

**Towards a Nation-wide Movement for Disaster Reduction - The Challenges for Japan -**

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**Japan's long tradition of dealing with natural disasters**

- 416 August, Yamato-Kochi Earthquake  
The first written record of Earthquake in Japan within "Nihonshoki" the first official history book of Japan, edited in 8th century.
- Most dreadful things historically in Japan  
1. earthquakes, 2. lightning/thunder, 3. fire, 4. father

Jishin      Kaminari      Kaji      Oyaji

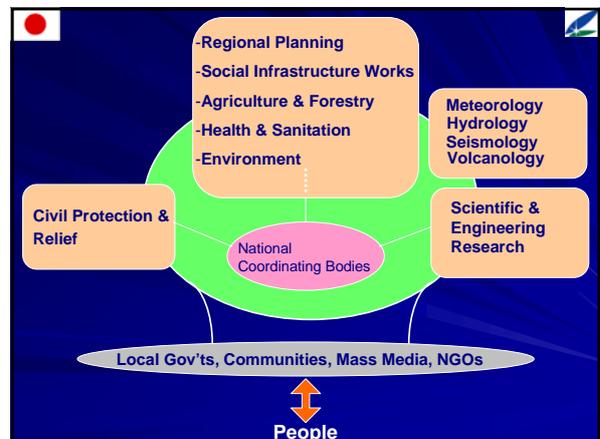
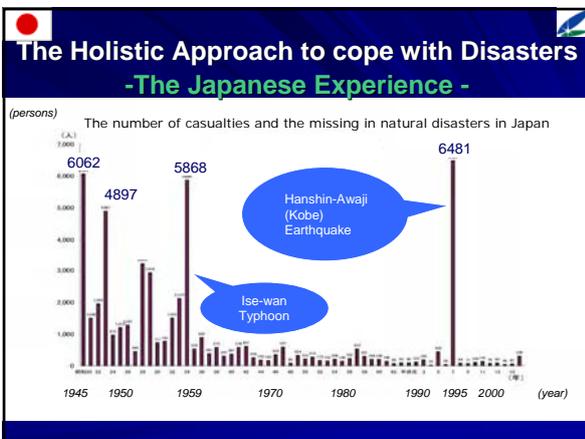
**Traditional "UKIYO E" drawing after 1855 October Ansei-Edo Earthquake 1**



Edo (Old name of Tokyo) citizens beating the legendary Catfish Monster which was believed to cause earthquake

**Two Epoch-Making Turning Points for Disaster Reduction in Modern Japan**

- 1959 Ise – Wan Typhoon  
⇒ Institutional Mechanism for Disaster Reduction  
1961 Disaster Countermeasures Basic Act
- 1995 Hanshin – Awaji(Kobe) Earthquake  
⇒ Quicker Information Gathering Mechanism  
⇒ Need for Ensuring Building Safety



## Kobe Earthquake

6,433 deaths

↓

80% immediately killed by building collapse  
surgeon general's report

Direct loss	: 5,520
Relevant loss	: 913

Prevention & Mitigation

Preparedness

Ensure Building Safety !

Public Awareness  
Disaster Manager's Proper Action

## Case of Miyagi-ken Earthquake

1978/06/12	Reduced	2003/05/26	2005/08/16
Magnitude : 7.4		Magnitude : 7.0	Magnitude : 7.2
Focal depth : 40 km		Focal depth : 71km	Focal depth : 72km
Max. JMA seismic intensity : 5		Max. JMA seismic intensity : 6 lower	Max. JMA seismic intensity : 6
Deaths : 28 (of which 18 were caused by crashed concrete block wall)		Deaths : 0	Deaths : 0
Injured persons : 1,325		Injured persons : 174	Injured persons : 91
Collapsed houses : 1,183		Collapsed houses : 2	Collapsed houses : 1
Half-collapsed houses : 5,574		Half-collapsed houses : 21	Half-collapsed houses : 0
Partly damaged houses : 60,124		Partly damaged houses : 2,342	Partly damaged houses : 856

## Case of Miyagi-ken Earthquake

1978/06/12

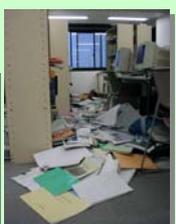



Crashed concrete block wall

Pancake-collapsed building

## Case of Miyagi-ken Earthquake

2003/05/26

Fallen outside wall

Cluttered room

## Case of Miyagi-ken Earthquake

2005/08/16

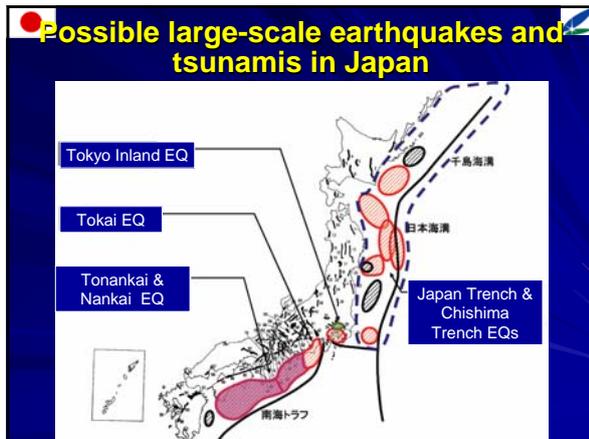


Fallen ceiling

## The Challenges Ahead in Japan

- How can we decrease casualties by possible Earthquakes !
  - Retrofit / Rebuild old existing houses & buildings
  - Affix furniture and adhere protective films on old windows
  - Encourage companies to make their own contingency plans etc.
- How can we decrease casualties by possible Tsunamis !
  - Distribute Tsunami Hazard Maps
  - Disseminate Tsunami Warning effectively
  - Ensure that people run immediately to safe place etc.
- How can we further decrease casualties by Typhoons & Floods !
  - Effective advance evacuation warnings for elderly & disabled
  - Distribute Flood Hazard Maps etc.





### Earthquake Disaster Risk Reduction Strategy

(formulated by Central Disaster Management Council on 30 March 2005)

**Setting an overarching goal for disaster risk reduction in the next decade**  
**To halve the estimated death toll and economic loss**

**Tokai EQ**

- **Death toll : 9,200 persons → 4,500**
- **Economic Loss : 37 trillion yen → 19 trillion yen**

★Strategic goal (ex.)  
 - Increase the ratio of retrofitted houses : 75% (2003) → 90% (2015)

**Tonankai & Nankai EQ**

- **Death toll : 17,800 (8,600 by tsunamis) → 9,100**
- **Economic Loss : 57 trillion yen → 31 trillion yen**

★Strategic goal (ex.)  
 - Every municipality at risk is expected to develop hazard maps in 2015



- ### How ?
- Involving various local groups in disaster reduction
    - Community Groups
    - Junior Chamber of Commerce Chapters
    - Parent & Teachers Associations
    - Local Shop Unions
  - Providing Various Opportunities for Disaster Prevention Education
    - in Elementary & Secondary Schools
    - at Social Education Facilities & Public Libraries
  - Involving the Corporate (Business) Sector

- ### Disaster Reduction Activities of Corporate Sector
- #### Why are they necessary ?
- ① Where are people working during the daytime?
    - Kobe Earthquake in 1995 ... Before dawn in Monday
    - Niigata Earthquake in 2004 ... Saturday Evening
    - Fukuoka Earthquake in 2005 ... Sunday Morning
    - What if they had occurred during the working hour?
    - Who should secure safe places employees and customers?
  - ② Corporate Citizenship: as a member of community
  - ③ Business Continuity is essential for corporations.
    - Lack of smooth provision of goods/services causes economic loss.
    - Without quick business restart, they are forced to leave market.

- ### Recent Official Report on Guideline for Corporate Disaster Reduction
- 1) Business Continuity Guideline
  - 2) Checklist for Business Continuity Guideline
  - 3) Sample models of Business Continuity Plan
  - 4) List of the issues for self-evaluation regarding "Corporate Disaster Reduction Activities"
  - 5) Reports for public relations about Corporate Disaster Reduction Activities

Proverb by Japanese Physics Scientist  
Dr. Torahiko TERADA (1878-1935)

「天災は忘れた頃にやってくる」



**"Natural Disasters will hit us by the  
Time people have forgotten about it"**

**How to foster & inherit the  
Culture of Prevention**



*Thank You*