

# End-to-end early warning simulation exercise and drills for coastal hazards in Myanmar –

## An opportunity to build resilience through strengthening EWS before the next disaster strikes

### Interest Story

**AYERYARWADDY, Myanmar** – The Department of Meteorology (DMH) Myanmar in collaboration with Relief and Resettlement Department (RRD), respective General Administrative Department (GAD) representations and with the overall technical facilitation from Asian Disaster Preparedness Center (ADPC) has conducted a unique ‘End-to-End Early Warning Simulation and Drill’ on 5 May 2014 in three pilot sites in the Ayeyarwady division.

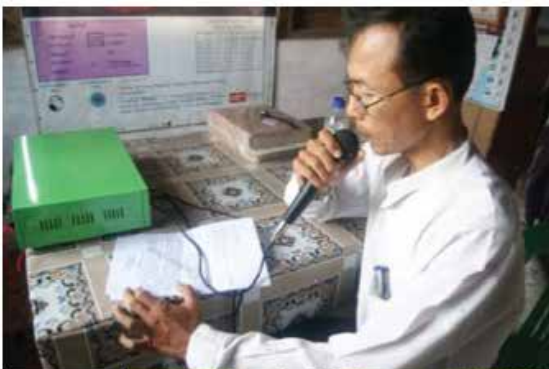
The simulation was an opportunity to test the Early Warning System (EWS) readiness. The simulation would allow an opportunity to strengthen the EWS before the next disaster happened. The exercise is organized under the Regional Project supported by the UNESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness titled “Technical assistance for enhancing the capacity of end-to-end multi-hazard EWS for coastal hazards in Myanmar, Sri Lanka and the Philippines”. The end-to-end early warning simulation and demonstrative drills were conducted simultaneously in three coastal pilot sites in Myanmar respectively in Chauntha beach of Pathain; Thayetpinesak Village of Paypon; and Daw Nyein Village of the Paypon Township. This learning experience can potentially be replicated in other vulnerable coastal areas to develop a low resource intensive end-to-end early warning system that would be interconnected with the national EWS system.

“ End-to-end early warning simulations and drills conducted jointly by DMH and ADPC with others are important features of public weather services and also useful to see how coastal communities in Myanmar are preparing themselves using DMH warnings and forecasts. This is a useful learning experience towards people-centric end-to-end early warning system in Myanmar. ”

Dr. Hrin Nei Thiam, Director General, DMH

“ From this DMH-RRD-ADPC End-to-End EW simulation and drill exercises, people in the communities can learn a lot of practical and common sense elements for preparing themselves to manage coastal hazards in a more systematic way. ”

U Than Soe, Head of Department, RRD Ayeyarwady Region



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## Early warning simulation and drill: an opportunity to find the gaps and strengthen the system in advance

The illustrative end-to-end warning simulation and drills process included an end-to-end testing of early warning rapid notification, dissemination, and response elements by adopting two phases of the exercise: a) simulation and b) drills. The EW information sharing part was done with the VTDMCs and then the evacuation was conducted at village level with drills. The simulation started with the DMH issuing of a 'bay warning' at 9:30 am and gradually elevated to warning scenarios with color coded warnings (3 colors: yellow, orange and then red) and then rapidly notifying warning information to RRD, GAD, Media and others in the dissemination flow. This message went down from 'National' to downstream to 'State' level to 'Township' to 'Village tract' level. At the village level, evacuation was ordered by the VTDMCs with red color message and a unique rapid public notification process started using the VTDMCs and their community cluster volunteers. This level took a lead in public addressing and dissemination and used the megaphones (at cluster level), loud speakers (from VTDMC office) and other mode of communications and makes use of pre-developed evacuation maps, route plans, safe sites plans and provisions to shelter local people into safer locations. After stepping down of the warning, the community again went back to their own domiciles and started their daily life. About a total of 1,200 people participated in these village drills and more than eleven external organizations and media agencies participated as observers in this exercise. This process described simulated and drilled down to see the 'readiness' of the system and 'evaluate the process' with its strengths, weaknesses and recommendations to strengthen the end-to-end early warning systems through a learning process.

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## Key Developments

The initiatives were developed through a year-long consultative process whereby participatory interactions by government departments, pilot townships, village administrations and local communities took place to look into the end-to-end early warning and community based early warning issues. The key developments encouraged in this process were:

- Establish end-to-end connectivity with the upstream early warning system with the national and state level EW entities;
- Establishment of source to end user connectivity for rapid notification of early warning information in a regular manner from the sources (i.e. from DMH);
- Establish Public Addressing System (PAS) in the community and clusters through simple and available EW information dissemination equipments such as Megaphones, Loud Speakers etc;
- Popularize simple VHF, FM radio, community radio based simple risk communications to access the EW information;
- Development of risk-risk-resource and evacuation mapping process through community and stakeholder participation;
- Linking community response systems with the national warning information on a sustainable manner;
- Development of minimum needed level of clear dissemination system to the last mile communities band persons;
- Establishment of cluster based voluntarism within the villages to take self responsibility toward sharing early warning within the community/villages;
- Creation of minimum standards and procedures for safer site identification and establish evacuation sites, route maps and sheltering provisions locally;
- Test and evaluate the gaps and weaknesses of the community based EWS through end-to-end simulation and evacuation drills using the above elements.
- Strengthen and stimulate existing EW groups/committees and integrate EW into the development of community based disaster risk management plans and provision; and
- Other spontaneous actions to prioritize EWS issues within the overall DRM system.