



# Preparedness for Disaster Response in Japan

*Research Report presentation of Visiting Researcher program 2022*

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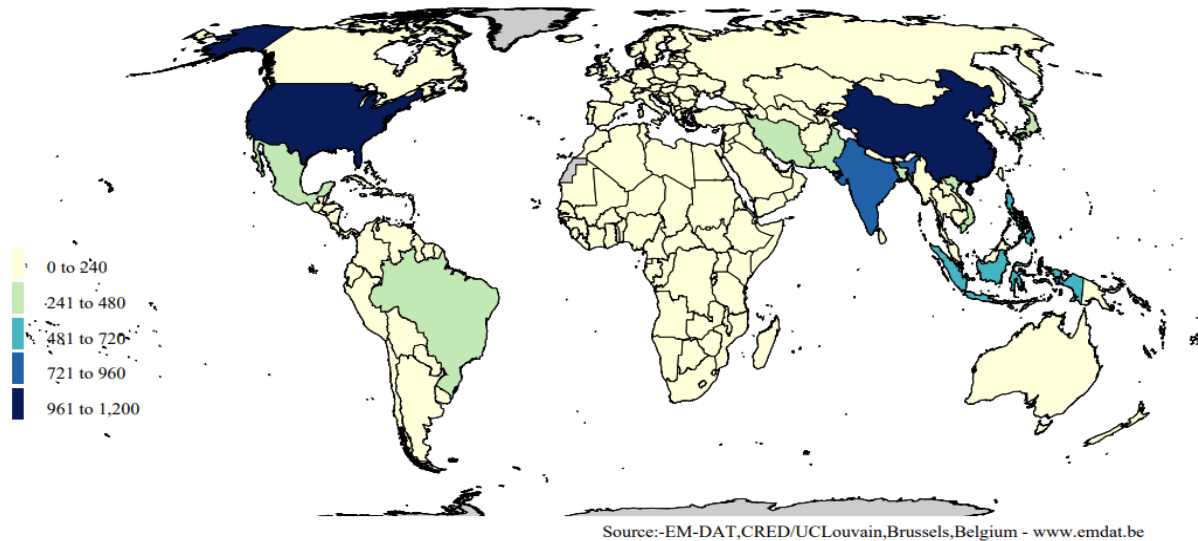
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# Introduction

Global Occurrences from Natural Disasters, 1900 to 2023



- Asia and the Pacific: Most disaster-prone region in the world
- Concentration of World Population, Lack of Resources
- Vulnerabilities are by increased by Industrialisation, Urbanization, environmental degradation, climate change

# Problem

In context of Disaster Response

Disaster  
Forecasting  
and EWS

Disaster  
Management Plan

Emergency  
Communication  
System

Response Capacity  
and Capabilities

Coordination

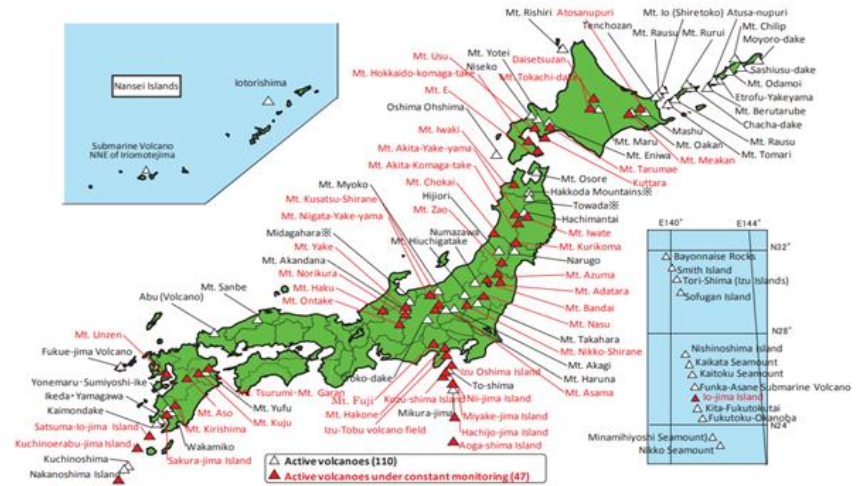
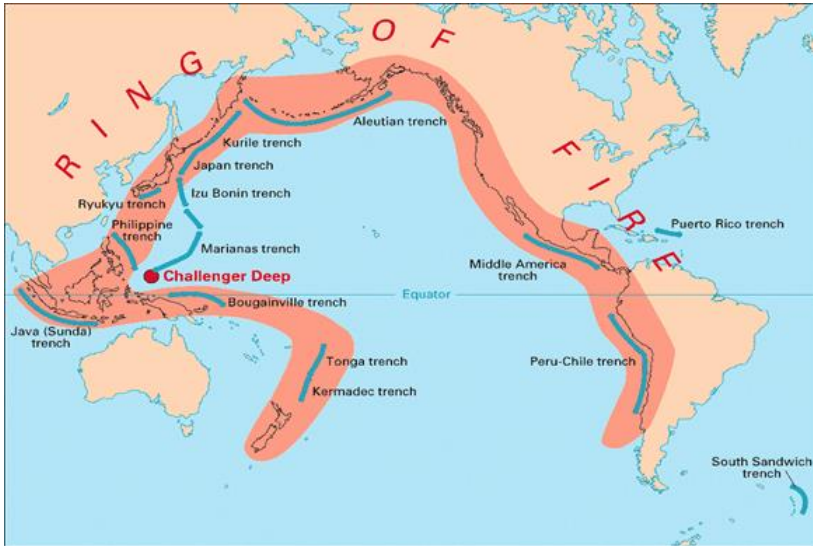
Response  
Mechanism

# Objective

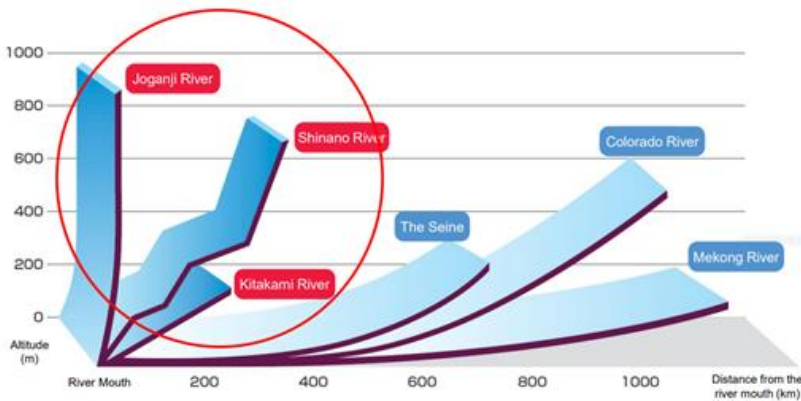
## Study the Preparedness for Disaster Response in Japan

- Disaster management plans
- Business Continuity
- Forecasting and Early warning systems
- Communication system
- Disaster Response mechanism
- Coordination: National and Local governments
- Human resource development: Training, Drills, etc
- Other preparedness and response activities

# Disaster Risk Profile: Japan



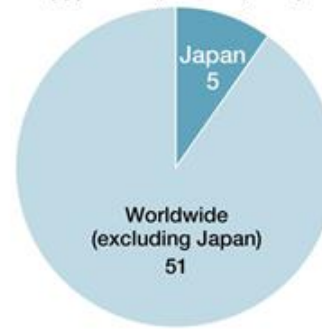
Source: Created by the Cabinet Office from the Japan Meteorological Agency website



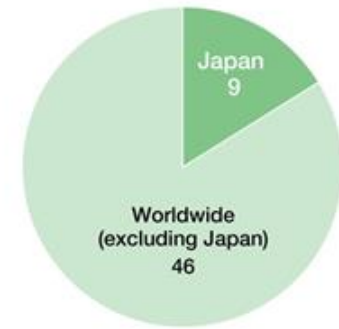
Japanese rivers are narrow, steep, and short.

Source: Ministry of Land, Infrastructure, Transport and Tourism, Water and Disaster Management Bureau website, Introduction of projects [pamphlet] Overview of River Administration in Japan 2005 | Current status and issues of rivers [https://www.mlit.go.jp/river/pamphlet\\_jreiv/kasen/gayou/pant/gayou2005/index.html](https://www.mlit.go.jp/river/pamphlet_jreiv/kasen/gayou/pant/gayou2005/index.html)

Meteorological disasters (typhoons, floods, etc.)

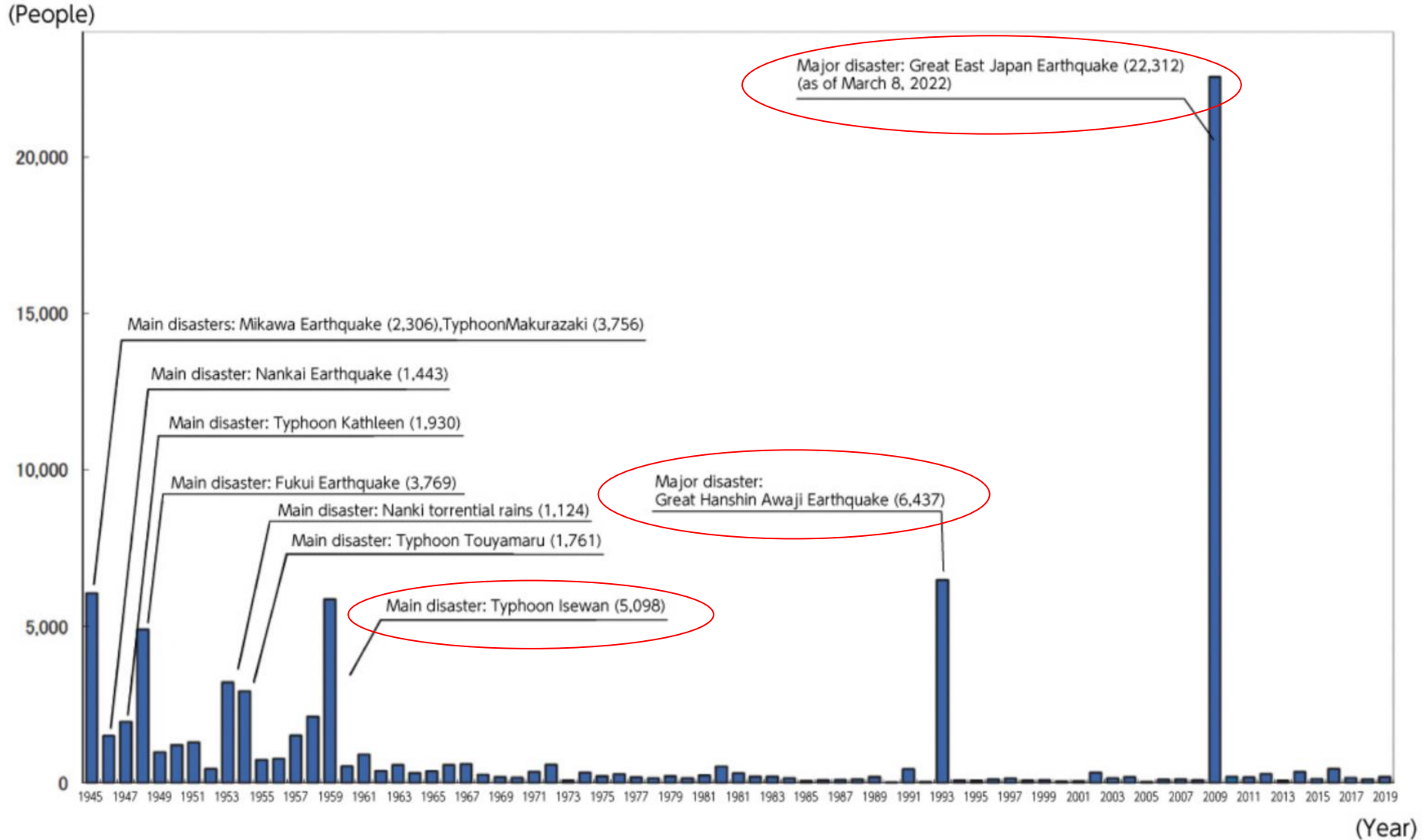


Earthquakes/Tsunamis



Proportion of Major Disasters in Japan against the World since 1900

# Major Disasters



# Disaster Countermeasures Basic Act

- Enacted in 1961 after Typhoon Isewan
- Protect: Land, Lives, livelihoods, and property from disasters
- Responsibilities: Government, Prefectures, Municipalities
- Comprehensive and strategic disaster management system: Central DM council, Local DM headquarters.
- Disaster management plans: National, Local and Community levels
- Promotion of Disaster Countermeasures
- Financial measures
- Declaration of Disaster emergency



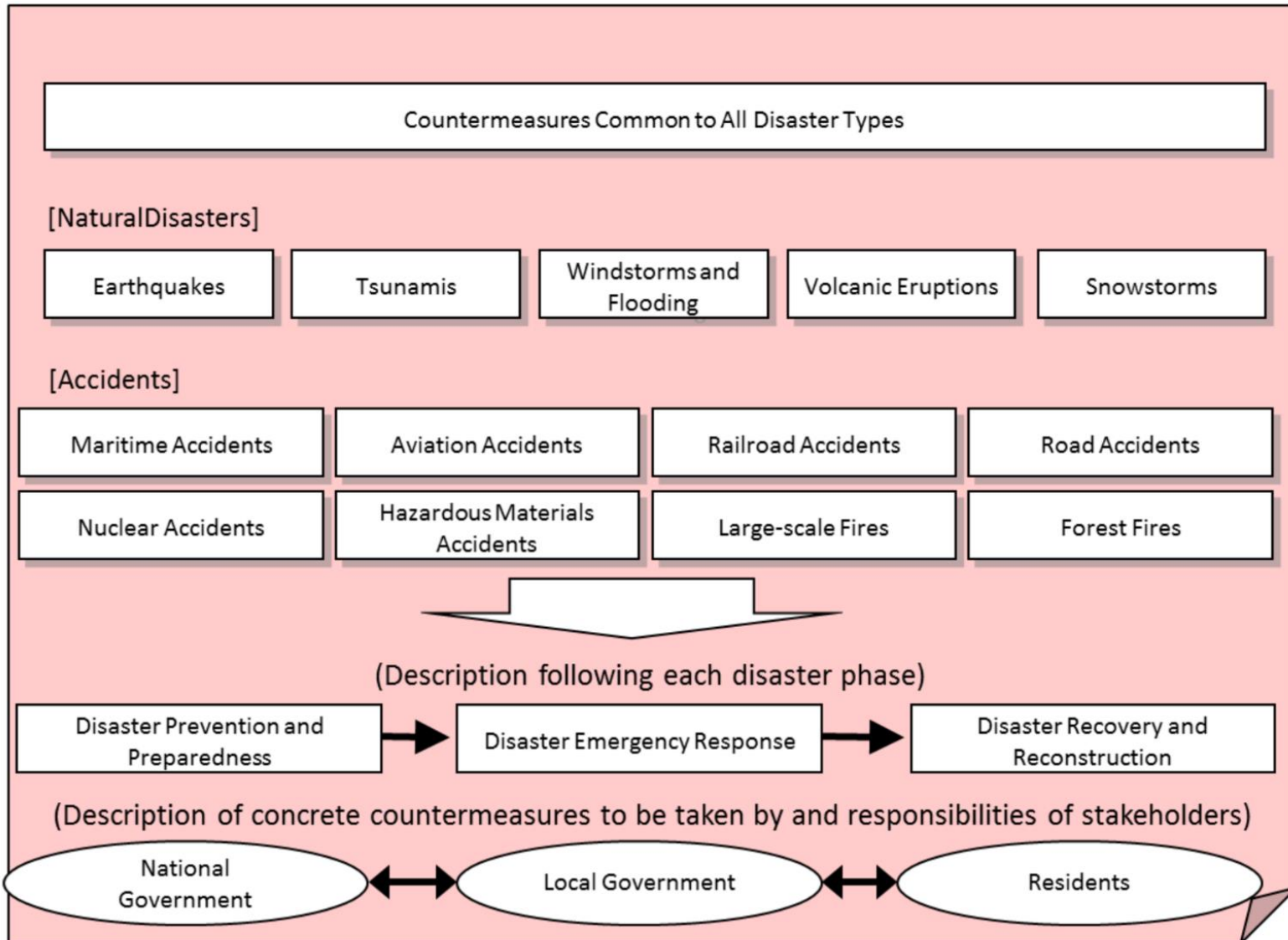
# Institutional Setup



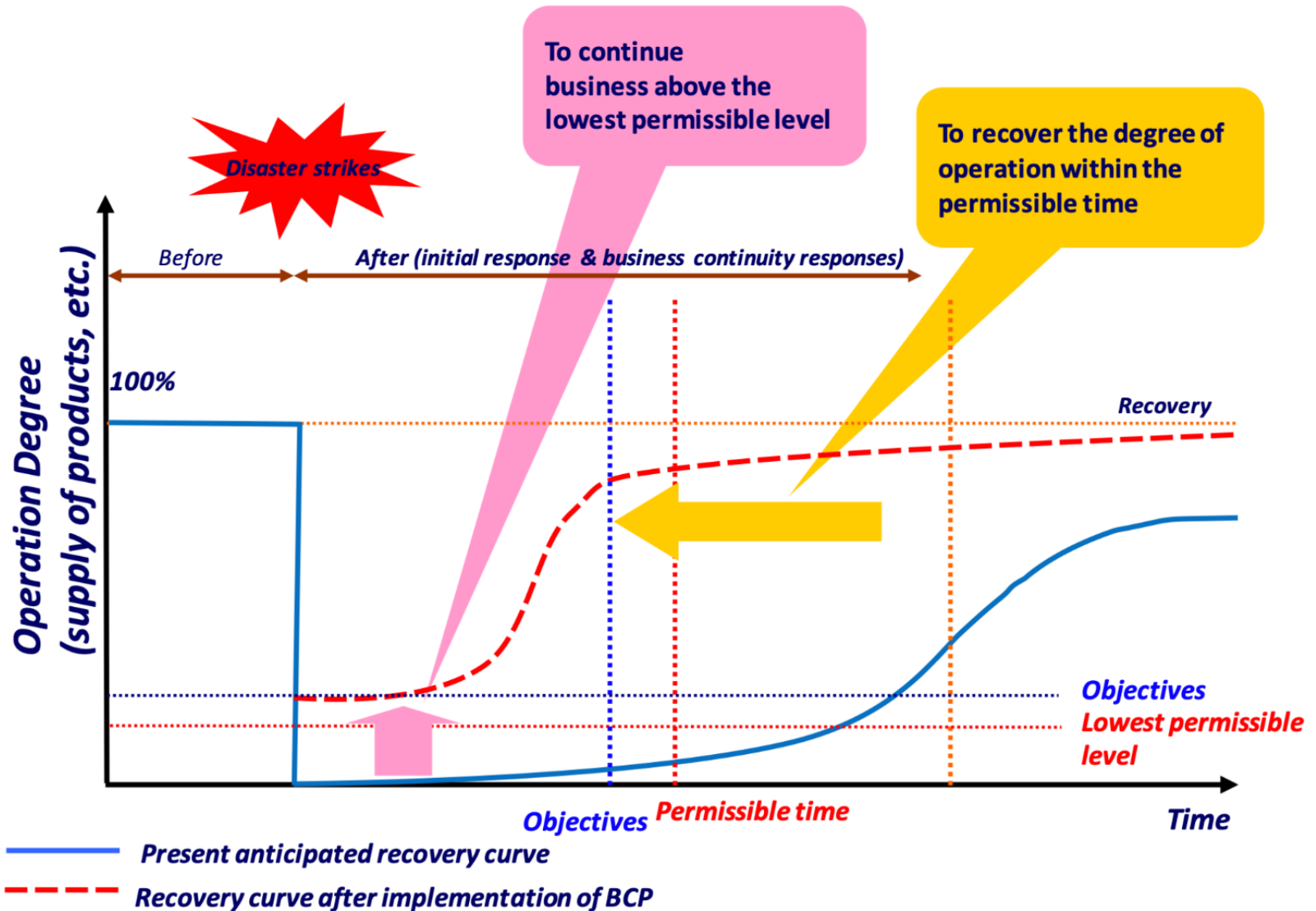
※1 **指定行政機関** Designated Government Organizations 24の国の行政機関が指定されています。  
24 ministries and agencies are designated

※2 **指定公共機関** Designated Public Corporations 独立行政法人の一部、日本銀行、日本赤十字社、NHKなどの公共的機関や電力会社、ガス会社、NTTなど公益的事業を営む法人100機関が指定されています。  
66 organizations including independent administrative agencies, Bank of Japan, Japanese Red Cross Society, NHK, electric and gas companies and NTT are designated.

# Basic Disaster Management Plan



# Business Continuity Plan



# White Paper on Disaster Management

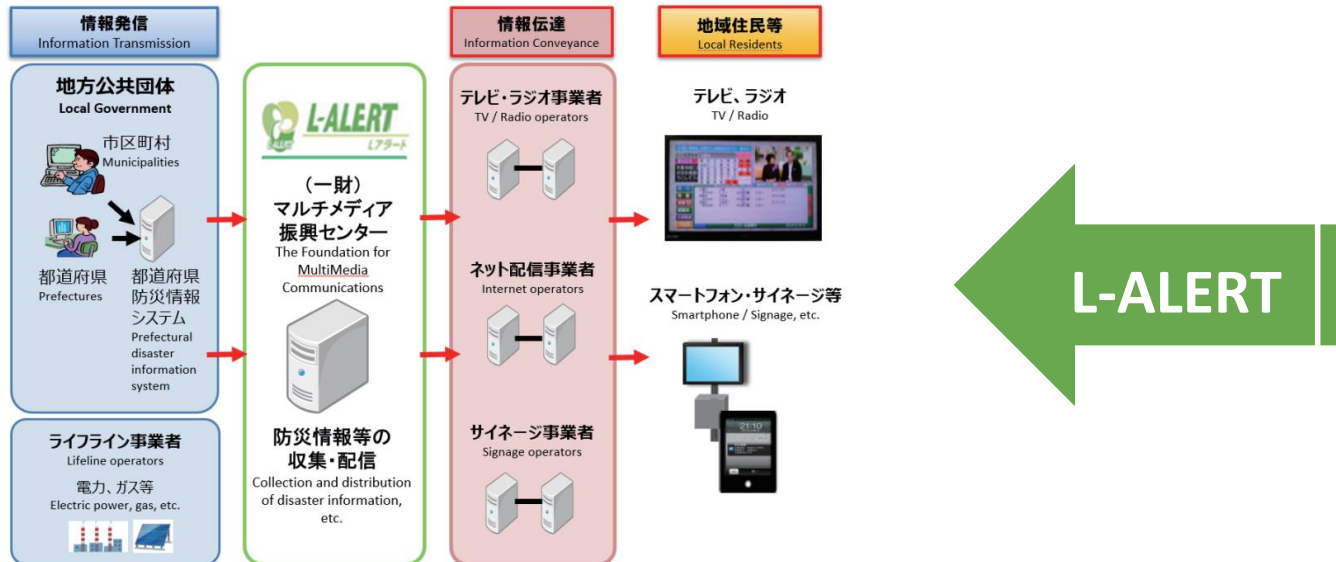
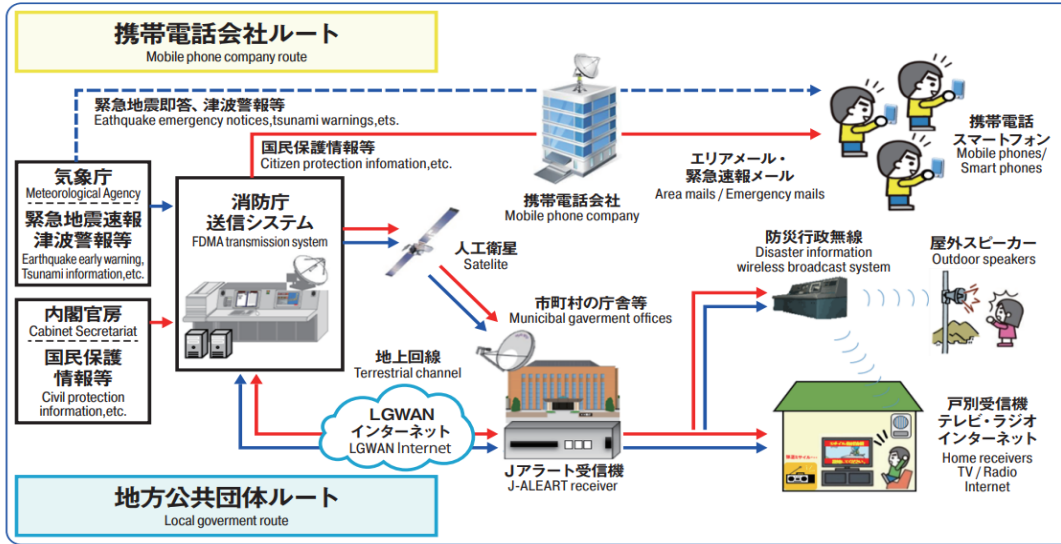
2022

## White Paper Disaster Management in Japan





- Disaster Countermeasures Basic Act, 1961
- Cabinet Office: First published in 1962
- Annual report: Overview of DM Policies, Strategies and Activities
- Promotes Public awareness and understanding of DM issues
- Monitoring and Evaluation tool
- Learning from the experiences

# Early Warning System



# Alert Levels

Alert level	Situation	Required action	Evacuation information
<b>5</b>	Disaster occurrence or urgency	Danger of life Secure safety immediately!	Emergency Safety Measures* <sup>1</sup>
 <Be sure to evacuate by alert level 4!> 			
<b>4</b>	High risk of disaster	Everyone evacuates from hazardous places	Evacuation Instruction <sup>(note)</sup>
<b>3</b>	Risk of disaster	The elderly, etc. evacuate from hazardous places* <sup>2</sup>	Evacuation of the Elderly, etc.
<b>2</b>	Weather worsening	Check how to evacuate	Heavy rain, Flood, of Storm Surge Advisories (JMA)
<b>1</b>	Risk of weather worsening	Be prepare for disasters	Probability of Warnings (JMA)

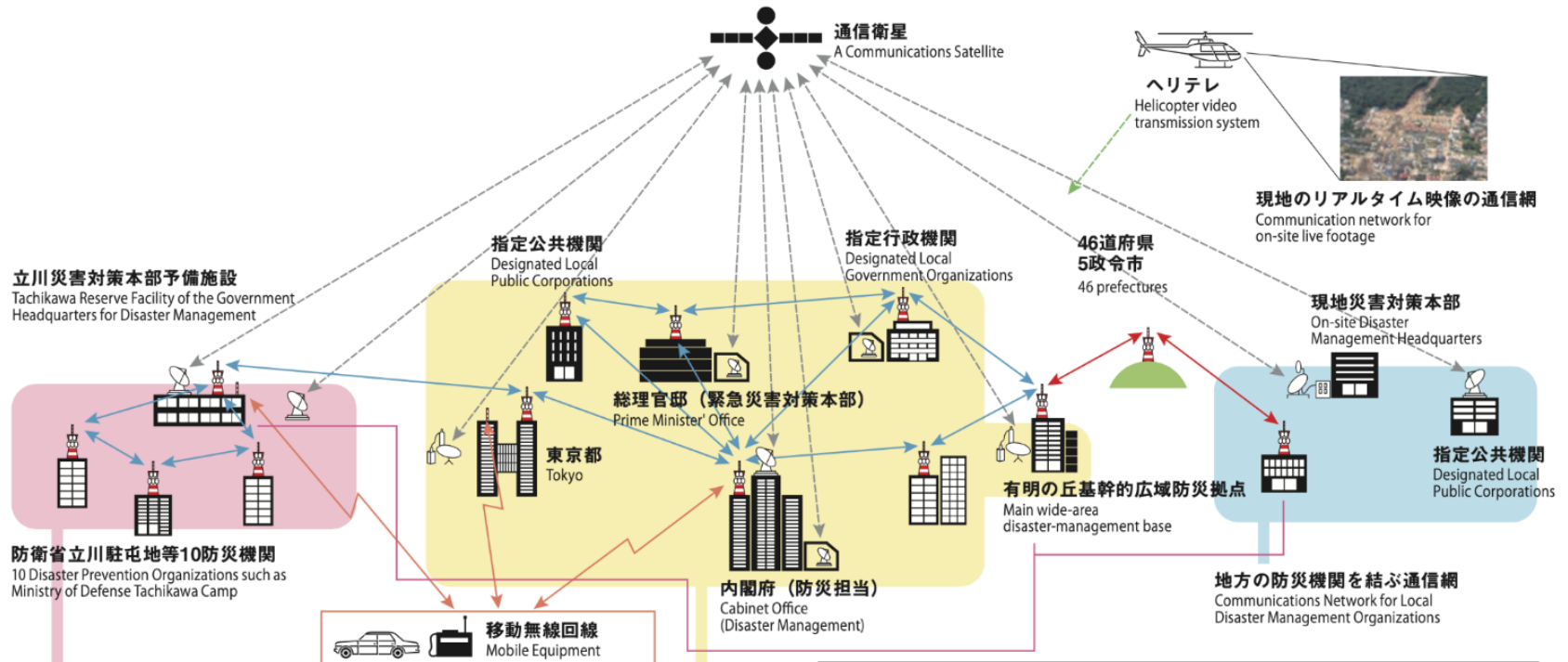
\*1 Alert level 5 is not always issued, as municipalities may not be able to certainly understand the situation of disasters.

\*2 Alert level 3 is the timing for people other than elderly to suspend normal activities and begin evacuating voluntary when feel danger, as needed.

(note) Evacuation warning s are issued at the timing of current evacuation advisory.

# Communication Network

## Central DM Radio Communication Network



**立川災害対策本部予備施設**  
Tachikawa Reserve Facility of the Government  
Headquarters for Disaster Management

**指定公共機関**  
Designated Local  
Public Corporations

**通信衛星**  
A Communications Satellite

**ヘリテレ**  
Helicopter video  
transmission system

**現地のリアルタイム映像の通信網**  
Communication network for  
on-site live footage

**46道府県**  
5政令市  
46 prefectures

**現地災害対策本部**  
On-site Disaster  
Management Headquarters

**指定公共機関**  
Designated Local  
Public Corporations

**総理官邸 (緊急災害対策本部)**  
Prime Minister's Office

**東京都**  
Tokyo

**有明の丘基幹的広域防災拠点**  
Main wide-area  
disaster-management base

**地方の防災機関を結ぶ通信網**  
Communications Network for Local  
Disaster Management Organizations

**内閣府 (防災担当)**  
Cabinet Office  
(Disaster Management)

**移動無線回線**  
Mobile Equipment

**防衛省立川駐屯地等10防災機関**  
10 Disaster Prevention Organizations such as  
Ministry of Defense Tachikawa Camp

**立川広域防災基地内の防災機関を結ぶ通信網**  
Communications Network for Disaster Management Organizations  
Located in Tachikawa Wide-area Disaster Management Base

**都市部の防災機関を結ぶ通信網**  
Communications Network  
for Disaster Management  
Organizations in Central Tokyo

**凡例 Legend**

**(都心部・立川)**

Metropolitan and Tachikawa areas

→ **地上マイクロ無線回線**  
Micro-radio communication system

→ **移動無線回線**  
Mobile radio communication system

**(地方) Rural areas**

→ **国土交通省回線**  
MLIT's communication system

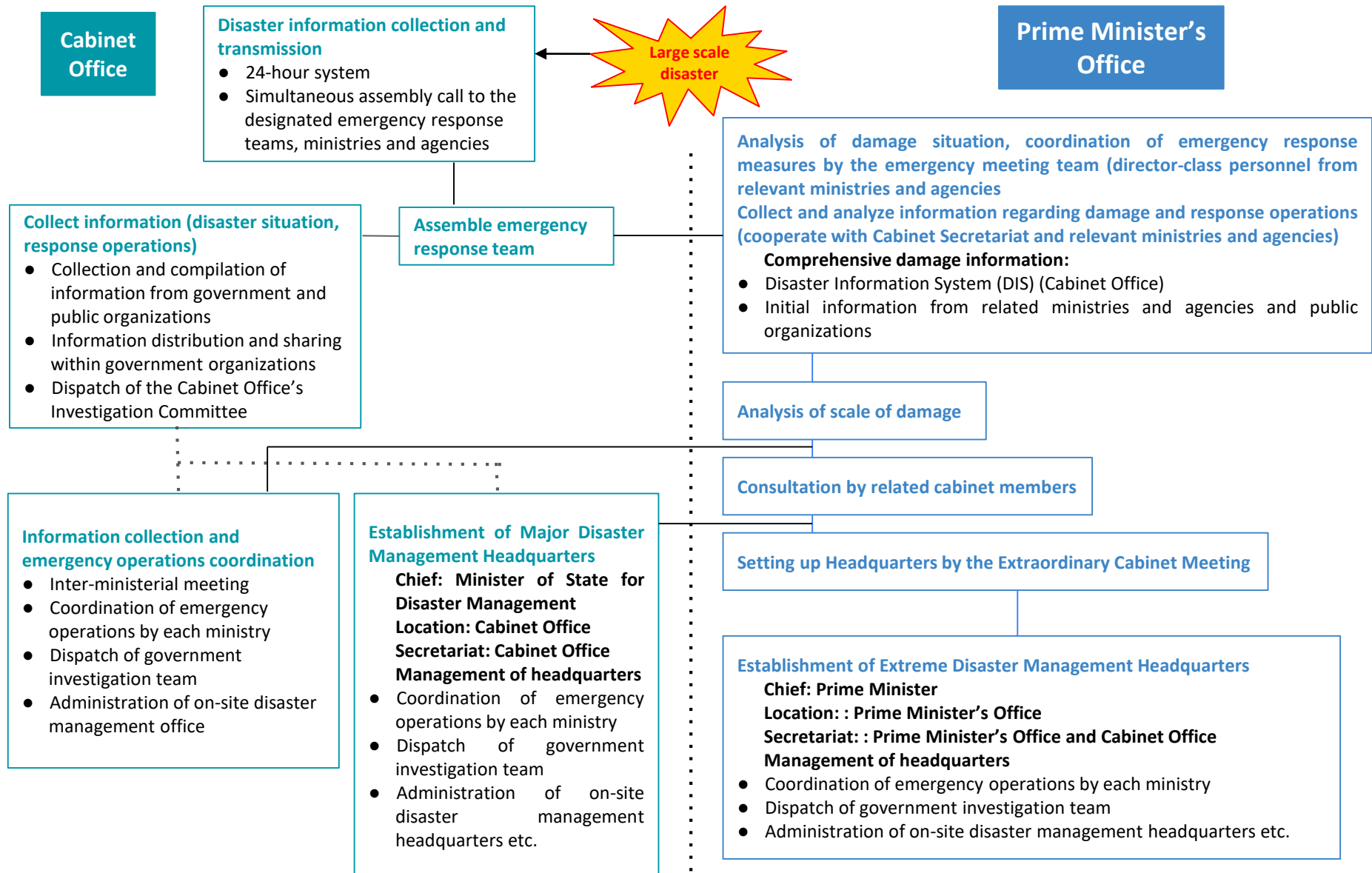
**(全国) Nationwide**

--- **衛星回線**  
Satellite communication system

→ **ヘリコプター映像回線 (他省庁)**  
Helicopter video transmission system  
(Ministries and agencies)

→ **有線回線 (事業者回線、一部国土交通省光ファイバ回線)**  
Wired communication system  
(Leased lines, MLIT's optical fiber  
communication system)

# Government Disaster Response Mechanism





# Coordination: National and Local

## Coordination System between National and Local Governments (in the case of the Great East Japan Earthquake)

### 東日本大震災における緊急災害対策本部と各県の連絡・調整体制

Communication and coordination system between Extreme Disaster Management Headquarters and each prefecture during the Great East Japan Earthquake

#### 緊急災害対策本部 (官邸)

Extreme Disaster Management Headquarters (Prime Minister's Office)

● **本部長: 内閣総理大臣** Chief: Prime Minister

最大約300名  
300 staff (maximum)

● **副本部長: 官房長官・総務大臣・防衛大臣・防災担当大臣**

Deputy Chief: Chief Cabinet Secretary, Minister for Internal Affairs and Communications, Minister of Defense, Minister of State for Disaster Management

● **被災者生活支援チーム (内閣府)**

Support Team for Livelihood of Disaster Victims (Cabinet Office)

(最大約100名)  
100 staff (maximum)

● **事務局: 内閣府等** Secretariat: Cabinet Office etc.

#### 各省庁 (地方支分部局、自衛隊等)

Ministries and Agencies (Regional branch offices and bureaus, Self-Defense Forces etc.)

#### 各省庁を経由した連絡・調整ルート

Contact and coordination through Ministries and Agencies

#### 緊急災害現地対策本部

On-site Headquarters for Extreme Disaster Management

● **現地対策本部 (宮城)** On-site Headquarters (Miyagi Pref.)

本部長: 副大臣 Chief: State Minister of Cabinet Office for Disaster Management

(最大約60名)  
60 staff (maximum)

● **岩手現地連絡対策室** On-site Contact Office (Iwate Pref.)

室長: 副大臣 Chief: State Minister of Cabinet Office for Disaster Management

(最大約25名)  
25 staff (maximum)

● **福島現地連絡対策室** On-site Contact Office (Fukushima Pref.)

室長: 政務官 Chief: Parliamentary Vice-Minister for Disaster Management

(最大約25名)  
25 staff (maximum)

#### 都道府県災害対策本部

Prefectural Disaster Management Headquarters

#### 宮城県災害対策本部

Miyagi

#### 岩手県災害対策本部

Iwate

#### 福島県災害対策本部

Fukushima

#### 現対本部を経由した 連絡・調整ルート

Contact and coordination  
through On-site  
Headquarters

# Disaster Management Base Facilities

## 首都圏広域防災の ヘッドクォーター機能

Headquarters Functions of the Greater-Metropolitan Area Disaster Management

### 「東京湾臨海部基幹的広域防災拠点（有明の丘地区）」（東京都江東区）

\*The Main Wide-area Disaster Management Base Facility in the Tokyo Bay Waterfront area (in the Ariake-no-Oka area)\* (Ko-to ward, Tokyo)

#### 本部会議室

モニターでTV会議が可能  
Local Headquarters Conference Room  
Videoconferencing using monitors



#### 本部棟（約10,000㎡）

Headquarters building (approx. 1.0ha)

○防災施設（オペレーションルーム、本部会議室など災害時において、政府現地対策本部として活動）

Disaster management facilities (An operations room, eadquarters conference room and communications facility room for the activities of the joint on-site disaster management headquarters')



○公園施設（平常時の防災関連展示、体験学習施設）

Park facilities (Facilities to be used for disaster reduction exhibits and education programs, etc. in the ordinary time)

#### オペレーションルーム

Operation room



面積 約960㎡  
座席数 186席  
300インチモニター  
(画面分割可能)

Area: Approx. 960㎡ Seating capacity:  
186 300-inch monitor (with split-screen  
capability)

#### コア部隊ベースキャンプ（約2.5ha）

Base camp for core units (approx. 2.5ha)

○広域支援部隊の統制所

Field operations control center  
for wide-area support units

#### ヘリポート

(約2.6ha)

Heliport  
(approx. 2.6ha)

#### 災害医療支援スペース（約1.0ha）

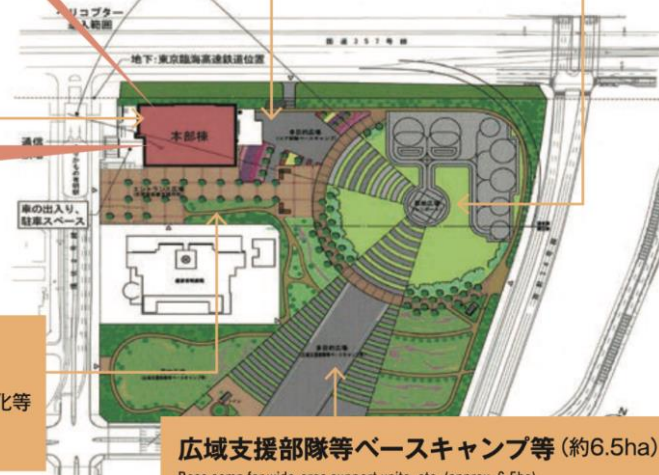
Disaster medical support (approx. 1.0ha)

○救助活動と医療活動の連携のための情報共有化等  
Information exchange for collaboration between  
SAR and medical activities

#### 広域支援部隊等ベースキャンプ等（約6.5ha）

Base camp for wide-area support units, etc. (approx. 6.5ha)

○広域支援部隊やボランティア等のための活動・統制所  
Activity area and field operations control center for  
wide-area support units and volunteers



# Disaster Response Agencies

## Fire Service Organizations

- Regular fire fighting units
- Volunteer firefighters
- Emergency Fire Response Teams

## National Police Agency

- Disaster Response Units

## Self Defense Forces

## Japan Coast Guards

## Disaster Medical Assistance Teams

## Community Organisations

- BOKOMI

# Other Preparedness & Response activities

**Disaster Reduction Drills and Exercises**

**Human Resources Development (Training)**

**Assistance in Evacuation**

**Living Conditions at Shelters**

**Grants to Disaster Affected People**

# What's in it for India?

- **White Paper on Disaster Management**
- **DM plans at Community level**
- **BOKOMI: Community Organisations**
- **Business Continuity Plan**
- **Communication Network**
- **Human Resource Development**
- **Evacuation sites and Emergency shelters**



**Arigato  
Gozaimasu !**