

Final Presentation on
Disaster Risk Management in Japan

Through ADRC V. R Programme

Main Findings and Action Plan:

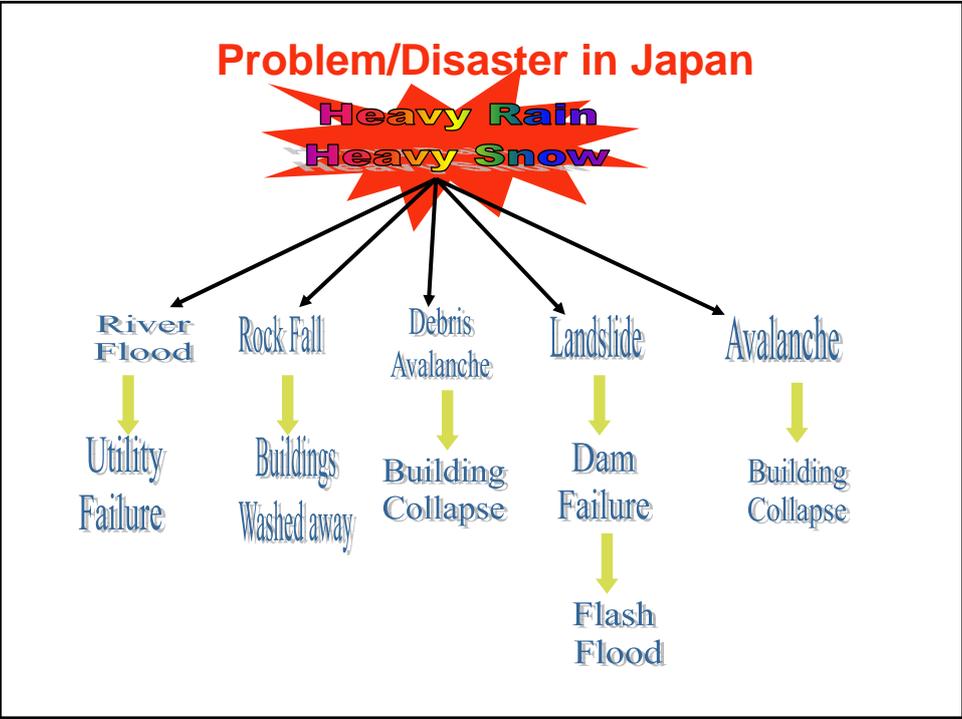
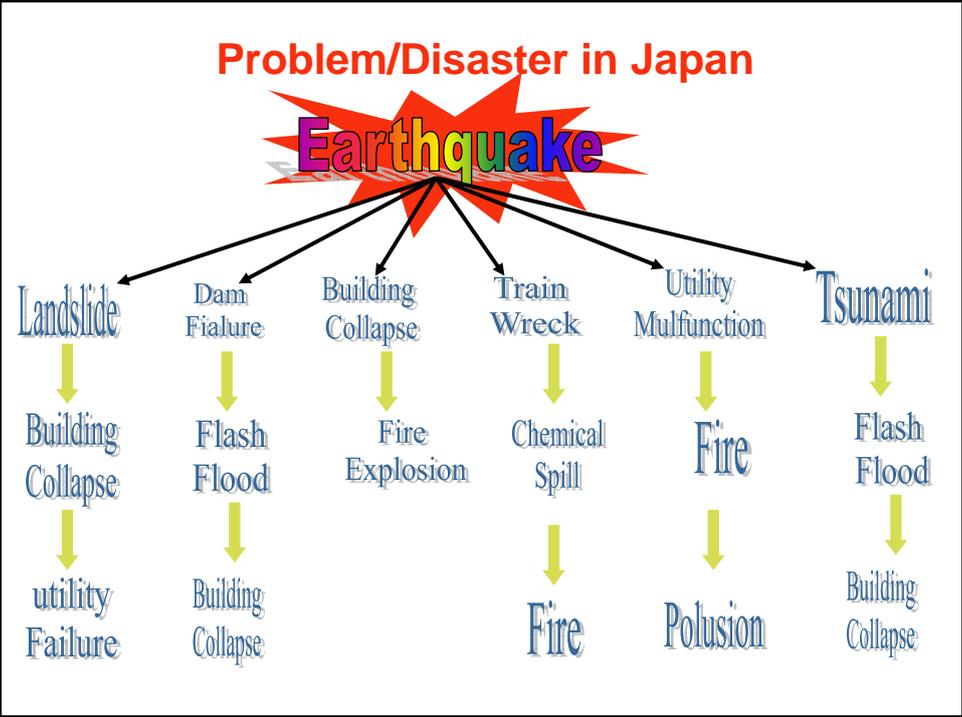
Problem/Hazard and Disaster in Japan

Good Practiced on Disaster Risk
Management in Japan

Action Plan

ADRC
Guideline

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graph TD; ADRC((ADRC Guideline)) --> Problem[Problem/Hazard and Disaster in Japan]; ADRC --> Good[Good Practiced on Disaster Risk Management in Japan]; ADRC --> Action[Action Plan];
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Miyagi Prefecture Earthquake

- * Injured 630 people (18 seriously)
- * 5,724 houses destroyed:
 - Totally destroyed 218 Houses
 - Half destroyed 1,180 Houses
 - Partially destroyed 4,426 Houses
- * 3 cases of Fire
- * Water supply – damaged 13,925 houses
(2 days recovered)
- * Electricity-damaged 100,000 houses
(1 day recovered)
- * **Nobody dead**



Good Practices on Disaster Reduction

My Observation

Cabinet Office – Disaster Management Organization in Japan

Disaster Countermeasures Basic Act in Japan

Main Countermeasures:

- Disaster Emergency Response
- Disaster Recovery and Reconstruction.
- Disaster Preparedness.

Earthquake

Public Awareness and Education

The Great Hanshin-Awaji Earthquake memorial

Nojima Earthquake Fault Mus.

Special Exhibition Earthquake Museum - Tokyo

Live Safety Learning Center

The Great Hanshin-Awaji Earthquake memorial



Theatre: State-of-the-art technologies of the theater convey the scenes of the Hanshin-Awaji area devastated by the earthquake.



The destroyed and burning cityscape shortly after the earthquake has been reproduced in a diorama.



The Great Earthquake Hall
A documentary film recounts how the devastated areas went about recovery and reconstruction from the disaster.



Disaster Prevention Workshop
Practical knowledge with regard to disasters and disaster management can be learned through interactive learning system, computer games and physical models.

Nojima Earthquake Fault Mus.



Hazard Map



Surface rupture appeared more than 10 km long – Infrastructure Damaged



Machine indicating the type of fault movement

Special Exhibition Earthquake Museum - Tokyo

This museum provides an opportunity to understand more clearly the concepts of Earthquake and its impact on over all economic and social development of society.

Live Safety Learning Center

Shown a film on Earthquake with three D effect (prepared in the end of 1994)



Earthquake Simulation Exercise

Institute of Industrial Science, University of Tokyo

Research Concept:

To Mitigate/Prevent and Reduce Impacts from Earthquake Disaster by Improving Engineered Structures and Proper Seismic Retrofitting



Landslide Countermeasure

**Nigawa Landslide Museum and
Research Center for Landslide**



NIGAWA LANDSLIDE MUSEUM

Concept: to stop or reduce the landslide movement so that the resulting damages can be minimized

Mitigation/Prevention Measure

By construction (Piling, Sub drain, Retaining Wall etc) and arrangement of surface water

NIGAWA LANDSLIDE MUSEUM

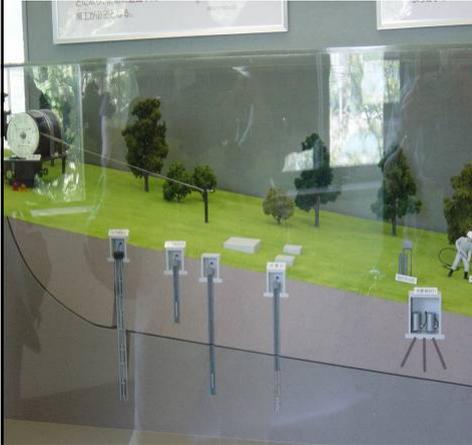


Many pipes constructed to drain the land



Water flows under the ground by drainage well and piling

Preparedness : by Conducting early warning system



Monitoring System



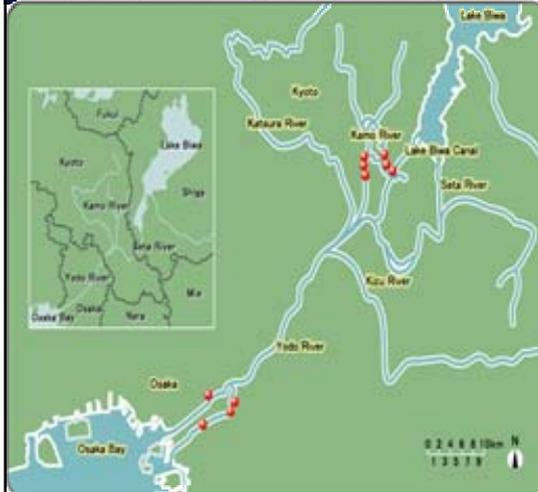
Computer Control Room

Research Center for Landslide

Concept: To observe, monitoring and predicting



Aqua BIWA – Lake Biwa Management



Total Area of 670.29 sq.km

More than **400** Rivers surrounding mountain flows into Lake Biwa

Only Seta River, which is a tributary stream of the Yodo River flows down to Osaka Bay

Problems:

Flood, Drought, Pollution and Sediment



Water Management to Disaster Prevention/Mitigation

- . **Flood control** ----- **Weir, Channels**
- . **Sediment Control** ----- **Sabo dam**
- . **Drought** ----- **Catchments control (Forestation)**
- . **Pollution Control** ----- **Machine automatically**
- . **Early warning** ----- **alarm System**

HYOGO PERFECTURE DISASTER MANAGEMENT CENTER

STRATEGY : RAPID RESPONSE
By Strengthening :
- Condition , *Planning and system.*



Emergency Relief Headquarters Control Room

Public Work Research Institute (PWRI) (Tsukuba)

Research Priority:

To improve civil engineering technologies and construct and manage infrastructures with the aims of :

- Ensuring Safety
- Protecting and Restoring Healthy Environments; and
- Efficient Construction of Infrastructures.



Osaka Gas Co.Ltd

Emergency Response Advancement Based on Lesson learned from Earthquake 1995



Control Room

Japan Meteorological Agency (JMA)

JMA Concept:
Predict/ Forecast Capability and Issues Warning on time



Mt. Unzen Disaster Memorial Hall

Concept

To educate people on Volcano Disaster and appropriate countermeasure to avoid the impacts from this disaster



Hiroshima Peace Memorial Museum



Action Plan

- * To promote disaster Public awareness and Education activities in my country.
- * To increase knowledge of Natural Disaster and appropriate countermeasures based on knowledge taken from ADRC through trainings and workshops.
- * To request National Government to develop Information Center on DM.
- * To conduct simulation or drills on emergency disaster response.
- * Raise capacity up on cooperation with other countries to exchange and sharing information on Disaster Management.
- * To publish Hazard Map.

Acknowledgement

Appreciate Thanks to All ADRC Staffs for Excellent Help and Accompany

Appreciate and Gratitude Thanks to UN OCHA

Special Thanks to Mr. Satoru Nishikawa, Executive Director of ADRC