



# The Makati Risk-Sensitive Urban Redevelopment Project



Federal Foreign Office



A Presentation by  
**ATTY VIOLETA SOMERA SEVA**  
Senior Advisor to the Mayor,  
Makati City, Philippines

Global Platform for Disaster Risk Reduction

Geneva Switzerland

May 12, 2011

# I. The Philippines and Earthquakes

- Archipelago made of 7,100 islands within **the Pacific Rim of Fire**
- Exposed to both **Active Faults and Trenches**
- **20 earthquakes recorded per day** (2001-2010 PHIVOLCS)
- Average of **200 earthquakes** felt per year
- **90 destructive earthquakes** in the past 400 years
- Experienced **40 tsunamis** in past 400 years





# Model 8 of the Metro Manila Earthquake Impact Reduction Study



- ❑ The MMEIRS study:
  - Conducted from 2002-2004  
JICA, MMDA, and PHIVOLCS
- ❑ Model 8: **7.2 earthquake** generated by the **West Valley Fault system**



# Estimated Human and Structural Impacts on Metro Manila based on the MMEIRS Study

## Structural Impacts:

- ❑ Residential: **13% Destroyed** and **26% damaged**
- ❑ Government buildings: **8-10% Destroyed** and **20-25%**
- ❑ Both major ports damaged
- ❑ Significant damage to water, power and communication infrastructure

## Human Impacts:

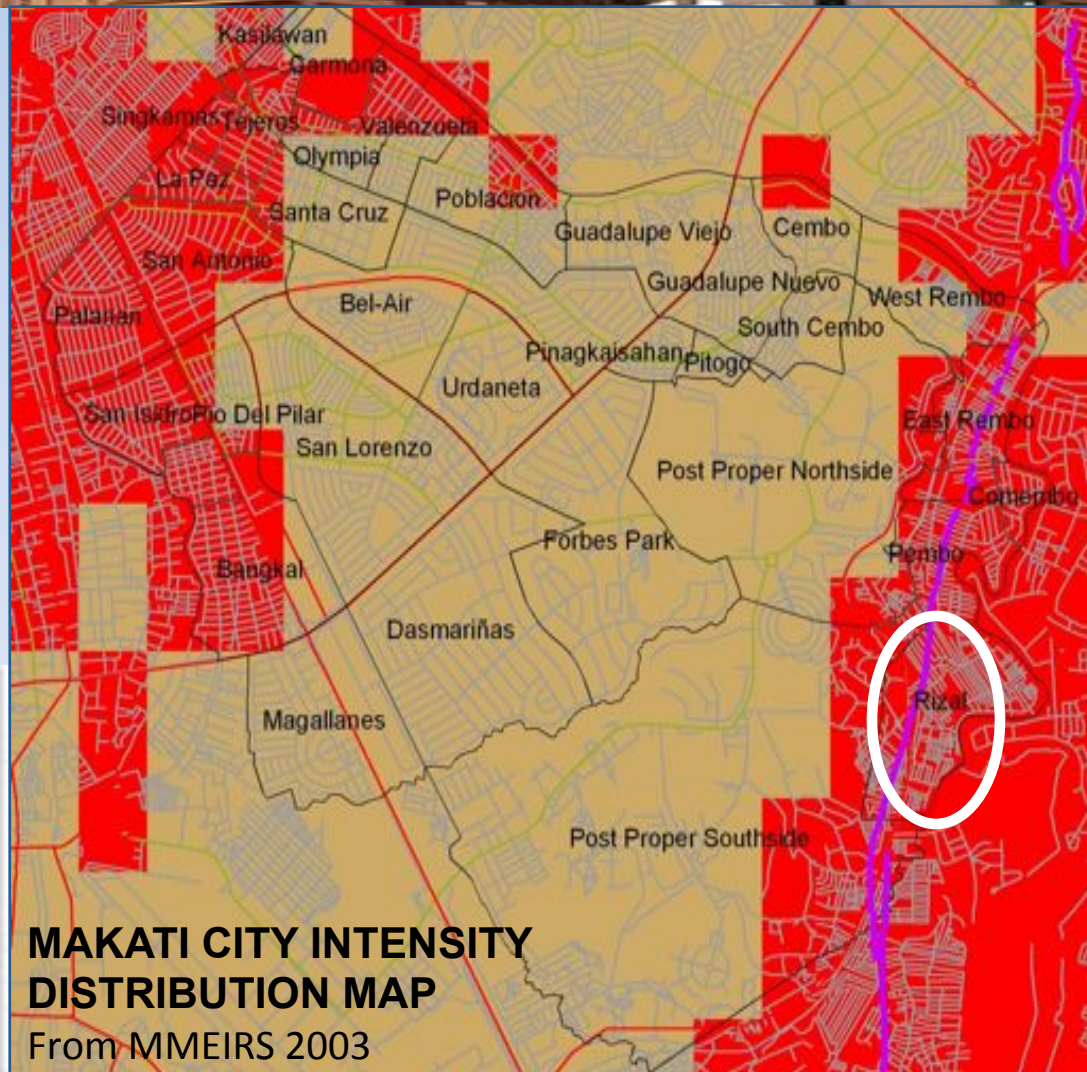
- ❑ Casualties from building collapse: **335,000**
- ❑ Casualties from fire: **18,000**
- ❑ Injuries: **114,000**





# IV. Impact of MMEIRS model 8 on Makati City

Buildings Heavily Damaged: **9,200 (18.3%)**  
Partly damaged: **16,500 (32.8)**  
Casualties: **2,300 (0.5%)**  
Injuries: **7,700 (1.6%)**  
Fire Damage: **53 hectares of**  
Human Displacement: **156,000**







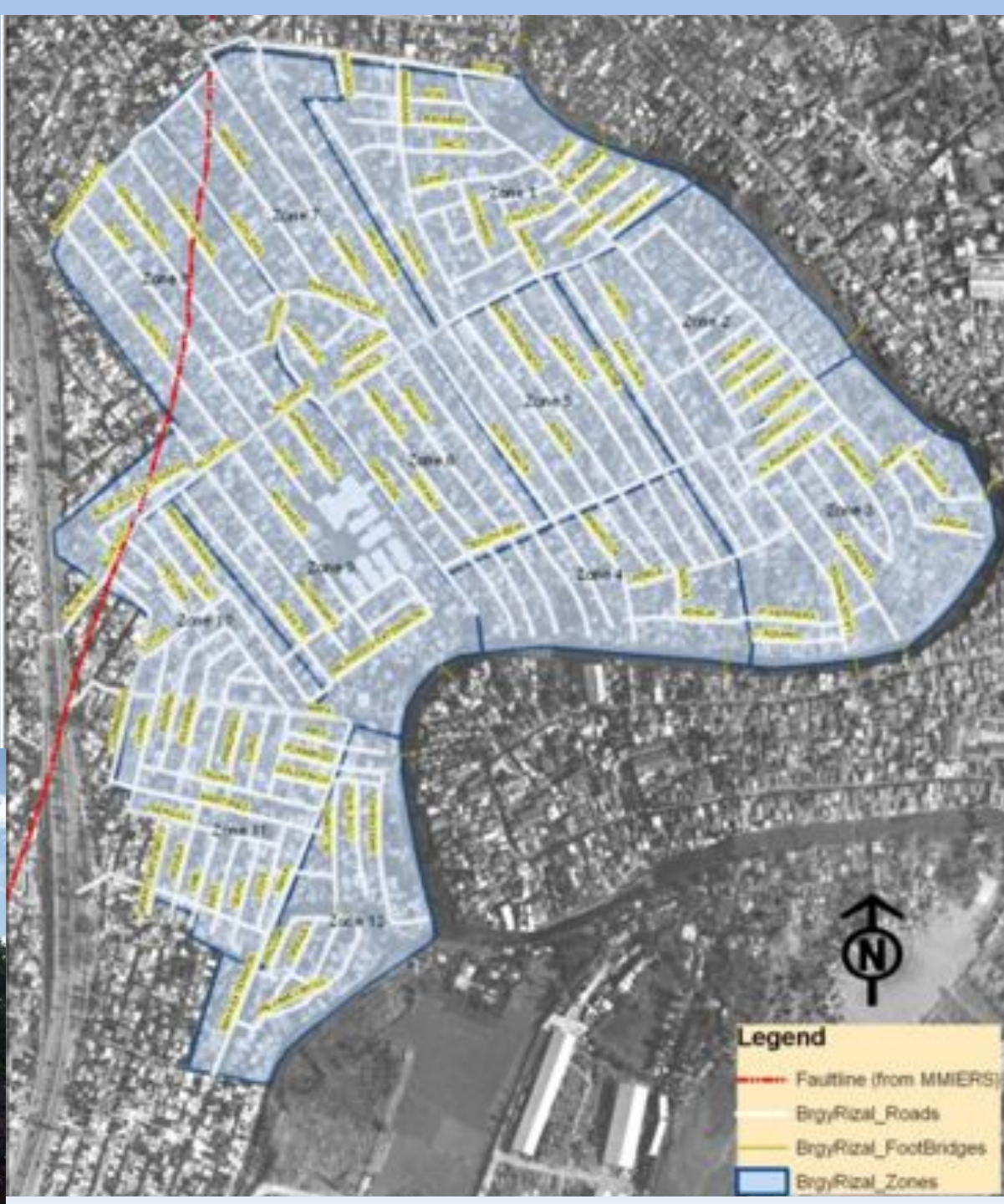
# III. All About Makati City



- ✓ Financial and business capital of the Philippines
- ✓ Land area of 2,735 hectares
- ✓ Night time population of 510,383 (2007)
- ✓ Daytime population estimated at 4 million
- ✓ Estimated daily vehicular traffic: 400,000
- ✓ 60,551 registered businesses
- ✓ 86 Embassies and consulates
- ✓ 12 International Organizations including the UN and EU

# Barangay Rizal

- ❑ Eastern fringe of Makati City
- ❑ Land area: **59.4 hectares**
- ❑ **2% of City's land area**
- ❑ **Population of 39,580**
- ❑ Near a bustling commercial and residential district





# The Project Site: Zones 7, 8, 9 and 10

## Physical and Socio-economic Characteristics

- ❑ **High unemployment** (55%)
- ❑ **Low household income** (34% low income, 16% below poverty line)
- ❑ Total land area of **20.3** hectares with a Population of **9,688** (2009)
- ❑ **50%** of buildings are **occupied by multiple households**



**High Risk Structures**



**Narrow & obstructed roads**





# Barangay Rizal Makati Risk-Sensitive Urban Redevelopment Planning Project (MRSURPP)

- ❑ Conducted from 2008-2010
- ❑ Established a pilot site in Barangay Rizal
- ❑ Identified the **physical, socio-economic, and capability-related vulnerabilities** of a local community to earthquakes
- ❑ Formulated **interventions to enhance the resiliency** of the identified community
- ❑ **Replicate best practices in** other highly vulnerable communities in the City

Project proponents:



Strategic Planning Workshop Sept 18-19, 2008 at the Makati City Hall

# Vulnerabilities and problem areas

1. **Unsafe buildings and structures**
2. **Limited circulation and access** due to narrow and obstructed roads
3. **Lack of parks and open spaces** for recreational and emergency use
4. **Inadequate management capacity** in terms of emergency preparedness and response
5. **lack of financial resources and economic opportunities** to prepare for or recover from disasters



Lack of financial resources



Lack of Open Spaces

Narrow & obstructed roads



# Consultation and Community Participation: Key components in planning and redevelopment



**Community Consultation,  
September 3, 2008**



**Community Preparation and advocacy  
planning, October 23-24, 2008**



**Visioning Workshop,  
December 11, 2008**



**Vulnerability Assessment Jan 28-30, 2009**



**Building and lifeline inventory  
Jan - Feb 2009**



**Disaster Town Watching and Plotting  
April 2, 2009**



# Consultation and Community Participation: Key components in planning and redevelopment



**Meeting with the transport cluster  
May 1-5, 2009**



**1<sup>st</sup> Validation workshop May 15, 2009**



**2nd Validation Workshop, June  
24, 2009**



**Site visioning workshop,  
August 3-4 2009**



**Site Planning workshop, August 3-4 2009**



**Final Presentation to Stakeholders  
December 11, 2009**



# Key Interventions to Address Vulnerabilities

- I. Establishment of a **Fault Zone Park**, retrofitting of highly vulnerable structures and implementation of **development and density controls**
- II. Improvement of the existing **circulation network and traffic management**
- III. Establishment of **Linear park** along the creek easement and **open spaces** per neighborhood
- IV. Installation of **early warning system**, creation of **evacuation plan**, **disaster training and seminars**, and construction of **multi-purpose centers** for recreation and temporary shelters
- V. Conduct **livelihood and skills enhancement programs**, promote **business and entrepreneurship**, and the develop local **commercial centers**.



Clearing roads of of encroachment and obstruction





# IMMEDIATE (1-5 years)



Creek linear park and road



Road widening and connections



Traffic Management



# MEDIUM (6-10 years)



Medium-rise housing



School expansion



Multi-purpose centers +  
neighborhood open spaces



Commercial areas



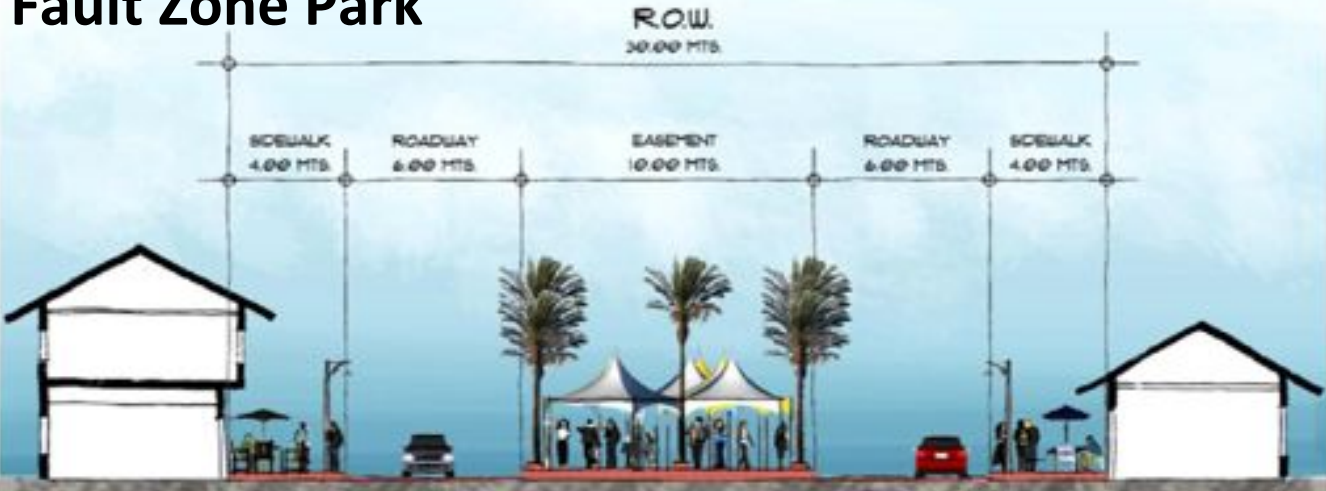
# LONG-TERM (11-20 years)

Option B



Medium-Rise Housing Along Park

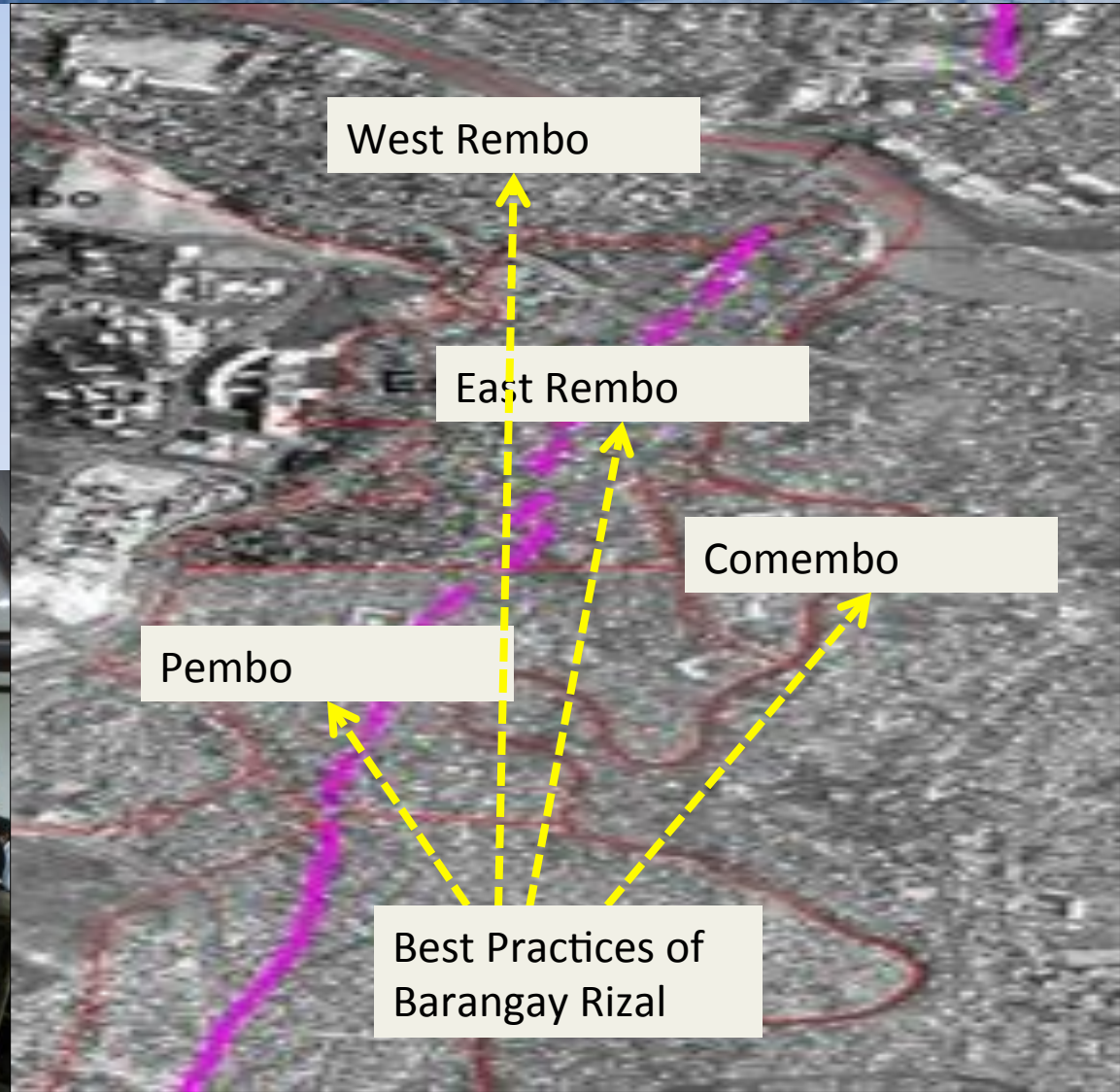
Fault Zone Park





# Way forward

- ❑ **Sustain implementation** of the Plan
- ❑ **Expand the project** to other highly vulnerable communities within the city



# LESSONS LEARNED

- ❑ The conduct of community consultations may result in the Project taking longer, but it also increases the likelihood of its success.
- ❑ Support of the community was gained through participation and consultation which also provided unique insights on the project site and increased local awareness and understanding of disasters and disaster.
- ❑ The undertaking of such a project would not be possible without the involvement of partners providing technical, financial and personnel support.
- ❑ The methodology used by the Project can be replicated and adapted in other highly vulnerable communities, taking into consideration the socio-economic condition of the stakeholders.





*“We in Makati have long been taking steps towards disaster risk reduction. We know that advance planning and preparation is the best way to minimize, if not totally eliminate, the impact of disaster on members of our communities, our properties and our economies. We realize that our ability to mitigate the effects of disasters on our City will impact positively not only on the safety of both our resident community and our private sector, but on the national economy as well.”*

*- Mayor Jejomar Erwin S. Binay, Jr.*



# Contact details

## CITY GOVERNMENT OF MAKATI

Name of Head: **JEJOMAR ERWIN S. BINAY, JR. (CITY MAYOR)**

Website: [WWW.makati.gov.ph](http://WWW.makati.gov.ph)

Trunk line: +632 870 1000

Address: New Makati City Hall JP Rizal St., Barangay Poblacion, Makati City 1200 Philippines





# The End

# Thank you and good day!

ATTY. VIOLETA S SEVA: [violeta.seva@gmail.com](mailto:violeta.seva@gmail.com)

DR. FOUAD BENDIMERAD: [fouadmail@sbcglobal.net](mailto:fouadmail@sbcglobal.net)