

**TAKING KNOWLEDGE TO SOLVE THE PROBLEM**  
THROUGH  
ADRC PROGRAM

•  
**This presentation may be not suitable  
For you because of lack preparation**

**But I try it in General**

## Method Used :

- .To Observe----- Under The Guidance of ADRC Staff*
- .To Compare ---- With my Country*
- .To Select ----- Suitable for my Country*
- .To Apply ----- The effective Method*

## Disaster and The Force against Disaster

Cnt ry	Disaster	Main Force	Facili ty	Respon se
JPN	Many Urban Areas affected	Technology : – Structural - communication - Equipments (Partly Land)	Good	Quick
IND	Mostly rural	Land : - Relocation (Some Technology)	Fair	?



## DISASTER REDUCTION

### 1. EARTHQUAKE

- *Miyagi Prefecture* - *Nojima Earthquake Fault Mus.*

### 2. LAKE BIWA

### 3. LANDSLIDE

- *Nigawa Landslide Mus* – *Lab Research, Kyoto Univ.*

### 4. HYOGO PREFECTURE

### 5. NATIONAL INSTITUTE FOR LAND INFRA MANAGEMENT

## EARTHQUAKE IN MIYAGI PREFECTURE

### **MIYAGI PREF'S CONCEPT TO STRENGTHEN THE BUILDING FROM SHAKE**

## HOUSE DAMAGED

EARTHQUAKE IN TOTAL HOUSE	MIYAGI , JAPAN DAMAGED
Totally destroyed	218 Houses
Half destroyed	1,180 Houses
Partially destroyed	4,426 Houses

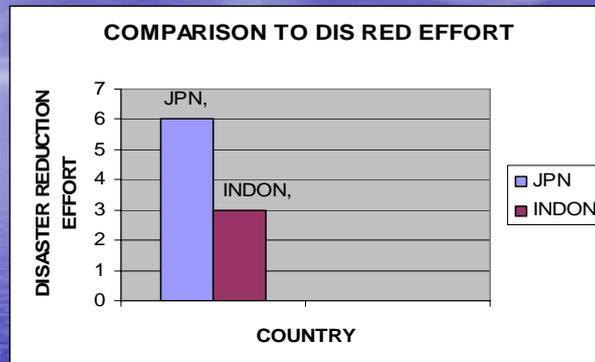
EARTHQUAKE VICTIMS, MAJALENGKA, WEST JAVA 28 Juni 2001	
LOCAL DISTRICT	HOUSE DAMAGE
Talaga	1223
Bantarujeg	773
Cingambul	104
Lemah Sugih	38
Banjaran	42

## How the effort to Disaster Red By Comparing

COMPARISON TO EFFORT OF DISASTER REDUTION				
MIYAGI PREFEC	JPN		MAJALENG CITY -	KA INDO
Disaster Red	Application			
Prevention	-	0	-	0
Mitigation	GOV destroyed old houses	2	No data	0- 1
Preparedness	Education	2	Education	1
Response to Disaster	GOV + NGO	2	Majority GOV	1
Recovery for Houses	Problem	?	Problem	?
Total Effort		6	Total Effort	3

Score : Good = 2 Fair = 1 Bad = 0

## BY GRAPHIC



The effort to Disaster Reduction :

$\frac{\text{Miyagi Prefecture (JPN) = 6}}{\text{Majalengka District (IND) 3}} = 2$

### What is Our plan (After this period):

1. To Support the Government to increase the awareness of Disaster in vulnerable area
  - Counseling - Simulation
  - Education to people (Museum facility etc).
2. The increase of knowledge about earthquake for Researchers, Training, Workshop, international activities).
3. To Support the Gov to increase the role of NGO (Through Media, Seminar etc).

Some Examples  
---Shown in Photos---





Good Preservation ----- High Awareness !!!

***My Plan (from this period) : To Support***

- 1. The Gov to increase awareness through  
- Media , meeting , report etc  
(To increase education for people by  
increasing museum facility, simulation,  
explanation)***
- 2. To Support the Gov to collaborate with NGO***
- 3. Sharing information with International Agency  
(Training, Workshop , Cooperative project  
etc).***

## NIGAWA LANDSLIDE MUSEUM

**NIGAWA MUSEUM CONCEPT :**  
***TO PREVENT LANDSLIDE AND TO CONDUCT RESPONSE***

To prevent : by construction (Piling, Sub drain, Retaining Wall etc)

To mitigate : by arrangement of surface water

Preparedness : by Conducting early warning system

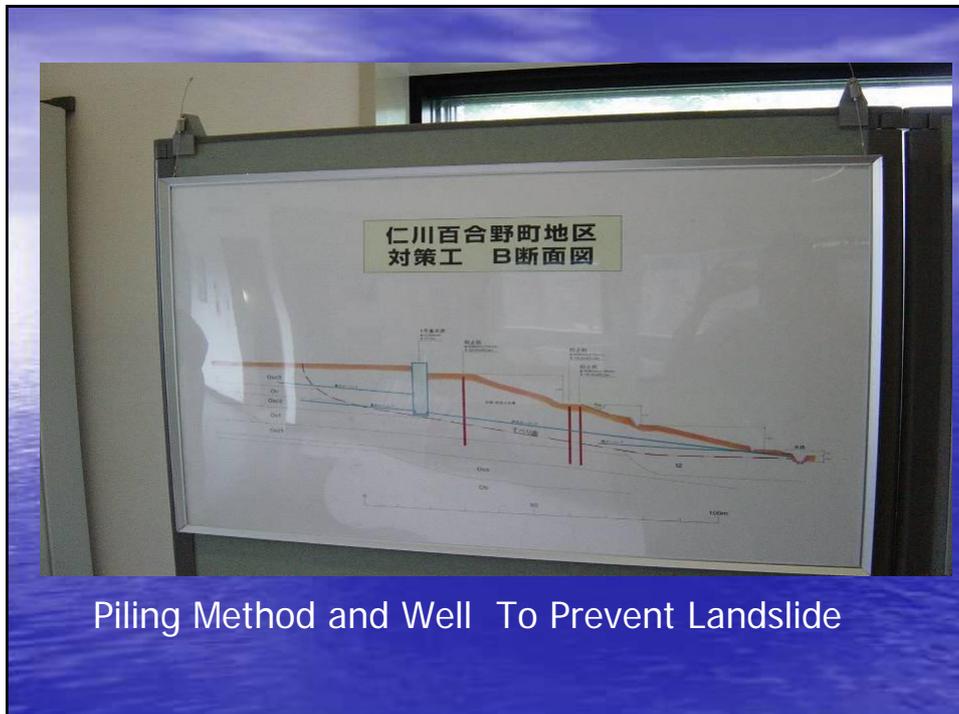
### COMPARISON TO MONITORING AREA

	Nigawa	JPN	IND	
	Effort	Score	Effort	Score
Prevent	Construction	2	no	0
Mitigation	Surface Water adjustment	2	Yes	2
preparedness	Early Warning	2	no	0
	<b>Total</b>	<b>6</b>		<b>2</b>

Score

Good = 2    Fair = 1    Bad = 0

# DISASTER REDUCTION EFFORT SEEN IN PHOTOS





Many pipes constructed to drain the land in conducting Landslide prevention



Water flows under the ground  
Very Fantastic !!

**The Project is very Good !**

**The Obstacle :**

*The cost for the project of Nigawa Landslide  
(100-150 m length) needs 2.3 Billion YEN*

*Landslides in monitoring area (Indonesia)  
have more than 500 m in length, some in Km  
Typical in Rural area.*

**The Project is very Good !**

*but*

*May be up to now for rural area  
relocation is still an effective method.*

*Rural area -- has lack of facilities*

My Plan (From this period) :

1. Education to residents
  - *Museum facility*
  - *Field laboratory*
2. To increase cooperative project with international agency to solve the problem in case.
3. Sharing information between researchers such as through International Consortium on Landslide (ICL)- Kyoto University.  
*Actually Landslide problem is endless.*

**LAKE BIWA**

*Concept : To use water by keeping its continuation*

Recharge = Discharge

Environment

**Parameters :**

- . Flood control ---- Weir, Channels
- . Sediment Control ---- Sabo dam
- . Drought ----- Catchments control (Forestation)
- . Pollution Control ----- Machine automatic
- . Early warning ---- alarm System

The Obstacle of water resources management in my Country aroun urban area

For Example :

, Saguling Dam, Jatiluhur Dam (West Java Province, Ind)

- Drought – Water level decreases , some electric power affected
- . Pollution --- Metal component (Pb, Zn etc) killed tons of fishes when turbidity current occurs.

COMPARISON TO DISASTER RED EFFORT

		Good = 2 Fair = 1 Bad = 0	Lake	Biwa JPN	Saguli ng	Dam Ind
			Effort	Score	Effort	Score
Prev	To Flood		OK	2	OK	2
	To pollution (?)		OK	2	NO	0
Miti- g	To drought- Forestation		OK	2	NO	0
Prep ared	Pollutant Monitoring		OK	2	NO	0
	Flood Monitoring		OK	2	OK	2
Total Score				10		4

Score Good = 2 Fair = 1 Bad

**Explanation :**

*Actually it is rather difficult to compare because Geographic and rain fall condition JPN and IND are not similar*

**EG :**

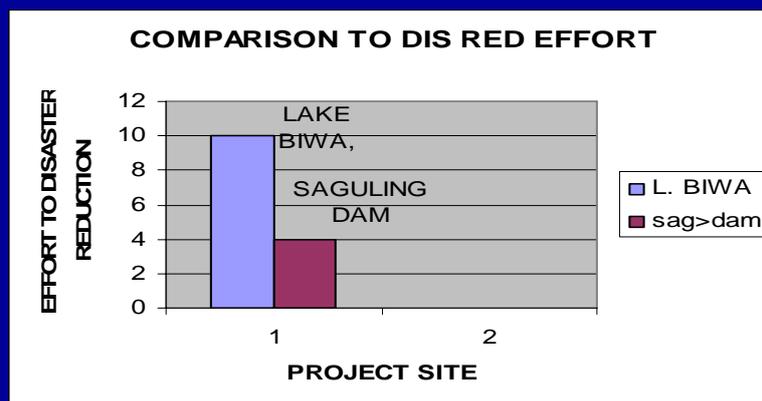
**JPN: Water Resources around Mountain**

**IND: Water Resources far from Mountain (High Potential to Pollution).**

**JPN : High rain fall**

**IND : Rain fall Less than JPN but High Evaporation (High Potential to drought).**

**Emphasis on the effort to Disaster Reduction**



LAKE BIWA = 10  
Saguling Dam 4

Saguling Dam should increase the Disaster Red Effort 2.5 x

My Plan (From this period):

- 1. To Support the awareness to drought and environment to local people and Government*
- 2. Applied of Effective warning system to pollution (as in Lake Biwa).*

HYOGO PERFECTURE DISASTER  
MANAGEMENT CENTER

*STRATEGY : RAPID RESPONSE*

By Strengthening :

- Condition , *Planning and system.*

My Plan (From this period)

*Planning and system Should be conducted in Vulnerable area in My Country (Quick Response)*

*By improving*

- facility (Communication and distribution)*
- Planning*

Public work Research Institute  
(PWRI)  
And NATIONAL INSTITUTE  
(Tsukuba)  
Research Industries

*Information For My Government  
(to compare and evaluate System,  
Process and Result)*

## Tactics/strategy

(To develop the method)

*To increase Disaster awareness through  
Disaster observation, knowledge,  
technique and art*

*For  
communities and the approach to  
something (community, problem) in  
local and regional level.*

## OBJECTIVE

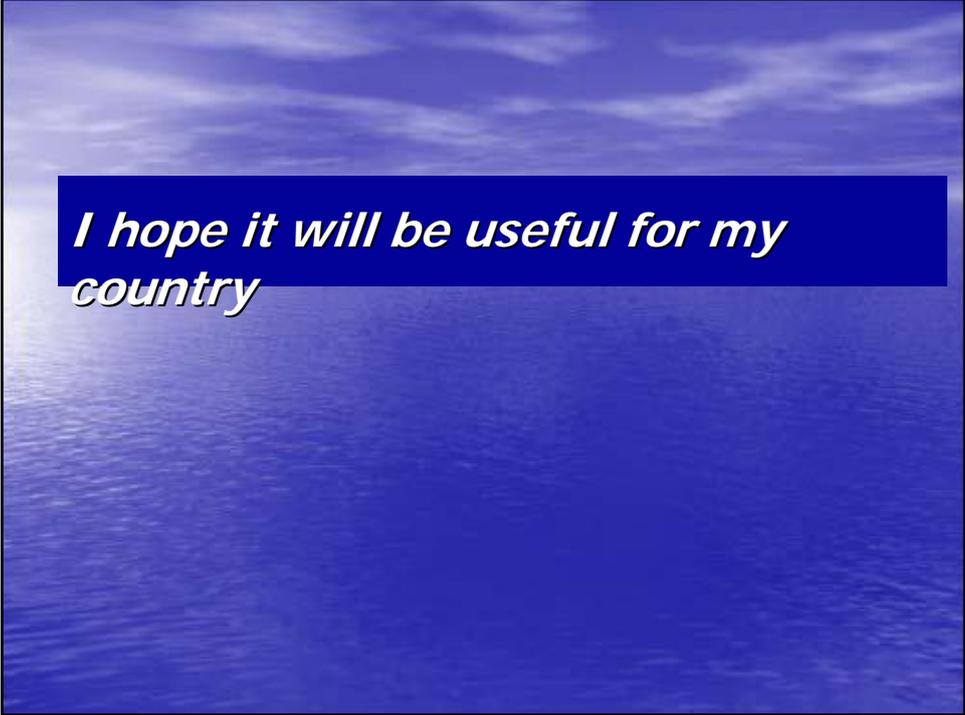
*The knowledge taken from ADRC  
will increase the capacity of  
Government, Organizations for  
Communities.*



# Comments

*Thank you very much to  
Mr. Nishikawa for the very  
good program.*

*And thank too to staff of ADRC for  
your guidance and help*



*I hope it will be useful for my  
country*



**SAYONARA**