



**2014 International Training Workshop**

**National Science and Technology Center for Disaster Reduction**

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**Community Development  
Approach  
in the Recovery of Selected  
Communities Affected by the Flood  
in the Philippines**

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# SITUATIONER



Photo from: TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, MAIN REPORT.GRP, ADB,Ausaid,EC,UN,WB,GFDRR.2009



**Informal  
settlers after the  
flood.....**

**....they lost  
everything  
But not the  
spirit  
to survive.**

**Photo from: TYPHOONS  
ONDOY AND PEPENG: Post-  
Disaster Needs Assessment,  
MAIN REPORT.GRP,  
ADB,Ausaid,EC,UN,WB,GFDRR.  
2009**



Photo from: TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, MAIN REPORT.GRP, ADB,Ausaid,EC,UN,WB,GFDRR.2009

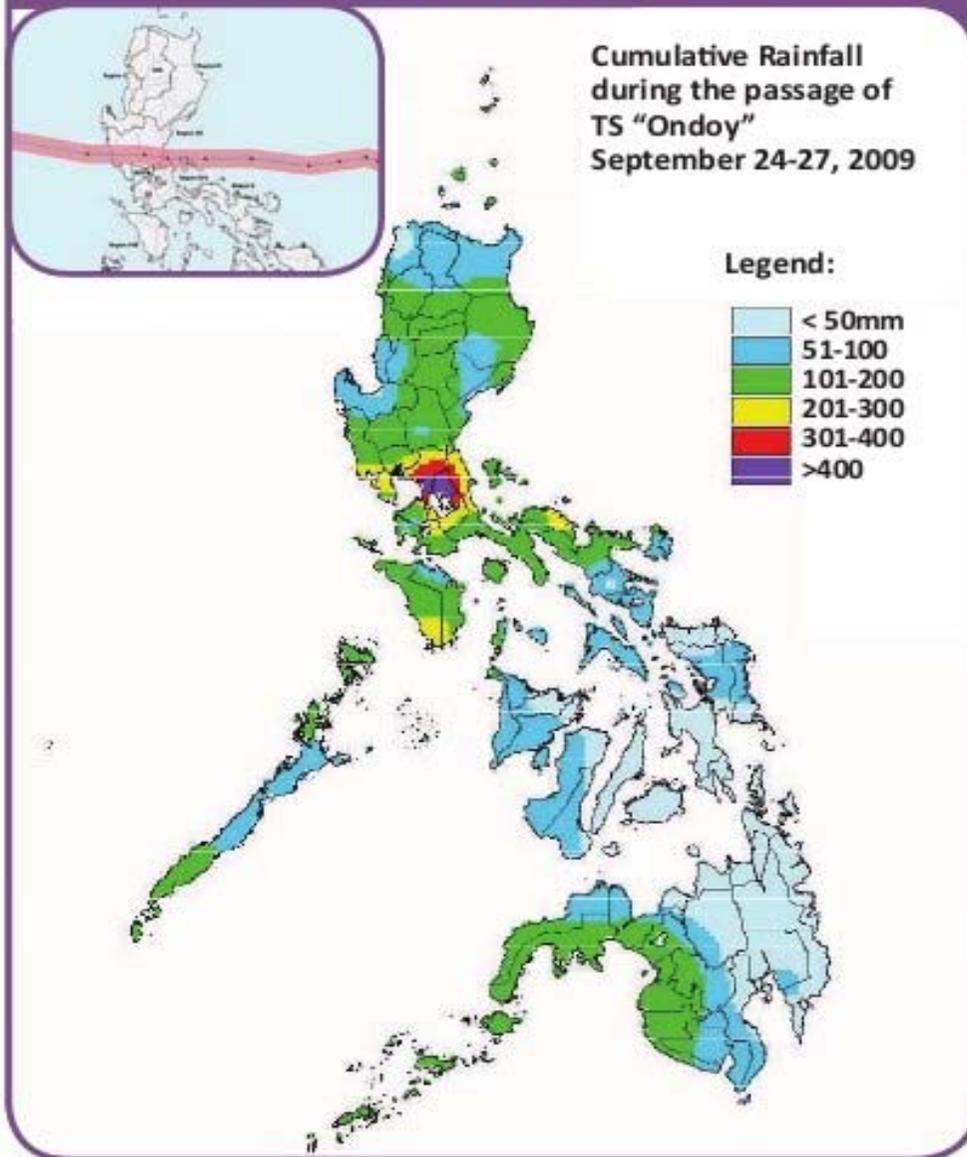
# Damage, Losses and Magnitude of Similar Recent Disasters

**Table 1: Damage, Losses, and Magnitude of Similar Recent Disasters**

Disaster	Country	Year	Total Effects (US\$ million)	Magnitude (% of GDP)
Earthquake	Pakistan	2005	2,876	0.4
East Asia Tsunami (Aceh)	Indonesia	2005	4,452	1.6
Cyclone Sidr	Bangladesh	2007	1,640	2.8
Cyclone Season	Madagascar	2008	333	4.0
Cyclone Nargis	Myanmar	2008	4,060	19.7
Storm and Floods	Yemen	2008	1,638	6.0
TS Ketsana and Typhoon Parma	Philippines	2009	4,383	2.7

Source: TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, MAIN REPORT. GRP, ADB, Ausaid, EC, UN, WB, GFDRR. 2009

Map 1: Storm Path of Ondoy and Cumulative Rainfall



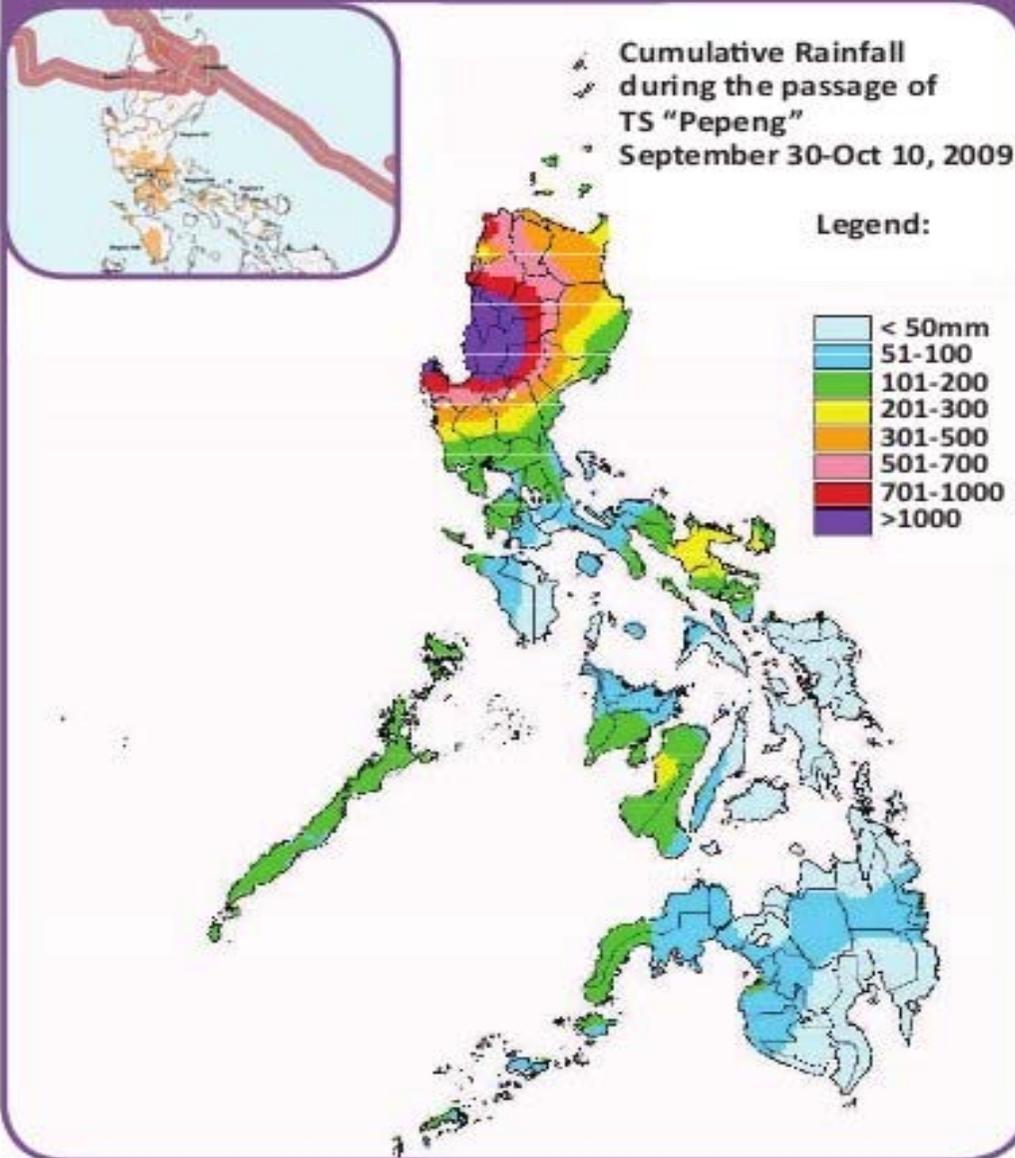
Note: The smaller map in the upper left corner shows the storm path of Ondoy. The larger map shows the cumulative amount of rain that fell as Ondoy passed over the Philippines.  
Source: PAGASA, 2009.

## Storm Path of Ketsana (Ondoy)



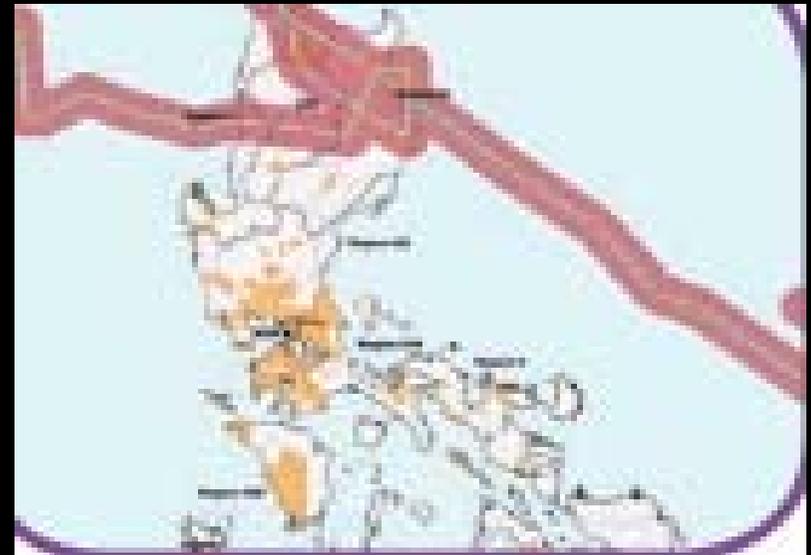
Source: TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, MAIN REPORT. GRP, ADB, Ausaid, EC, UN, WB, GFDRR. 2009

Map 2: Typhoon Path of Pepeng and Cumulative Rainfal



Note: The smaller map in the upper left corner shows the path of typhoon Pepeng. The larger map shows the cumulative amount of rain that fell as Pepeng passed over the Philippines.  
Source: PAGASA, 2009.

## Storm Path of Parma (Pepeng)



Source: TYPHOONS ONDOY AND PEPENG: Post-Disaster Needs Assessment, MAIN REPORT. GRP, ADB,Ausaid,EC,UN,WB,GFDRR.2009

# Affected People and Casualties

**Table 1: Affected People and Casualties (as of November 20, 2009)<sup>11</sup>**

<i>Affected</i>	<b>Ondoy</b>	<b>Pepeng</b>
Families/Persons	993,227 families or 4,901,234 persons	954,087 families or 4,478,284 persons
Provinces	26	27
Cities	16	36
Municipalities	172	364
Families/Persons in Evacuation Centers	15,798 families or 70,124 persons in 244 centers	3,258 families or 14,892 persons in 54 centers
Casualties	1,030	746
Deaths	464	492
Injured	529	207
Missing	37	47



Novaliches, Photo by: Jojo Rom

# Recovery and Reconstruction Strategy



Rama Garments,  
Angono Rizal.  
Photo by Vince Eugenio

- **Enterprise Sector:** Helping the enterprise sector will require a mix of financing mechanisms to help small and medium scale enterprises recover from damages and losses.

# Recovery and Reconstruction Strategy



Photos by: Vince Eugenio, 2010

- **Rural Production:** Immediate restoration of rural livelihoods before the end of the year as necessary to avoid loss of production during the dry season.

# Recovery and Reconstruction Strategy



Flood Control,  
Napindan, Taguig  
Photo by Vince  
Eugenio

- **Flood Management:** Given its vulnerability to flooding, protecting Metro Manila requires institutional changes, comprehensive planning, and investment in both restoration and new infrastructure.

# Recovery and Reconstruction Strategy



Informal Settlers  
at Laguna Lake, Angono  
Photo by Vince Eugenio

- **Housing:** The vast majority of damage to the housing stock was concentrated in the informal sector which serves mainly low-income families, so building back better means providing better alternatives for informal settlers.

# Recovery and Reconstruction Strategy



- Disaster Risk Reduction and Management: The existing DRRM system needs to become more proactive, coherent, and effective.

# Recovery and Reconstruction Strategy



- **Local Governance:** LGUs should have a key role in implementing the recovery and reconstruction program and future measures to mitigate disaster risk.

# The Framework on CD and DRR





**Community Education for Building People's Capacity**



**Community Organizing for People's Participation**



**Community Resources and Disaster Risk Management  
to Ensure People's Welfare and Well Being**



**Community Development for Empowerment and Transformation**

# Community-Based Disaster Risk Management

The need to address vulnerabilities of communities

With or without a disaster, life among the most vulnerable is a struggle for survival

There are people and communities who believe in their rights and innate power to work for change and address the root causes of their vulnerabilities.

They adopt community-based disaster management system that is both responsive and transformative.

# Community-Based Disaster Risk Management

- Participatory approach

- People and development oriented

- Views disasters as a question of people's vulnerability

- Comprehensive

- Empowers people to address the roots of vulnerabilities



- Transforming structures that generate inequity and underdevelopment

- Encompasses four major processes namely disaster prevention and mitigation, disaster preparedness, emergency response and post emergency

- Reduce possible loses in the lives, properties, community resources and environment due to natural and human induced hazards.

# Community-Based Disaster Risk Management

The CBDRM hopes to accomplish both long term transformational changes, as well as short term remedial improvements in the well being of the people.

- Reduction of people's vulnerabilities

- Transformation of structures and relationships that generate inequity and underdevelopment

- Public safety and reduced losses in the lives, properties, resources and environment due to hazards

- Empowered individuals and community institutions

# The strategies of CBDRM are participatory in nature and put the people at the center of action.

- Capacity building through enhancing the people's knowledge, skills, attitude and access to human resource development.
- Implementation of disaster mitigation measures, both non-structural and structural
  - Inter and intra collaboration and coordination among the community, the people's organizations, NGOs, government agencies and the private sector



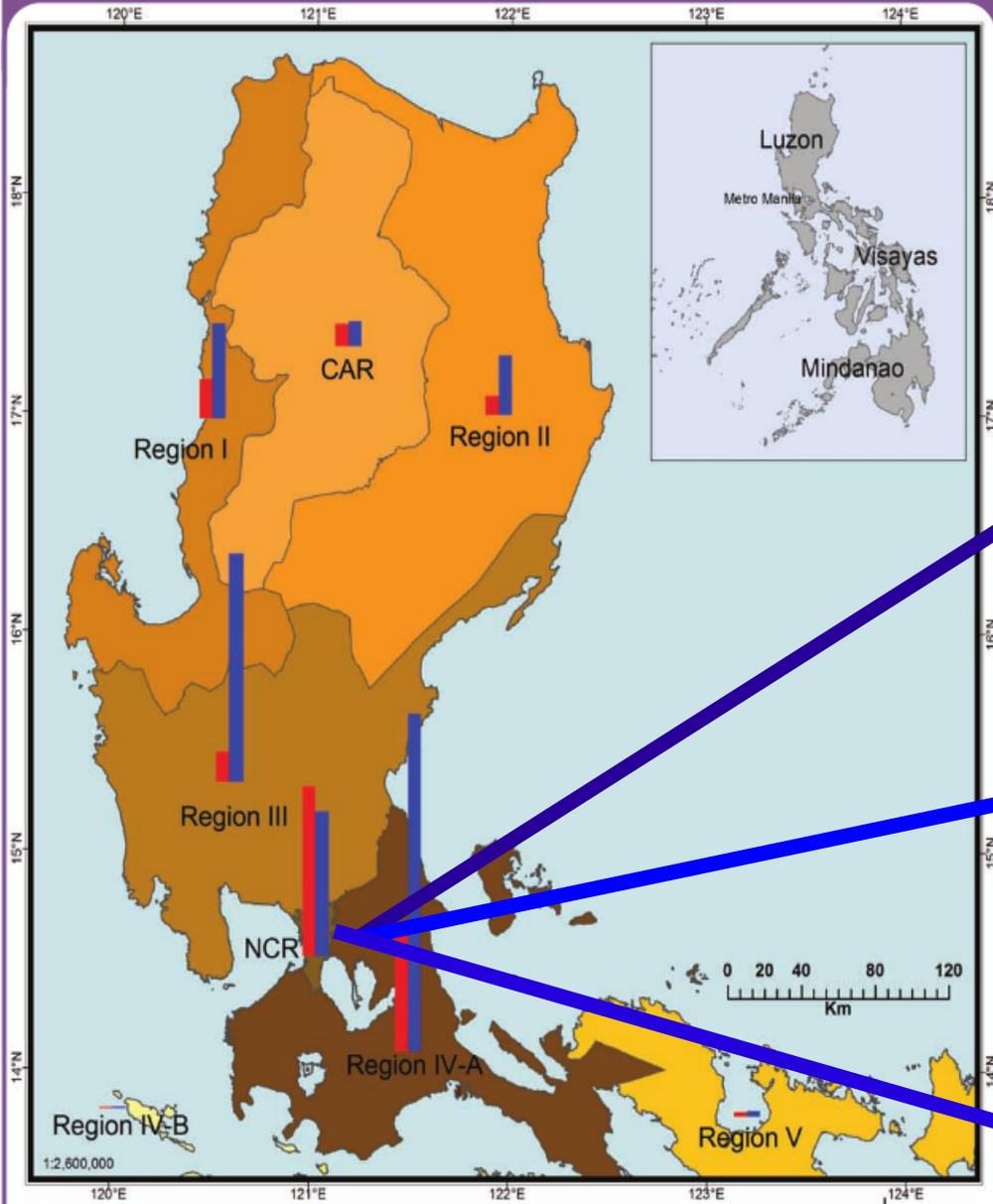
- Comprehensive sectoral integration of health environment, infrastructure, educational, economic and other services

# Zooming In



**Barangays Santa Ana and San Jose**

Map 3: Spatial Distribution of Damage and Losses by Region



Post Disaster Needs Assessment (PDNA)  
 Tropical storm Ondoy (international name Ketsana, TC-2009-000205-PHL) and  
 and typhoon Pepeng (international name Parma, TC-2009-000214-PHL), Philippines  
 Map shows the geographical distribution of damage and losses by region.  
 Values are in PHP billion.



Map produced by:  
 ERSI Laboratory, College of  
 Forestry and Natural Resources  
 University of the Philippines  
 Los Baños  
 November 11, 2009  
 Projection/Datum:  
 UTM Zone 51N/Luzon 1911

Data Sources  
 NDCC  
 The World Bank  
 GEO DATA



Sta. Ana,  
 San Mateo

San Jose,  
 Rodriguez



San Isidro,  
 Rodriguez



**Brgy.  
Sta. Ana,  
San Mateo:  
a village  
by the  
river**



“It was the highest flood we ever had since we lived here”



Typical Settlements: Varying Levels of Housing Structures and Land



Levels of Flood on Varying Levels of Houses and Land



Immediate and Long-Term  
Evacuation Centers

“We moved from one house to the other for safety”

# POCKETS OF WORST HIT URBAN POOR COMMUNITIES IN BARANGAY SANTA ANA

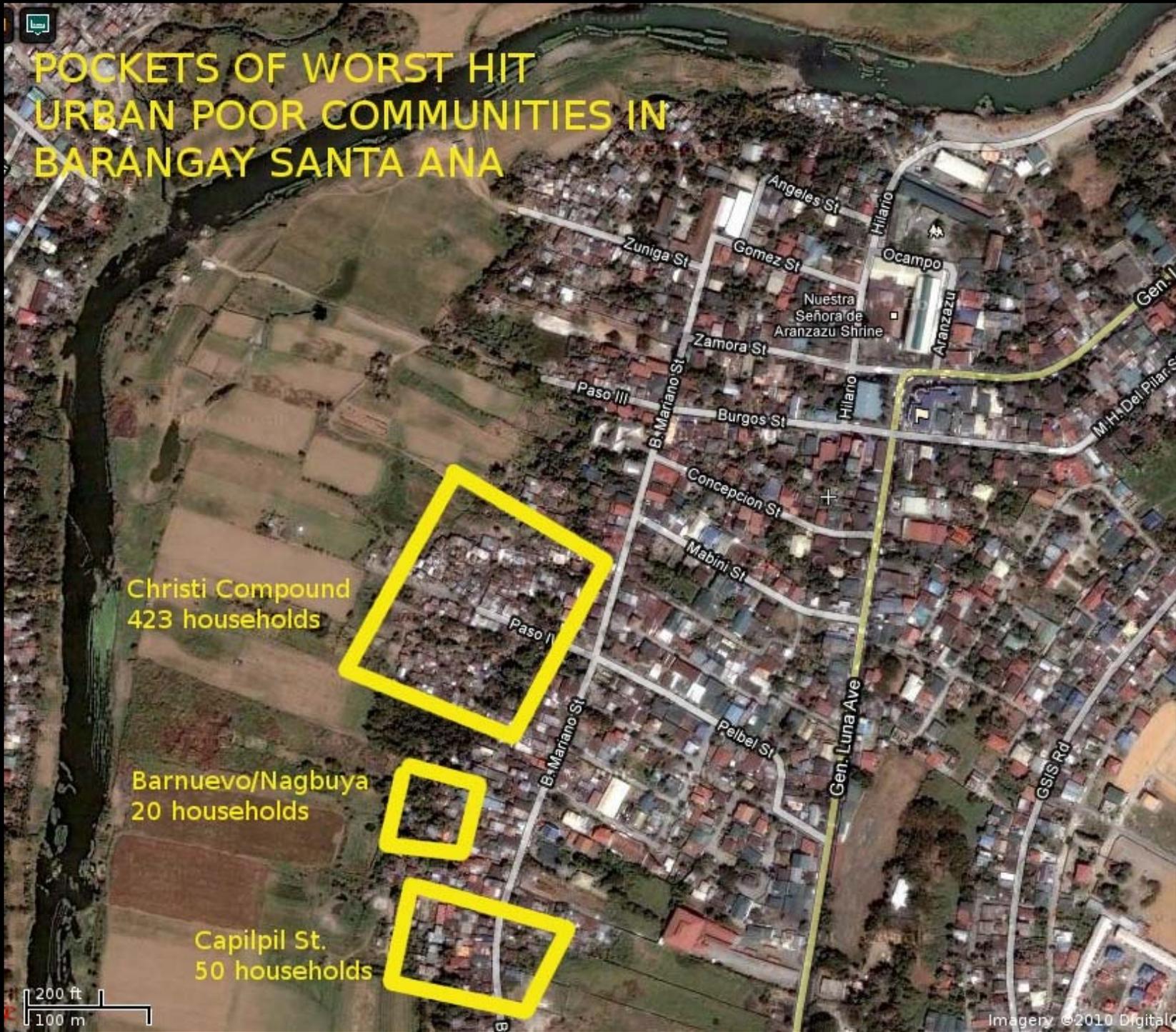
Christi Compound  
423 households

Barnuevo/Nagbuya  
20 households

Capilpil St.  
50 households

200 ft  
100 m

Imagery ©2010 DigitalGlobe





26/09/2009

Early morning, the children were still enjoying the flood, not knowing that it would reach the rooftop in less than one hour.



26/09/2009

**The laughter of the children were replaced by the shouts for help and rescue.**





**Community orientation on disaster risk reduction**



**Games to identify hazards: “Bagyo” means storm or hurricane**



**Community assessment using thread and pins to map out vulnerable areas.**



“The flood reached up to the top of the post, some plastic trash are still there to remind us of the height of the flood... around 30 feet, over our roof.”

# PARTICIPATORY PLANNING



# Workshops

Our needs, our dreams, our actions...



# Community Education

- Bayanihan-self-help, volunteerism, collective work, reciprocity, community cohesion
- Awareness of conditions, potentials, capacities
- Skills in emergency response, preparedness, small scale entrepreneurship, community affairs
- Hazards assessments
- Disaster Risk Reduction concepts
- Organization development

# Community Organizing

- **Endogenous local governance: neighborhood, kinship, peer groups**
- **Formal Barangay governance: Barangay Council, committees**
- **Formal local community groups: formal leaders**
- **Re-orientation of formal community groups**
- **Re-vitalization of community groups**
- **Formation of new interest groups**
- **Linkage building with other organizations and resource base**

# Community Resources and DRM

A sunset over a body of water with mountains in the background. The sun is low on the horizon, casting a golden glow across the sky and reflecting on the water. The mountains are silhouetted against the bright sky.

**Relief and capital provision**

**Housing materials**

**Community-initiated improvement of road,  
street lighting, water supply**

**Community-managed community credit,  
rice store, hogs raising, water supply  
project**



**Brgy.  
San Jose,  
Rodriguez**

**Another  
village  
by the  
riverside**



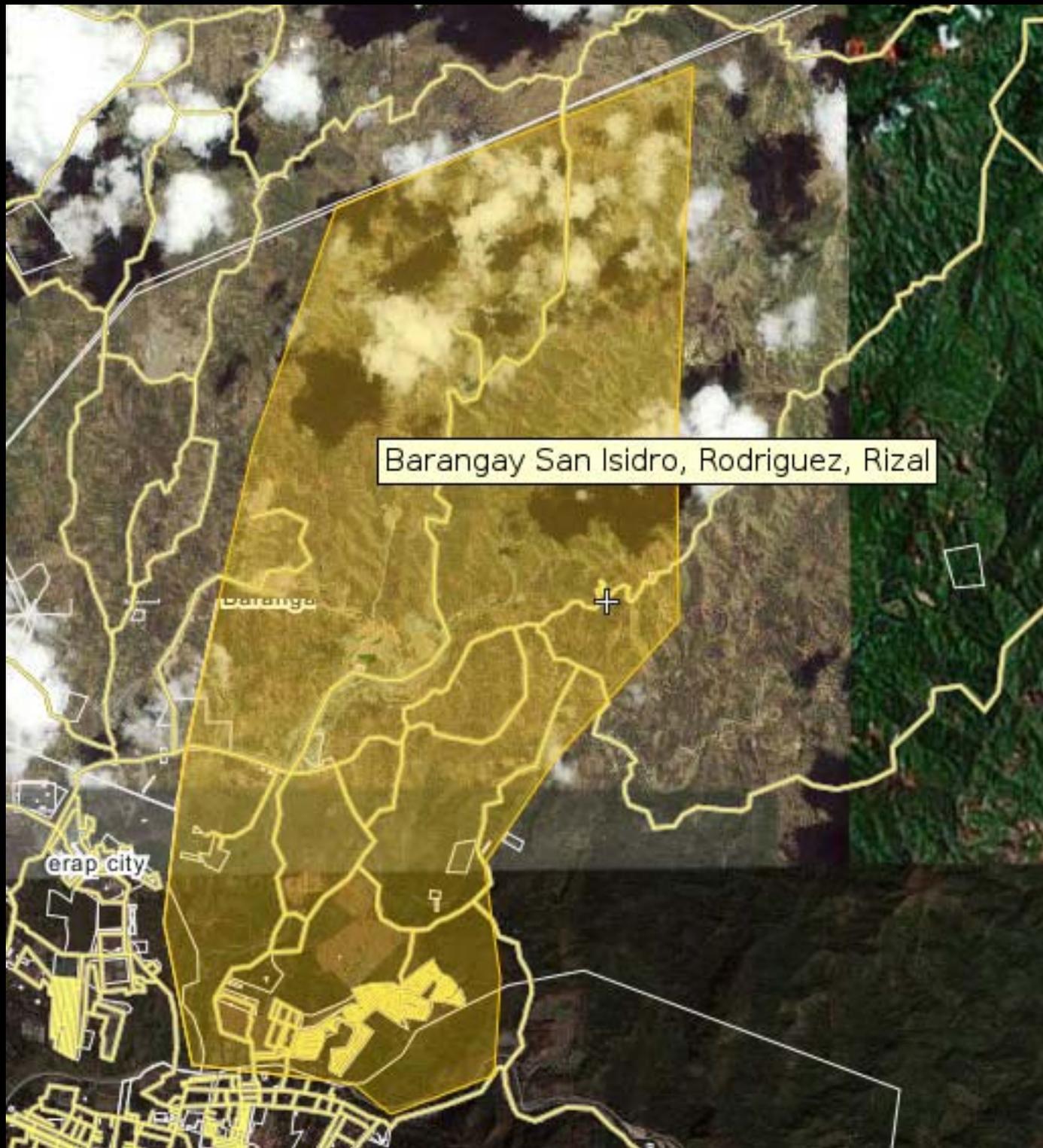
**Brgy. San Jose on ordinary day....dry with dirt....**



Joy and laughter while lining up for relief ...an indicator of resilience?



**The tent shelter at the evacuation center before resettlement**



**The  
Resettlement  
Site:  
San Isidro**







# Composition of the Housing Agency

## Composition of the National Housing Authority in the Resettlement Site

### **Community Relations Unit**

- In-charge of providing orientation to newly settled households
- Community organizing Information dissemination

### **Finance Unit**

- Follows-up payment obligations of homeowners

### **State Management Unit**

- Manages and monitors documentation of homeowners

### **Livelihood Unit**

- Provides training on livelihood opportunities for residents

### **Technical Unit**

- Ensures compliance on building and construction requirements of contractors
- Does repairs on the housing units within the resettlement site

# Community Organizing

- **Reduced endogenous local governance: neighborhood, kinship, peer groups**
- **Displaced formal Barangay governance: Barangay Council, committees**
- **New formal local community groups: formal leaders**
- **Formal community groups initiated by the new settlers was discouraged**
- **Housing agency mandated new groups by blocks**
- **Formation of new interest groups on livelihood**
- **Linkage building with other organizations and resource base**

# Community Education

- Bayanihan-self-help, volunteerism, collective work, reciprocity, community cohesion
- Awareness of conditions, potentials, capacities
- Skills in emergency response, preparedness, small scale entrepreneurship, community affairs
- No educational activities were conducted except an brief orientation on rules and policies in the resettlement

# Community Resources and DRM



**Relief and capital provision**

**New housing unit: 20 m<sup>2</sup> floor area,  
payable in 25-30 years; about 2-4%  
of monthly income for amortization**

**Agency initiated improvement of  
community infrastructure**

**No electricity yet; water not potable**

**Small group- managed community credit**



**“ how have you recovered from the loses and damages you had from the flood?”**

# Methods and Scale

- Self-assessment by FGD participants

Sta. Ana Community : 74 FGD participants

San Isidro Resettlement: 62 FGD Participants  
and members

- Scale:

1- Not yet recovered

2- Little recovery

3- Full recovery

4- “Built back better”

# Recovery Status

Areas of Recovery	Mean Recovery Scores		Difference in the Mean Score
	Sta. Ana Community	San Isidro Resettlement	
<b>A. Physical and Mental Health</b>			
1. From death of relatives	2.00	1.50	0.05
2. Sickness	2.51	1.98	0.53
3. Physical injuries such as losses of legs, sight, etc	1.75	2.36	-0.61
4. Emotional trauma	2.07	1.70	0.37

# Recovery Status

Areas of Recovery	Mean Recovery Scores		Difference in the Mean Score
	Sta. Ana Community	San Isidro Resettlement	
<b>B. Family Assets</b>			
1. Destruction of the house	2.68	1.98	0.70
2. Total loss of the house	2.50	1.98	0.52
3. Loss of household assets	2.24	1.69	0.55
4. Loss of assets for livelihood	2.25	1.58	0.67
5. Sources of livelihood	2.18	1.74	0.44
6. Income	1.74	1.67	0.07

# Status of Recovery

Areas of Recovery	Mean Recovery Scores		Difference in the Mean Score
	Sta. Ana Community	San Isidro Resettlement	
<b>C. Community Services</b>			
1. Electrical services	2.64	1.24	1.40
2. Water source	2.86	1.70	1.10
3. Education of children	2.87	2.38	0.49
4. Roads, pathways, bridges	2.66	2.73	-0.07
5. System of transportation	2.61	1.83	0.79
6. Natural environment	2.29	2.17	0.11
7. Recreational facilities	2.55	1.80	0.75

# Recovery Status

Areas of Recovery	Mean Recovery Scores		Difference in the Mean Score
	Sta. Ana Community	San Isidro Resettlement	
<b>D. Relationships and Governance</b>			
1. Relationship with spouse	3.27	2.90	0.37
2. Relationships with neighbors	2.86	2.81	0.05
3. Community organizations	3.37	2.51	0.86
4. Barangay Governance	2.84	2.35	0.49

# Reflections.....

- Communities have endogenous system of responding, preparing and recovering from disasters
- Limitations in disaster prevention and mitigation is mainly due to given natural vulnerabilities and 'forced option' to be in vulnerable areas.
- Displacement of people affected by natural disasters can be another disaster that is human induced.

# Reflections.....

- Minimal displacement and losses could mean faster recovery
- Community development perspective and processes can hasten the recovery process by facilitating capacity building, organizing and resource/risk management
- Community collaboration with external resource agency must be anchored on community context, participatory paradigm and attitude of learning from the people.

# Conclusion

A tropical beach scene with a palm tree on the left, a sandy beach in the foreground, and a blue sky with a few clouds. The text 'Conclusion' is written in large white letters at the top, and 'Let us continue doing CD on the ground!' is written in red letters in the middle.

**Let us continue doing CD  
on the ground!**



Thank you.  
Maraming Salamat at  
Mabuhay!