

# Lessons from Great East Japan Earthquake

Lessons from Tohoku and other Mega Disasters for the Post-2015 Global Framework for DRR

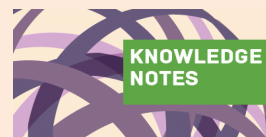
Portopia Hotel, Kobe ,Hyogo  
January 21, 2013

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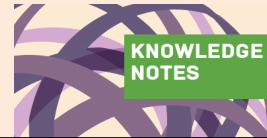


## Outline

1. Lessons from Great East Japan Earthquake
2. Conclusion: for the Post-2015 Global Framework



## 1. Lessons from Great East Japan Earthquake



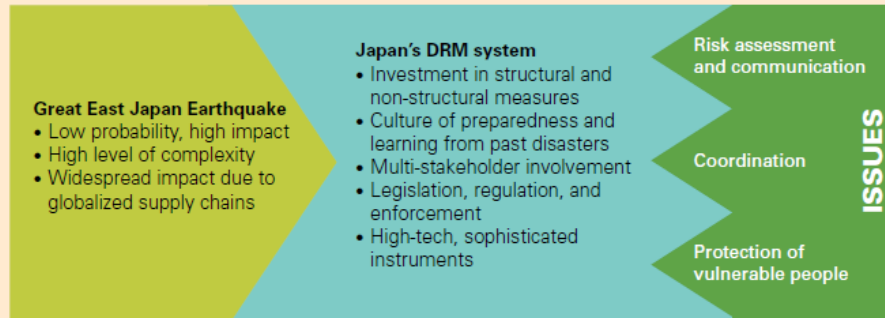
## The Knowledge Notes

### *Learning from Megadisasters*

1. knowledge-sharing project by the World Bank and Japan
2. collecting and analyzing information, data, and evaluations performed by academic institutions, NGOs, government agencies, and private sector
3. sharing Japan's knowledge on disaster risk management (DRM) and post-disaster reconstruction with countries vulnerable to disasters.

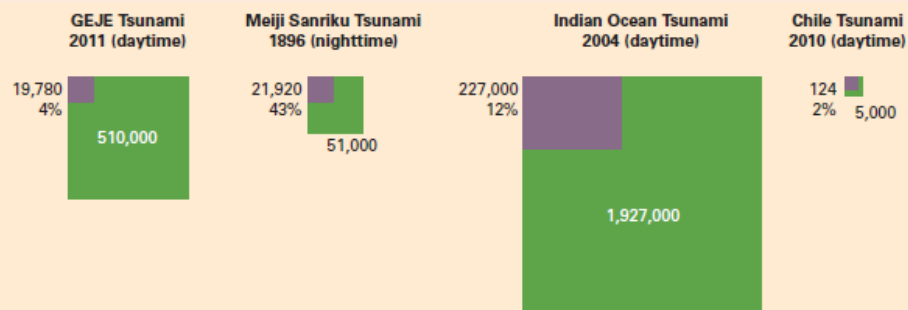


## Summary of findings and lessons



KNOWLEDGE NOTES

## Lesson 1: Preventive investments pay, but be prepared for the unexpected



### < 200 death by M 9 earthquake shaking

- Building code & retrofitting works after Kobe EQ in 1995
- EQ detecting system of Shinkansen

### Investment against Tsunami

- Constructed 300km dikes with cost of USD 10bill
- Monitoring and warning systems: USD 20 million/Year
- Hazard mapping, simulation, education at school.....

KNOWLEDGE NOTES

## Lesson 2: Learning from disaster is key, as Japan has shown for the past 2,000 years

- **Culture of preparedness**, where training and evacuation drills are systematically practiced at the local and community levels and in schools and workplaces;
- **Fire corps** saved uncountable number of people's lives.



Sendai City

KNOWLEDGE  
NOTES

## Lesson 3: DRM is everyone's business

- Community play crucial role in every measures
- Insurance, as well as financial and fiscal measures;

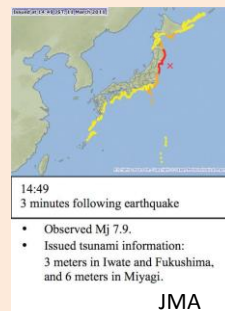
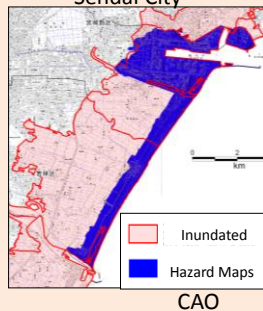


KNOWLEDGE  
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## Issue 1

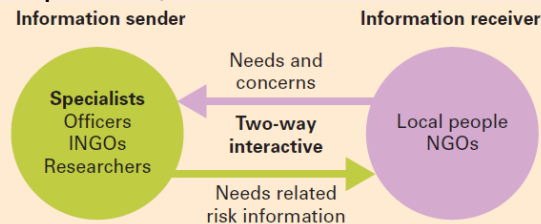
### Risk assessment and communication

- Assessing risks and communicating them clearly and widely helps citizens make timely decisions to protect themselves
  - Hazard maps can give the public a **false sense of safety**, if not properly communicated
  - Better management of information and **communication is crucial in emergencies** and recovery operations



KNOWLEDGE  
NOTES

- Never top-down, but **interactive communication.**



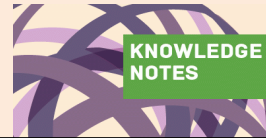
Source: Kikkawa 1999.

- Governments and community members should
  - be aware of **limitations of technology**, and
  - Never stick to a **single scenario**.

KNOWLEDGE  
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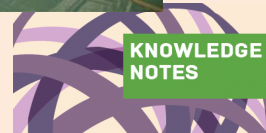
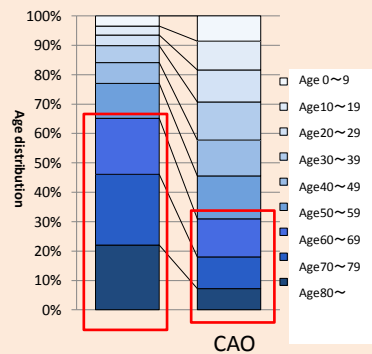
## Issue 2 Coordination

- **Coordination** mechanisms must be developed and tested in normal times, so that they are ready in emergency



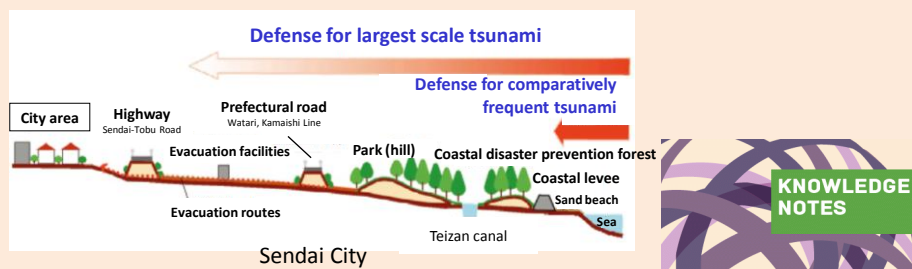
## Issue 3 Vulnerable

- **Vulnerable** groups must be protected—and engaged
  - Gender
  - Handicapped
  - Elderly



## Extreme disasters underscore the need for a holistic approach to DRM

- Exclusive reliance on structural measures ultimately prove ineffective
  - Resilient structure: complexity and residual risk. “fail gracefully”
  - supplemented with **nonstructural** measures
  - understand **uncertainties of estimation** of events



## Sharing experiences with others

- Set of 32 Knowledge Notes grouped into six thematic clusters -<http://wbi.worldbank.org/wbi/megadisasters>;
- A Capacity development program, which includes:
  - A community of practice: <https://collaboration.worldbank.org/groups/login.jspa>
  - A searchable set of online material, blended learning and Face to face capacity building program in selected countries;
  - In depth Capacity Development program in pilot countries.



## Conclusion

### Lessons for the Post-2015 Global Framework

Confirmed importance of

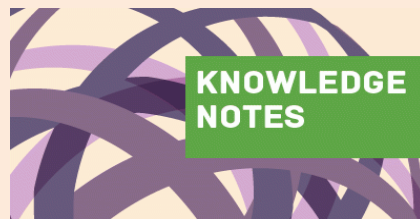
- “creating DRM culture”
- “DRM is everyone’s business”

## Conclusion

### Lessons for the Post-2015 Global Framework

- Useful Lessons
  1. Preventive investments pay, but be prepared for the unexpected
  2. Risk Communication
  3. Holistic approach by combining structural and nonstructural measures.





Thank you  
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