



Overview of the Project
SYNERGIZED STANDARD OPERATING PROCEDURES FOR
COASTAL MULTI-HAZARDS EARLY WARNING SYSTEM (SSOP)
WMO Regional Training Centre Nanjing, China
09-11 June 2014



Olavo Rasquinho - Sec. of Typhoon Committee
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Technical Advisor



SSOP Project

Goal: To promote community resilience to coastal multi-hazards and to improve the policy and institutional arrangements at national, district, and community levels through integrated, effective standard operating procedures (SOP) for multi-hazards early warning system

Focused mainly on the National Meteorological and Hydrological Services to meet the needs of diverse users

Funded by: ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness in Indian Ocean and Southeast Asian Countries

Time Frame: 29 months (1 August 2012 – 31 December 2014)

Beneficiary Countries

PTC region (7):

Bangladesh (Pilot); India; Maldives; Myanmar;
Pakistan (Pilot); Sri Lanka; Thailand

TC region (7):

Cambodia; China; Lao PDR; Malaysia;
Philippines (Pilot); Thailand and Viet Nam

Outcomes

Expected Outcome 1: Integrated, effective standard operating procedures for coastal multi-hazard EWS for TC and PTC Members

Support Activity 1: Review and synergize existing SOPs for coastal multi-hazards EWS and develop a Manual of Synergized SOPs for Coastal Multi-Hazards EWS

1.1 – **Conduct workshop** to collect and analyse performance status of coastal multi-hazard EWS and associated SOPs **(Bangkok 8-9, May 2013)**

1.2 – **Conduct pilot missions and workshops** to identify strengths, gaps, and needs of SOPs for EWS. **(Bangladesh, Pakistan and Philippines – October 2013)**

1.3 – **Synergize existing SOPs and develop additional ones** as needed to meet identified gaps and needs and **compile a Manual of Synergized SOPs for Coastal Multi-Hazards EWS (In process)**

Outcomes

Expected Outcome 2: Improved performance and effectiveness of SOPs for coastal multi-hazard EWS through integration, synergization, cooperation, and training.

Support Activity 2: Enhance the performance and effectiveness of SOPs for coastal multi-hazard EWS through capacity building

2.1 – Conduct SSOP Training Workshop for users and issuers in the interpretation and preparation of EWS products for decision-making, media, and communications (WMO RTC Nanjing, on 09-11 June 2014) and assistance missions

2.2 – Conduct working meeting on building a cooperation mechanism between TC and PTC for coastal multi-hazard EWS information sharing and technical transferring

SSOP Project Output

Main Output 1: Manual of Synergized Standard Operating Procedures (SSOP) for Coastal Multi-Hazards Early Warning System, mainly focusing on hydro-meteorological service including SOPs related to warning providers, disaster managers, media, and fishermen.

Main Output 2: Regular communication and cooperation mechanism between TC and PTC on coastal multi-hazard early warning, particularly southern countries in the region.

Other Projects Under ESCAP Tsunami Trust Fund

- ▶ **Asian Disaster Preparedness Center (ADPC)** in association with Global Alliance on Accessible Technologies for Environment (GAATES) Technical Assistance for enhancing the capacity of end-to-end multi-hazard EWS for coastal Hazards in Myanmar, Sri Lanka and Philippines
- ▶ **Asia-Pacific Broadcasting Union (ABU) Disaster Risk Reduction Broadcast Media Initiative**
- ▶ **Regional Integrated Multi-Hazard Early Warning System (RIMES)** in cooperation with World Meteorological Organization Reducing risks of tsunami, storm surges, large waves and other natural hazards in low elevation coastal zones

Partners

- ▶ TC and PTC Country Focal Points (NMHS and NDMO)
- ▶ ESCAP Economic and Social Commission of Asia and Pacific
- ▶ TC Typhoon Committee
- ▶ PTC Panel on Tropical Cyclones
- ▶ ADPC Asian Disaster Preparedness Center
- ▶ ABU Asia-Pacific Broadcasting Union
- ▶ GAATES Global Alliance on Accessible Technologies for Environments
- ▶ ADRC Asian Disaster Reduction Center
- ▶ IOC Intergovernmental Oceanographic Commission of UNESCO
- ▶ WMO World Meteorological Organization
- ▶ RIMES Regional Integrated Multi-Hazard Early Warning System

Structure of SSOP Project

Steering Committee Composition

- ▶ Chairperson of TC AWG, TC Secretary, and PTC Secretary

Duties

- ▶ Select Consultant (s) and Project Manager
- ▶ Provide guidance to Task Force, Project Manager and Consultant(s)
- ▶ Monitor progress of the SSOP project implementation

Program Manager/Technical Advisor

Duties

- ▶ Implement SSOP in accordance with planned schedule
- ▶ Coordinate related programmes or activities
- ▶ Prepare progress reports
- ▶ Coordinate draft Manual of SSOP for Coastal Multi-Hazards EWS

Structure of SSOP Project (Cont.)

Task Force Structure and Organization

- ▶ Chairpersons/representatives of WGM, WGH, WGDRR, TRCG of TC, Chairpersons/representatives of WGM, WGH, WGDRR of PTC/ **Heads of RSMC**
- ▶ Representatives from TC and PTC Secretariats
- ▶ Consultants from potential cooperation organizations
- ▶ Focal points from 13 beneficiary countries among Members of TC and PTC (**also from non beneficiary countries – Japan, Rep of Korea and Hong Kong, China**)

Conclusions - May 8-9 2013 Initial Workshop

Manual of Synergized Standard Operating Procedures

- ▶ **Wide variety of cultures, governments, past experiences, relationships, risks, and people - SSOPs must be flexible best practices, operational guidelines and recommendations**
- ▶ **Focused on meteorological and hydrological services, disaster management offices, and national tsunami warning centers.** Other agencies must be involved in detailed, integrated ways to make end to end, cross-cutting EWS work. Various user sectors needs within government, businesses, and communities should be addressed.
- ▶ **Need for policy part of SOP development.** With different agencies and government levels, policy framework required for success.

Conclusions - May 8-9 2013 Initial Workshop (Cont.)

Training and Human Capacity Building

- ▶ **Technical required, but also other types needed.** Train warning preparer to communicate better with media and media to better understand risks and potential impacts.
- ▶ **Awareness of risks, potential, similarities and differences among coastal hazards at various levels needed**
- ▶ **At community level, training on meaning of warnings, risk, potential, and actions needed.** Methods needed to increase awareness especially for areas not significantly impacted for 10 -30 years.

Three In-Country Pilot Workshops

Team Members

- ▶ Jim Weyman, Project Manager/Technical Advisor (Philippines and Bangladesh, Skype into Pakistan)
- ▶ Olavo Rasquinho, Meteorological Expert, TCS
- ▶ Atiq Kainan Ahmed, Disaster Response Expert, ADPC
- ▶ Walter Welz, Media Expert, ABU (Philippines and Bangladesh)
- ▶ Ahmed Said Al Barwani, Hydrology Expert, PTC (Oman)
- ▶ Nadeem Ahmed, Media Expert, ABU (visited Pakistan)

Three In-Country Pilot Workshops (Cont.)

In Country Pilot Workshops were held:

- ▶ October 3-4, 2013 Manila, Philippines
- ▶ October 6-7, 2013 Dhaka, Bangladesh
- ▶ October 10-11, 2013 Islamabad, Pakistan

Draft copies of detailed reports of pilot workshops, a summary report, and report of the May 8-9, 2013 kickoff meeting (and other related documents) at:

<http://www.typhooncommittee.org/SSOP/indexSSOP.html>

Purpose of Pilot Workshops

Sub-Activity 1.2: Conduct pilot missions and workshops focused on institutional capacity building from the national level to the local level and **identification of pilot countries' strengths, needs, and gaps** in the area of EWS SOPs.

Workshop Purpose

- ▶ **Review existing SOPs** for coastal multi-hazards EWS for hydro-meteorological, disaster management, media, elected official, and others from national to local levels
- ▶ **Identified strengths, gaps and needs** in both agency internal SOPs and also integrated SOPs among agencies.
- ▶ **Develop an action plan**

Conclusion Pilot Workshops - EWS

Recurring Themes of Required Items

- ▶ High level government commitment and support
- ▶ Legal and legislature framework.
- ▶ Collaboration/coordination – national, regional, and local.
- ▶ Media involvement as a partner.
- ▶ Multi-hazard approach
- ▶ Fully implemented elements of a people centered EWS
- ▶ Technical and financial assistance to prepare required SOPs

Conclusion Pilot Workshops - SOPs

Strengths

- Favorable framework for creation/maintaining SOPs.
- Excellent examples of existing SOPs
- Systems in detection, monitoring, forecasting, and warning services
- System/situation in dissemination & communications
- Systems in response and preparedness capacity
- Supporting MOUs in place

Conclusion Pilot Workshops - SOPs

Gaps and Needs – SOPs for Specific Areas

- ▶ Roles and responsibilities defined in national policies
- ▶ SOPs for both technical and non-technical activities
- ▶ Hydro-meteorological service SOPs on all aspects of forecast and warning process
- ▶ SOP to cover back-up plans for catastrophic events such as power failure, fire, earthquake damage, etc.
- ▶ SOP to prepare after action reports to release to media & public
- ▶ Local government SOPs on evacuation, sheltering, and resettlement

Conclusion Pilot Workshops - SOPs

Gaps and Needs – Integrated, cross-cutting SOPs Needs

- ▶ Multiagency SOP on dissemination process
- ▶ Multiagency SOP on mechanism for sharing data/data analysis
- ▶ Local communities SOPs to prevent conflicting activities
- ▶ Coordination procedures on dissemination of warnings at all levels and agencies to prevent conflicting information
- ▶ Coordinated procedures for implementing new/updated SOPs
- ▶ Involvement of non-government private, professional, civil society, community organizations and families in SOPs
- ▶ Reference manual for media to understand/communicate information

Conclusion Pilot Workshops - SOPs

SOP testing and maintaining needs

- ▶ Annual or scheduled reviews of all SOPs
- ▶ Updated based on past experience and changes
- ▶ Conduct post disaster assessment between DRR and media

MOU related needs

- ▶ National plan/MOU clearly defining roles and responsibilities
- ▶ DRR and media MOU to define single, official source of data
- ▶ Hydro-meteorological service & media MOU on dissemination
- ▶ Hydro-meteorological service and DRR MOU
- ▶ MOU on data formats, warnings, and monitoring systems

Conclusion Pilot Workshops - Manual

Manual/Handbook should contain:

- ▶ Minimum baseline standard & guidelines on format and content
- ▶ Checklist for SOPs for different types/levels of threat
- ▶ Guidelines for multi-hazards SOPs
- ▶ Need for regular updating after a disaster
- ▶ Need to conduct regular exercises/drills to validate SOPs
- ▶ SOP examples from other countries
- ▶ List of relevant available websites, case studies, documents, etc.
- ▶ Examples of social media use for information dissemination
- ▶ Need to incorporate designation of spokesperson for event

PILOT WORKSHOP ON
SYNERGIZED STANDARD
OPERATING PROCEDURES
(SSOP) FOR COASTAL MULTI-
HAZARDS EARLY WARNING
SYSTEM

Pakistan

A highly successful two-day pilot workshop was conducted at Marriott Hotel, Islamabad, Pakistan on 10 – 11 October 2013. The purpose of the workshop was to identify Standard Operating Procedures (SOP) best practices, gaps and needs, recommendations, and an action plan to meet the needs of Pakistan and of the project for the other 12 beneficiary countries involved.

James C. Weyman, Project Manager/Technical Advisor
11/18/2013

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Pilot Workshop SSOP Philippines

PILOT WORKSHOP ON
SYNERGIZED STANDARD
OPERATING PROCEDURES
(SSOP) FOR COASTAL MULTI-
HAZARDS EARLY WARNING
SYSTEM

Philippines

A highly successful two-day pilot workshop was conducted at PAGASA Science Garden, Quezon City, Philippines on 3 – 4 October 2013. The purpose of the workshop was to identify Standard Operating Procedures (SOP) best practices, gaps and needs, recommendations, and an action plan to meet the needs of the Philippines and of the project for the other 12 beneficiary countries involved.

James C. Weyman, Project Manager/Technical Advisor
11/18/2013

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PILOT WORKSHOP ON
SYNERGIZED STANDARD
OPERATING PROCEDURES
(SSOP) FOR COASTAL MULTI-
HAZARDS EARLY WARNING
SYSTEM

Bangladesh

A highly successful two-day pilot workshop was conducted at the Bangladesh Meteorological Department, Dhaka, Bangladesh on 6 – 7 October 2013. The purpose of the workshop was to identify Standard Operating Procedures (SOP) best practices, gaps and needs, recommendations, and an action plan to meet the needs of Bangladesh and of the project for the other 12 beneficiary countries involved.

James C. Weyman, Project Manager/Technical Advisor
11/18/2013

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Pilot Workshop SSOP Pakistan

Pilot Workshop SSOP Bangladesh

**DRAFT MANUAL ON
SYNERGIZED STANDARD OPERATING
PROCEDURES (SSOP) FOR COASTAL
MULTI-HAZARDS EARLY WARNING SYSTEM**

The purpose of this Manual Synergized Standard Operating Procedures (SSOP) for Coastal Multi-Hazards Early Warning System to promote community resilience to coastal multi-hazards and to improve the policy and institutional arrangements at national, district, and community levels through integrated, effective standard operating procedures for multi-hazards EWS.

SSOP Task Force XX February 2014

Manual on SSOP

Summary Report of 3 Pilot Workshops

Initial Draft Revision

11/18/2013

Draft Summary Report on Three Pilot Workshops for Synergized Standard Operating Procedures (SSOP) for Coastal Multi-Hazards Early Warning System

Philippines

Bangladesh

Pakistan

Highly successful two-day pilot workshops were conducted in Philippines, Bangladesh, and Pakistan 3 - 11 October 2013 by an international, multi-agency team. The purpose of the workshop was to identify Standard Operating Procedures (SOP) best practices, gaps and needs, and recommendations, and an action plan to meet the needs of the three countries and of the project for the other 10 beneficiary countries involved. NOTE: This is a summary report. Detailed reports on each pilot country visit were completed and will be available.

James C. Weyman, Project Manager, Technical Advisor
18 November 2013

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Compilation of EWS and SOP Guidance and Checklist

Prepared prior to In-Country Pilot Workshops to demonstrate information available and necessary for the Manual

- ▶ Compilation - A Guide to Writing Effective SOPs
- ▶ Compilation - Checklist for Effective SOPs for EWS
- ▶ Compilation - Information on Early Warning System Overview
- ▶ Compilation - Early Warning System Checklist Items
- ▶ Compilation - General Basic Information on EWS for NHMS, Warnings, Communications, and Relationships

Based upon many different documents including ones from the Shanghai Meteorological Service and WMO

Future Plans and Activities

Activity 1.3

- ▶ Missions of consultants to three beneficiary countries in PTC region to obtain specific SOPs in use and to refine needs and gaps. Focal points involvement (Maldives, Myanmar, Sri Lanka)
- ▶ Missions of consultants to 3 other beneficiary countries, in TC region, to get specific SOP examples and inputs on needed ones (Cambodia, Malaysia and Viet Nam). Focal points involvement
- ▶ Program Manager, SSOP Task Force, TCS, and PTC compile manual on SSOPs based on information collected in pilot workshops and consultants missions

Future Plans and Activities

Activity 2.1

- ▶ Training session for decision-makers, disaster managers, media professionals, and warning issuers from 13 target countries - WMO RTC Nanjing 09-11 June 2014. Experts in Meteo, Hydro, DRR, media, social science, plus Program Manager, TCS and PTC representatives will assist the training workshop
- ▶ Missions to approximately 6 selected targeted countries to provide technical and financial assistance to assist develop, update, coordinate, and implement improved SOPs (need identified)

Future Plans and Activities

Activity 2.2

- ▶ Conduct working meeting for approximately 20 participants from target countries on building cooperation mechanism between TC and PTC for coastal multi-hazard EWS and SOPs information sharing and technical transferring.
(Most likely in September – October 2014)
- ▶ TC and PTC members' focal points for a joint cooperative mechanism involved
- ▶ Analyze current actions of the TC and PTC and how these can be used along with additional developed ones to create a sustainable cooperative mechanism between TC and PTC

Future Plans and Activities

Monitoring, Evaluation, and Audit

- ▶ Scheduled for October – December 2014
- ▶ Independent end of term evaluation commissioned by Typhoon Committee Secretariat in consultation with partners and ESCAP – Purpose: To facilitate learning
- ▶ TCS will commission independent audit of the project funds at end of project and will submit to ESCAP

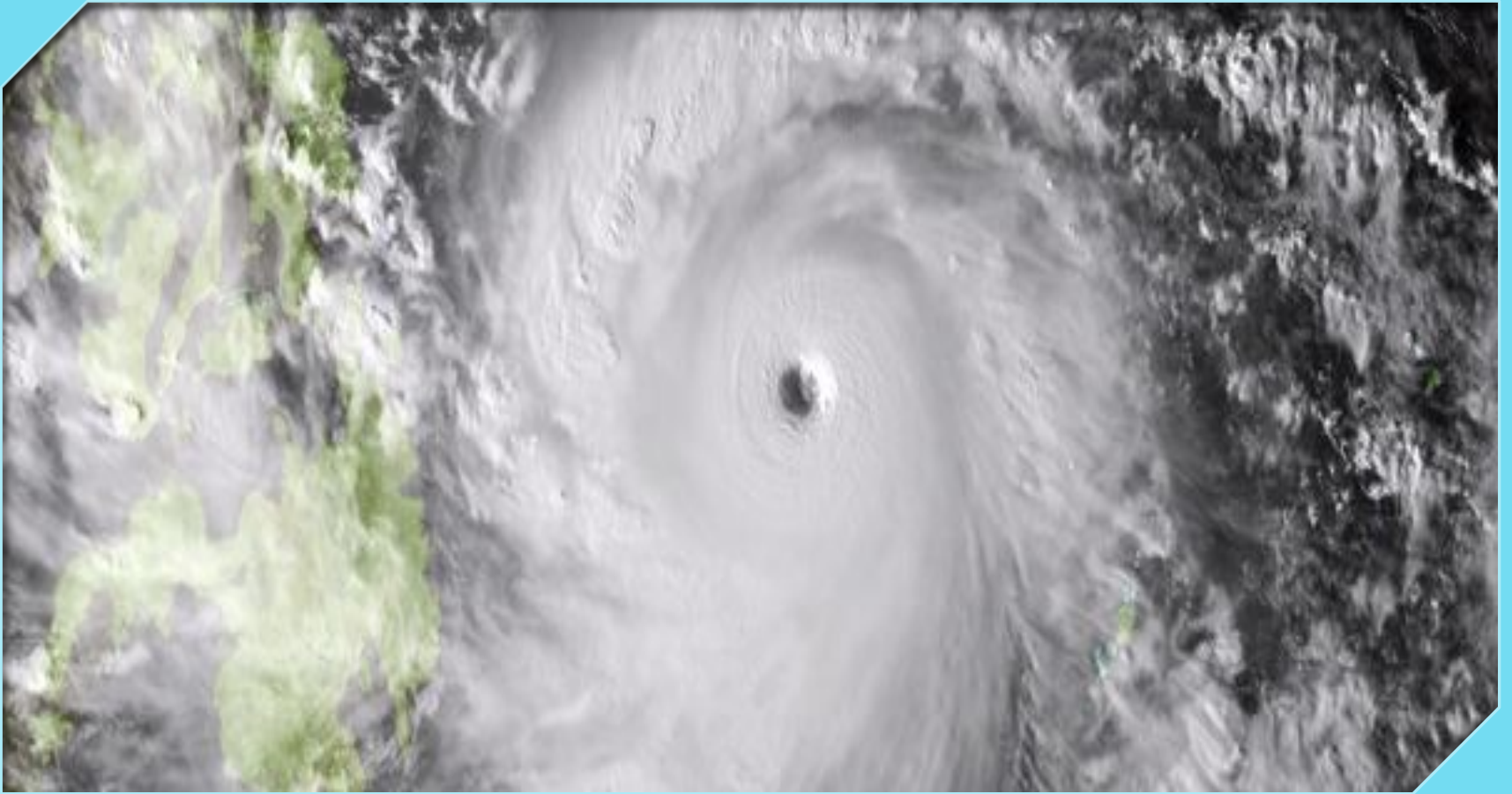
Resolutions of TC46 on SSOP

Approve the submission of no cost extension request to ESCAP for the SSOP project until 31 December 2014, instead 31 July 2014;

Encourage Members, in particular the SSOP beneficiary countries to collaborate with the SSOP project.

Encourage Members continuing cooperation on SSOP in 2014 assisting the manual drafting and training workshop;

Approve the organization of a SSOP workshop in the WMO RTC Nanjing.



THANK YOU