



# Japanese DRM Strategy, Strategy & Case Study

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## Shoji Hasegawa

- ◆ Working in the Department of Planning and Mitigation Disaster and Emergency Management Presidency (AFAD), Turkey
- ◆ Participated in post-war Reconstruction process in Afghanistan, stayed there from 2002 to 2004.
- ◆ Engaged in the following Japanese Grant Aid Projects for Disaster Prevention and Reconstruction
  - a. Indian Ocean Tsunami in 2004, I have stayed in Banda Aceh for 2.5 years as a representative of Japanese Assistance.
  - b. Earthquake in Yogyakarta and Central Java, Indonesia, in 2006
  - c. Earthquake in the Region of Ica, Peru, in 2007
  - d. Construction of Multipurpose Cyclone Shelters in the Area Affected by the Cyclone Sidr, Bangladesh, in 2008
  - e. Earthquake in Padang and Padang-pariaman, Indonesia, 2009
- ◆ have visited more than 30 times to the devastated area by the Great East Japan Earthquake for personal research and voluntary works



## Improvement in Disaster Management Laws and Systems

Example in Japan



## Nankai Earthquake



Expected Tsunami Height, Kochi-city,

## Fukui Earthquake



## Turning Point of Disaster Management Administration in Modern Japan

This is the biggest turning point for Disaster Management Legal System in Japan

1964 Niigata Earthquake

Japanese Earthquake Insurance  
⇒ 1966 Act on Earthquake Insurance

## Ise-wan Typhoon



## Niigata Earthquake



## Turning Point of Disaster Management Administration in Modern Japan

- 1978 Miyagi-ken-oki Earthquake  
28 dead, but big damage on housing  
⇒ 1981  
Amendment of Building Standard Law
- 1995 Great Hanshin-Awaji Earthquake  
This is also one of the biggest turning point for Disaster Management Legal System in Japan, especially for victims welfare protection  
Disaster Management appointed

## Miyagi-ken-oki Earthquake



## Great Hanshin-Awaji Earthquake



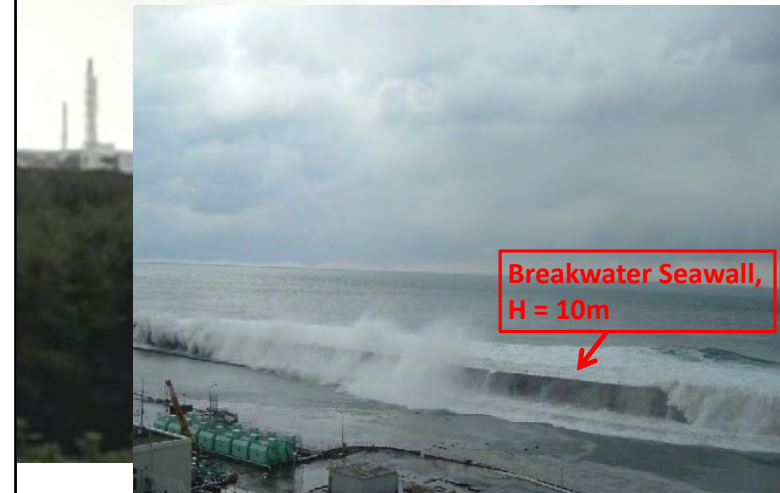


## Turning Point of Disaster Management Administration in Modern Japan

- **2011 THE GREAT EAST JAPAN EARTHQUAKE**  
15883 dead and 2651 missing  
(as of 8 Nov. 2013)  
⇒ 2011 Amendment of Basic Disaster Management Plan
- 2012 **Amendment of Disaster Countermeasures Basic Act**  
Amendment of Basic Disaster Management Plan
- 2013 **Amendment of Disaster Countermeasures Basic Act**  
**Large-Scale Disaster Reconstruction Act**

First Specific Reconstruction Policy by the Government

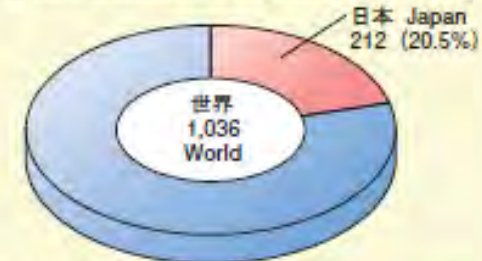
## The Great East Japan Earthquake



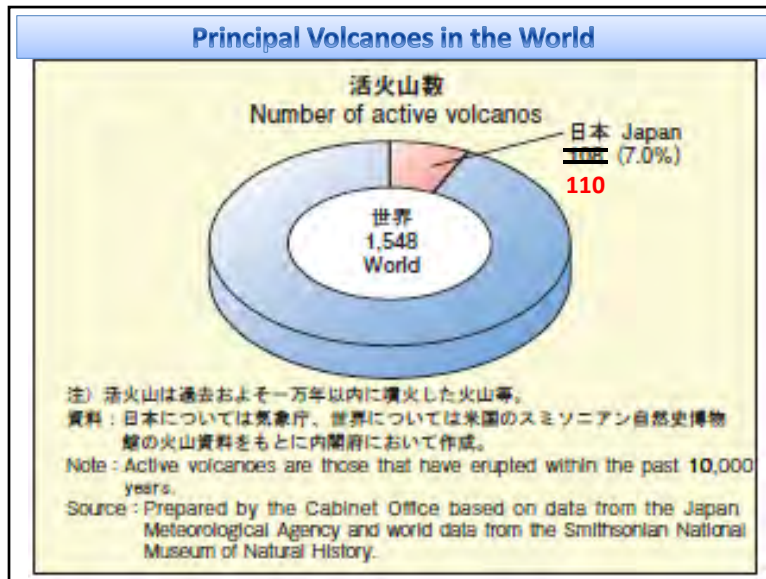
## Present Disaster Management Laws, Plans and Mechanism

## World Geographical Distribution of Hypocenters and Plates

マグニチュード6.0以上の地震回数  
Number of earthquakes with magnitude of 6.0 or greater



注) 2000年から2009年の合計。  
資料: 日本については気象庁、世界については米国地質調査所 (USGS) の震源資料をもとに内閣府において作成。  
Note: Total for 2000 to 2009.  
Source: Prepared by the Cabinet Office based on data from the Japan Meteorological Agency and world data from USGS.



### Top Disaster Management Law

**1961 Disaster Countermeasures Basic Act**

- Establishment of **Central Disaster Management Council**,  
headed by Prime Minister

**Member**

All the cabinet members + Designated Public Institutions + Experts

### Outline of Disaster Countermeasures Basic Act

➤ **Purpose and Policy**

- To protect national land as well as citizens' lives, livelihoods, and property from natural disasters**
- To contribute to maintaining the social order and securing public welfare.**

↓

Lack of Philosophy for Reconstruction and Economic Recovery, especially for **social and citizens' life**, and human security

### Main Contents of the Disaster Countermeasures Basic Act

1. Definition of Responsibilities for Disaster Management
2. Disaster Management Organizations
3. Disaster Management Planning System
4. 5. 6. Promotion of Disaster Countermeasures
  - Disaster prevention and preparedness
  - Disaster emergency response
  - Disaster recovery and rehabilitation

Municipalities have the Primary Responsibility for Disaster Management
7. Financial Measures
 

The Prime Responsible Organization must bear financial measures in principle
8. State of Disaster Emergency  
(Extremely Severe Disaster, Extraordinary Disaster)

## Outline of Disaster Countermeasures Basic Act

### ➤ Definition of Disasters, Responsibilities for Disaster Management

- Definition of Disasters
  - Natural Disasters
  - Accident (Man-made) Disasters
- Responsibilities
  - Implementation of Disaster Management Plans
  - Mutual Cooperation etc. (including community cooperation)

## Outline of Disaster Countermeasures Basic Act

### ➤ Disaster Management Organizations

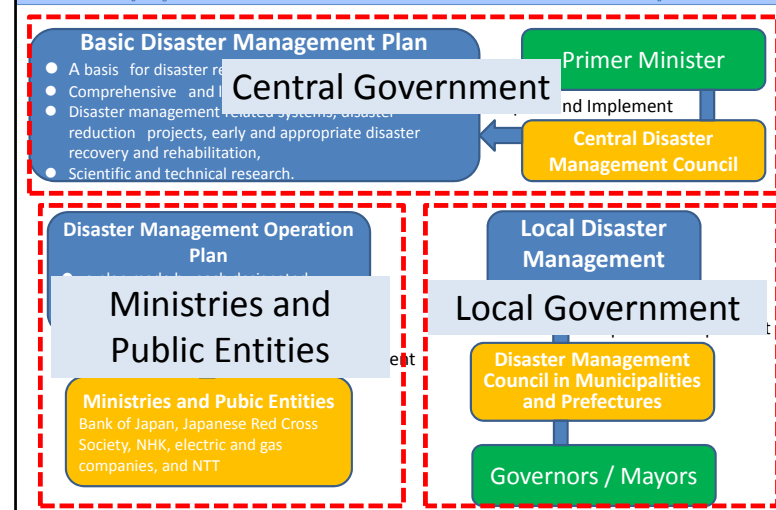
	Usual Condition	Emergency Condition
Central Government	Central Disaster Management Council	Major Disaster Management Headquarters, Extreme Disaster Management Headquarters
Local Government	Prefectural Disaster Management Council, Municipal Disaster Management Council	Disaster Management Headquarters

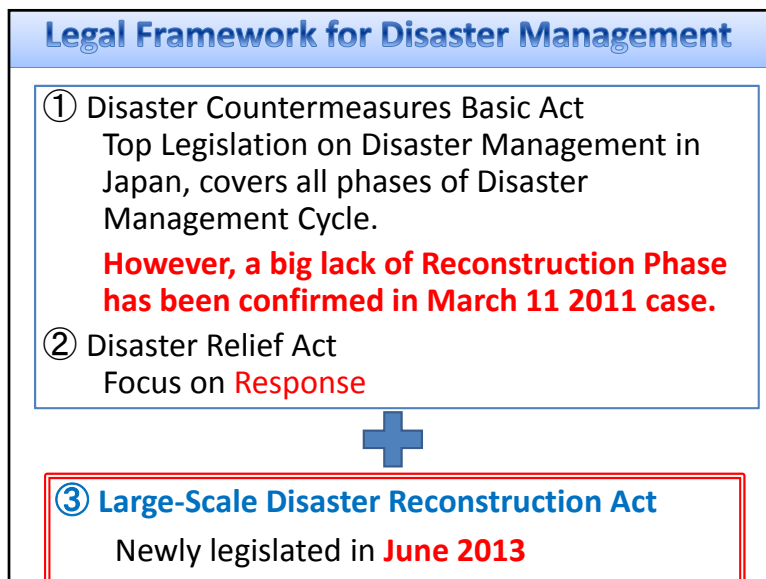
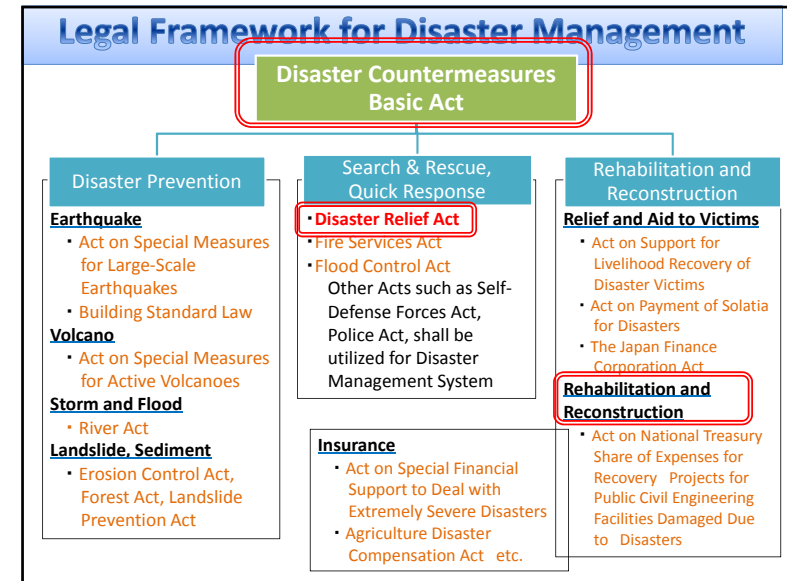
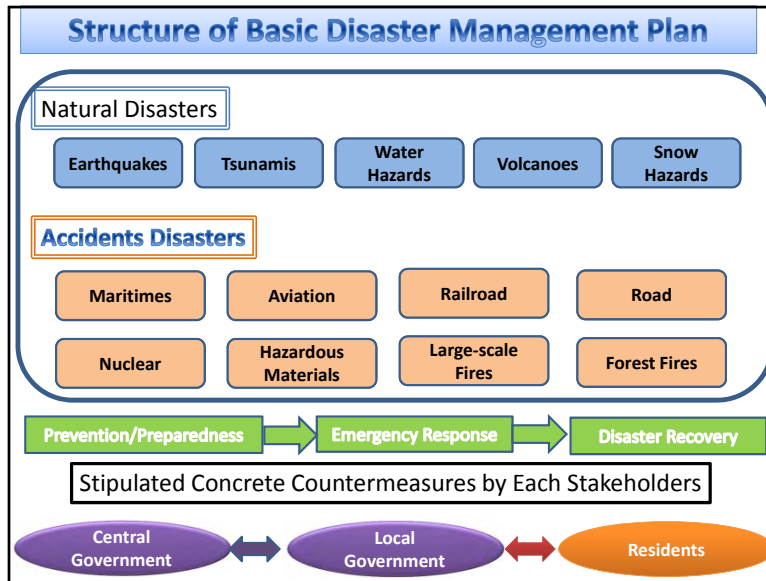
## Outline of Disaster Countermeasures Basic Act

### ➤ Disaster Management Plans

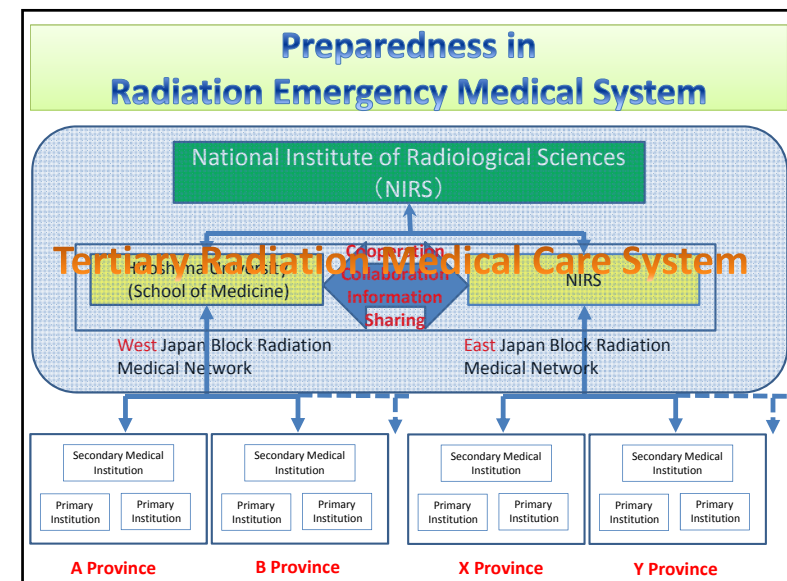
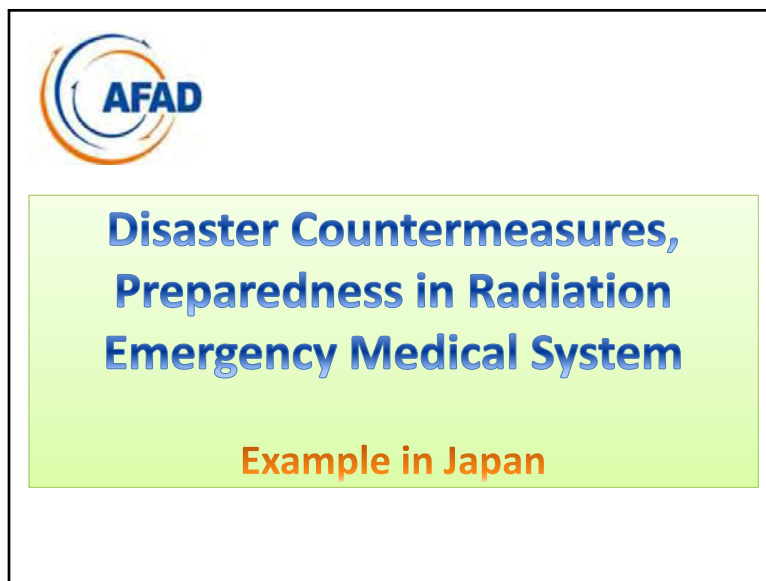
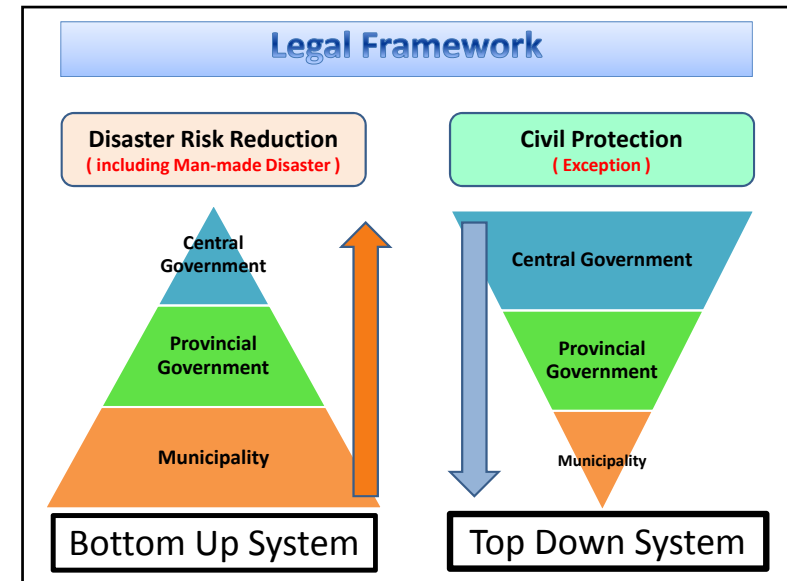
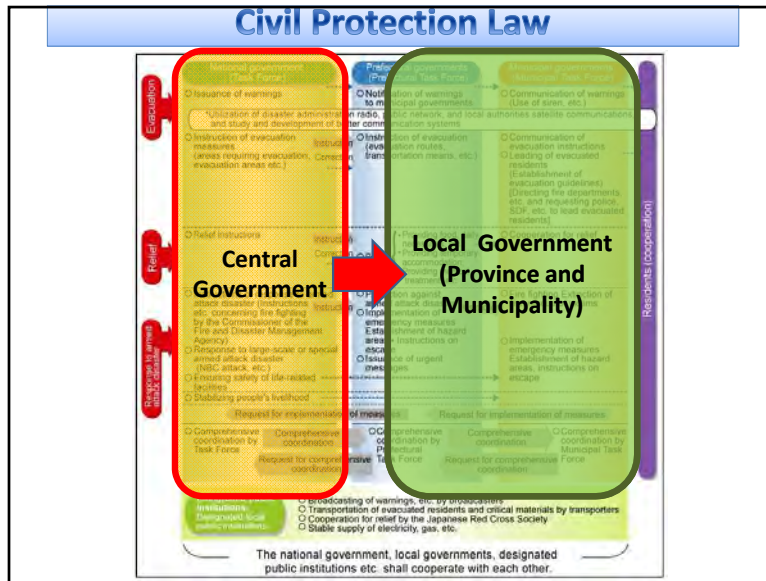
	Organization	DM Plans
Central Government	Central Disaster Management Council	<b>Basic Disaster Management Plan</b>
<b>Designated Government Organization and Designated Public Corporation</b>	24 ministries and agencies 56 organizations including independent administrative agencies, Bank of Japan, Japanese Red Cross Society, NHK, electric and gas companies and NTT telephone.	<b>Disaster Management Operation Plan</b>
Local Government	Prefectural Disaster Management Council, Municipal Disaster Management Council	<b>Local Disaster Management Plan</b>

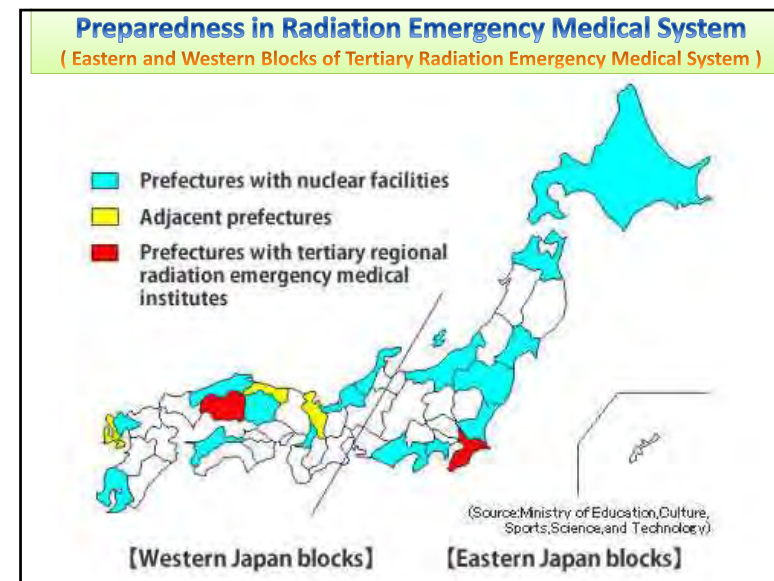
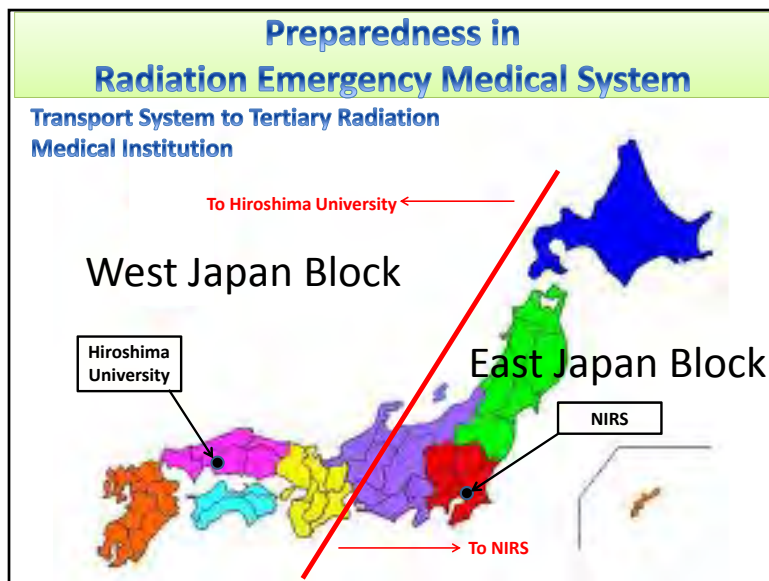
## Structure of Disaster Planning System (stipulated in Disaster Countermeasures Basic Act)











### Preparedness in Radiation Emergency Medical System (Future System)

#### Lessons learned from Fukushima Case

- ◆ Nuclear Regulation Agency (under Nuclear Regulation Authority and **Ministry of Education, Culture, Sports, Science and Technology**) will review the case in Fukushima more detail and will upgrade the Radiation Emergency Medical System **by the summer 2014**.
- ◆ The suggestion by Nuclear Regulation Agency will be incorporated into **Basic Disaster Management Plan in Central Government**

### Preparedness in Radiation Emergency Medical System (Future System)

#### Lessons learned from Fukushima Case

- ◆ Key Nuclear Emergency Hospital (tentative name) shall be designated
- ◆ New Blocks system shall be introduced
- ◆ More Tertiary Radiation Emergency Medical Institutions shall be added and upgraded in regional level.
- ◆ New medical support team (tentatively named “**Nuclear Medical Support Team : NMAT**”) shall be established
- ◆ Collaboration with General Disaster Emergency Medical System (**Ministry of Education, Culture, Sports, Science and Technology**, and **Ministry of Health, Labour and Welfare**)

## Preparedness in Radiation Emergency Medical System (Future System)

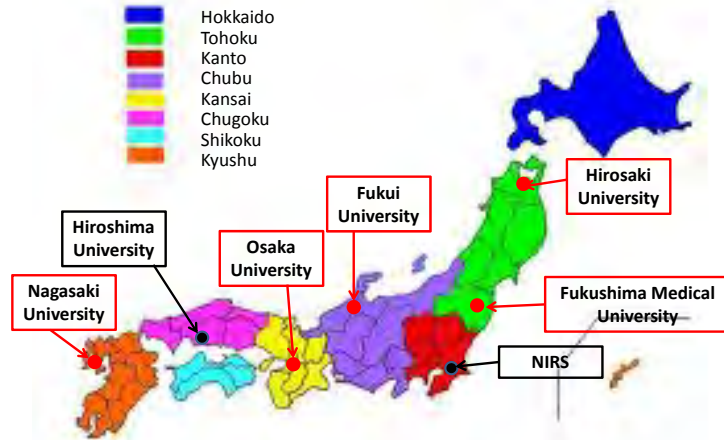
### Lessons learned from Fukushima Case

- ◆ New Blocks system shall be employed ⇒ **Regional Block System**
- ◆ Two (2) Tertiary Radiation Emergency Medical Institutions are appointed ⇒ **more additional institutions shall be appointed as shown in the following page.**
- ◆ **About 100 NEMAT shall be established among about 1150 DMAT in the nation.**
- ◆ Collaboration with General Disaster Emergency Medical System ⇒ **more simplified management system**

## Preparedness in Man-made Disaster

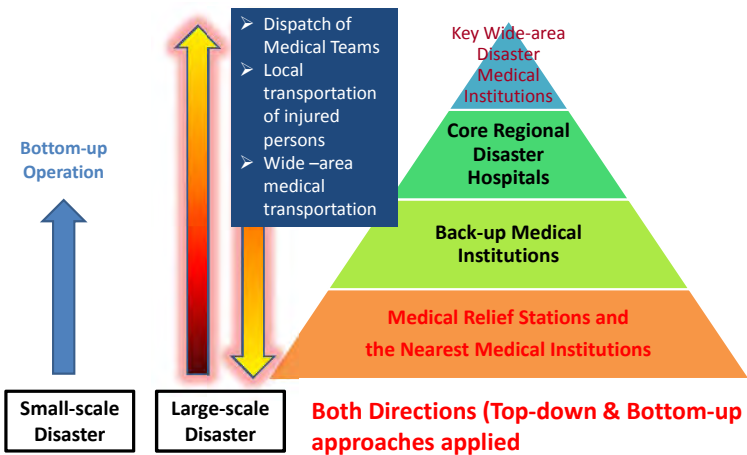
( Radiation Emergency Medical System, Present System )

### Candidates of Tertiary Radiation Emergency Medical Institutions



## Medical Relief Measures System

(Except Radiation Emergency Case)



## One of Key Wide-Area Disaster Medical Institutions

Metropolitan Hiroo General Hospital



Training Course held in  
Metropolitan Hiroo General Hospital



Training Course held in  
Metropolitan Hiroo General Hospital



The Lessons learned from March 11

Example in Japan

The Lessons learned from March 11

- **Preparedness**
- Redundancy
- **Coordination among relevant authorities**



Resilient Society



## The Lessons learned from March 11 Example

- Preparation of supplies including daily necessities (Stockpile)
- Change of Locations such as Emergency Generators in Hospitals
- Appointed more Key Emergency Hospitals in Tokyo, **three (3)** more appointed.
- Operations of DMAT
- **Importance of Coordination among Medical Institutes in Devastated Area.**

## Importance of Coordination and Communication Japanese Red-Cross Ishinomaki Hospital

- The Doctor working in the Ishinomaki Red-Cross Hospital had been appointed as Medical Coordinator by the Governor of Miyagi Prefecture **before** March 11, 2011.
- Communication among medical institutions in Ishinomaki Area was very smooth and could receive easily the assistance from the central and other local governments.

## Preparation for Emergency (Stockpile) in Metropolitan Hiroo General Hospital



## Preparation for Emergency (Stockpile) in Metropolitan Hiroo General Hospital



**Preparation for Emergency (Stockpile) in Town**  
managed by **Local Voluntary Disaster Management Organizations**



**Very Recent Lessons learned**

- Revision of **Basic Disaster Management Plan** requested by **Central Disaster Management Council**

**Dated 17 January 2014**

- ◆ Preparation of Name list of **Vulnerable people** in community in pre-disaster phase
- ◆ Expansion of Distribution System for **Iodine Tablets** (Potassium Iodide)
  - ⇒ **Protection Improvement against Nuclear Accident**

**Strengthening Preparation**



**Case Study of well-Preparedness**

**Example in Japan**

**Case Study in Japan**







## Ishinomaki city



## Ishinomaki-city



Next Day  
March 12



## Kesennuma-city (Before)

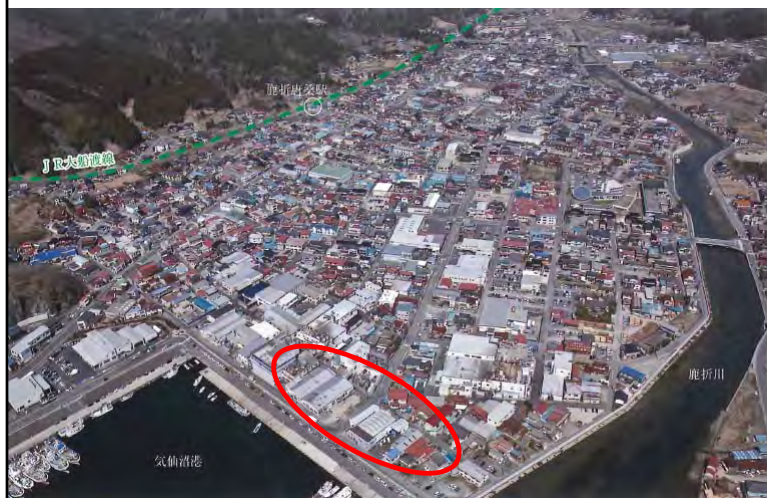


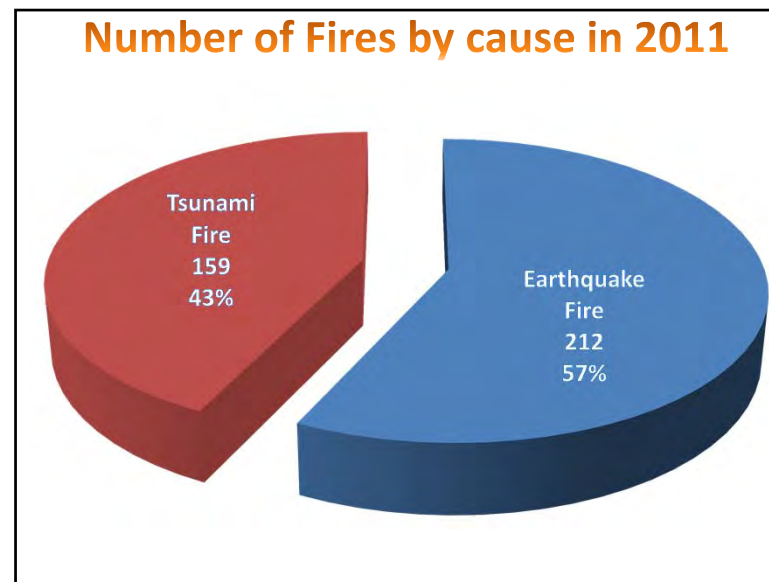
Photo taken in April, 2009

## Kesennuma-city (After)



Photo taken in March 28, 2011





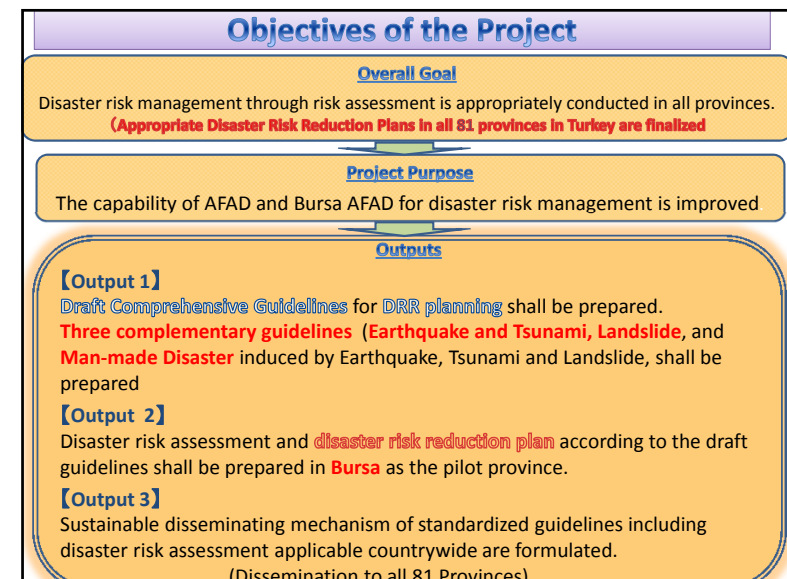
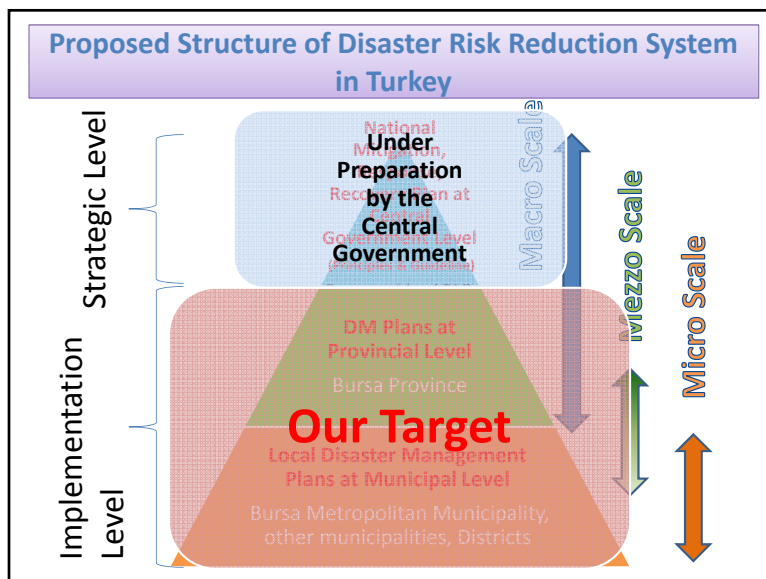
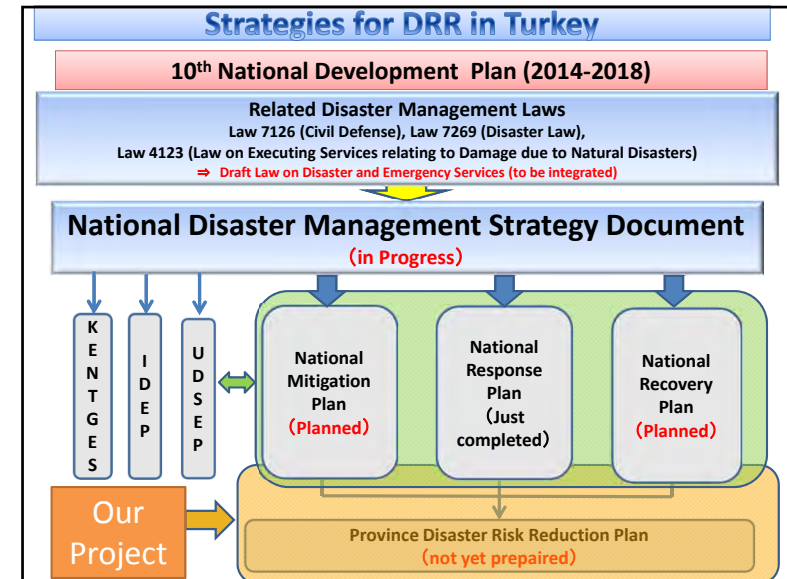

### On-going Project in Turkey on DRR in cooperation with JICA

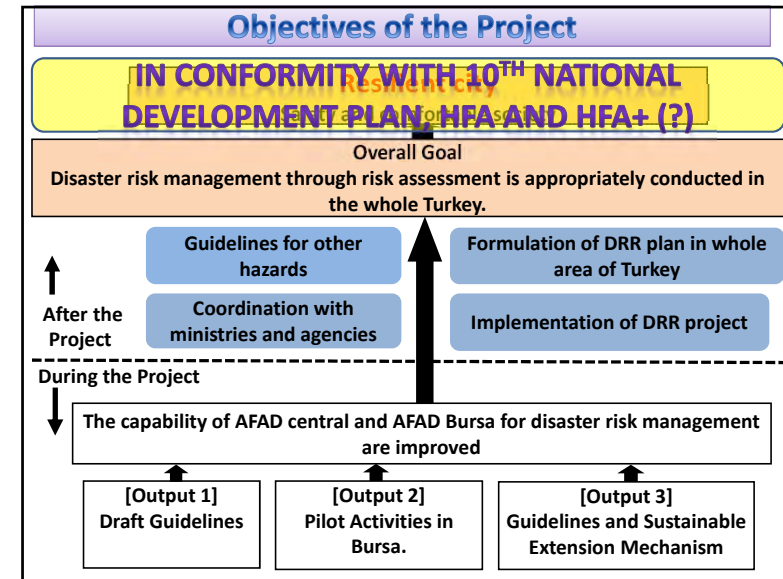
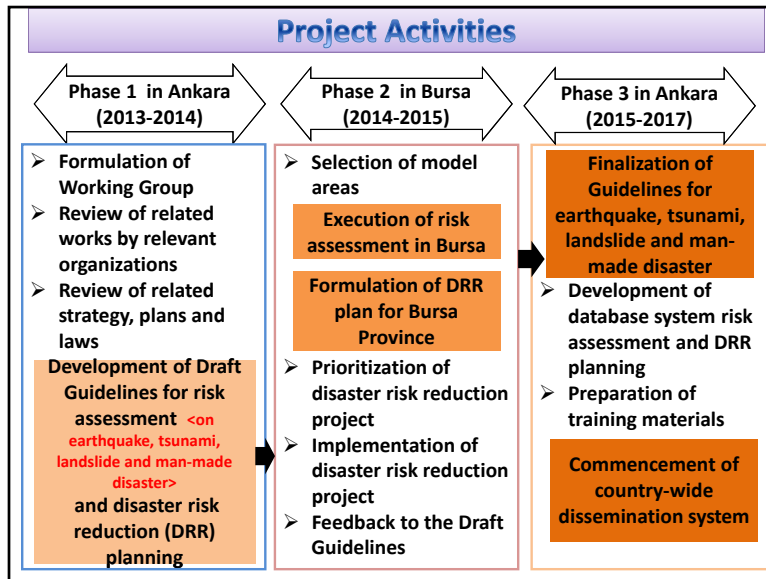
### The Project I am working in cooperation with JICA

Name: The Project on Capacity Development toward Effective Disaster Risk Management

Project Duration: 4 years (2013 – 2017)

Cooperation Type: Technical Assistance (TA)





**Teşekkür Ederim**  
(Thank you very much  
in Turkish)



- We, JICA Turkey Office, are looking for the opportunity to host third county training in Turkey on DRM.
- JICA Turkey Office in collaboration with not only AFAD, but also Ministries, universities and any institutions, tries to respond to your request.



**Shoji Hasegawa**  
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