Workshop on Tornado Disaster Risk Reduction in Bangladesh

Bangladesh Meteorological Department (BMD), Dhaka, Bangladesh

January 15, 2013

Co-organized by

TPU Global COE Program, supported by MEXT, Japanese Government
Bangladesh Meteorological Department (BMD)
Bangladesh Disaster Preparedness Centre (BDPC)
ISDR IG-WRDRR
International Association for Wind Engineering (IAWE)
SEEDS Asia

Program		
09:15 - 09:45	Opening Welcome Speech	 Yukio Tamura Tokyo Polytechnic University, Japan
		Muhammad Saidur Rahman Bangladesh Disaster Preparedness Center
		Arjumand Habib Bangladesh Meteorological Department
	Chief Guest	Mohammad Abdul Wazed Director General, Department of Disaster Management
09:45- 10:15	Report on IG-WRDRR activities and MSR project in Bangladesh	Yukio Tamura Tokyo Polytechnic University, Japan
10:15 - 10:45	Statistics of Tornado in Bangladesh	Md. Quamrul Hasan Bangladesh Meteorological Department
10:45 - 11:15	Improvement of forecasting capability and awareness buildup	Taslima Imam Bangladesh Meteorological Department
11:15 - 11:30	Tea Break	
11:30 - 12:00	Tornado disasters in Bangladesh	Taiichi Hayashi DPRI, Kyoto University, Japan
12:00 - 12:30	Amphibious housing and applications in Bangladesh	Elizabeth English Waterloo University, Canada
12:30 - 13:00	Devastating tornado disasters in the US in April and May, 2011	David Prevatt University of Florida, USA
13:00 - 14:00	Lunch	
14:00 - 14:30	Ferry sinking accident in Assam, India, April 30, 2012	Kalyan Kumar Das Assam Engineering College, India
14:30 - 15:00	North Kanto tornados in Japan on May 6, 2012	Yoshinori Shoji Meteorological Research Institute, Japan
15:00 - 15:30	Tornado disaster reduction activities in Myanmar	Mitsuko Shikada SEEDS Asia, Myanmar
15:30 - 16:00	Tea Break	
16:00 - 16:30	Proposed severe local storm disaster risk reduction for Bangladesh	Yuichi Ono Tohoku University, Japan
16:30 - 17:00	Closing	Yuichi Ono Tohoku University, Japan

Pre-workshop Schedule

January 13:	Meeting at BDPC, Visits to DMB and BMD, etc.
	Leaving Dhaka for Tangail
January 14:	Visit to MSR houses
	Public Meeting at Balla High School
	Meeting with local leaders
	Leaving Tangail for Dhaka

Objectives

The main objectives of the workshop are to understand severe local storm disaster risks in various places in the world including Bangladesh; to raise awareness of the risks at local, national, and international levels; and to develop a strategy to reduce risks through active interactions among renowned international, national and local experts. The strategy includes components of an early warning system; risk and vulnerability assessment; research in meteorology, climatology and engineering; household and community shelter; public awareness and education; finance and community planning; governance and policy making. The outcomes of this forum will aid in helping the Government of Bangladesh to adopt policies and develop planning to reduce risks from severe local storms. The outcomes will stimulate donor agencies and NGOs to conduct specific projects to reduce disaster risks. Overall, the forum will contribute to the implementation of the Hyogo Framework for Action.

Severe Local Storm Disasters in Bangladesh

It is well-known that Bangladesh is prone to cyclones and floods that have caused large losses. These have overshadowed other serious disasters in the country, so that little attention has been paid to them. Bangladesh is the most vulnerable country in the world to tornadoes and severe thunderstorm-related disasters. Tornado statistics alone show great amounts of damage in Bangladesh in the past few decades. From 1961-96 local newspapers reported 10,766 tornado deaths. During that thirty five-year period, twenty of 199 tornadoes killed more than 100 people and seven of them killed more than 500 people. In 1996, the Tangail Tornadoes killed 700 people and the Manikganj Tornado in 1989, which might have killed up to 1,170 people, is believed to be the deadliest tornado in the world. With the addition of losses caused by micro-bursts and lightning, the annual number of deaths caused by severe storms in the country may reach 500. However, there is still no severe storm early warning system or preparedness.

Relevant Activities in Bangladesh

“The International Forum on Tornado Disaster Risk Reduction for Bangladesh – To Cope With Neglected Severe Disasters” in Dhaka, Bangladesh, on 13-14 December, 2009 was co-organized by the Tokyo Polytechnic University Global COE Program (TPU-GCOE), the Government of Bangladesh (Disaster Management Bureau, Ministry of Food and Disaster Management, Bangladesh Meteorological Department, Ministry of Defense), the Bangladesh Disaster Preparedness Centre (BDPC), the International Association for Wind Engineering (IAWE), and the International Thematic Group of ISDR for Wind-Related Disaster Risk Reduction (IG-WRDRR). As one of the outcomes of this forum, ten recommendations were made to help the Government of Bangladesh to adopt policies and carry out development planning to

reduce risks from severe local storms (SLS) and to stimulate donor agencies and NGOs to implement specific projects to reduce SLS disaster risks. The report of the Forum including Position Paper, Recommendations, etc. is available from: http://www.iawe.org/WRDRR/documents/BangladeshFinalReport.pdf.

As a follow-up to the International Forum, IG-WRDRR held a mini-workshop on Tornado Shelter for Bangladesh on January 25-26, 2011 in Dhaka with the cooperation of BDPC and SEEDS Asia. Due to the complex mixture of storms experienced in Bangladesh and the structurally weak housing found in rural villages, the devastation a storm causes demands that more attention be paid to rescuing and caring for victims than to documenting exactly what happened meteorologically. Hence, there has arisen a need to understand the meteorological phenomena of tornadoes and to determine how villages can prepare themselves to avoid devastation. Mini-Safety Room (MSR) project was developed in January, 2012, in Rampur village, where two prototype MSRs were constructed for a long-term feasibility study.

Expected outcomes

The participants agree to provide state-of-the-art information related to tornado disaster risk reduction in the world to assess current knowledge and needs, and then to show how to make progress in reducing risks based on existing knowledge and capacity in Bangladesh with innovated strategy. Suggestions will be made on how new ideas and technology could be adopted in Bangladesh and to appeal to donor agencies for implementation.