The Workshop on " Trainer's Training on the Community-Based Hazard Mapping "
20th December 2007, Chennai,India

Overview of the "Trainer's Training Program on the Community-based Hazard Mapping Development"

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Asian Disaster Reduction Center

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UN/ESCAP Tsunami Regional Trust Fund

- A regional trust fund to support tsunami early warning arrangements in the Indian Ocean and Southeast Asia was being launched with a US$ 10 million contribution by the Government of Thailand in 2005. The fund will be managed by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), which is the regional arm of the United Nations for Asia and the Pacific.

- The trust fund will contribute to the broader United Nations response to the tsunami by supporting development of a regional early warning system that would take the form of a network of national and regional centres. The fund will assist these centres to build capacity in terms of technologies, organizational arrangements and expertise.

Background

- **Multi international mission** led by ADRC was conducted on April 2005.
  (Armenia, India, Japan, Singapore, Sri Lanka, Tajikistan and ADRC. Representatives from France and USA)

- **Visiting Sites**;
  - Kollam and Alleppey in Kerala
  - Kanykumari,Nagapattinam,Cuddalore,Kancheepuram and Chennaiin Tamil Nadu
  - Karaikal and Pondicherry

- **Interviewing**;

National Level (MHA, NIDM), State and Union Territory level; Relief Commissioners, District Collectors and other district level officials,
Sub-division and block level officials

Background

- It was observed that various kinds of temporary shelters had already been constructed and provided to a number of people affected by the tsunami, and a basic level of subsistence had been reconstructed for the residents. It was obvious that the recovery of livelihood of the affected people was a priority issue at the stage of rehabilitation and reconstruction, in particular, of the fishermen, who were most severely affected.

Background

Mission's observations are as follows;

Lack of;

- ***Awareness at all levels about disasters in general, tsunami in particular;***
- ***Preparedness at all levels about disasters in general, tsunami in particular;***
- EWS for tsunami;
- Implementation of norms and regulations (including Coastal Zone Regulation, building codes and byelaws);
- Hazard, vulnerability and risk assessment for disaster management;
- Sufficient plantation along the coast; and proper mechanism to identify the beneficiaries

Etc.

Positive observations :

- Good response afterwards after initial confusion;
- Coordinated efforts involving all the stakeholders;
- Enhanced awareness was observed in response to the tsunami warning on 28 March 2005 (due to Sumatra earthquake); and
- Tsunami disaster is considered to be an opportunity for improving disaster risk management.

Background

- Recommendations

- Enhancement of public awareness to all hazards;
- Strengthening of preparedness at all levels;
- Establishment of an early warning system and a mechanism for its implementation;
- Communication system, which enables immediate information exchange daily and in times of disaster, should be in place;
- Redefining of the CRZ norms with practical approach;

Etc.

Importance of the Enhancement of Public Awareness for the all hazards

Background
～ *Bridging Risk Perception Gap*

- Despite best endeavors, the number of people affected and economic losses caused by natural disasters have been increasing over recent decades.
- Lack of proper recognition of risks is one of the major factors aggravating this situation.
  Our society is vulnerable to disasters due to, among other things, "risk perception gaps", i.e. a disparity between the actual risk and that recognized by people.
- Therefore, it is vital that we plug this gap in order to lessen the negative impact of disasters.

Background
～ *Limitation of Hazard Map*

- Many governments distribute hazard maps for the purpose of raising public awareness about risks.
  A "hazard map" provides graphic information on potential natural hazards (seismic intensity, flood inundation depth, landslide prone areas, etc.), and on evacuation matters.
- However, mere dissemination of hazard maps by governments to local residents is usually inadequate as a means of raising awareness of actual disaster reduction activities at the community level.
- Because of the risk perception gap, people tend to pay scant attention to hazard maps, or fail to properly appreciate the information conveyed on such maps.
  By and large, people do not effectively use the hazard maps as a guide to taking appropriate actions to minimize damage from disasters.

Hazard Map Prepared by Municipality

Legend

Inundation Area

Evacuation Building

Evacuation Building (w/ external staircase)

Loudspeaker

Community Center

Expected Tsunami Height

(Prepared by NUMAZU municipality)

What is community Based Hazard Mapping ?

- Recently, **"Community Based Hazard Mapping"(CBHM)** has been used in some countries as a tool for improving disaster preparedness.
  This approach focuses on the process of developing hazard maps, not just their distribution.
- The premise is that by working through the process, communities will gain enhanced awareness of risks, thereby bridging the risk perception gap.
  (Communication Process is Important !)

CBHM has three key objectives:

1) To involve local residents in developing the hazard map for their community
2) To reflect the options of local residents in policies made by their local government
3) To foster common understanding of risks among local residents, government officials and experts.

Example of Community-based Hazard Map

Promotion of appropriate awareness raising initiatives on disaster reduction through self-help, mutual help and public help

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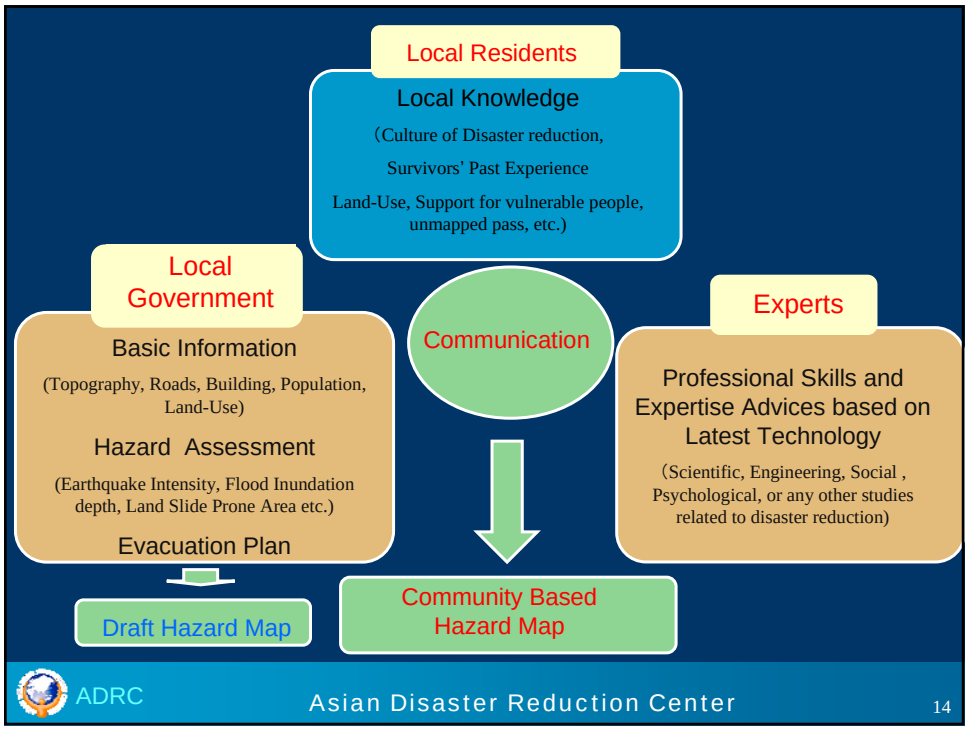

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Features

1. Simple Procedure

CBHM development procedure is very easy to understand for community residents without special knowledge on natural disaster.

2. Nominal Cost

- Nominal cost is to implement CBHM development
- Without special facility and equipment.
- Only personal and travel expense for facilitator and experts.

3. Short Term Project

- Typical project is 1-2 days long.

4. Effective Early Warning Tool

Developed CBHM will be used as a tool for effective early warning such as a safe evacuation route, hazardous area recognition etc.

5. Enhancing Awareness

Participant spontaneously and positively think about a disaster for the subject by oneself.

6. Plug Risk Gaps between Stakeholders

Aim and Expected Outcomes

1. Aim of Workshop

- The workshop aims to train the prospected trainers of the user of CBHM.
- Through the Workshop, we aim to disseminate the knowledge of "Development of Community based Hazard Mapping" to the participants as prospected trainers.
- We hope the reproduction of the CBHM in your own project after the workshop.

2. Expected Outcome

- Training of Trainers on "CBHM"
- Understanding of Effectiveness of "CBHM" as a risk communication tool between stakeholders
- Trial of Development of "CBHM" for Trainers
- Effective tool dissemination (DVD and Procedure Manual)

Town Watching Method

- Community Based Hazard Mapping -

Step 1 Field Survey

Residents, officers in local gov't and experts survey the positive and negative features relating to the disaster risk by walking around the town.

Step 2 Development of a Map

Visualize the observations and findings on the map. Enhance the awareness and cooperation through the joint activities.

Step 3 Discussion and Presentation

What are the problems? Who is responsible?
What are the countermeasures?
Let's share the information.

Schedule (1st Day)

10:00-11:00	Inauguration
11:00-11:30	Coffee Break
11:30-12:30	Hazards Potential and Prevention Activities in the East Coast of India (Dr.R.Ramesh, Anna University)
12:30-13:00	Community-Participation for Build Back Better Recovery (Mr.Anil Sinha, Program Advisor, IRP)
13:00-13:30	Lunch
14:30-15:45	Lesson Learned from Japanese Disaster Experience
15:45-16:15	Coffee Break
16:45-17:00	Discussion and 1st Day Wrap Up
19:00-21:00	Reception (hosted by ADRC)

Schedule (2nd Day)

09:00-09:30	Review of 1st Day for Preparation of the Town Watching Group
09:30-10:00	Transfer to the Town Watching Site
10:00-12:30	Town Watching by Each Group
12:30-13:30	Lunch
13:30-15:00	Development of Hazard Map by Each Group
15:30-16:45	Presentation & Discussion
16:45-17:00	Closing Remarks by NDMA and ADRC

Thank you for your attention !

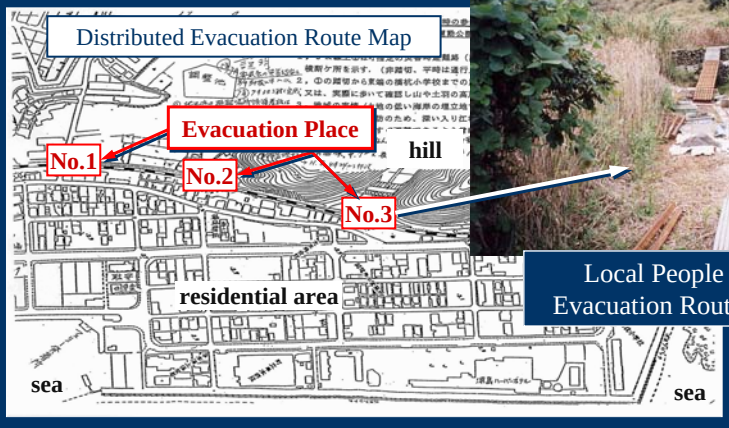
Example of Community-based Disaster Reduction Activity in Ohmisaki Area -1

- Town Watching -

They are living in Tsunami prone area.

Source: Ohmisaki Area, Kushimoto Town, Wakayama Prefecture, Japan

Example of Community-based Disaster Reduction Activity in Ohmisaki- Area -2



Local People Developed Evacuation Route Themselves

Source: Ohmisaki Area, Kushimoto Town, Wakayama Prefecture, Japan

Example of Community-based Disaster Reduction Activity in Ohmisaki Area -3

The Municipality Developed Evacuation Route in Response to the Activities of Community

Source: Ohmisaki Area, Kushimoto Town, Wakayama Prefecture, Japan

Example of Community-based Disaster Reduction Activity in Ohmisaki Area -4

Maintenance of Evacuation Routes by Local Residents Themselves

Source: Ohmisaki Area, Kushimoto Town,Wakayama Prefecture, Japan

Disaster Preparedness Based on Proper Knowledge and Appropriate Risk Awareness

Checking out on a daily bases

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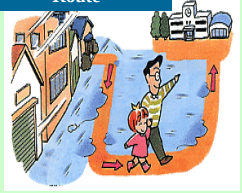
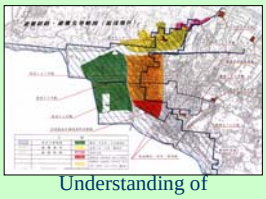
Early Warning

Safe Evacuation Route





Understanding of Hazardous Areas

Appropriate Risk Awaweness of Local Communities

Safe Evacuation

Galle Project (in Sri Lanka)

(No. 1)			
Project name if available	Promoting Community-Based Disaster Reduction in Sri Lanka		
Place (Specify as much as possible)	Galle, Sri Lanka		
Year	2006	**Investor**	Ministry of Foreign Affairs of Japan
People involved (Please indicate all contributors with their titles when available.)	1. Training of Trainers (TOT): Approx. 100 local government officials 2. Community People: Approx. 3300 people		
Monetary costs incurred	20 Million Yen		
Total workload required (Time frame and human resources)	Senior Researcher: 1 Year Local Office Staff: 3 Staffs 1 year		

Questionnaire Survey in Galle

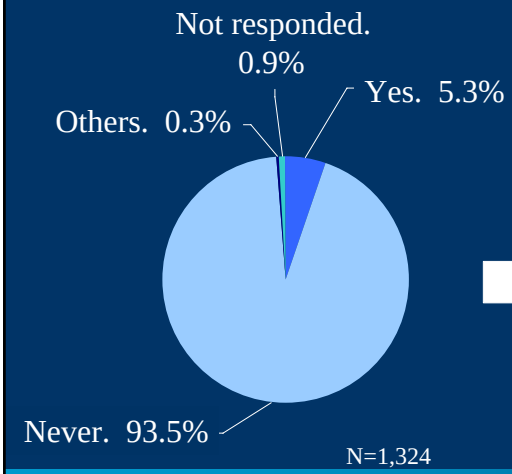
Area	Coastal Belt (6 DS-divisions)
Period	March 2005
Sample Structure (No. of Samples)	Residents (1,324) Gov't Officials (110) Children (1,112) School Teachers (36)
Methodology	Questionnaire and Interview

Interview with person living in the tent (left)

School girls filling in the questionnaires

Results : Residents - 1

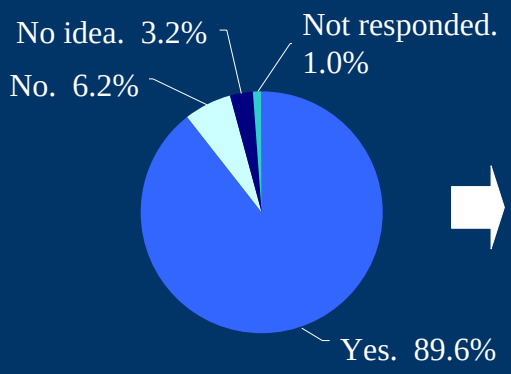
Q. Had you heard about tsunami before the disaster?



Most People did not know about "Tsunami" before the disaster.

Results : Residents - 2

Q. If you had known the more about Tsunami,
do you think you could have reduced the damage in the affected area?

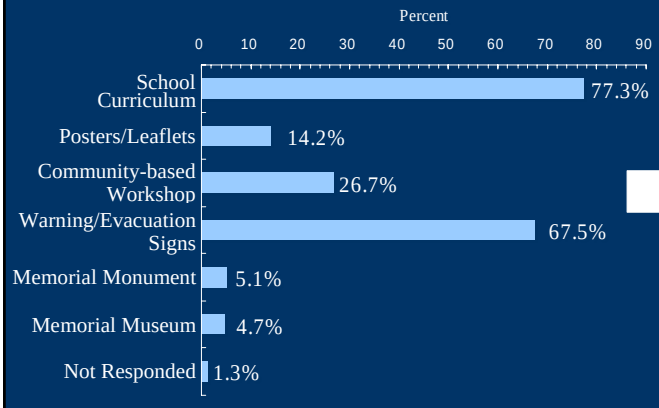


Natural disaster awareness is important to minimize possible losses.

N=1,324

Results : Residents - 3

Q. What is the most effective way to utilize the lessons for preventing/mitigating a future tragedy? (Multiple answer)



The major people consider the most effective is a disaster education program at school.

N=1,324

Recommendations based on the Survey

- Capacity buildings should be carried out as follows.

Target Group	Measure	Tool
Residents	Workshops in Community	Community-based Hazard Mapping (Town Watching)
School Children	Disaster Education	School Curriculum, Emergency Drill, etc.

Project JICA Training Course

(No. 3)			
Project name if available	JICA Training Program for Disaster Management		
Place (Specify as much as possible)	Kobe, Hyogo Prefecture, Japan		
Year	Every Year	**Investor**	JICA
People involved (Please indicate all contributors with their titles when available.)	10-20 Administrators of Disaster Management from various countries from every year.		
Monetary costs incurred	Approx. 300,000 Yen		
Total workload required (Time frame and human resources)	Senior Researcher: 1 week		


Thank You !
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