DINNER	

SESSION PLAN – DAY 5

	5.0				DAY 5: TABLE TOP EXERCISE, SUMMARY, CLOSING	Fauzi, Kong, Jegillos
					MORNING	NAM
30	5.1	8:30	8:45		Review and Announcement	Sanny Jegillos
45	5.2	8:45	9:30		Table Top Exercise Set-up according to Stakeholder Warning and Response Groups <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Provide instructions on how Table Top will be run ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Provide scenario and background ○ Identify arrangements for information flow, decision-making, and response / feed-back ○ <u>Methodology</u> <ul style="list-style-type: none"> ○ PowerPoint ○ <u>Handouts / Reference Materials</u> Tab 9: Exercise Jakarta 08 General Instruction 	Exercise Controller (Troy Kindred)
60	5.3	9:30	10:30		Table Top Exercise – Sumatra source, 1 Indonesia TWC and 3 Country (TWC and TER) groups <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Carry out a Table Top Exercise ○ Apply a tsunami warning scenario to pre-developed time lines, flowcharts and SOP's ○ Identify and describe the individual actions taken by each respective stakeholder in response to the tsunami warning ○ Demonstrate the above through report-back to the plenary 	Small Groups

					<ul style="list-style-type: none"> ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Participants will be presented with a scenario simulation and a flow of simulated exercise 'injects' to which they will respond through group discussion. ○ Participants will be required to take in account and apply the knowledge and preparation they have developed in the course of the workshop to demonstrate an appropriate response to the scenario. ○ Group discussions will take place in the morning and the Exercise will take place in the afternoon. ○ <u>Methodology (PowerPoint, CD, DVD, Other)</u> <ul style="list-style-type: none"> ○ Exercise Controllers to provide time/information/data to each Stakeholder Group for their response. ○ <u>Handouts / Reference Materials</u> Exercise Scenario - Inject - messages, data, other information 	
15		10:30	10:45		COFFEE / TEA BREAK	
60	5.3	10:45	11:30		Table Top Exercise – Sumatra source, 1 Indonesia TWC and 3 Country (TWC and TER) groups (continuing 5.3)	Small Groups
90		11:30	14:00		LUNCH	
					AFTERNOON	NAM
60	5.4	14:00	15:00		Table Top Exercise – Evaluation <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Post-Exercise Evaluations ○ Conduct Day 5 Table Top Exercise evaluation ○ Receive comment from lecturers and peers on the reports ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Discussion on Day 5 Table Top Exercise by each group ○ <u>Methodology</u> Lecturers comment on report-backs of Exercise discussion groups. The quality and comprehensiveness of the report-backs will provide an over-all impression on the level of achievement by the groups. ○ <u>Handouts / Reference Materials</u> Tab 9: EPW06 Evaluation Form; City of Torrance Operation 'Back on Track' Participant Critique ;City of Torrance Operation 'Back on Track' Exercise Evaluation 	Breakout Group Chair, Exercise Controller (Troy Kindred)
30	5.5	15:00	15:15		Table Top Exercise – Summary and Next Steps <ul style="list-style-type: none"> ○ <u>Objectives / Outcomes</u> <ul style="list-style-type: none"> ○ Summarize Day 5 Tabletop Exercise Lessons Learned ○ How to use exercises to improve operational response ○ <u>Topics</u> <ul style="list-style-type: none"> ○ Discussion on Day 5 Table Top Exercise ○ Post-Exercise Evaluations – why, who, what, how ○ Evaluation Surveys ○ Next Steps ○ <u>Methodology</u> PowerPoint and discussion ○ <u>Handouts / Reference Materials</u> 	Exercise Controller (Troy Kindred) and Observers
15		15:15	15:30		COFFEE / TEA BREAK	All
30	5.6	15:30	16:00		Workshop Summary Discussion	Sanny Jegillos, Fauzi, Laura Kong
					CLOSING CEREMONIES	Fauzi
20	5.7	16:00	16:20		Presentation of Certificates	Prih Harjadi
40	5.8	16:20	16:30		Closing	UNDP, ITIC, BMG