

# **Incorporation of DRR practices in Japan's Urban Planning and Infrastructure Development**

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# Outline

Overview of research

Comparison of Japan and Indian DM  
structure

Histories of Disaster in both countries

Key Finding

# Overview of research

## Aim

Identify potential areas where Japan integrate DRR into urban planning

Explore and document best practices

Develop actionable recommendations for policymakers

## Expected Result

A comparative analysis of the best practices

Set of practical and feasible recommendations for enhancing DRR

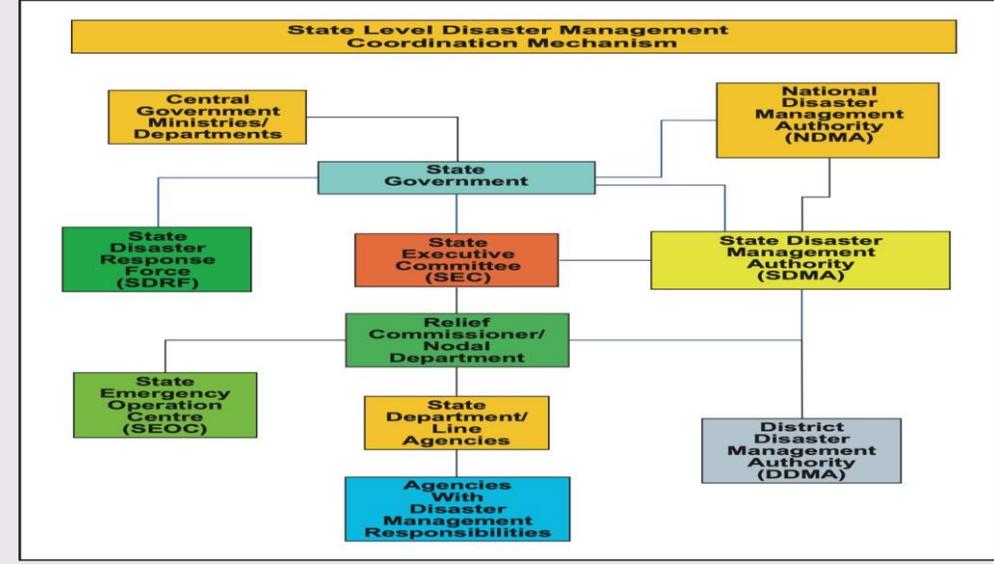
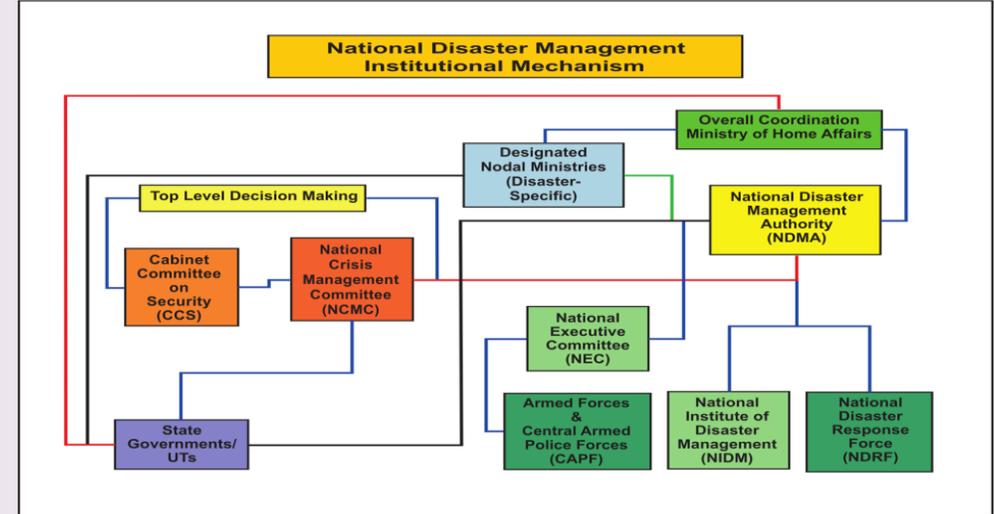
Sharing research findings with the relevant stakeholders,

# Disaster management system in both countries

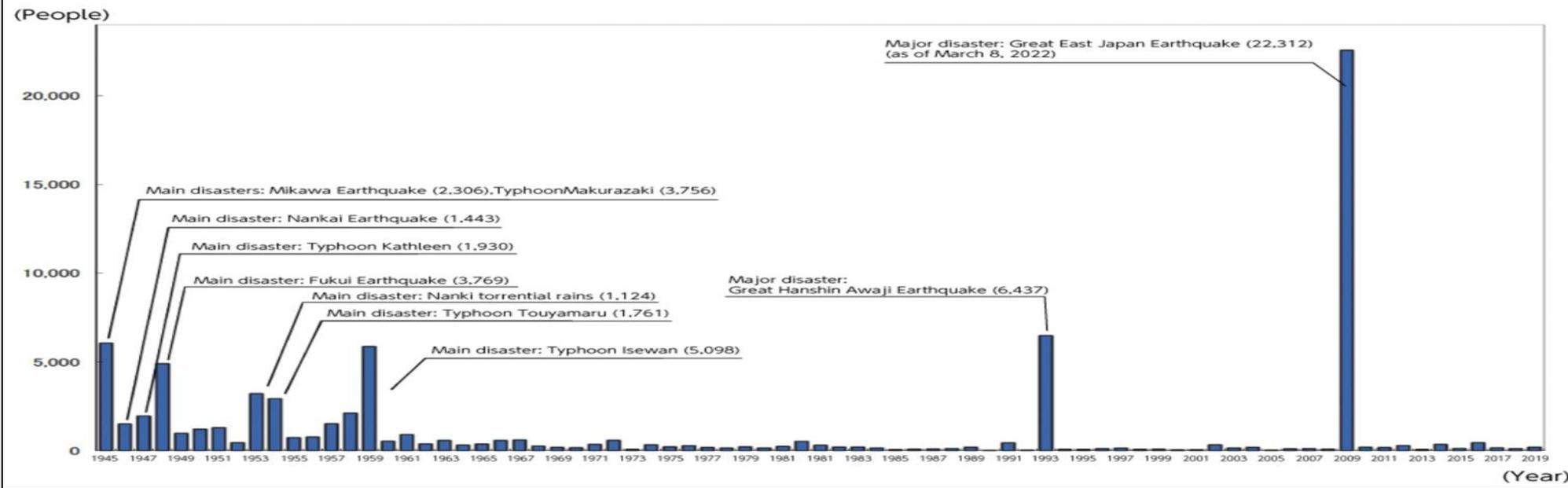
## 防災体制の概要 Outline of the Disaster Management System



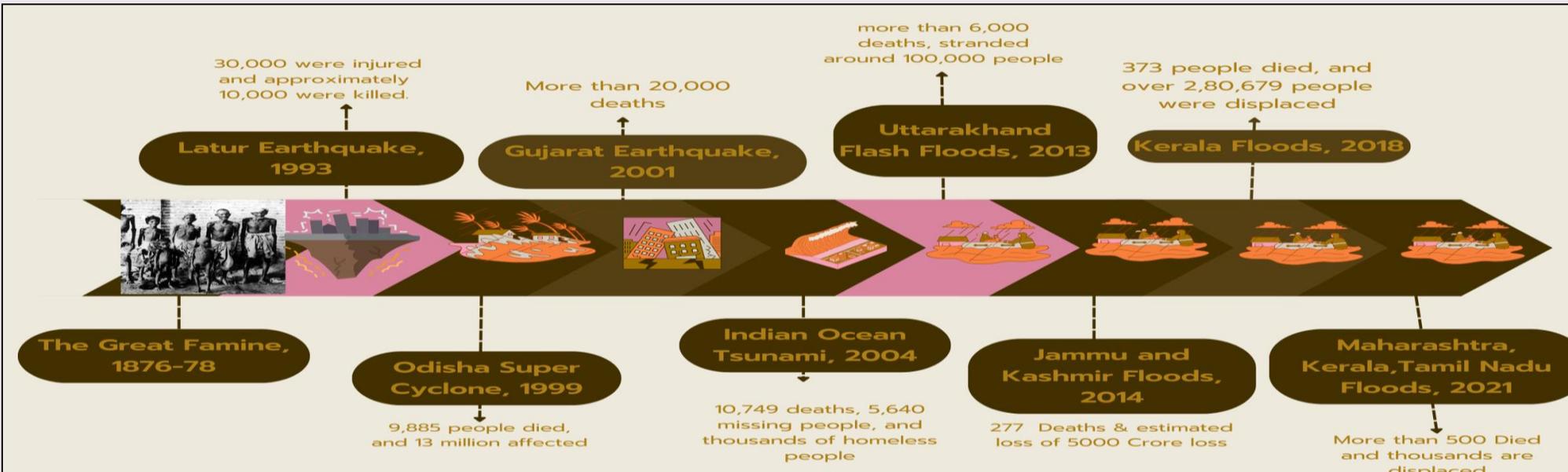
- ※1 指定行政機関 (Designated Government Organizations): 24の国の行政機関が指定されています。 (24 ministries and agencies are designated)
- ※2 指定公共機関 (Designated Public Corporations): 独立行政法人の一部、日本銀行、日本赤十字社、NHKなどの公共的機関や電力会社、ガス会社、NTTなど公益的事業を営む法人100機関が指定されています。 (66 organizations including independent administrative agencies, Bank of Japan, Japanese Red Cross Society, NHK, electric and gas companies and NTT are designated)



# History of Disasters in both countries



Japan



India

# Key Finding & Recommendation

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**Aim 1**  
**Identify**  
**potential areas**  
**where Japan**  
**integrate DRR**



**Land-use Planning & infra development**



**Communication Infrastructure**



**Japan's investment in various disaster museums**



**Community Engagement and Preparedness**



**International collaborations & knowledge transfer**



**Knowledge Sharing platforms**



**Innovation & Technology development**



# Land-use Planning & infra development



Land Use planning



Landslide prevention

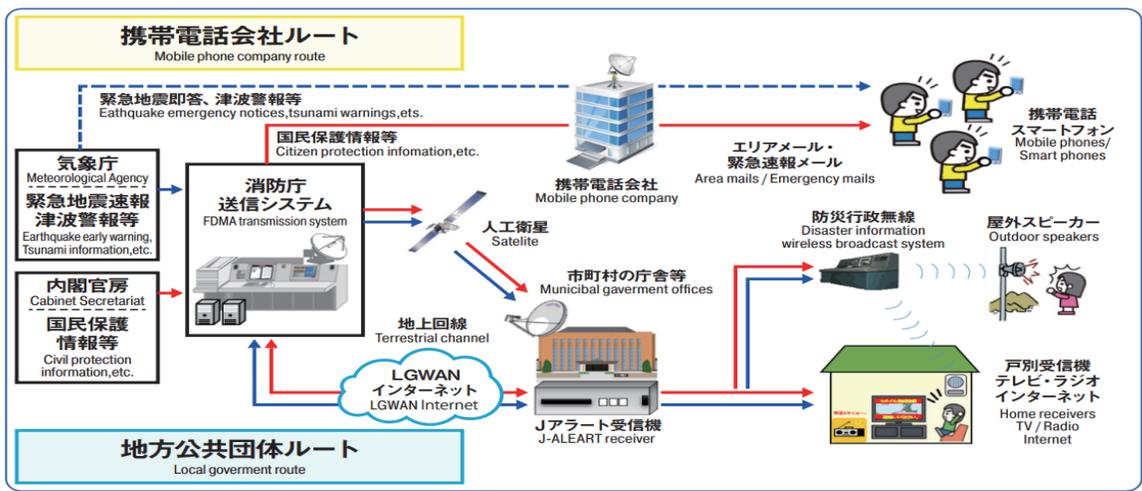


Flood Management

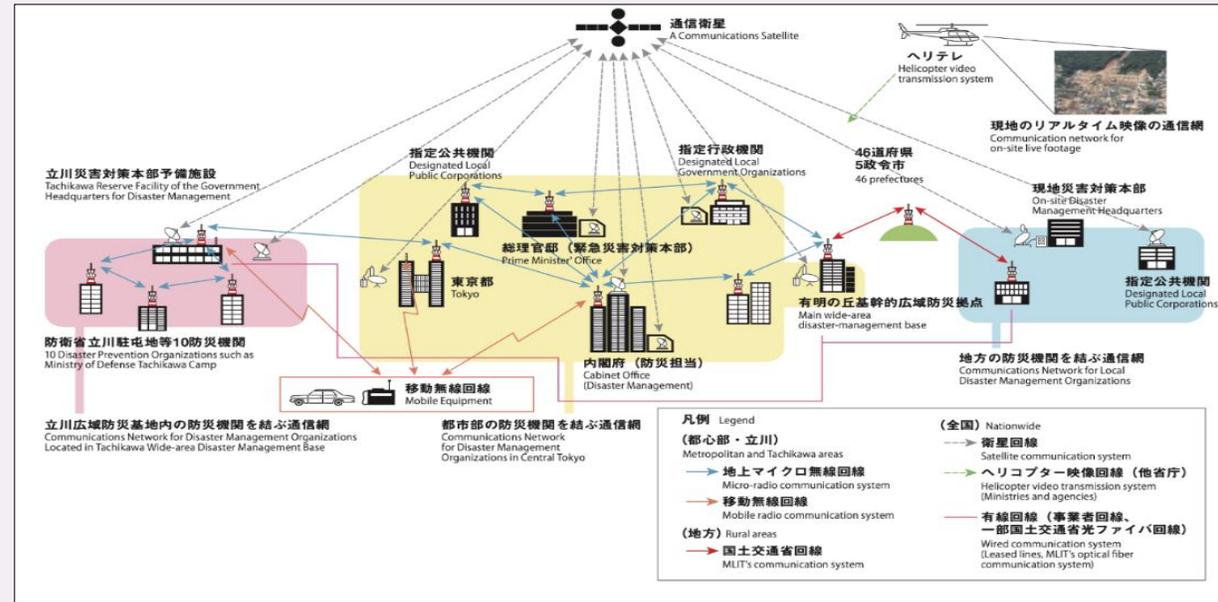


Base isolation

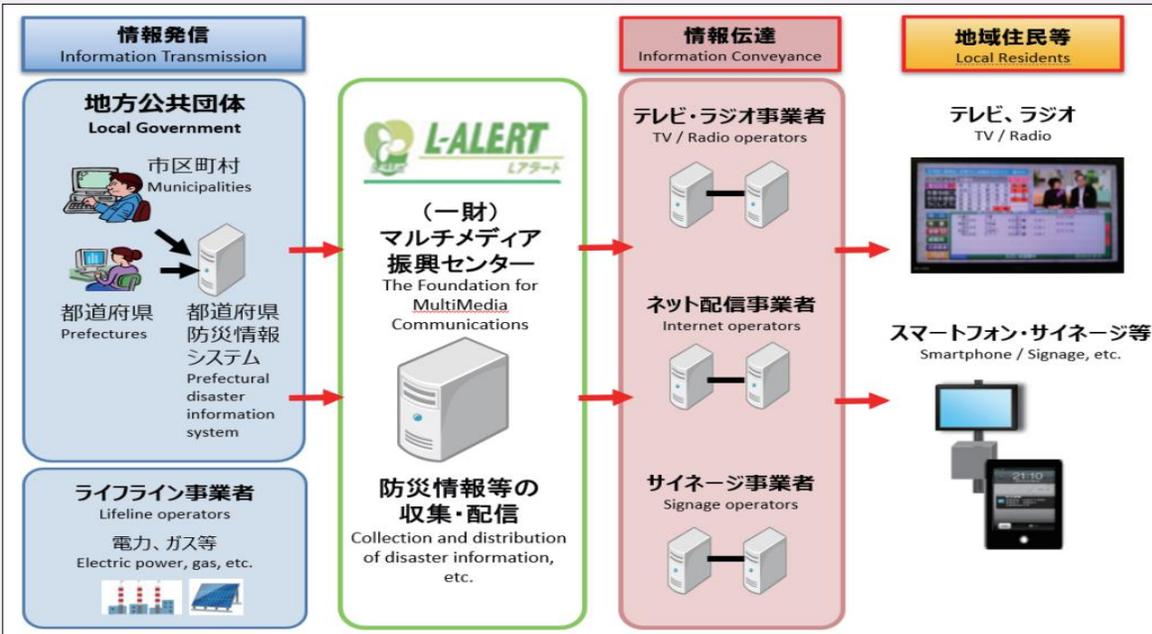
# Communication Infrastructure



Outline of J-alert system "Emergency alert email" installed in and are capable of receiving a J-ALERT.



Outline of Central Disaster Management Radio Communication Network



Outline of L-alert system

# Japan's investment in various disaster museums and learning centres

EQ Museum



EQ Simulators



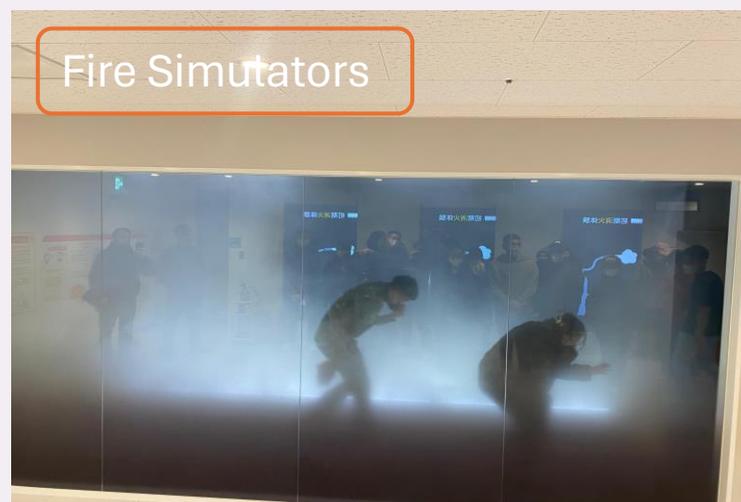
Flood Museum



Highway EQ Museum



Fire Simulators



EQ Museum



# Community Engagement and Preparedness



Sports Festival + DRR  
(source: Himeji city home page)



Community Leader Training  
(source: Hyogo Pref. EM & Training Center home page)

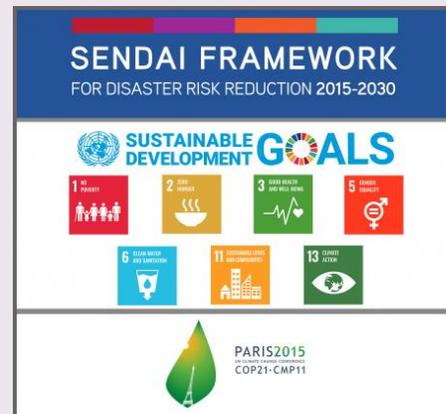


Storyteller

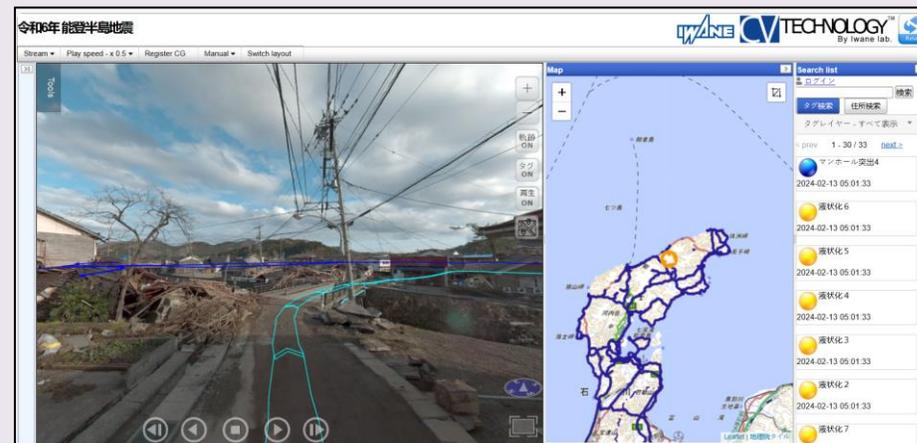
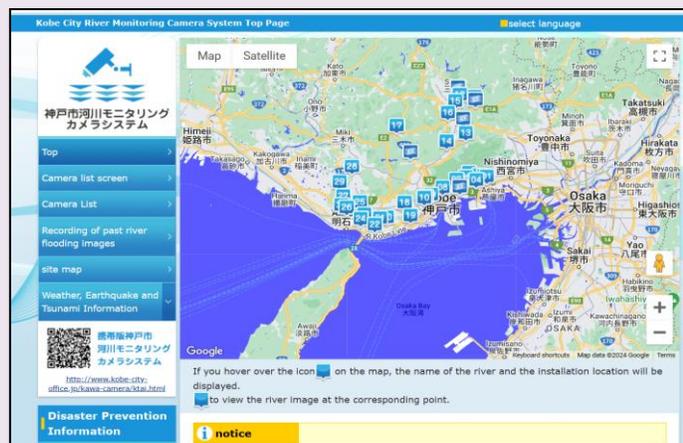
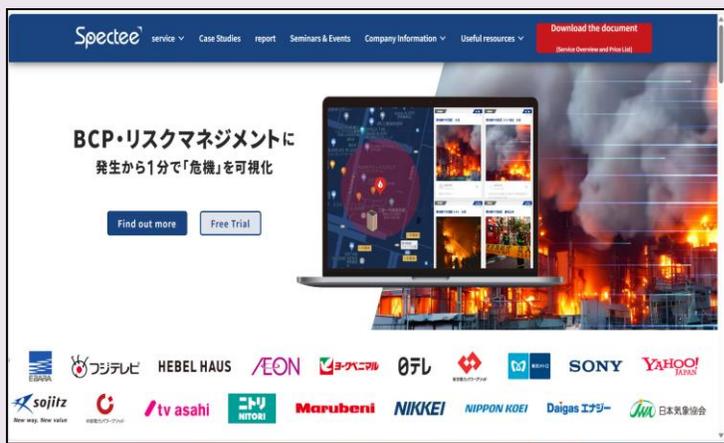
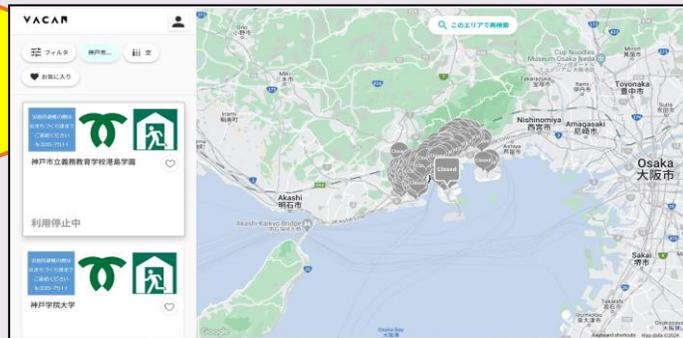


Shelter Making

# International collaborations & knowledge transfer



# Innovation & Technology development



**Aim -2**  
**Best practices  
and successful  
case studies**

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White Paper on Disaster Management: DM plans at Community level

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Build Back Better Town Planning by Community-Initiative

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BOKOMI- Community Organization for Disaster and Welfare Management

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Business Continuity Plan

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Metropolitan Outer Area Underground Discharge Channel

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Ohkouzu Diversion channel

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Michi-no-eki public information system

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Microchip controlled gas meter for all households

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JIS-Prescribed Symbol for Evacuation Sites

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National Network of Disaster Volunteer Support Organizations

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EQ warning system

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Hazard map portal

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Japan National Guideline 2021 for Individual Support

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Crowd-Sourced Damage Assessment

# Examples:-



Landslide safety wall

Flood/Tsunami Protection

DRR Museum, Exhibition room, Monuments

Books/Guideline

## **Aim -3**

# **Actionable recommendations**

- Investment on understanding of disaster.
- Invest in public education and awareness, Preserve cultural heritage related to disasters.
- We should also prepare White Paper on Disaster Management so that we can identify what have done & what will be the future course of action.
- Integration of various technology for easy and quick access of information
- We should develop/identify Michi-no-eki kind of system, These facilities helps during disaster situation, and it will use as:-
  - Emergency Shelter:
  - Distribution Center
  - Information Hub
  - Coordination Base &Communication Center:
- Adoption of Microchip controlled gas meter for prevention of fire.
- Offer tax breaks and loans for compliance with codes and retrofitting.
- Crowd-Sourced Damage Assessment in DRR
- Quick learning for Revision of building standards
- Adopt various Disaster simulation modal

