

# World Conference on Drowning Prevention

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## Case Study - Role of Community Based Disaster Risk Reduction in Six Asian Countries

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**PROGRAM  
GOAL**



Reduced  
vulnerability of  
urban communities  
through enhanced  
preparedness and  
mitigation of  
hydro-  
meteorological  
disasters in South  
and South East  
Asia



Program for Hydro-meteorological Disaster  
Mitigation in Secondary Cities in Asia (PROMISE)



## Cities & Program Components

-  Chittagong, Jamalpur - Bangladesh
-  Jakarta , Indonesia
-  Hyderabad, Pakistan
-  Dagupan, Pasig - Philippines
-  Da Nang, Viet Nam
-  Kalutara, Matara - Sri Lanka

### Components

1. **City Demonstration Projects**
2. **Capacity Building & Public Awareness**
3. **Advocacy for Mainstreaming DRR**
4. **Regional Networking & Information dissemination**

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## Program Components

**Regional and National Capacity building** to assist practitioners and decision-makers in hydro-meteorological disaster mitigation and preparedness

**Regional Networking and Information System** to support the sharing and exchanging of knowledge on urban disaster mitigation and preparedness

**Advocacy for Mainstreaming Risk Management in Urban Governance** to facilitate the decentralization of disaster risk management

**City Demonstration Projects** as living examples of at-risk urban communities who have tackled their own disaster risk

Capacity Building

Advocacy for Mainstreaming

Regional Networking

City Demonstration Projects



## Disaster Impacts in Demonstration cities



Viet Nam



Bangladesh



Pakistan



Philippines



Sri Lanka



Indonesia



**Enhanced Preparedness and Mitigation**

through

**Community participation**

Hazard  
Vulnerability, Risk  
& Capacity  
Assessment

Identification of  
Risk Reduction  
Measures

Implemen-  
tation

Management,  
Monitoring &  
Evaluation

Awareness  
raising



## 1 - Hazard, Vulnerability, Risk & Capacity Assessment

Way in which CBDRM and HVCA assessment conducted differed

- Hyderabad, Jakarta, Chittagong, Kalutara, Matara, - project partner conducted the training directly
- Jamalpur, Pasig, Da Nang and Dagupan- some resource persons were city officials



## 1 -HVR Capacity Assessment- participatory approach



Hyderabad



Kalutara



Jakarta



Jamalpur

## 1 - HVRC Assessment - Technical inputs

- Community based risk maps were upgraded with GIS mapping, Multi hazard analysis
  - Incorporated land use plans
  - Risk indexes defined for ward levels



## 1 - HVRC Assessment -

- Dagupan and Pasig City officials are very comfortable with integrating the barangay action plans with their respective city action plans, and bring visitors to the project barangays to show that community-level disaster mitigation is possible
- Cam Le District officials in Da Nang city developed construction guidelines under PROMISE for developing a model of a typhoon- and flood-resilient house.



## 2 - Identification of Risk Reduction measures

Through stakeholder participation where community was largely involved and defined:

- Structural Mitigation
  - Drainage improvements
  - Dykes, levees construction
  - Earth quake/ floods/ cyclone resistant building
  - Retrofitting
  
- Non structural mitigation
  - Training (Community, school children, officials)
  - Policy development, mandates
  - School curriculum to include disaster risk reduction
  - Swimming training, water rescue
  - Awareness,

## 3 -Implementation of DRR Actions – Community based EWS

- Community Training on Flood alert & developing city level EWS
- Developing Flood Models, establishing EWS mechanism & disseminate warnings and provide evacuation orders
- Identifying evacuation routes & conducting regular simulations and drills



### 3 -Implementation of DRR Actions – structural interventions

- ◀ Construction of drains
- ◀ Water and Sanitation
- ◀ Cleaning canals
- ◀ Access road to evacuation centers
- ◀ Pond sand filter for safe drinking water

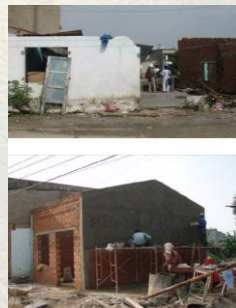


### 3 -Implementation of DRR Actions – structural interventions

- ◀ Safer construction guidelines in building construction
- ◀ Development of Technical guidelines and information in simple and easily understandable language
- ◀ Training on safe construction techniques

Sri Lanka,  
Vietnam,  
Philippines,

DOs	DON'Ts
01	01
02	02
03	03
04	04
05	05
06	06
07	07
08	08
09	09



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### 3 - Implementation of DRR Actions – Non structural interventions

- Community level EOC established
- Supplemented with tools and equipment (life jackets, life buoys, tents, generators, boats, communication equipment, public address systems etc.)
- Training kits
- Operational manuals and training



### 4 - Management, monitoring and Evaluation

- Team of officials, CBOs, local leaders does the monitoring of program implementation



Monitoring meetings

## 5 - Public awareness and Training

- Community based emergency response training
- Medical first responder training
- Training on safer construction

Safer Construction Training in Danang



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## 5 - Public awareness and Training - schools

- Development of school based disaster preparedness plan
- EWS for Cyclone - Training for children
- Flood / cyclone response training for children
- Mock Drills at school level
- Arts / oratory / essay/ competitions
- DRR in school curriculam



## 5 - Public awareness and Training – Emergency management response

- Table top simulation
- Emergency drills / Simulation exercises
- Water rescue / Swift water search and rescue
- First Aid



Dagupan

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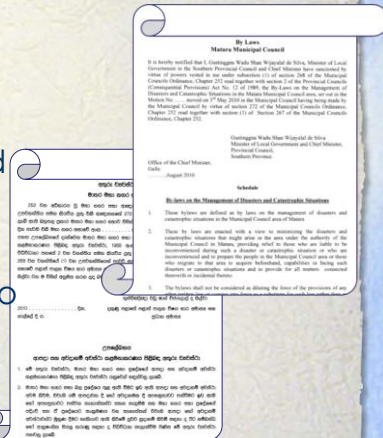
## 5 - Public awareness and Training – Printed materials, bill boards

- ▶ Posters, Calendars, Manuals
- ▶ Standard Operating Procedures (SoP)
- ▶ Leaflets
- ▶ Arts, dramas,



## Dagupan

- ▶ In 2009, cyclone Ondoy hit Philippines and Dagupan was also affected
- ▶ The city was well prepared and was able to do pre-emptive evacuation
- ▶ Zero casualties and was able to respond with minimum support of the Central Govt.
- ▶ Awarded (Kalasag) with best prepared city - 2009

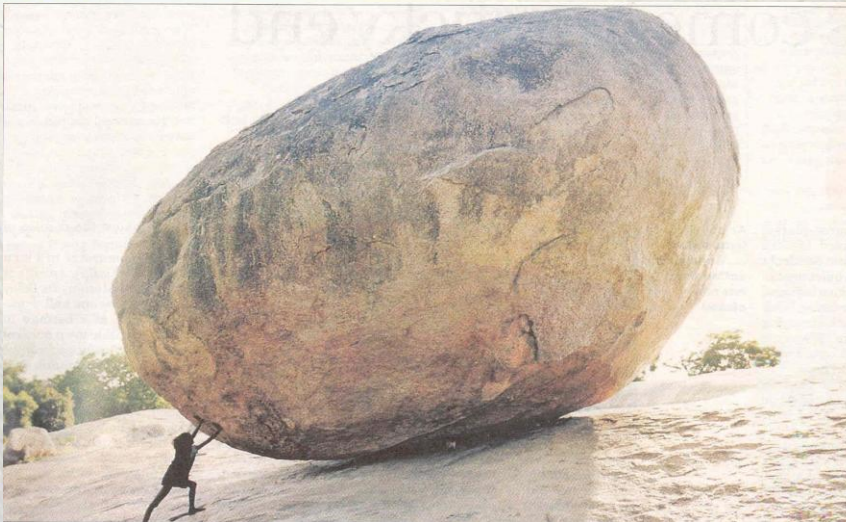


## Conclusion

- **Levels of education** or social status are no barriers / limits or constraints to participating in DRR
- If the **basic concepts** are understood, Community suggest local strategies for DRR implementation
- It is important to **build trust** of the community and make they owned DRR plans
- Political **leadership** is very much important
- **Coordination mechanism** should be reviewed and tested time to time

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The task may be so..... huge



**Importance -To create Innovation  
in disaster risk reduction with  
communities**



**THANK YOU**