



REDUCING DISASTER RISKS IN METROPOLITAN MANILA

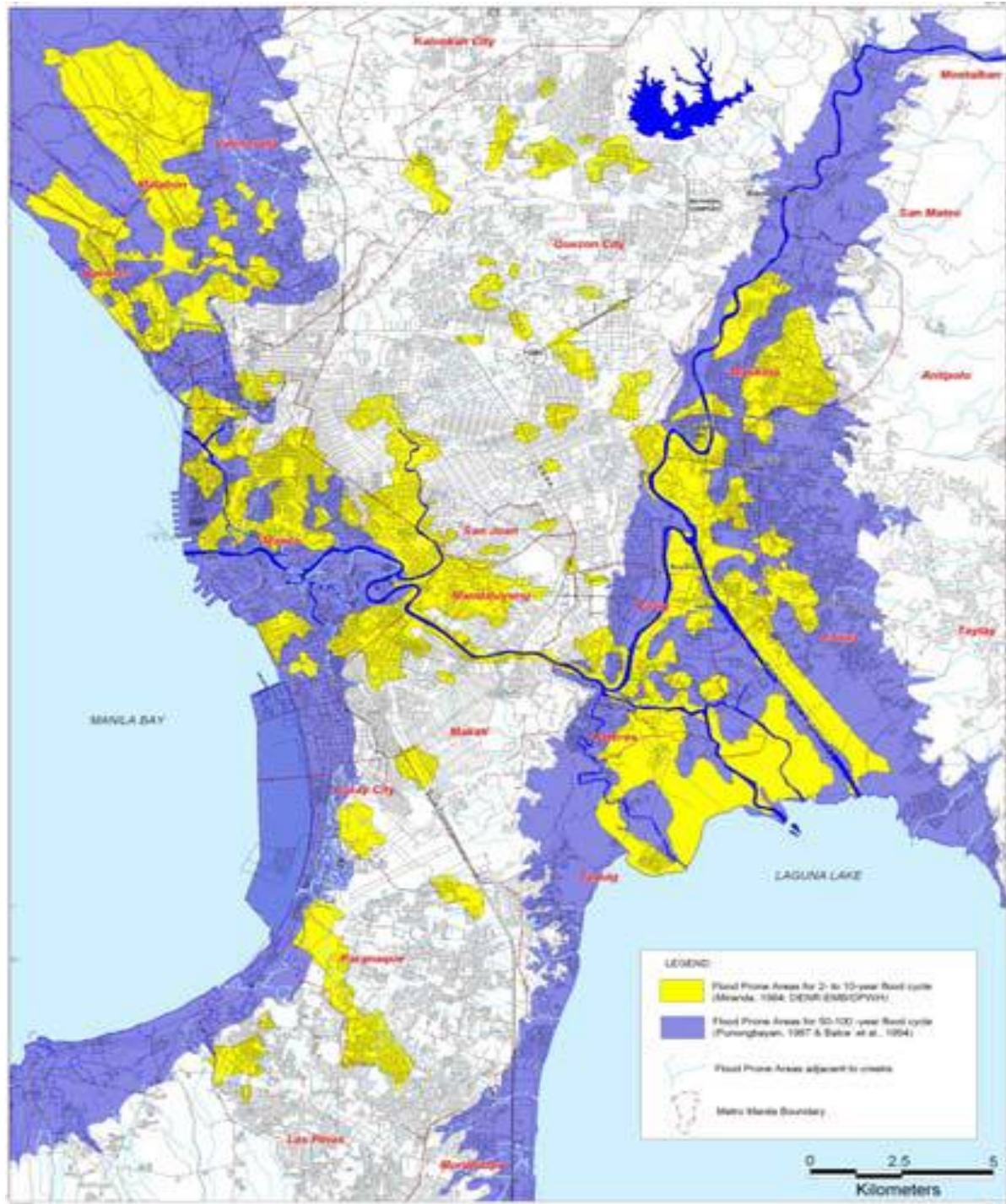
USEC. CORAZON T. JIMENEZ

General Manager, Metropolitan Manila Development Authority
Metropolitan Manila, Philippines

METROPOLITAN SEOUL, SOUTH KOREA

8 October 2011

Flood Hazard Map of Metro Manila



IMPACT OF TROPICAL STORM "KETSANA" TO METRO MANILA

(26 SEPTEMBER 2009)



REACTING TO THE IMPACT...



**GETTING COMMUNITIES
TO COMMIT AND
PARTICIPATE**

... PREPARING AGAIN (1)

- EQUIPMENT READINESS
- MMDA OPLAN “UNOS”
- DRAINAGE MAINTENANCE & CLEAN UP
- BARANGAY LINGAP PROJECT



... PREPARING AGAIN (2)

ESTERO BLITZ

- **CLEANED 45 ESTEROS WITH ESTIMATED LENGTH OF 75,000 LINEAR METERS**
- **HAULED 7,383 M³ GARBAGE**



Municipality of Pateros



Medical Mission San Rafael St., Mandaluyong City



Medical Mission Municipality of Pateros

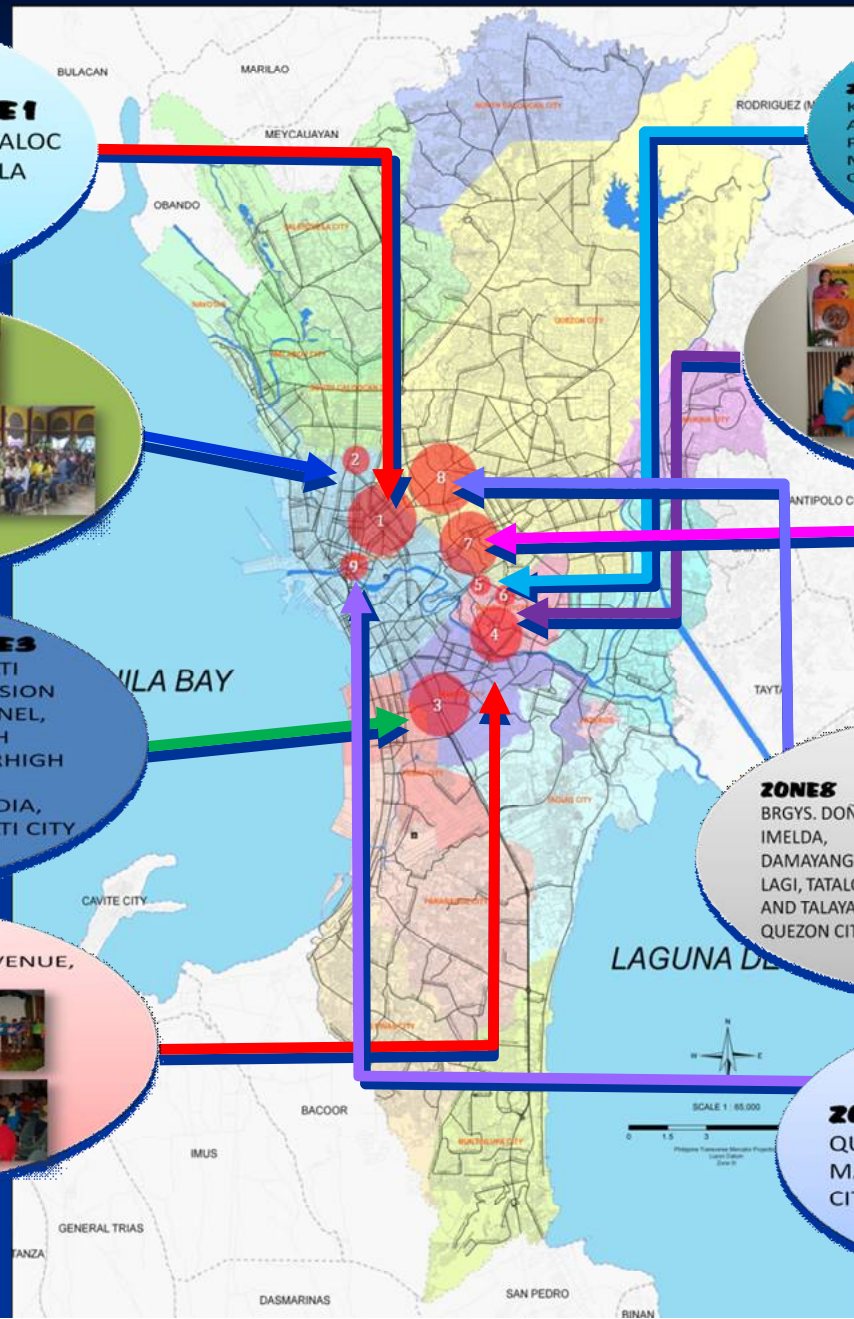
... PREPARING AGAIN (3)



FLOOD CONTROL AND INFORMATION CENTER



FLOOD CONTROL BAYANIHAN ZONE ALLIANCES



ZONE 1
SAMPALOC
MANILA
CITY

ZONE 5
KALENTONG ST,
AND NEW
PANADERO ST.,
MANDALUYONG
CITY

ZONE 2
RIZAL AVE
CORNER
R. PAPA,
TONDO
MANILA
CITY

FLOOD CONTROL BAYANIHAN ZONE ALLIANCE
Turn-Over Ceremony
(Boats)

ZONE 6
SHAW BLVD.
CORNER ACACIA
LANE,
MANDALUYONG
CITY

ZONE 3
MAKATI
DIVERSION
CHANNEL,
SOUTH
SUPERHIGH
WAY
BUENDIA,
MAKATI CITY

ZONE 7
BRGYS.
SALAPAN AND
BALONG BATO,
SAN JUAN CITY

WELCOME PARTICIPANTS
FLOOD CONTROL BAYANIHAN ZONE ALLIANCE
STAKEHOLDERS CONSULTATION FORUM

ZONE 4
MAYSILO CIRCLE, BONI AVENUE,
MANDALUYONG CITY

WELCOME PARTICIPANTS
FLOOD CONTROL BAYANIHAN ZONE ALLIANCE
STAKEHOLDERS CONSULTATION FORUM

ZONE 8
BRGYS. DONA
IMELDA,
DAMAYANG
LAGI, TATALON
AND TALAYAN,
QUEZON CITY

ZONE 9
QUIAPO
MANILA
CITY

... PREPARING AGAIN (4)

- CALL FOR VOLUNTEERS
- WATER SAFETY AWARENESS
- FLOOD RESPONSE TRAINING
- FABRICATION OF WOODEN BANCAS

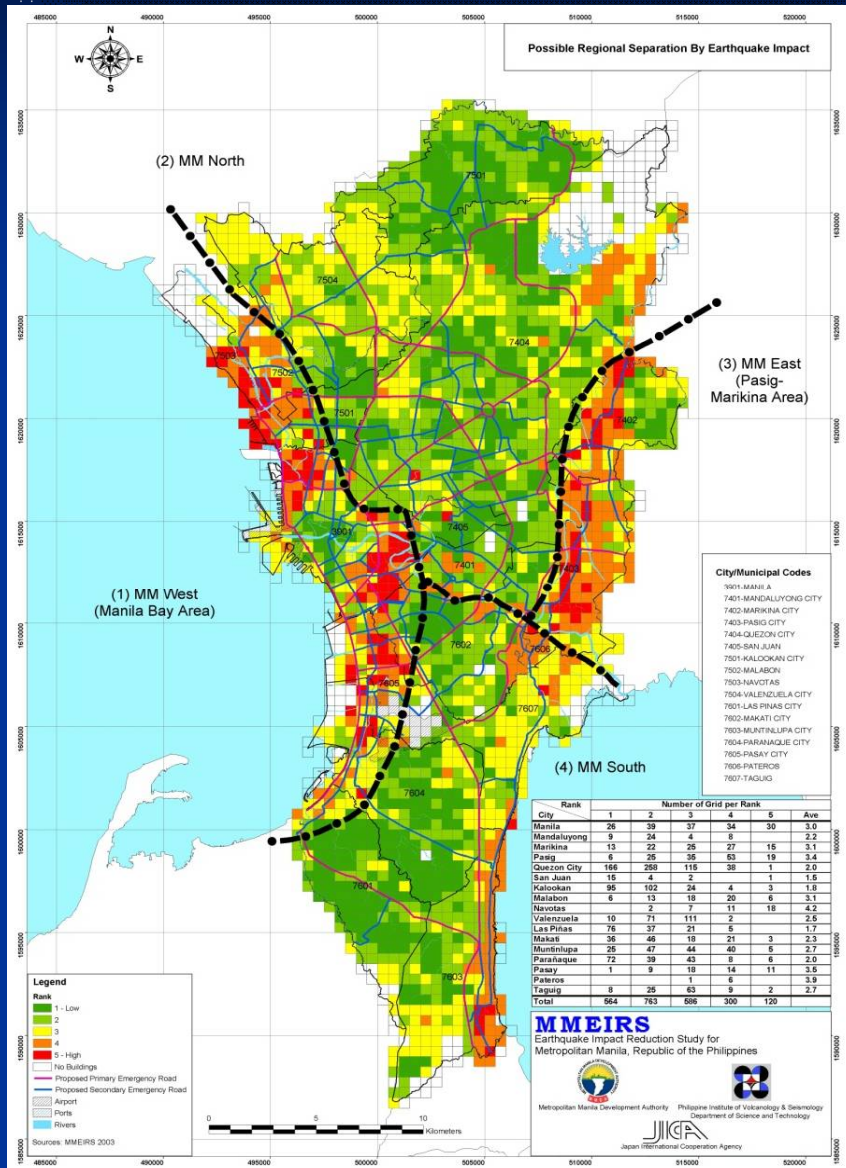


IMMEDIATE FUTURE ACTIONS

- VOLUNTEER RECRUITMENT
- ORGANIZATION AND TRAINING ON EMERGENCY RESPONSE
- ACTION PLANNING
- DRILLS
- EVALUATION
- CORRECTION

METRO MANILA SCENARIO GIVEN A 7.2 MAGNITUDE EARTHQUAKE:

- **35,000** people may die
- **115,000** would be injured
- **170,000** residential structures will collapse
- **500** fires may break out and spread
- **10 - 25 %** of government buildings will be damaged
- Some **bridges** may collapse
- **Power, water, and telephone** lines will be cut
- **National socio-economic activities** will be disrupted



Source: MMEIRS Study

PRIORITY STRATEGIC APPROACH TO CONTEND WITH STRONG EARTHQUAKE

Focus Concept 1 – Strengthen Legal Framework and Institutional Capacity for Disaster Management

- Enhance Legal Basis and support
- Strengthen Institutional Capacity for Mitigation, Preparedness and Response as well as Inter-Institutional Coordination

Focus Concept 2 – Build Capacity for Relief and Recovery

- Enhance Emergency Health and Medical Response System
- Establish Emergency Transportation System
- Secure water source and supply

Focus Concept 3 – Strengthen Community Preparedness for Earthquakes

- Enhance self-reliance and mutual help for efficient risk management capacity
- Inculcate Disaster Mitigation Culture among populace

Focus Concept 4 – Reduce Seismic Dangers of Residential Structures

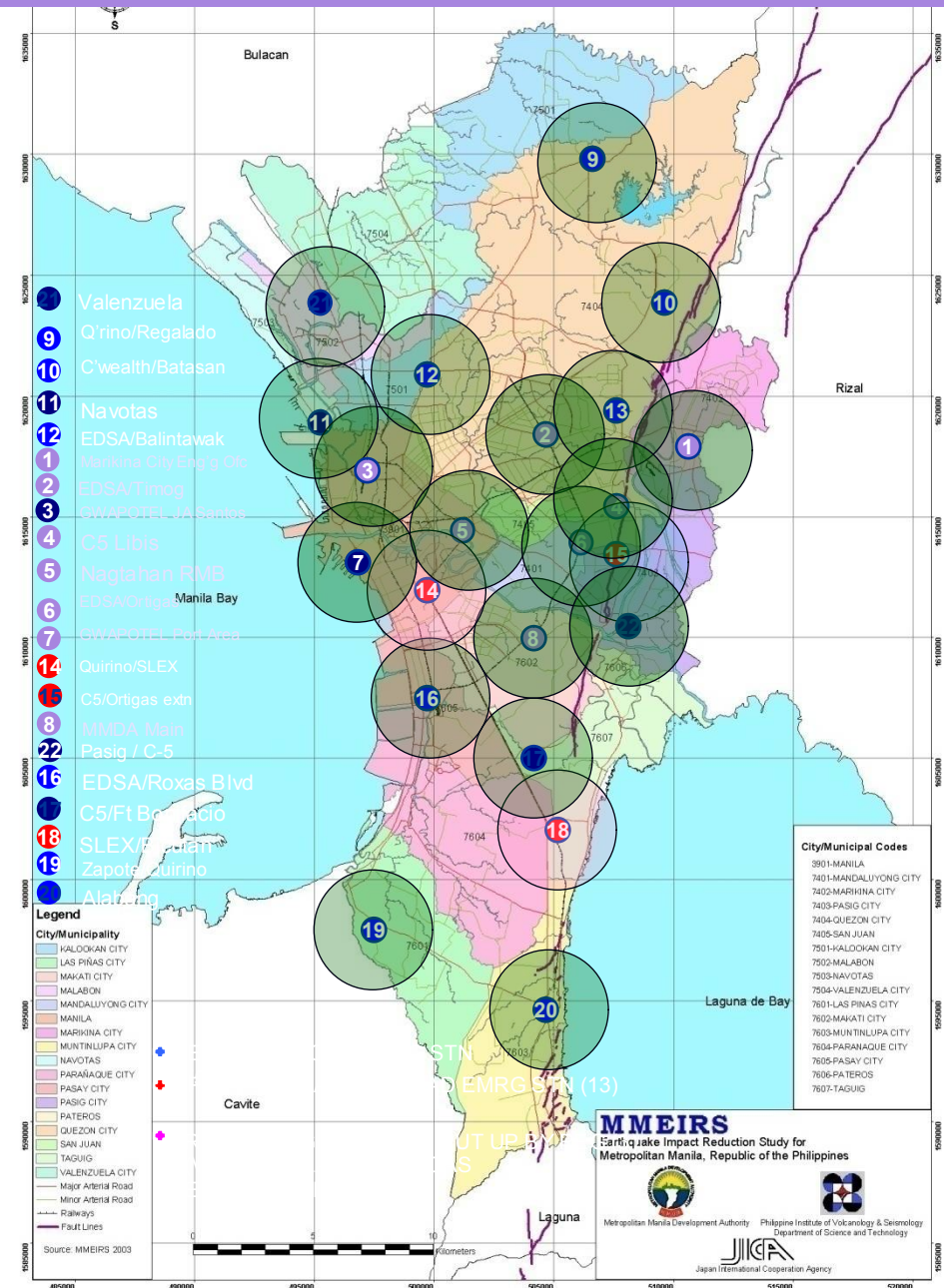
- Strengthen Building Structures
- Promote and Institute Fire Safety
- Promote and support further researches on seismic hazards and better building technology

Focus Concept 5 – Enhance National System to Become Resistant to Impact of Earthquakes

- Protect stability of government function and continuity of socio-economic systems

DREFTSUs LOCATION

THE DISASTER RESPONSE EQUIPMENT AND TOOLS FIELD STORAGE UNITS OR DREFTSUs ARE DEPLOYED TO POINTS NEAR THE HIGH RISK AREAS TO GIVE EASY ACCESS TO COMMUNITIES.

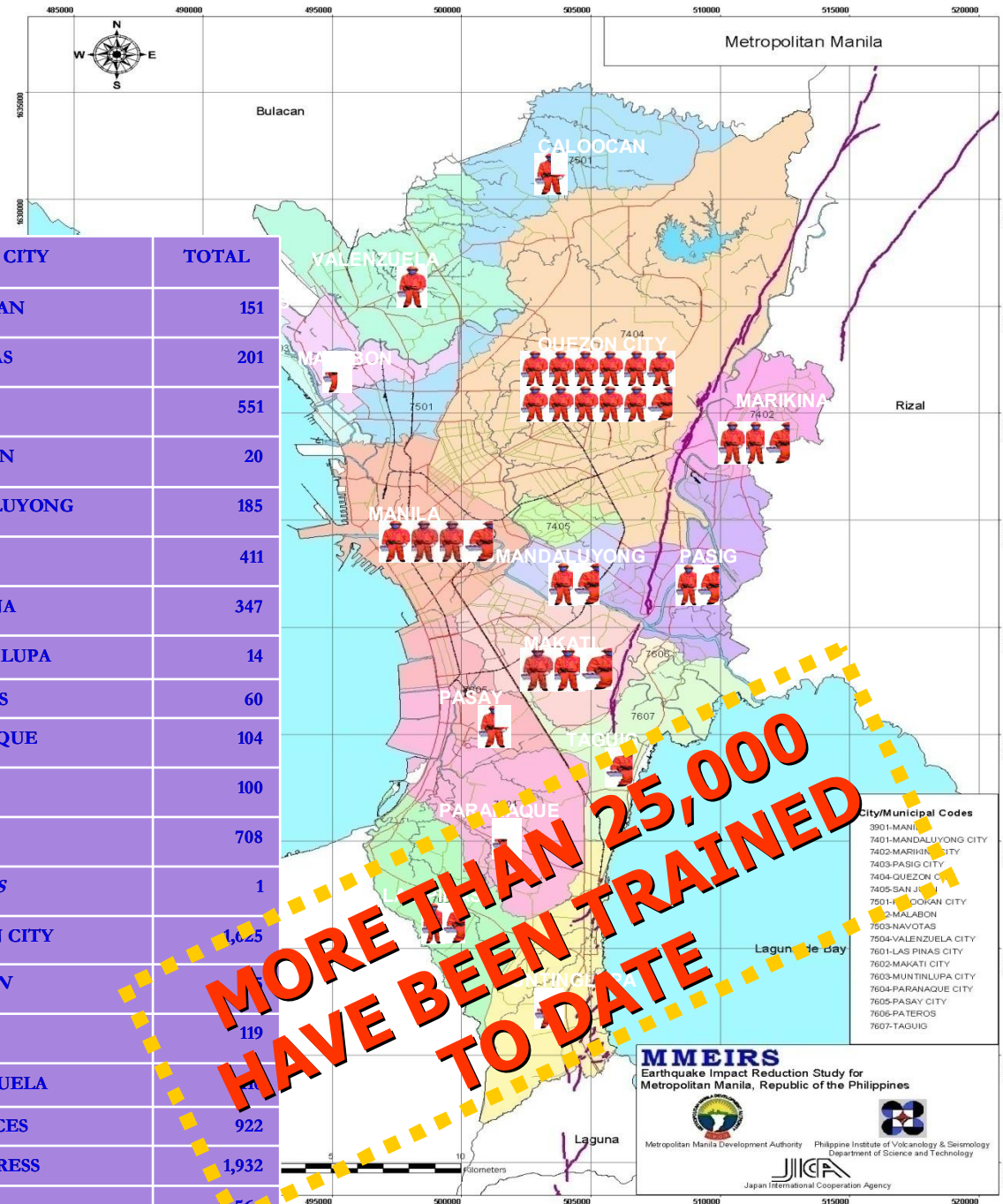


EARTHQUAKE SEARCH AND RESCUE TRAINING

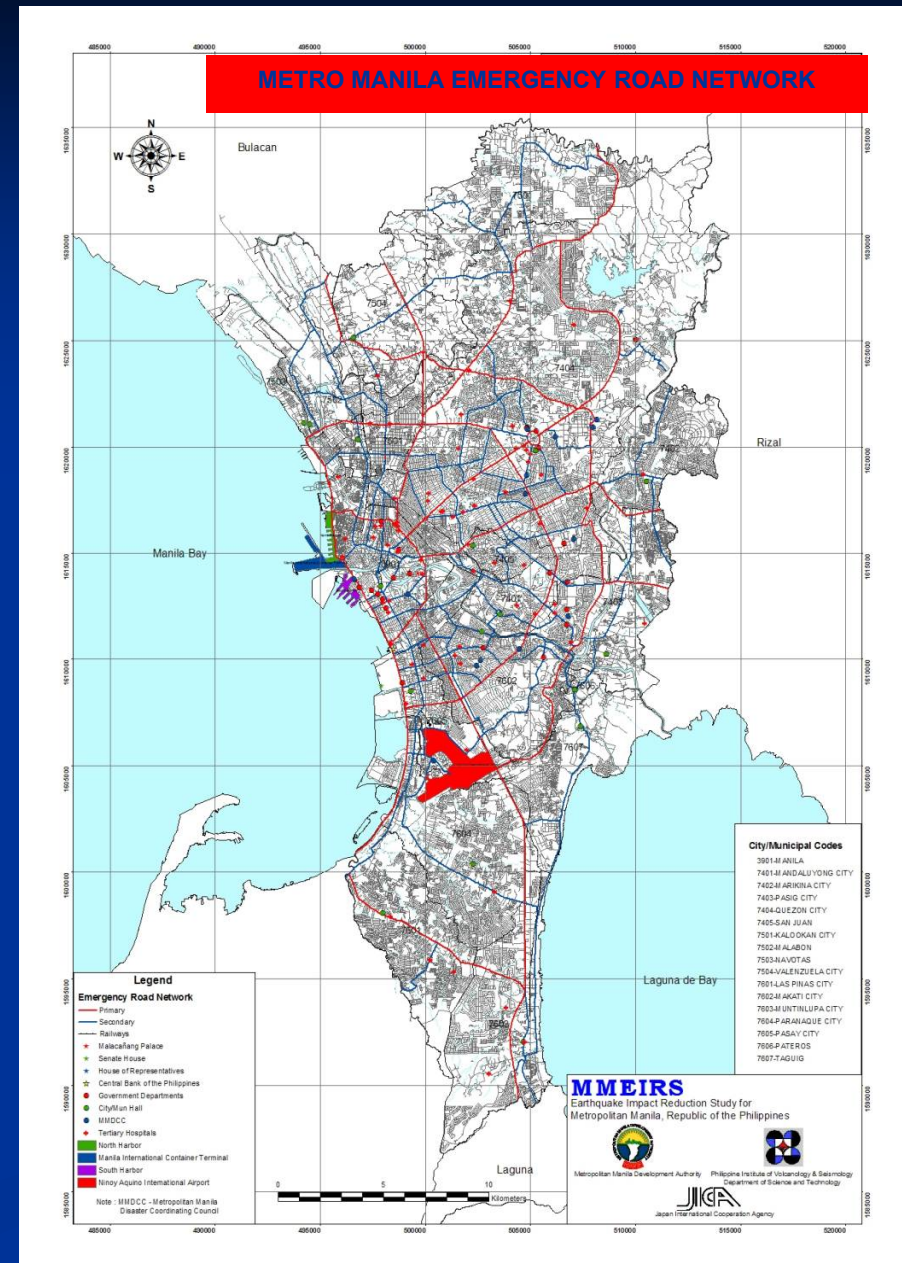
DATABASE OF TRAINED PERSONNEL IS KEPT AND MAINTAINED FOR MOBILIZATION AND OTHER FOLLOW-THROUGH ACTIVITIES



CITY	TOTAL
CALOOCAN	151
LAS PIÑAS	201
MAKATI	551
MALABON	20
MANDALUYONG	185
MANILA	411
MARIKINA	347
MUNTINLUPA	14
NAVOTAS	60
PARAÑAQUE	104
PASAY	100
PASIG	708
PATEROS	1
QUEZON CITY	1,025
SAN JUAN	
TAGIG	119
VALENZUELA	
PROVINCES	922
NO ADDRESS	1,932
TOTAL	7,560



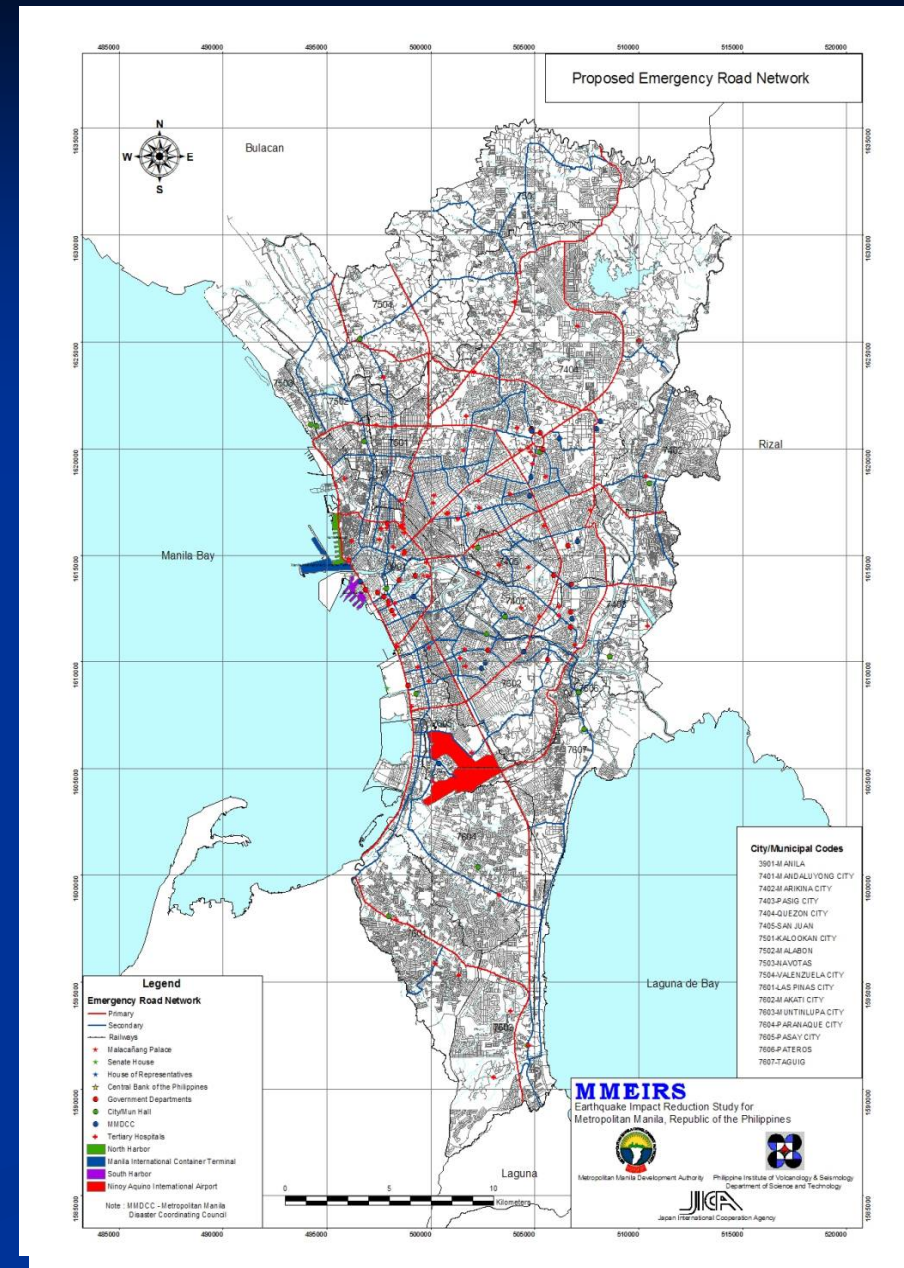
- GIVE PRIORITY TO CLEARING OF DEBRIS ALONG VITAL ROAD NETWORK TO FACILITATE MOVEMENT OF EMERGENCY SERVICES AND EVACUATION
- ENSURE LINK BETWEEN PORTS AND EOCS OR FROM HIGH-IMPACT AREAS TO MEDICAL FACILITIES
- OPTIMIZE UTILIZATION OF PNR, MRT AND LRT TRACKS FOR MOVEMENT OF SUPPLIES EVEN IF THERE IS NO POWER MAKING USE OF MAKESHIFT DIESEL OPERATED ENGINES OR HUMAN-OPERATED TROLLEYS



- **OPTIMIZE HOSPITALS NEAR RIVERWAYS IN THE EVENT OF TOTAL BREAKDOWN OF ROAD NETWORKS**

- **MAXIMIZE USE OF OPEN SPACES FOR MASS EVACUATION AND IF REQUIRED, CONSCRIPT PRIVATE VACANT LOTS LIKE:**

- **GOLF COURSES**
- **OPEN SUBDIVISIONS**
- **SPORTS ARENAS**
- **SAFE SCHOOL GROUNDS**
- **CEMETERIES**



CONCLUSIONS

- THERE IS NEED TO INCREASE AND SUSTAIN INTEREST ON DISASTER PREPAREDNESS AND RISK REDUCTION
- EQUIPMENT AND CAPACITIES HAVE INCREASED BUT STILL INADEQUATE TO MEET THE ANTICIPATED 7.2 M EARTHQUAKE & ONDOY-LIKE FLOODS
- COMMUNITY INVOLVEMENT IS VERY IMPORTANT
- PRIVATE SECTOR PARTICIPATION

**THANK YOU VERY
MUCH FOR YOUR
ATTENTION!**