



23 January 2024
International Disaster Reduction Alliance Forum (DRA Forum 2024)
@Banquet Hall Kairaku, Portopia Hotel

International Cooperation on DRR in Asia

KODAMA Miki
Research Department
Asian Disaster Reduction Center

**12-13
Nov.
1970**

Disaster Situation - Cyclone Bhola Bangladesh (east Pakistan)

Date and Time: 12-13 November 1970

Scale of Cyclone: 950 and 960 hPa

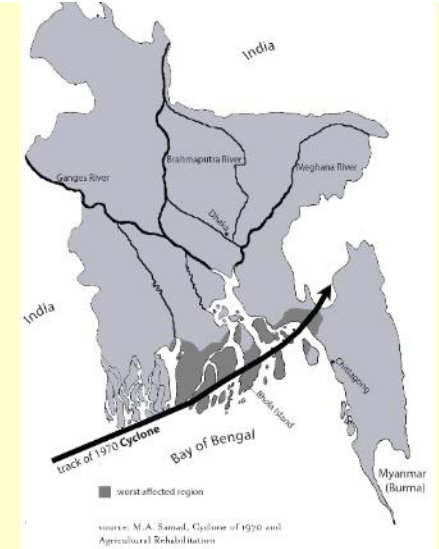


People Killed & Missing:

300,000 (official)



Track of Great Bhola Cyclone





Evolving International Cooperation on DRR in Asia

1990's	International Decade for Natural Disaster Reduction (IDNDR)	
1994	World Conference on Natural Disaster Reduction (Yokohama) - "Yokohama strategy" called upon establishing or strengthening of sub-regional or regional centers for disaster reduction and prevention	
1995-1997	Several Meetings for Discussing Regional Cooperation in Asia	 <p>1995 The Great Hanshin-Awaji Earthquake</p>
1998	Establishment of Asian Disaster Reduction Center	
2000	International Strategy for Disaster Reduction (former ISDR, UNDRR) was launched.	
2003	ISDR (UNDRR) Asia Partnership (IAP) for the platform as informal multilateral stakeholder meetings was established. Asian Conference on Disaster Reduction (ACDR) was convened. <Held annually since then>	
2005	World Conference on Disaster Reduction in Hyogo - Adopted " Hyogo Framework for Action 2005-2015 (HFA) " - Establishment of "International Recovery Platform (IRP)"	 <p>2011 The Indian Ocean Tsunami</p>
2005 Jun.	ISDR (UNDRR) Regional Office for Asia and the Pacific was established.	
2005 Sep.	1st Asian Ministerial Conference on DRR (AMCDRR) was convened in Beijing, China <Held at biennial to triennial intervals since then>	 <p>2011 The Great East Japan Earthquake</p>
2015	World Conference on Disaster Reduction (Sendai, Japan) -Adopted " Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) "	
2022	9 th Asian Pacific Ministerial Conference on DRR (APMCDRR) (Brisbane, Australia)	

17
Jan.
1995

Disaster Situation – Great Hanshin-Awaji Earthquake (GHAE) in Kobe, Japan

Date and Time: 17 January 1995 (Tue.) at 5:46 a.m. JST

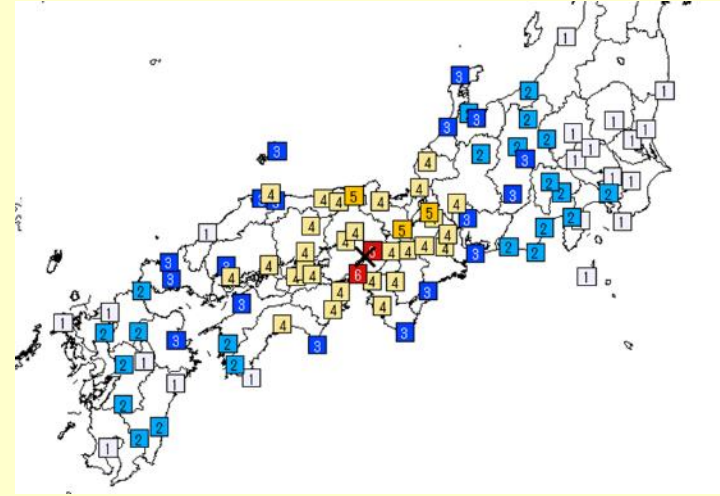
Scale of Earthquake: **Magnitude 7.3**



People Killed: 6,434



Injured: 43,792



Epicenter and Seismic Intensity Distribution (JMA)



Destroyed houses:
639,686



Fire: 293 cases



Damaged Roads:
7,245 places

Source: Kobe City, Japan

About Asian Disaster Reduction Center (ADRC)

Established: July 1998

Purpose:

- 1) To Enhance Disaster Resilience of the Member Countries.
- 2) To Build Safe Communities.
- 3) To Create a Society Where Sustainable Development is Possible.

Address:

DRI Higashikan 5F,
1-5-2 Wakinohamakaigan-dori, Chuo-ku,
Kobe 651-0073, JAPAN



20-year Anniversary Report

- Asian Disaster Reduction Center (ADRC) is located "HAT Kobe", which was redeveloped as a symbol of reconstruction from the Great Hanshin-Awaji Earthquake in the new urban center of Kobe City.
- ADRC is a member of the Disaster Reduction Alliance (DRA)*
*DRA is a loose alliance for promoting international disaster reduction and humanitarian assistance activities through organic cooperation among multidisciplinary and multifunctional organizations related to DRR in HAT Kobe



Main Activities of the ADRC

Information Sharing

- Organizing International Conferences
- Providing Disasters and DRR Information of Member Countries
- Promoting GLIDE (Global unique disaster IDentifier)
- Promoting Utilization of Satellites Data for DRR: Sentinel Asia Project

Human Resource Development

- Conducting DRR Seminar and Training
- Conducting Visiting Researcher Program for Member Countries

Building Community Capabilities

- Developing and Disseminating Tools for Encouraging Community Participation for DRR
- Supporting the Activities of NGO, such as Asian Disaster Reduction and Response Network (ADRRN)

Cooperation with Relevant Organizations

- Conducting DRR Policy Peer Review in Cooperation with Member Countries and Other Stakeholders
- Promoting Sub-regional DRR Cooperation including ASEAN



32 Member Countries/ 5 Advisor Countries
(Fiji joins at Oct. 2023)



Changes in Member Countries

- 22 members in 1998
(at the time of establishment)



Joined Members since then → **32** members



Asian Conference on Disaster Reduction: ACDR

- **Purpose:** Information sharing on DRM and DRR among member countries and relevant organizations, and Strengthening cooperation among them.
- **Annual event**
- **Participants :** DRR Experts from Member Countries and International Organizations



ACDR 2023 Effective Implementation of DRR Measures — Enabling Digital Transformation in DRR —

Date: 20 October 2023

Participants: (onsite) 120 persons from 17 countries
(online) 111 persons from 7 countries

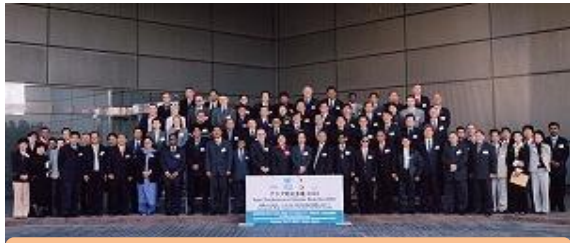
Themes:

- Round Table: Information from ADRC member countries on the implementation of the Sendai Framework for DRR 2015-2030
- Session 1: Innovative Solutions for Resilient Societies: DRR Technologies for Earthquakes and Geological Hazards
- Session 2: Adaptation to the Climate Crisis: Innovative Approaches to Monitoring and Responding to Glacial Lake Outburst Floods (GLOFs), Forest Fires and Intensifying Floods



ACDR2023 (@Dushanbe, Tajikistan)

Asian Conference on Disaster Reduction (2003-2022)



2003 January (Kobe, Japan)



2004 Feb. (Siem Reap, Cambodia)



2006 March (Seoul, Korea)



2008 Nov. (Bali, Indonesia)



2010 : January (Kobe, Japan)



2007 June (Astana, Kazakhstan)



2011 June (Colombo, Sri Lanka)



2013 January (Kobe, Japan)



2014 March (Tokyo, Japan)



2015 March (Sendai, Japan)



2016 Feb. (Phuket, Thailand)



2017 Oct. (Baku, Azerbaijan)



2018 Oct. (Kobe, Japan)



2019 Nov. (Ankara, Turkey)



2020 Oct. (Online)



2021 Dec. (Online)



2023 Mar. (Sendai, Japan)

**15
Nov.
2007**

Disaster Situation – Cyclone Sidr in Bangladesh

Date and Time: 15 November 2007 (Thu.) at midnight
Scale of Cyclone: 944hPa (minimum)



People Killed: 4,234

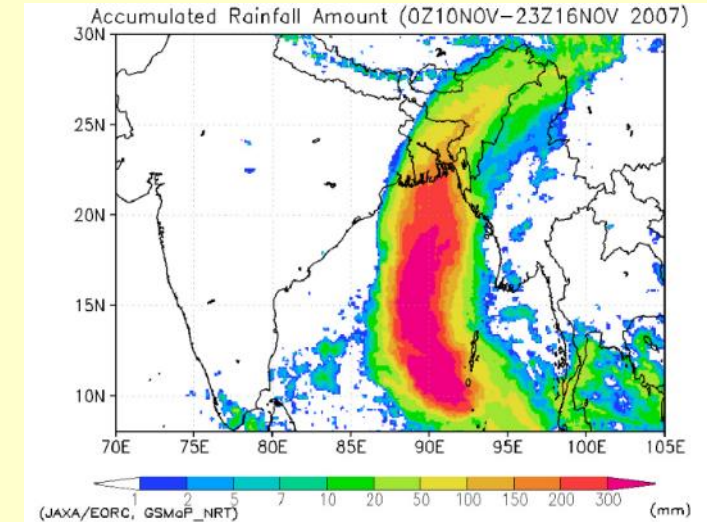


Injured People: 55,282



Affected People: 8.9 million

Source: EM-DAT, CRED / UCLouvain, Brussels, Belgium



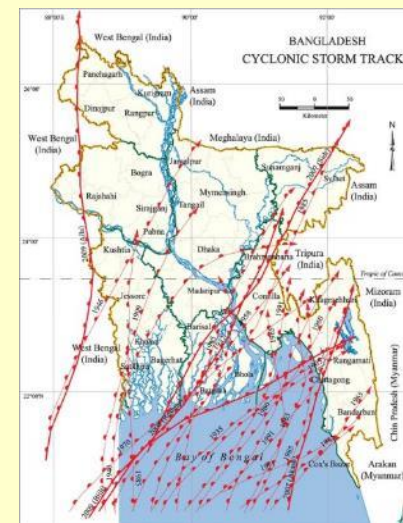
**Totally Destroyed
Houses: 563,877**



**Partially Destroyed Houses:
955,065**



**Totally Damaged
Educational
Institutions: 4,231**

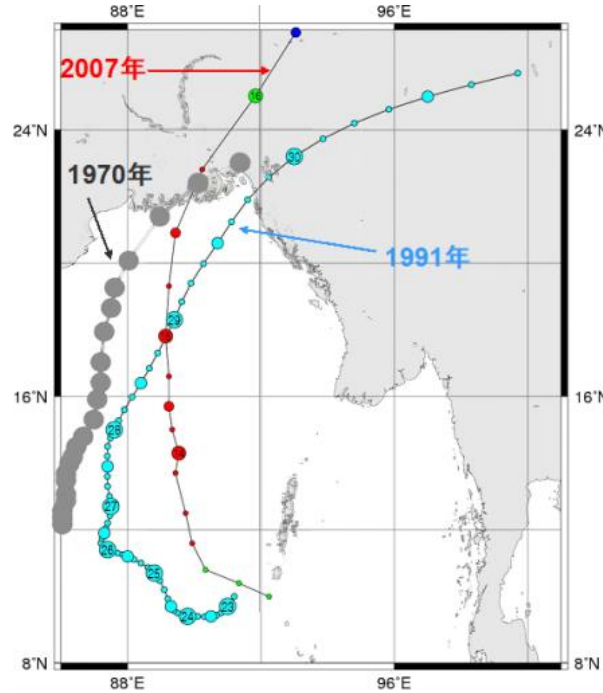
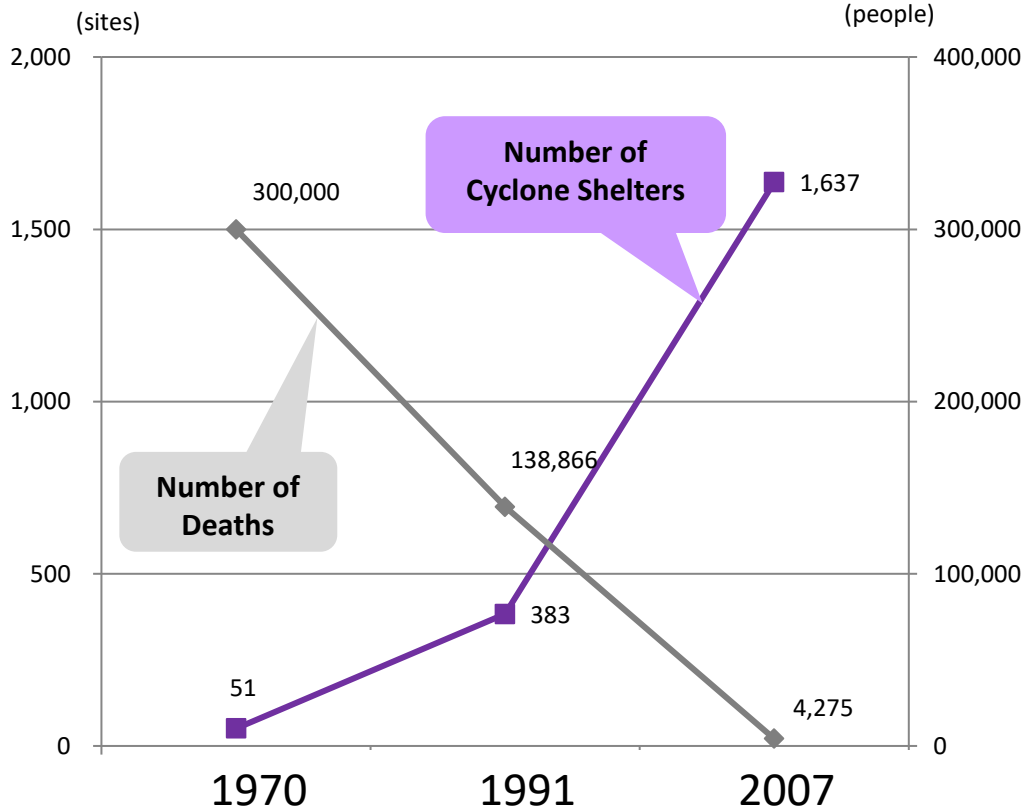


<https://en.banglapedia.org/index.php/Cyclone>

Build Back Better

to build more resilient communities throughout the reconstruction phase following a disaster

Trend in Cyclone Shelters Construction and Cyclone Victims in Bangladesh



Cyclone Shelters + Good Community-based Early Warning System

Source: "JICA's Cooperation on Disaster Management Toward Mainstreaming Disaster Risk Reduction - Building Disaster Resilience Societies-", March 2015, Japan International Cooperation Agency (JICA)

**2-3
May
2008**

Disaster Situation – Cyclone Nargis in Myanmar

Date and Time: 2-3 May 2008

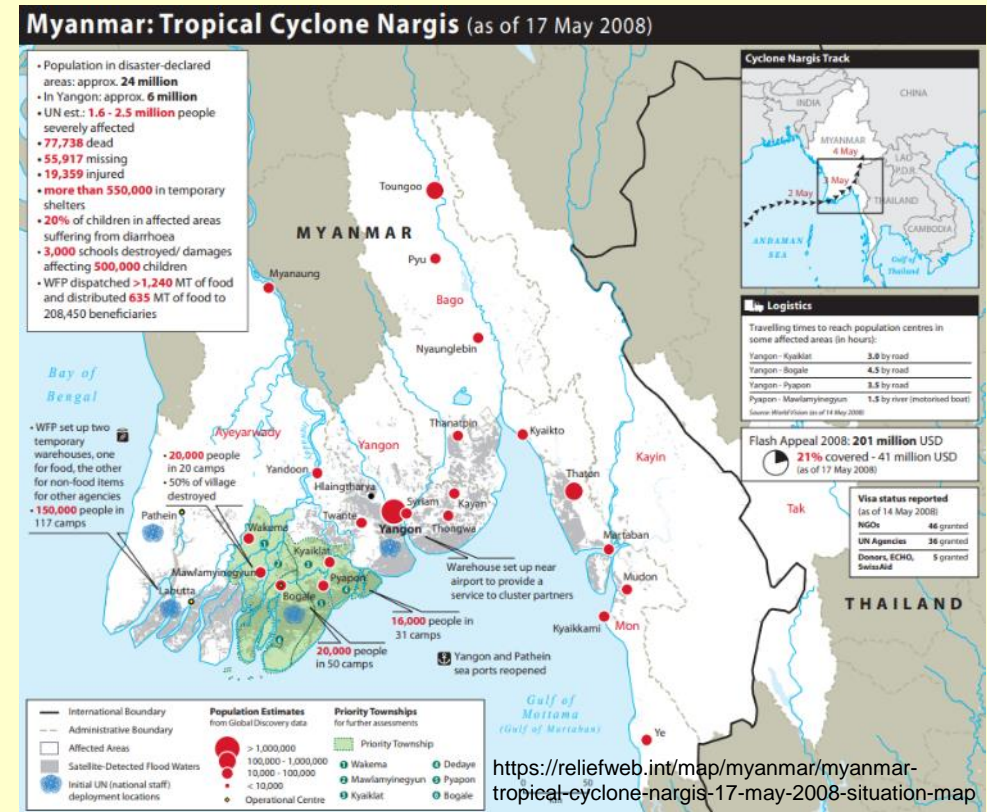
Scale of Cyclone: 962hPa (minimum)



People Killed and Missing:
155,275 (as of July 2008)



Affected People: 2.4 million
(half population of the affected area)



26
Dec.
2004

Disaster Situation – Indian Ocean Tsunami

Date and Time: 26 December 2004 (Sun.) at 7:58 a.m. Indonesia Time

Scale of Earthquake: Magnitude 9.3



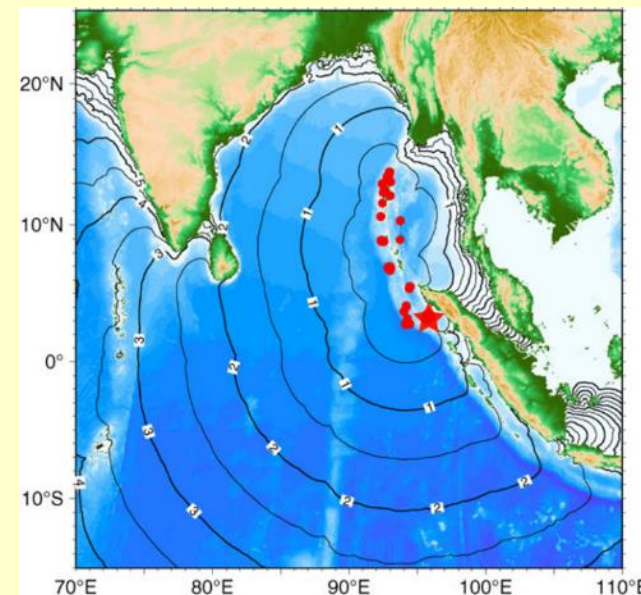
People Killed: 227,898



Affected People: 2.5 million



Destroyed houses: more than 1 mil.



Epicenter and Tsunami Propagation



Indonesia



Thailand



Sri Lanka

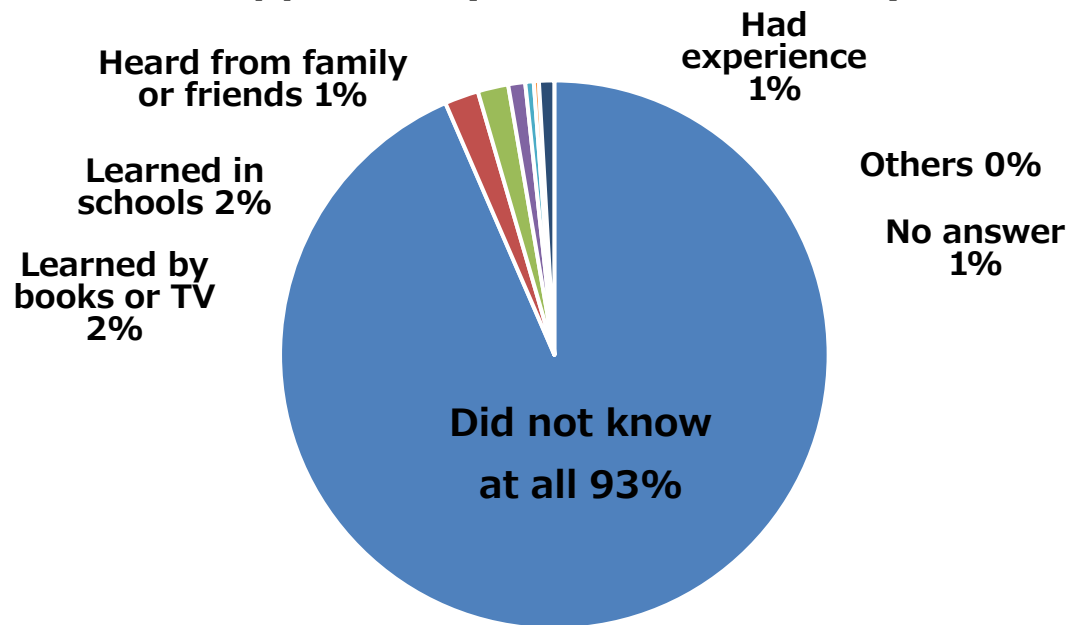
Indian Ocean Tsunami (2004.12) Public Survey in Sri Lanka

Purpose: To examine efficient ways of communicating information to residents and disseminating and raising awareness of DRR knowledge,

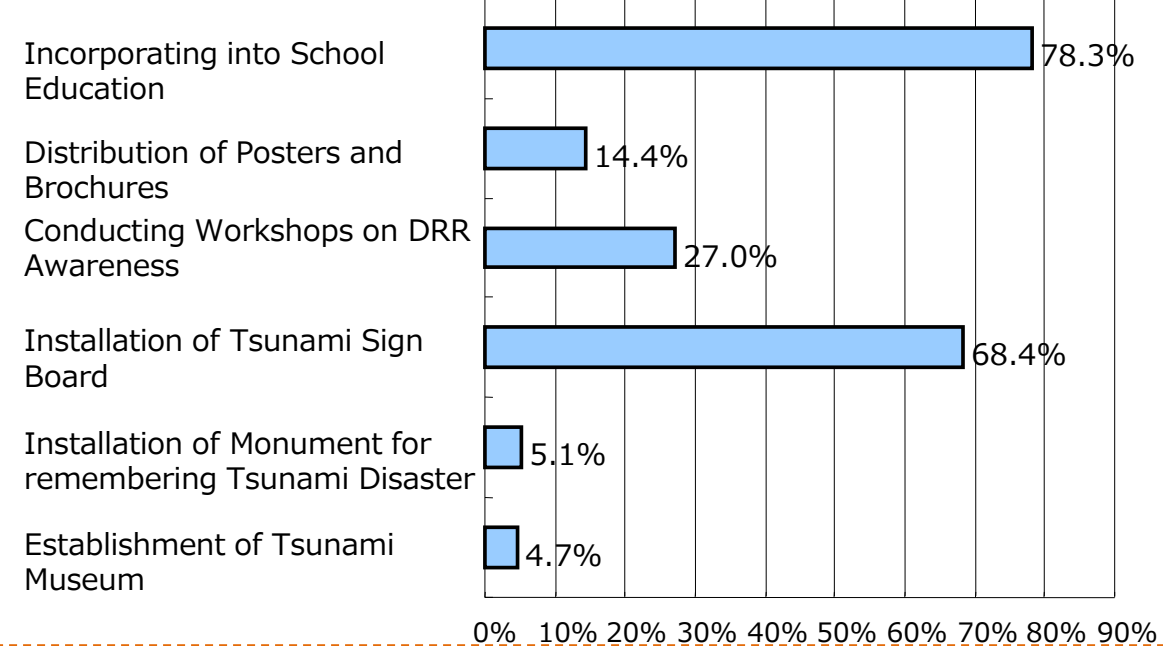
Methods and Area: A questionnaire survey in March 2005 in the Galle district of Sri Lanka.

Targets: General residents (1,324 people), school children (1,112 people), teachers (36 people), and administrative officials (110 people).

(Q) Did you know about "Tsunami" before the disaster happened? (General Residents)



Q) What are the most effective ways to raise people's DRR awareness? (General residents, multiple answers)



Important Lesson Learned from Indian Ocean Tsunami

Importance of Transfer of Lessons

■ Traditional song delivered from generation to generation saved people's lives (Case of Simeulue island, Indonesia)

- Most of people immediately evacuated and only 7 were killed (among 78,000 residents)
- Lyric/ song to inform about importance of early evacuation to the higher place immediately after a big shake based on the past tragedy by Tsunami in 1907



The SMONG Story

Hear you all this story
Once upon a time
A place gone under the sea
This is what happened

Find there would be a quake
And then a wall of water
A village goes under water
In a flash

So, when the land shakes
Run you all, run
Find places that are high

SMONG that is
Told by our great old ones
Remember this and be aware
Hear you, message from elders
before us

SMONG is your bath water
Quake is your gentle swaying
lullaby
Thunder is your tambourines
And lighting is your sparkling light
(Let's overcome together!)

■ School education saved people's lives (Case of Phuket, Thailand)

- A British elementary school student on holiday at the Thai resort saved the lives of nearby tourists, hotel staff, and others by leading evacuation of those around her based on the tsunami knowledge she had learned in class before her vacation.



Source: BBC News

**8
Nov.
2013**

Disaster Situation – Typhoon Haiyan in the Philippines

Date: 8 November 2013 (Fri.)
Highest Wind Speed (10min sustained): 230 km/h
Highest Wind Speed (1 min sustained): 315 km/h
Lowest Pressure: **895 hPa**



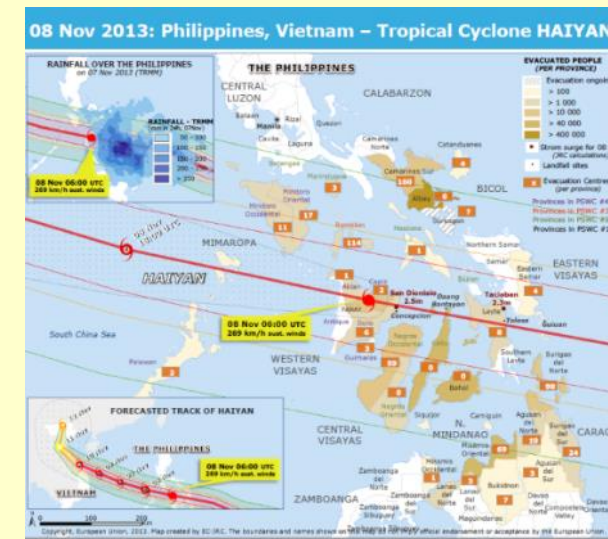
People Killed: 6,300



Injured: 28,689



Affected: 16,078,181



Typhoon Track and Rainfall and Wind Situation



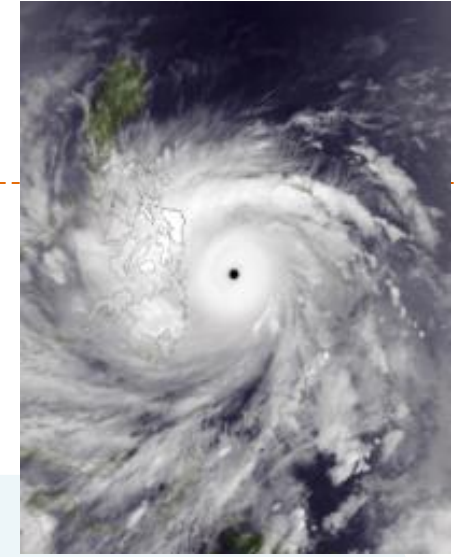
Damaged houses:
1,084,762



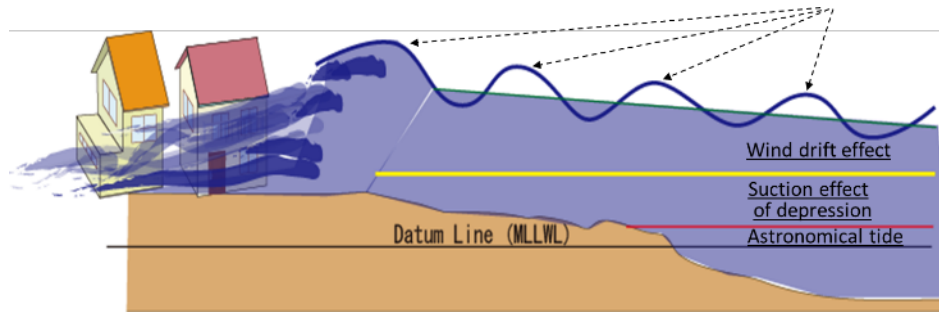
Cost of Damage: Total US\$2,053 million
 (damage to infrastructure, school & medical facilities, agriculture and fishery sectors, industries, and trade & tourism)



Typhoon Haiyan (November 2013) Reasons for the increase in damage.



- Typhoon of unprecedented strength
-> Generation of the Extra Gigantic Storm Surge



Source: JICA DISASTER RISK REDUCTION AND MANAGEMENT CAPACITY ENHANCEMENT PROJECT

- Few people had any knowledge of storm surge
-> Many people were asked by the government and others to evacuate because the scale of the typhoon was completely different from previous typhoons, but many were late in evacuating because they did not have a proper image of the scale of typhoon and storm surge.



Case of San Francisco (island), Cebu

Years of work to strengthen community preparedness and reduce disaster risk made awareness level of the community very high.

-> Prompt evacuation of 1,000 people from a tiny island, Tulang Diyot that had all 500 houses destroyed by Typhoon Haiyan saved the entire population.

**25
Apr.
2015**

Disaster Situation - Gorkha Earthquake in Nepal

Date and Time: 25 April 2015 (Sat.) at
11:56 a.m. NST

Scale of Earthquake: Magnitude 7.6



People Killed: 8,790




Injured: more than 22,300



Magnitude and Seismic Intensity Distribution (USGS)
(Moment Magnitude, Mercalli intensity scale)



 Destroyed houses:
at least 498,852



Destroyed gov't
bldgs.: 2,656

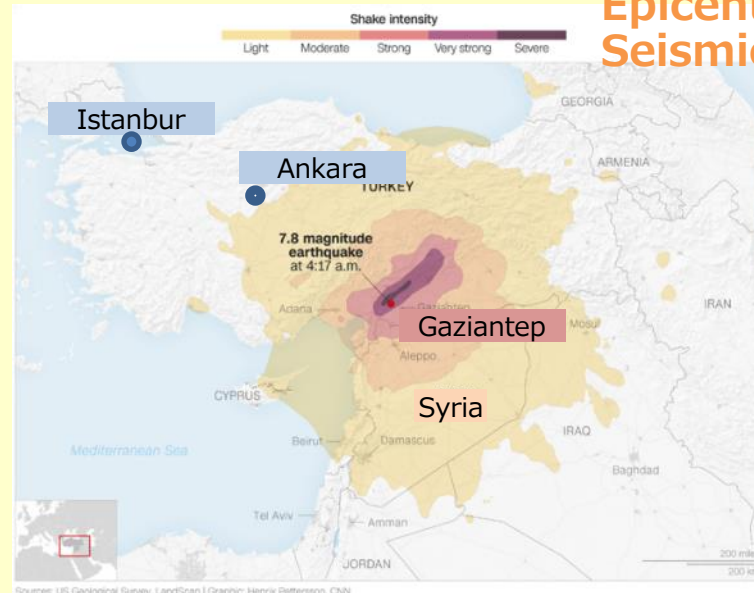


Destroyed school
classrooms: 19,000

6
Feb.
2023

2023 Turkey-Syria Earthquakes (Situation in Turkey)

Occurrence Date: 6 Feb. 2023 (Mon.) 04:17
Scale of Earthquake: Magnitude 7.8
Largest After Shake: Magnitude 7.5 (6 Feb. 13:24)
Epicenter: Nurdağı, Gaziantep Province, Turkey



Epicenter & Seismic Intensity



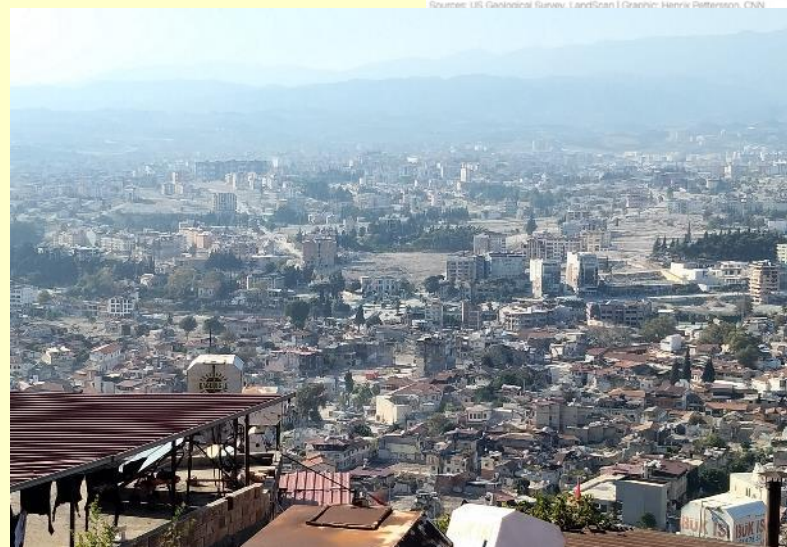
People Killed: 51,000

Injured: 107,000人

Those who lost houses: 1.5 million



February 2023



October 2023



Collapsed Buildings/Houses 325,522

Activities for Enhancing Community DRR Capacities

Know Own Risks: Town Watching and Mapping for DRR



Hazard, Vulnerability,
Capacity (HVC)
Assessment

1



Field Survey

2



Risk Mapping

3



Disaster Management
Planning

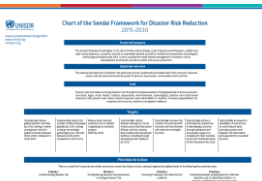
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Making Action Plans

5

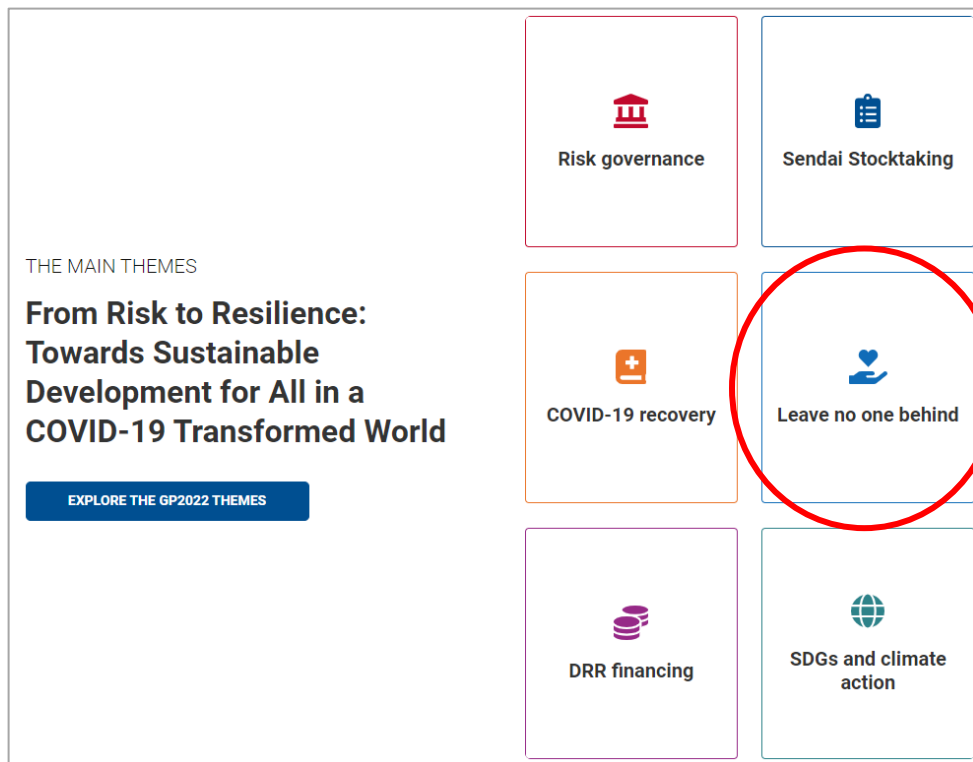




SFDRR (Sendai Framework for DRR)



advocate for resilient communities and an inclusive and all-of-society disaster risk management



LEAVE NO ONE BEHIND

*“While the COVID-19 pandemic has affected all countries, large and small, North and South, the impact of the pandemic has been felt differently by people within countries. Those most at risk have been most affected, with immense social impacts on women, children, older persons and persons with disability. **It has reminded us that no one is safe until everyone is safe.** Adaptive social protection is an important means to reach out to most severely affected and most vulnerable groups to ensure that no one is left behind.”*

(Global Platform 2022)

Source: UNDRR



Side Event of the APMCDRR 2022

● Theme:

Building Resilient Communities by Investing in DRR Literacy for Proactive Actions focusing on “Leave No One Behind”

● Recommendations

- ✍ Building a culture of DRR and having various people actively participate in DRR activities are effective for increasing DRR literacy,
- ✍ Targeting the younger generation in particular will lead to the development of leaders in the next generation, and
- ✍ It is important to sustainably link daily life, welfare, and social protection during normal times with DRR during emergencies, especially at the local level.
- ✍ We also recognized that institutional and financial support for community disaster management activities is needed to ensure the sustainability of these activities.

● Summary

DRR should not be treated as a special measure, but mainstreamed as a critical component in community policy making and planning



Speakers:



Prof TATSUKI Shigeo
Doshisha Univ., Japan



Mr Pham Doan Khanh
Vietnam Disaster
Management Authority



Ms Vanda Lengkong
Plan International
Asia Pacific Hub



Dr Yi-Chung Liu and
Dr. Yanling Lee
EPCC

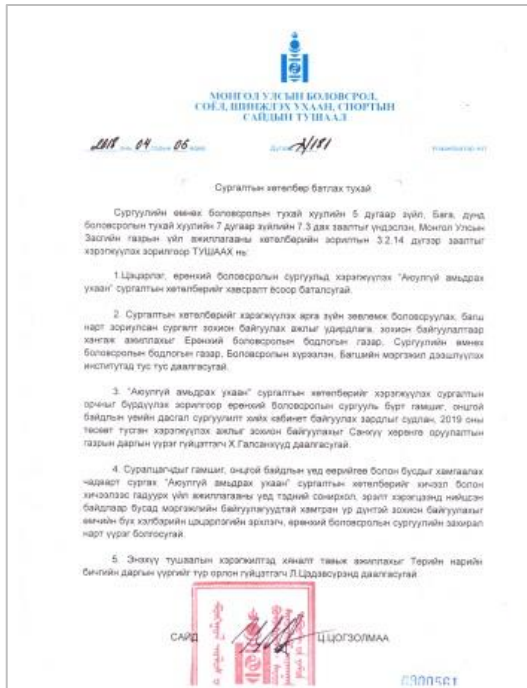


Prof NISHIKAWA Satoru,
Nagoya Univ., Japan



Promotion of School DRR Activities in Mongolia

Order by Minister of Education for School DRR Activities Guideline



Source: JICA Project for Strengthening Earthquake DRR Capacities in Mongolia



