

Informality and Resilience: Quezon City

Purpose Statement

This city specific problem statement presents an overview of the current situation of informal settlements and analyses their vulnerability through a climate lens. It intends to generate discussion that will enable the formulations of solutions aimed at more inclusive decision making.

Rationale

Informal settlements are situated in highly vulnerable locations and the conditions of its residents are worsened by their inability to adequately meet the basic needs due to their socioeconomic status. Their informal status makes it difficult for them to gain access to government services. This reality does not only aggravate their situation to cope with daily survival but also deprives them of the opportunity to enhance their capacity to respond to the potential impacts of climate change in their areas. They are thus the

Box 1: Within the context of this study the following are the definitions that have been adopted

Informal Settlements are residential areas where 1) inhabitants lack security of tenure 2) the neighbourhoods usually lack, or are cut off from, basic services and city infrastructure and 3) the housing may not comply with current planning and building regulations, and is often situated in geographically and environmentally hazardous areas¹.

Slums are heavily populated urban informal settlement characterized by poverty and large agglomerations of dilapidated housing often located in the most hazardous urban land².

The term '**Climate Resilience**' describes the ability of a system to bounce back or recover from a climate imposed hazard³. The resilience of an informal settlement increases and the risk of disruption decreases if it has benefited from investment in robust infrastructure that is adapted to local conditions and built to anticipate future climate threats⁴.

most vulnerable section requiring the most support. Building resilience within Informal Settlements will raise the city bottom line which will in turn lead to a more comprehensive city development.

Approach

The study adopted a mix of qualitative and quantitative techniques to capture data. Secondary review of literature, Key Personnel interviews, Participatory Learning Appraisals in the settlements and collection of primary data from the municipality was conducted.

Informal Settlements in the Philippines and their Context within the Policy Framework

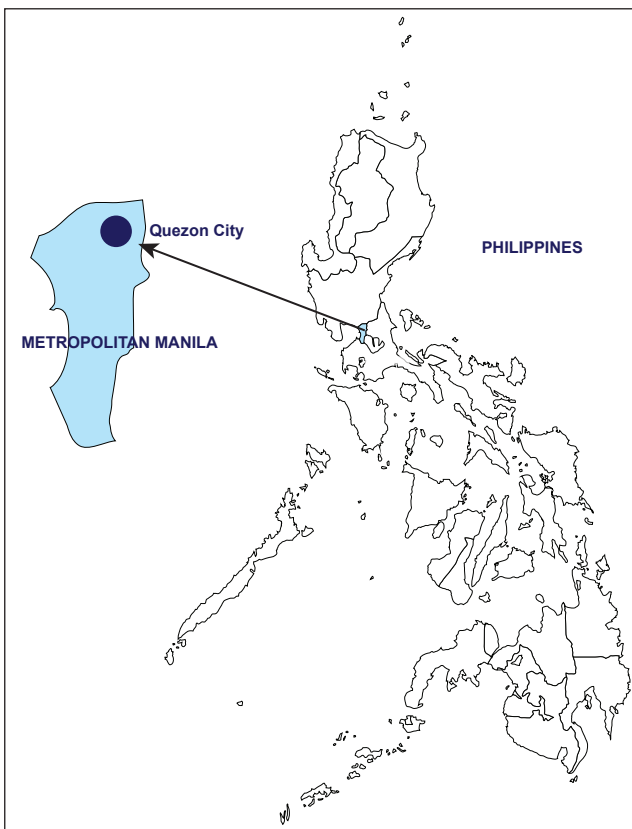
Informal settlements in the Philippines have grown by leaps and bounds. Informal settlement families (ISF) make up 15% (1.5 million) of the total urban population of the Philippines (Housing and Urban Development Coordinating Council- HUDCC⁵). In Metro Manila, households in informal settlements have increased by more than 81% between 2000 and 2006.

The Government's agenda in the Philippines has primarily been on the housing sector⁶. The development of the housing sector, more specifically the low cost housing sector, was a major component of the government's action agenda on poverty alleviation. In the 1970s, the National Shelter Program (NSP) was established to address housing for the poor. Slum upgradation was a major strategy under NSP. However, this was unsustainable due to huge budget requirements and the inability of government to tap private sector funds for the program. From the 1990s onwards, the NSP focused on: (a) provision of secure tenure through the Community Mortgage Program (CMP) and Presidential Land Proclamations; (b) Resettlement through the National Housing Authority (NHA); (c) housing loan through HDMF.

The Urban Development and Housing Act (UDHA) of 1992 otherwise known as Republic Act (RA) 7279⁷ was enacted to facilitate urban development with particular attention to underprivileged and homeless

1. Derived from UN-Habitat (2003), The Challenge of Slums; UN-Habitat (2013), The State of the World Cities Report 2012/13. Refer to Issue Paper No. 9 on Land for 'security of tenure' definition.
2. World Bank (2008), Approaches to urban slums; UN-Habitat (2015), Streets as tools for urban transformation in slums; Cities Alliance (2010), Building Cities; Cities Alliance, World Bank and UN-Habitat (2002), Cities without Slums
3. Holling, Crawford Stanley (1973), "Resilience and stability of ecological systems", Annual Review of Ecology and Systematics Vol 4, pages 1-23
4. Seeliger, Leanne and Turok, Ivan (2013), 'Averting a downward spiral: building resilience in informal urban settlements through adaptive governance'. Environment & Urbanization, International Institute for Environment and Development (IIED). Vol 26(1): 184-199. DOI: 10.1177/0956247813516240
5. Cruz, J. (2010). Estimating informal settlers in the Philippines. Housing and Urban Development Council.
6. Ballesteros, M.M., (2010). Linking Poverty and the Environment: Evidence from Slums in Philippine Cities. DISCUSSION PAPER SERIES NO. 2010-33. Philippine Institute for Developmental Studies.
7. Republic Act No. 7279. Urban Development and Housing Act of 1992.

citizens providing guidelines and procedures on the eviction of informal settlers and demolition of their houses. The law mandates Local Government Units (LGU) to undertake a Registration of Socialized Housing Beneficiaries subject to eligibility criteria. The National Informal Settlements Upgrading Strategy (NISUS)⁸ is being completed as part of the Philippine Development Plan for the last three years of the administration of President Benigno “Noynoy” Aquino, III. The NISUS is an initiative of the HUDCC with the funding and technical support of the Cities Alliance and the World Bank. The NISUS envisions that by 2025, “ISFs [are] transformed into formal urban residents in resilient, vibrant and connected communities.”



City Introduction: Quezon

Quezon City is classified as a highly urbanized city (HUC) and is the largest city in Metro Manila in terms of population size which is 3,177,435 (2015 census) and land area of 161.126 sq. km. which comprises almost one-fourth of the expanse of Metro Manila. The City is organized into six congressional districts where each district is represented by a Congressman in the House of Representatives. Quezon City is located near the centre of Metro Manila thus holding a strategic

convergence point for the metropolitan road networks therefore making the City an ideal distribution hub. The City hosts a number of major commercial establishments in the metropolis as well as home to the country’s major broadcasting networks. Quezon City also houses a number of national government offices and major academic institutions in the Philippines.

The Urban Poor Affairs Office (UPAO) established in 1986 and later on renamed to Housing Community Development and Resettlement Department (HCDRD) is mandated to “design and implement socialized housing and resettlement programs for Quezon City’s underprivileged residents and informal settlers and to conduct leadership training programs for urban poor communities.” According to the data provided by the Housing Community Development and Resettlement Department (HCDRD) of the Local Government of Quezon City, the City has an estimated ISF population of 195,875.

Situation Analysis

Asprer Informal Settlement in Quezon was surveyed.

Asprer Informal Settlement is located in Asprer Area, Quezon City, on land owned by the government, with a total area of three hectares situated near the Payatas Sanitary Landfill (SLF) that caters to all solid waste disposals of Quezon City. A total population of 491 ISFs reside here and the community is divided into thirty-two blocks each of which is designated with a block leader. A creek traverses the community area and empties into Marikina River. The land occupied was awarded to the settlers by the government after a Memorandum of Agreement was signed and a City Resolution was passed. Community members are gradually repaying the government for their land. A community organization comprised of elected officials and board members, administers the entire management of the community.

The proximity of the SLF to the community results in waste accumulation creeping into the settlements of surrounding communities endangering the health and environment of these communities. Drug use and alcoholism among youths and adults are of utmost concern within the community. Volunteer Barangay Security Point Officers (BSPOs) regularly monitor the security of the area, however, this remains to be difficult to achieve with the unbalanced ratio of vast area and limited number of volunteers. Many initiatives have been taken by NGOs and the private sector to provide the residents of the settlement with paved road networks, multi-purpose hall, health and sanitation facilities, and school facilities. Faithful Companions of Jesus (FCJ) and Children’s Mission Philippines (CMP) are two active organizations in the

8. ICF International.(2014, July).Developing a national informal settlements upgrading strategy for the Philippines.

settlement. These organizations work with the city government to ensure the delivery of services with the settlement. Figure 1 summarizes the current scenario in Asprer.

Institutional Support

The different programmes and policies that are currently applicable to informal settlements in Quezon city are summarized below.

- **The Urban Development and Housing Act of 1992** mandates LGUs to undertake a Registration of Socialized Housing Beneficiaries subject to eligibility criteria.
- **National Informal Settlements Upgrading Strategy (NISUS)** aims to address urban issues related to housing, resettlement, infrastructure, social services and job creation in poor urban communities.
- **Resettlement** (In-city and Off-city) which involves the acquisition and development of lands for housing units for displaced ISFs living in areas where government infrastructure projects are to be constructed as well as hazardous areas.
- **Slum upgrading** involving land acquisition and on-site improvement of lands occupied by ISFs through construction of roads or alleys and delivery of basic services such as water and electricity.

Looking at informal settlements through lens of climate change

Past Hazards

The Philippines is highly prone to typhoons, earthquakes, volcano eruptions and other natural

disasters. The Country is visited by an average of twenty typhoons every year. The wet season in Quezon city is from May to October. Similar to the rest of Quezon City, the threat of flooding is a problem of Asprer during typhoons and heavy rains. Asprer experienced the most devastating flooding during Typhoon Ondoy in 2009. The creek overflowed and families living along the creek were evacuated temporarily. The local NGO and the city government constructed a riprap on a portion of the creek to prevent flooding in the areas occupied by several households.

Climate Projections

The PAGASA's⁹ climate projection for Quezon district for the year 2020 is

- Increase in temperature by 1° C along with increase in the number of dry days
- Increase in the number of days with heavy rainfall

In addition a review of the existing literature as well as city level interactions with officials and settlement residents were undertaken to capture the perceptions on climate change impacts at the city level. It was found that Quezon City has been experiencing a rise in temperature and an increased frequency of high intensity rainfall. These trends are aligned with the national and district level projections.








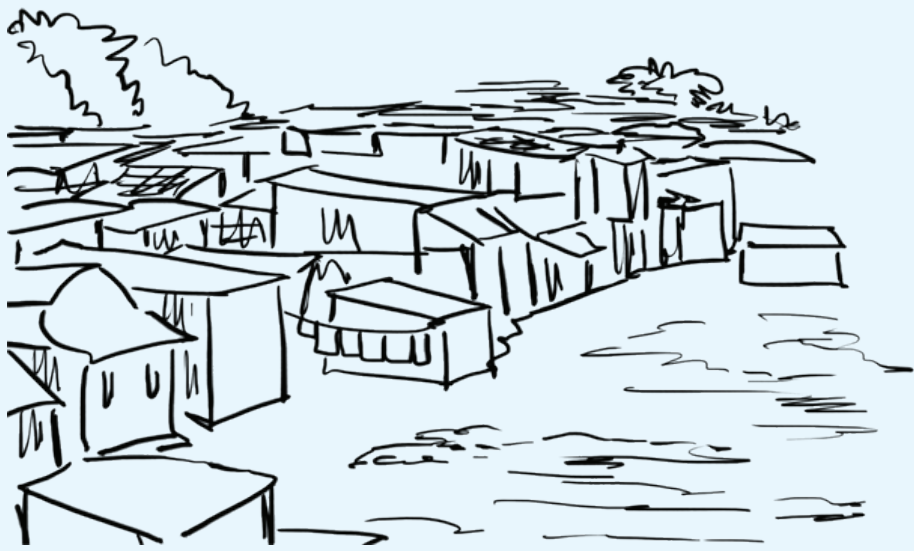
Climate Change and the Informal Settlements

Climate change will have an adverse effect on many sectors in Asprer (Figure 2). According to residents of the area, the creek has expanded and its condition worsened over the years due to increased levels of waste accumulation. This, coupled with an event of heavy rainfall, can lead to higher risk of flooding.





9. Philippine Atmospheric, Geophysical and Astronomical Services Administration. Climate Projections. Retrieved from <https://web.pagasa.dost.gov.ph/index.php/feeds/93-cad1/472-climate-projections#climate-projections-for-provinces>


Figure 1: Current scenario of Asprer informal settlement


CURRENT SCENARIO			
Asprer Informal Settlement Area			
 SOCIAL	Population	 1964	 PHYSICAL
	Health	 Tuberculosis, respiratory tract diseases, skin diseases, hypertension and diabetes	
	Crime	 Petty theft	
	Addiction	 Drug abuse and alcoholism	
	Leadership	 Existence of strong community organization	
			Housing
			Water supply
			Sanitation
			Solid Waste Management
			Storm Water Drainage
			Electricity
			Health
			Education


SCENARIO


nal Settlement
3 ha


	 Mixed housing	 ECONOMIC	Livelihood	 Waste-pickers, construction workers, sewing and selling of cloths, government employees and overseas Filipino workers
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	 90% have access to water supply
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	 Majority of households have toilets and septic tanks
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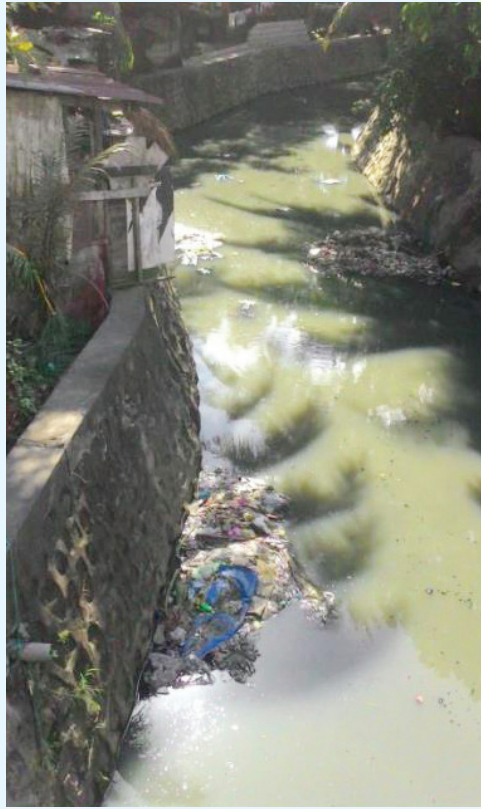
Management	 Household level segregation; twice a week door to door collection by the City Environmental Protection and Waste Management Department
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Drainage	 Covers the entire settlement. Solid waste is disposed into the drains.
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	 90 percent have access to electricity
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	 With NGO support, weekly visit of doctor ensured
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	 Public schools are 2kms outside the settlement. NGO run schools within settlement.
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The creek in Asprer has been ripped in order to protect these ISFs from flooding



Potholes in the paved roads that traverses the settlement



Figure 2: Future projections and vulnerabilities of Asprer informal settlement

CLIMATE S			
PAST HAZARDS			
 Flooding		 Typhoons - Typhoon Ondoy 2009	
PROJECTED			
SOCIAL		PHYSICAL	
	<p>Increased population will put additional pressure on resources and services.</p>		 <p>Increased chances of flood in close proximity to cre</p>
	 <p>Increase in water borne diseases, worsening of risks of disease spread by proximity to SLF</p>		 <p>Increased heating in tem</p>
	 <p>Increase in incidences of heat stress</p>		 <p>Contamination of potabl and infrastructure dama</p>
			 <p>Increased pressure on w</p>
			 <p>Increased water logging as a result of indiscrimin</p>
			 <p>Increased chances of fire</p>
			 <p>Increase in chances of wa blockages created by dur</p>
			  <p>Increase in pressure on h</p>

SCENARIO	
FUTURE PROJECTIONS	
 Increased Temperature	 Increased Precipitation

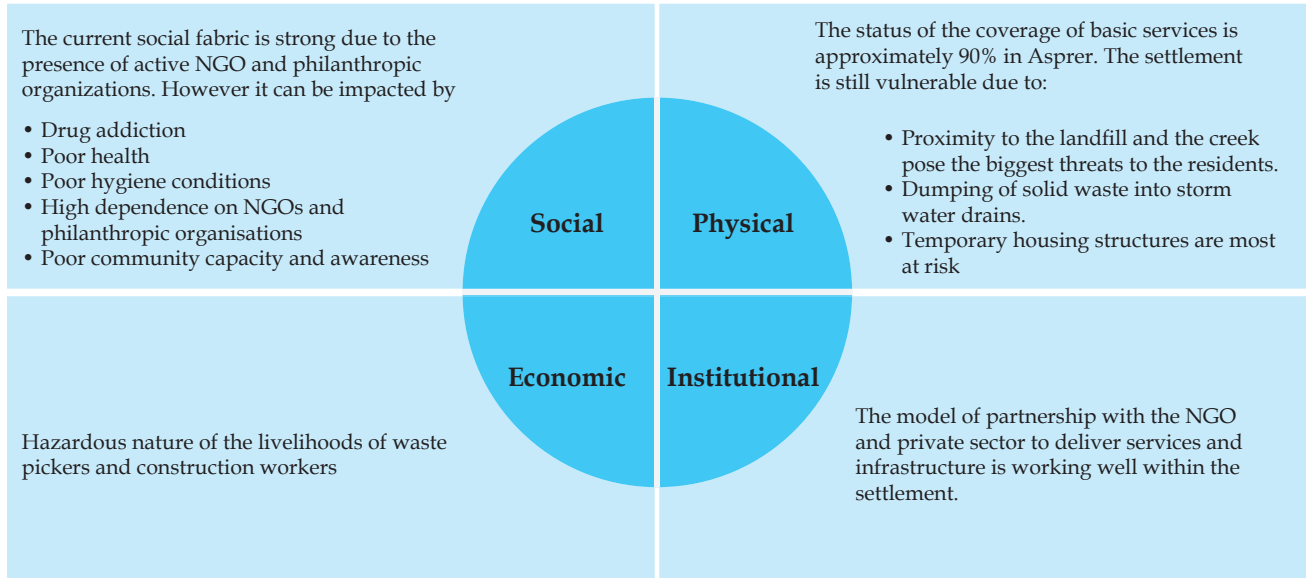
SCENARIO			
ECONOMIC			
Flooding in houses situated creek and temporary houses			Waste pickers most severely affected due to flooding.

- Temporary houses
- Excess water due to flooding
by typhoons
- Water supply system
- Water logging due to clogging of creek
and waste disposal
- Water logging in landfill site
- Water logging due to
dumping of solid waste.
- Health services



Problem Statement

Summarizing the situation of Asprer within the city, the following is the problem statement.



The greatest threat to the community living in Asprer is their location. The close proximity to a sanitary landfill and a creek that is prone to flooding makes them more vulnerable when viewed through a climate lens. While their social fabric and access to physical services is strong, it is largely due to the local NGO and philanthropic organizations working there. With the eventual discontinuity of the operations of these organisations in the area, the sustainability of basic services and resources is threatened. Furthermore, the poor awareness and capacity of the community with regard to impacts of climate change and disasters will affect ability to respond to climate shocks.