QUEZON CITY
INTRODUCTION
PROFILE OF QUEZON CITY

Quezon City is one of the sixteen (16) cities and one (1) municipality that make up the regional urban agglomeration that is called Metro Manila in the Philippines. Metro Manila is the 11th most populous metropolitan area of the world and Quezon City happens to have the largest share of this population with 2.96 million people living in an area of 160 square kilometers or 39,813 acres.

Network of highways and mass transit systems serve the City, making it the central location of major activities in Metro Manila. About 125 national government offices and 25 government corporations are located in Quezon City. There are also more schools concentrated here than anywhere else in the country and it also houses the most number of hospitals.

The Quezon City Government’s strategies are geared towards adaptation and protection, with continuing programs to:
- reduce our constituents’ vulnerability to disaster risk;
- reduce the overall carbon emission of our city; as well as
- adapt sustainable practices in building construction.

All these aim to ensure a better future for our people.

The recent typhoons pushed the City Government to pursue with more earnestness an urban development framework anchored on disaster risk minimization and environmental management. The continuing challenge to the City Government is to balance the needs of urban development, with the just as important need for preserving and maintaining its green spaces. While still endowed with the widest open spaces of Metro Manila, its fast-growing and mostly young population exerts tremendous pressure to the city’s environment. Now, climate change considerations and disaster-risk mitigation guide the city’s new zoning policies, and housing and resettlement program for the poor.

POTENTIAL RISKS

Philippines has been identified as one of the most vulnerable countries to climate-related disasters. More than 20 typhoons visit the country each year and about five active fault lines have been identified, that is why it is not surprising that Philippines has been included in the top ten climate hotspots of the world. Being at the heart of Metro Manila, Quezon City is prone to the following disaster risks:

**Flooding**
Quezon City is within the catchment area served by a network of rivers and creeks. The City has five river systems with 44 tributaries, making about 78 areas in 35 communities prone to flooding when these rivers overflow.

**Earthquake**
Traversing in the City’s eastern portion is a fault line called the Marikina Valley Fault System, identified as one of the country’s most active faults. Seven (7) out of the twenty one (21) kilometers of the fault line pass through Quezon City, making nine (9) local communities or around 15,800 families vulnerable to earthquake risks.

**Fire and Epidemic**
With informal settlers living in highly condensed areas, Quezon City is also vulnerable to epidemics, such as the rapid spread of the dengue virus. Each year, more than 5,000 dengue cases are recorded in the City. And with its increasing population, this number is also bound to increase.

The City also experiences high number of fire incidents especially in the most congested areas of the City. Around 900 fire-related incidents are recorded per year, most of which occur during the summer months.
MAKING CITIES RESILIENT CAMPAIGN

Process Undertaken

Following the inclusion of Quezon City in the Making Cities Resilient Campaign, several meetings were conducted with the Action Team of the Disaster Risk Reduction and Management Council of the Quezon City Government to thresh out the implementation procedure and plan out the timeline and deliverables for the consultative workshops that will be conducted with various stakeholders.

Project implementation was divided into three (3) phases:

**Phase 1** will focus on gauging the overall level of preparedness and resiliency of the City to possible disasters based on the evaluation of the Barangay and the City Disaster Risk Reduction and Management Council (DRRMC).

**Phase 2 and 3** will highlight the evaluation of various people’s organizations in each of the 142 barangays of the City and other stakeholders (i.e., schools and private sector), respectively.

A program using Microsoft Office Access was developed by the City based on the online Local Government - Self Assessment Tool (LG-SAT) and this was used during the consultative meetings. The localized LG-SAT made it easier for the workshop facilitators and evaluators to document the process.

This year, five (5) consultative workshops were conducted for Phase 1. With the institutional responders doing the self-assessment, the discussion were mostly focused on highlighting the strengths of existing efforts while at the same time assessing the effectiveness of the City’s program on disaster risk reduction and management in order that weaknesses may be addressed.

For each session, the participants were divided into six groups - the barangays with similar location, land area and natural features were grouped together, while the groupings of the City DRRMC session were based on the roles and functions of each member in the City DRRMC. To assist them in answering the assessment tool, facilitators were also provided.

A total of thirty one (31) groups were formed from the five (5) meetings. Each group rated the City’s resiliency based on their knowledge and experiences as members of the DRRMC. Final ratings were based on the average ratings given by the participants.

**COMMENTS ON THE LG-SAT**

The process was highly appreciated by the institutional responders and they have in fact manifested that the same exercise will continue to be undertaken in each of their barangays.

The tool was able to assist the City Government in identifying the strengths of its existing program while at the same time, recognizing the limitations of its efforts. All the 10 essentials highlight different aspects in making cities resilient, which made it easier for the participants to comprehensively discuss and evaluate the City’s performance. The workshops became a venue of sharing of knowledge and best practices, hence, will be a continuing process for the City Government to further enhance its program.

Critical to this process is the identification of stakeholders that will participate as the ultimate goal is to comprehensively rate the City performance. At times, the varying levels of involvement in project implementation influence the result of the assessment.

Nonetheless, the LG-SAT is a straightforward tool and has guided the City Government in assessing its resiliency to disaster based on the 10 Essentials.
REPORT ON THE
10 ESSENTIALS
**Essential 1**

Put in place organization and coordination to understand and reduce disaster risk, based on participation of citizen groups and civil society. Build local alliances. Ensure that all departments understand their role to disaster risk reduction and preparedness.

Are local organizations (including local government) sufficiently equipped with capacities (knowledge, experience, official mandate) for climate and disaster risk reduction?

Are there partnerships between communities, private sector and local government to reduce risk?

Does the local government support local communities (particularly women, elderly, infirm, children) to actively participate in risk reduction decision-making, policy making, planning and implementation processes?

Does the local government participate in the national DRR planning?

**Description:**

Even before the enactment of Republic Act No. 10121 (An Act Strengthening the Philippine Disaster Risk Reduction and Management System, Providing for the National Disaster Risk Reduction and Management Framework and Institutionalizing the National Disaster Risk Reduction and Management Plan), Quezon City has been one of the most active teams in terms of instituting disaster risk reduction activities down to the community level.

To further improve its operations, the Quezon City Government legislated an Executive Order which seeks to strengthen the capacities and know-how of the Quezon City Disaster Risk Reduction and Management Council. The EO provides clearly defined roles of each member of the Council, with the Mayor as the Head and the Department of Public Order and Safety (DPOS) as the lead agency and Action Officer.

Regular meetings are being conducted by the City DRRMC with different agencies to ensure coordinated action on the City’s Disaster Reduction Program. Partnerships were also established to ensure that the DRRM team gets all the necessary support and information needed. Besides the City’s constant coordination with the Philippine Atmospheric, Geophysical and Astronomical Services (PAGASA), Quezon City has also signed an agreement with the Community Health Education Emergency Rescue Services (CHEERS), an Australian non-profit organization, for the provision of trainings on emergency rescues. This partnership will enhance the capacity of the disaster team and the volunteers as well.

While there is a multi-sectoral organizational structure and a well-trained DRRM team, the City still needs to focus on improving its existing strategies to strengthen the participation of the local communities and other stakeholders in the DRRM program. This also includes upgrading the existing equipment and enhancing the educational campaigns and trainings.
Essential 2

Assign a budget for disaster risk reduction and provide incentives for homeowners, low-income families, communities, businesses and public sector to invest in reducing the risks they face.

Are financial services (e.g. saving and credit schemes, macro and micro-insurance) available to vulnerable and marginalized households for pre- and/or post-disaster times?

Are micro finance, cash aid, soft loans, loan guarantees etc available after disasters to restart livelihoods?

Do local business associations, such as chambers of commerce and similar, support efforts of small enterprises for business continuity during and after disasters?

Are there any economic incentives for DRR actions (e.g. reduced insurance premiums for households, tax holidays for businesses)?

Does the local government have access to adequate financial resources to carry out risk reduction activities?

Description:

The City has enough resources to carry out extensive DRR activities. Part of the budget of each barangay is also allocated for disaster preparedness program. However, there seems to be inadequate knowledge on how to access the available funds.

There are also City Departments that were created for the purpose of providing services for the marginalized, especially victims of calamities/disasters. However, information on the micro-insurance and other financial services offered by the City still has to be disseminated further to local communities.

Suggestions to increase allocated funds for risk reduction and financial assistance to enable affected constituents to restart livelihoods were also raised during the workshops.
Essential 3

Maintain up-to-date data on hazards and vulnerabilities, prepare risk assessments and use these as the basis for urban development plans and decisions. Ensure that this information and the plans for your city’s resilience are readily available to the public and fully discussed with them.

Has the local government conducted thorough disaster risk assessments for various development sectors in your local government?

Are these regularly updated, e.g. annually or on a bi-annual basis?

Does local government regularly communicate to the community, information on local hazard trends and risk reduction measures (e.g. using a Risk Communications Plan) including early warnings of likely hazard impact?

Are local government risk assessments linked to, and supportive of, risk assessments from neighboring local government and state or provincial government risk management plans?

Do communities have access to information on vulnerability, disaster risk reduction, climate change adaptation measures, forecasts and early warning etc, in your local government?

Has the local government identified which livelihood (economic) sectors are the most vulnerable to the potential impacts of disasters?

Description:

Quezon City has been one of the few cities that have conducted the “Walk the Fault” project, a best practice that identifies the actual course of the earthquake faultline that will pass through the City.

With the help of the Philippine Institute of Volcanology and Seismology (PHIVOLCS), the City was able to identify the vulnerable areas in case an earthquake occurs. Dialogues have been started with the communities that are affected by the faultline. Apart from an earthquake disaster, the DRRM team has also determined the most flood prone areas and helped established early warning systems for the identified communities. One early warning practice being implemented is the effective cascading of weather updates during typhoons. PAGASA provides real time updates to the disaster team and the team then disseminates these updates to the 142 barangays to prepare their respective communities. Flood markers were also put up to the most flood prone areas.

The City is also part of the Alliance of 7, a union of seven municipalities/cities most affected during the Typhoon Ondoy in Sept 2009. The Alliance aims to equip the cities with proper skills through knowledge sharing to ensure that what happened in 2009 will never happen again.
Essential 4

Invest in and maintain critical infrastructure that reduces risk, such as flood drainage, adjusted where needed to cope with climate change.

- Do land use policies and planning regulations for housing and critical risk reducing infrastructure (i.e. drainage, flood controls) take current and projected climate risk and disaster risk into account?
- Are critical public facilities and infrastructure located in high risk areas adequately assessed for all hazard risks and safety?
- Have adequate measures been undertaken to protect these facilities and infrastructure from damage during disasters?
- Does your local government have an emergency operations centre (EOC) and/or an emergency communication system?

Description:

Quezon City pursues an urban development framework anchored on disaster risk minimization and environmental management.

The City's Task Force Waterways was created to jointly program the flood control strategy of the City. It is a multi-disciplinary team consisting of engineers, architects, urban planners and urban poor and resettlement experts. It is a local government team that coordinates extensively with national government agencies and affected communities. The Taskforce coordinates engineering works with resettlement strategies and oversees the city's drainage improvement programs. While considerable infrastructure improvements have been made, especially with the existing drainages in areas prone to flooding, the barangays feel that these measures have to be fast tracked to cover all areas of the City. The monitoring and maintenance of the drainage system also need to be strengthened.

The City's public facilities are regularly evaluated by the Engineering Department of the City. However, regular coordination between the Engineering team and the Barangays need to be improved in order to effectively implement initiatives to protect public facilities and infrastructures from major damages during disasters. Also, the City's concrete plans on relocating structures along river easements and faultlines have to be effectively communicated to the local communities thru the help of the barangays concerned.

The City has a central office and communication center for emergency response, which is the DPOS Rescue Office and Radio Office. These agencies coordinate with the different barangays for early warnings and relief operations during disasters.
Essential 5

Assess the safety of all schools and health facilities and upgrade these as necessary.

4 Have local schools and hospitals received special attention for "all hazard" risk assessments in your local government?

3 Are all main hospitals safe from disasters and have the ability to remain operational during emergencies?

3 Do the local government or other levels of government have special programs in place to regularly assess public infrastructure (especially schools & hospitals) for maintenance, seismic stability, general safety, weather related risks etc.?

4 Are regular disaster preparedness drills undertaken in schools?

Description:

Regular assessment of public school buildings is being undertaken and continuous structural upgrading is also being programmed for the safety of the schoolchildren.

The hospitals, on the other hand, have started upgrading their systems to ensure that they remain operational during calamities. East Avenue Medical Hospital, together with the Red Cross team, are finalizing the City's Emergency Medical Service. The hospital, being one of Quezon City's main public hospitals, has created a system in responding to various emergency situations wherein they have identified the hospitals to be tapped for specific types of emergencies.

The schoolchildren will be one of the most vulnerable groups when a disaster strikes. The City believes they should be given skills and information for them to be prepared, that is why the DRRM team has also been conducting emergency drills to the different public schools of Quezon City, particularly to those with the highest number of students.
**Essential 6**

Apply and enforce realistic, risk-compliant building regulations and land use planning principles. Identify safe land for low-income citizens and develop upgrading of informal settlements, wherever feasible.

1. Are local government DRR policies, strategies and implementation plans included within existing land-use and development plans (including community-based disaster risk management)?

2. Are land use regulations and building codes, health and safety codes enforced across all development zones and building types?

3. Is there a need to build or strengthen existing regulations (e.g. land use, building codes etc) to support disaster risk reduction in your local government?

**Description:**

The Quezon City Comprehensive Land Use Plan for 2010-2030 includes, as part of its critical development framework, considerations for disaster-risk reduction for the general population and for protecting environmentally sensitive areas. These considerations include preventing informal settlements from putting up structures on natural floodplains. A five-meter buffer zone along the earthquake fault line will also be implemented. The Earthquake Preparedness Program of the City is done in close coordination with the PhiVOLCS, for the precise determination of the faultline and danger areas. The City has also identified and alerted the 594 lot owners of properties living in or near this fault line. No new structures are allowed in this earthquake buffer area, which shall gradually be transformed into green linear parks. Markers along the faultline have also been established.

However, there is a need to continuously update these regulations and policies and improve the capacity of the City’s and barangays’ personnel to ensure that these new policies are strictly enforced.
Essential 7

Ensure education programmes and training on disaster risk reduction are in place in schools and/or local communities.

1. Does the local government regularly conduct awareness-building or education programs on DRR and disaster preparedness for local community?

2. Does the local government provide in-depth training in risk reduction for local officials and community leaders?

3. Do local schools and colleges provide courses, education or training in disaster and climate risk reduction as part of the education curriculum?

4. Are citizens aware of evacuation plans or drills for evacuations when necessary?

Description:

The DRRM team provides lectures and information campaigns that include actual demonstrations of survival management to empower the communities to develop their own survival skills. Starting with the City’s 142 barangays, the team has already conducted a disaster preparedness and rescue orientation course with more than 750 participants. Trainings per barangay have been continuously organized by the team, with 20 barangays having undergone the second set of disaster preparedness trainings. Different civil society groups, schools, non-government and private organizations have also benefitted from the same lectures and trainings. A coordination meeting was also organized with the building engineers of the 20 malls and shopping centers located in Quezon City to ensure that they have the proper skills and action teams to respond to their customers in case of emergencies and/or calamities.

The team has also started with an enhanced capacity building program that involves actual floodwater, high-angle and collapsed building rescue trainings. Next to undergo with the same trainings will be the Quezon City Hall Action team, which is composed of representatives from the different departments of the City Government.

Even with these efforts, there is still a need to enhance the capacity and knowledge on disaster preparedness not only at the City level but more so, at the community level.
**Essential 8**

Protect ecosystems and natural buffer zones to mitigate floods, storm surges and other hazards to which your city may be vulnerable. Adapt to climate change by building on good risk reduction practices.

Does the local government support the restoration, protection and sustainable management of ecosystems services (e.g. forests, coastal zones, wetlands, water resources, livestock, fisheries, river-basins) to reduce local vulnerability and protection against floods, drought, landslides or seismic hazards?

Do civil society organizations and citizens support the restoration, protection and sustainable management of ecosystems services?

Is the private sector a contributor and supporter of environmental and ecosystems management in your local government?

Description:

Currently, the City is defining buffer zones around the 2,700 hectare La Mesa watershed and ecological park, which is the source of drinking water for Metro Manila and which is a sanctuary for biodiversity. This buffer zone shall be a green area as well, wherein minimal structure will be allowed, and with land use favoring health and wellness and park recreational uses.

The Task Force Waterways attends to the inventory, repair and construction of embankments, as well as clearing and resettling of informal settlers whom have made their homes along embankments, and even on silted soil right in the waterways. These illegal structures constrict water flows, and may result in heavy damage to life and properties during heavy rains. The task force also integrates the development of linear parks along waterways in their strategies to prevent garbage from being thrown into rivers and creeks and to prevent and quickly detect illegal encroachments.

A Riverways Management Program has also been established to ensure that the waterways are garbage free. This is done by volunteers from the 142 barangays or community groups who remove garbage and other obstructions from the waterways.
Essential 9

Install early warning systems and emergency management capacities in your city and hold regular public preparedness drills.

- Do local institutions have access to financial reserves and essential emergency provisions to support effective disaster response and early recovery?

- Are early warning centers established, adequately staffed (or on-call personnel) and well resourced (power back ups, equipment redundancy etc.) at all times?

- Are regular training drills and rehearsal carried out with the participation of relevant government, non-governmental, local leaders and volunteers?

- Are sufficient amounts of emergency supplies (stockpiles of relief supplies) available at all times?

- Are emergency shelters available?

- Are safe evacuation routes identified, mapped and maintained and well communicated to the community?

- Does a contingency plan or a community disaster preparedness plan exist for all major hazards?

Description:

As part of the City's disaster preparedness program, the barangays have established a mechanism where public address systems are utilized to warn residents about the onset of disasters. The City also has an effective system of cascading weather updates during typhoons. PAGASA provides real time updates to the disaster team and the team disseminates these updates to the 142 barangays to prepare their respective communities. Flood markers were also put up to the most flood prone areas. Though these early warning systems have been established, the City acknowledges that there is still much to be done, more equipment/devices to be purchased and regular trainings to local communities to be conducted. An effective dissemination strategy of the City's disaster preparedness and contingency plans will also have to be established.

During calamities and disasters, barangay halls, covered courts and public schools are used as evacuation centers or temporary shelters for the victims. All barangays have identified the safe routes going to these facilities and have disseminated this information to their communities. However, the barangays do not stock emergency supplies, especially food and clothing, and they still depend on the Social Services Development Department (SSDD), which provides these services.
Essential 10

After any disaster, ensure that the needs of the survivors are placed at the centre of reconstruction with support for them and their community organizations to design and help implement responses, including rebuilding homes and livelihoods.

1. Does the local government have access to resources and expertise to assist victims of psycho-social (psychological, emotional) impacts of disasters?

2. Are disaster risk reduction measures integrated into post-disaster recovery and rehabilitation activities (i.e. build back better, livelihoods rehabilitation)?

3. Does the Contingency Plan (or similar plan) include an outline strategy for post disaster recovery needs including assessment tools, immediate livelihoods rehabilitation etc.?

Description:

Victims of calamities are assisted by the City during and after disasters through its various departments. Some of which are as follows: DPOS for rescue operations; SSDD for post-disaster provision of emergency food supplies and psycho-social counseling; City Health Department for post-disaster provision of medical assistance; and EPWMD for post-disaster cleanups. However, there is still a need to involve as many players as possible so that reconstruction efforts are easily done.