

International Disaster Management (DM) Systems and Japanese Urban DM (incl. damages on Mar. 11, 2011)

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1. Background of Disasters

2. Lessons from Recent Disasters

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|---------------------------|-------------------------|
| (1) Indian Ocean Tsunami, | (2) Pakistan Earthquake |
| (3) Java Earthquake | (4) Peru Earthquake |
| (5) China Earthquake | (6) Bangladesh Floods |
| (7) Haiti Earthquake | (8) East Japan Tsunami |

3. International Systems on DM

4. UN Agencies for Disaster (Environment)

(second file)

5. Japanese Urban DM

(Reference) UNCRD's Disaster Management

1. Background of Disasters

- 1 . Constant occurrence of natural hazards
- 2 . Increasing risks by expansion of population/city
- 3 . Trends of heavier damages to the poor in LDC
(Earthquake to middle incomes etc.)
- 4 . Degradation of eco-system / Climate Change

2. Lessons from recent Disasters

Recent World Huge Disasters

- | | |
|--------------------------|--------------|
| (1) Indian Ocean Tsunami | (2004.12.26) |
| (2) Pakistan Earthquake | (2005.10.08) |
| (3) Java Earthquake | (2006.05.27) |
| (4) Peru Earthquake | (2007.08.15) |
| (5) China Earthquake | (2008.05.12) |
| (6) Bangladesh Floods | (2007-2009) |
| (7) Haiti Earthquake | (2010.01.12) |
| (8) East Japan Tsunami | (2011.03.11) |

(1) Indian Ocean Tsunami

2004. 12. 26 (Sunday) 7:58 AM

Magnitude: 9.0

Casualty: 226,408 (Total)

Total loss: 8,000 Million \$

Lost houses: 1,030,000 units

Support: from Japan 500 Million \$

Damages by Tsunami



UNCRD
Aug. 2005

Banda Aceh, Indonesia

Three years After



UNCRD
Dec. 2007



Banda Aceh, Indonesia



Banda Aceh, Indonesia



Some buildings
remained even
after the Tsunami



Banda Aceh, Indonesia

(2) Pakistan Earthquake

2005. 10. 8 (Sat.) 8:55 AM

Magnitude: 7.6

Casualty: 73,328

Number of affected: 3.5 Million

Affected houses: 0.6 Million

350 hospitals, 6,300 schools

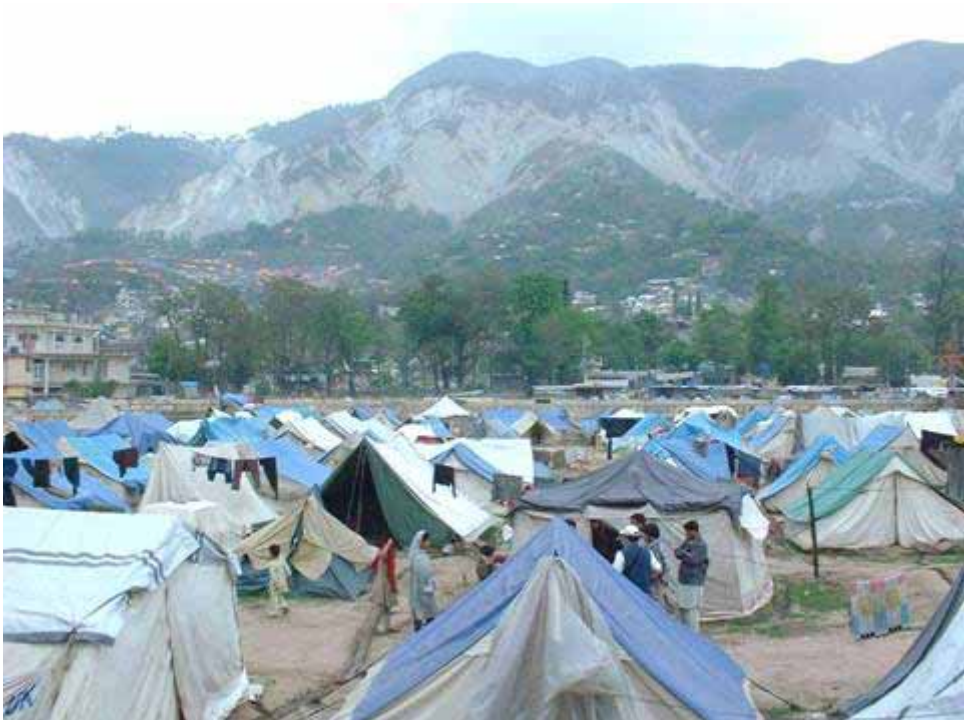
were collapsed



Collapsed School

More than 50 students were killed and there is no school children in this community.





Half year after: Towards recovery



写真: UNCRD
2006年3月



**Half year after:
Towards recovery**

**Local earthquake
proof model
housing (NSET)**





One and a half year after

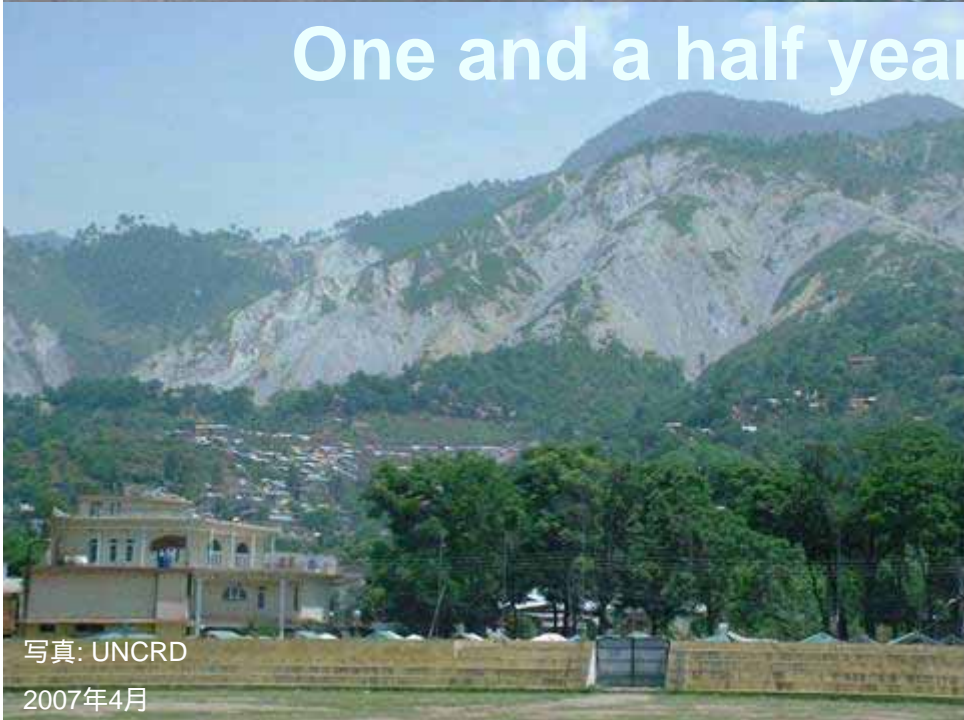


写真: UNCRD
2007年4月

(3) Java Earthquake

2006. 5. 27 (Sat.) 5:55 AM

Magnitude: 6.3

Casualty: 5,048

Loss: 3,200 Million \$

Affected houses: 206,504

429 hospitals, 1,470 schools

were collapsed



3 months after



写真: UNCRD
2006年9月

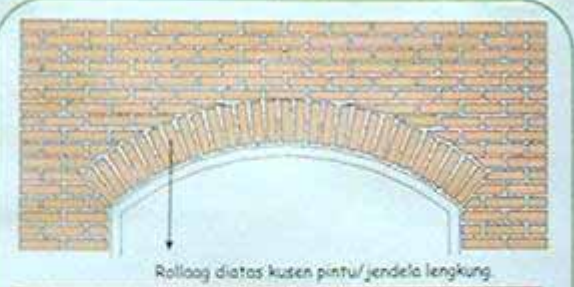
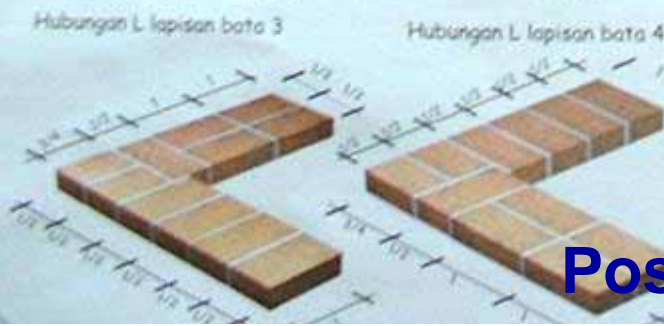
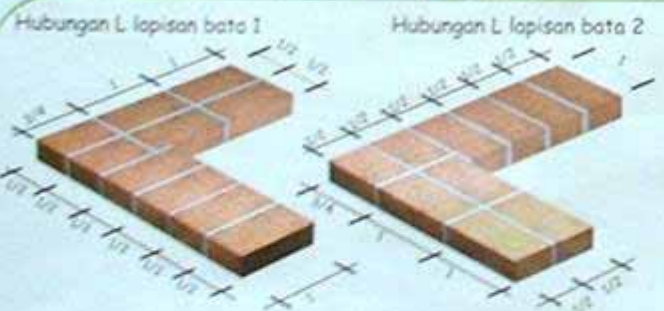
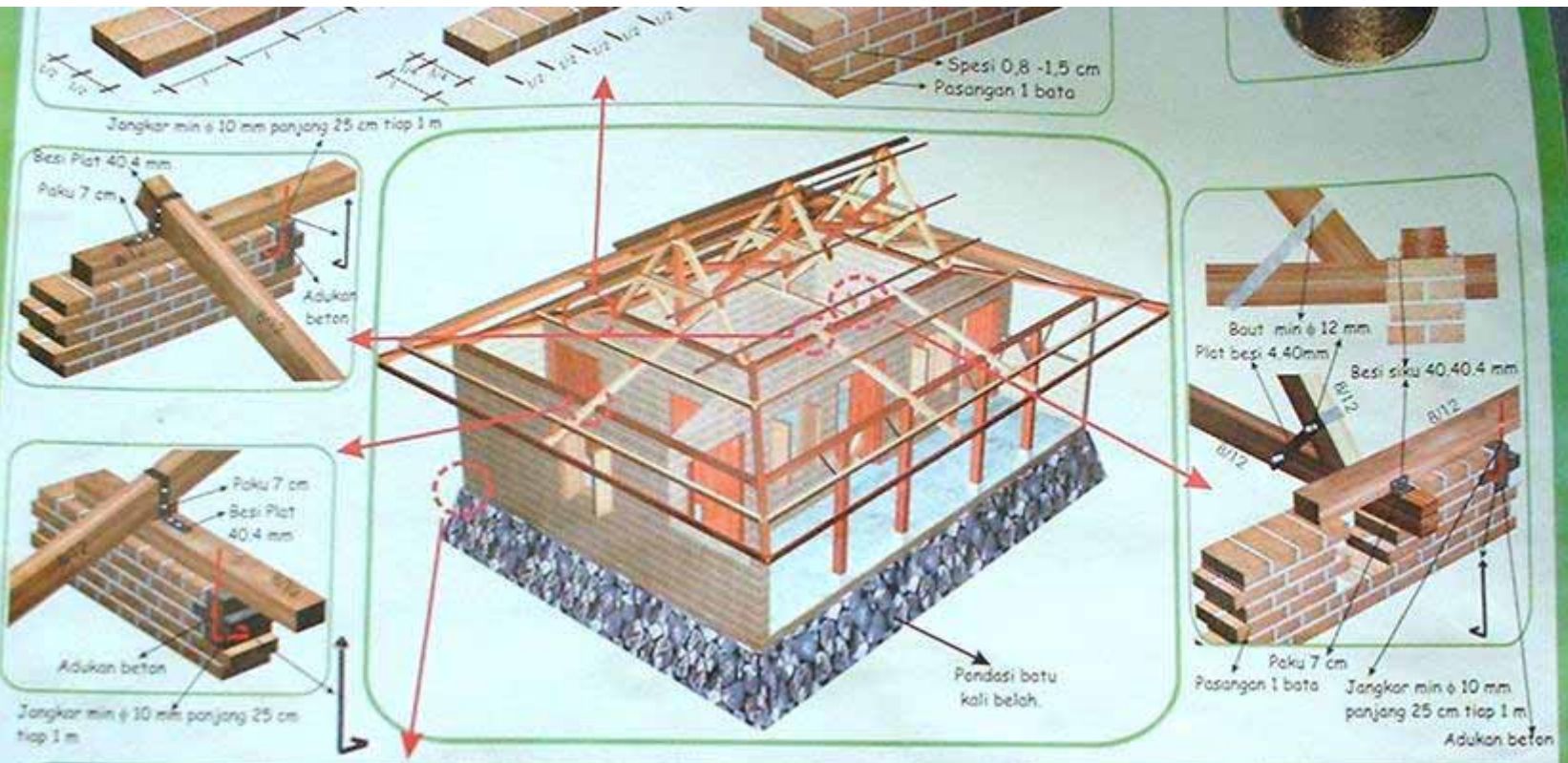


3 months after

- Self-help and cooperation
- Introduce new technology
- Lost traditional wood frame

3 months after: temporary houses





3 months after
Poster for earthquake proof house



One year after



(4) Peru Earthquake

2007. 8. 15 (Wed.) 6:40 PM

Magnitude: 8.0

Casualty: 514 人

40,000 totally collapsed

Houses 30,000 partially collapsed

(In 1970, 67,000 casualties by an earthquake in Peru)

One week after



The roof is light as there is no rain and warm weather.



Inside of affected adobe house

2007.8
Peru Earthquake



One week after

CARRETERA PANAMERICANA SUR- ZONA SAN CLEMENTE



CRUCE AV. GRAU - CALLE LIMA, ICA



CISMID

(5) China Earthquake

2008. 5. 12 (Mon.) 2:28 PM

Magnitude: 8.1

Casualty: More than 70,000

Loss: 3,200 Million \$

Affected houses: 206,504

Affected people: 46,240,000



One month after



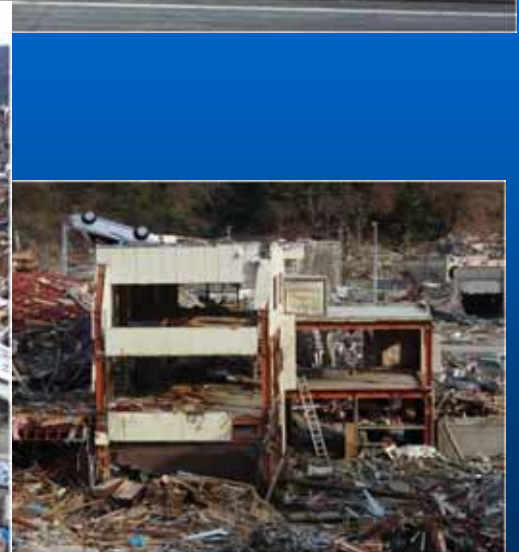
(6) Bangladesh Floods



(7) Haiti Earthquake



(8) East Japan Tsunami



3. International Systems on DM

1. Implementation of HFA (Hyogo Framework for Action) **Target by year of 2015**
2. International collaboration for HFA among countries **UNISDR plays secretariat role.**
3. Activities have been centered post-disaster responses **Preparedness falls future tasks. As emergency response and recovery can be easily covered by NGOs and UN financially.**
4. Challenge to connect disaster management with Sustainable development and MDGs

Five Priorities of Hyogo Framework for Action: HFA

- 1 . Construction and Reinforcement of disaster management systems at local and regional levels
- 2 . Promotion of risk assessment, observation and early-stage warning
- 3 . Utilization of education / knowledge for construction of disaster planning culture
- 4 . Reduction of potential risks (e.g. fragile buildings)
- 5 . Efforts for preparing an effective measure for disasters

4. UN Agencies for Disaster / Environment

Disaster

Coordination ISDR
(former IDNDR, UNDRO)

Humanitarian Affairs
OCHA, UNICEF

Development Finance
World Bank, ADB

Development Aid
UNDP, (JICA)

Social Development
UNESCO, WHO

Research / Training
UNU, **UNCRD**

Policy
System, Laws

Economy
Finance, Projects

Society
Education, Livelihoods

Knowledge
Technology dissemination

Policies UNCSO
(UNDESA)

Specialized UNEP

Special Topics
UNFCCC, UNCCD

Development
UNDP, World Bank

Education
UNESCO, UNU

Training
UNITAR, **UNCRD**

Environment

**(UNCRD)
Hyogo Office**

(HAT Kobe)



There are many countries where children prepare construction materials.



Afghanistan 2003



Continue