



Proceedings of the Resilient Cities 2017 congress

Session: Challenges and opportunities for building resilience in informal settlements

Harnessing the Potentials of Urban Gardens as Resilience Strategy

Case of Sitio Asprer, Quezon City, Philippines

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Abstract:

The inclusion of informal sector into the overall resilience planning is often a challenge for local governments primarily due to the sector's socioeconomic profile. Sitio Asprer is an informal settlement community in Quezon City, Philippines. Through a project supported by MISEREOR, ICLEI Southeast Asia Secretariat, Quezon City Local Government, and the University of the Philippines Los Baños worked with Sitio Asprer in establishing three urban gardens as a means of addressing economic insecurity and thereafter contribute to urban resilience building. The urban gardens are envisioned to 1) build a productive green space within the community; 2) improve the aesthetics of the community's surroundings; 3) address food security as co-benefit component; and 4) provide alternative source of livelihood and activities for residents. Three urban gardens have been set up through collective efforts of community volunteers. These gardens were already turned over to the community. On-site monitoring found that apart from being a source of local food supply, the gardens are able to provide additional income and promote social cohesion.

Keywords:

informal settlement, Philippines, resilience, urban garden, food security

1. Informal Settlement and Resiliency in the Philippines

Located in Southeast Asia, the Philippines is an archipelagic country divided into 18 geographical regions with approximately 100.98 million inhabitants as of 2015 (Philippine Statistics Authority, 2017). The National Capital Region (NCR), comprised of 16 cities and one municipality, is considered as the center of economic activity in the country.

Based on 2011 survey, there is an estimated 1.5 million informal settlers in the country. Of these, almost 40% live in NCR. These informal settlers fall within the income poverty thresholds estimated at PHP 92,172 (USD 2,183) per family per annum in 2012 (Habitat III Country Report, 2016). In 2014, a National Informal Settlements Upgrading Strategy for the Philippines was developed with a vision statement: *“Informal settlement families are transformed into formal urban residents in resilient, vibrant, and connected communities.”*

While the term “resilience” has no translation in the local language, it is often used in disaster risk reduction and climate change adaptation (DRR-CCA) discussions. DRR-CCA is an important agenda in the Philippines because of the country’s inherent vulnerability to disasters especially extreme weather events. Often, the informal sector reside in areas exposed to such hazards; their lack of adaptive capacity and access to safety nets render them more vulnerable when disasters strike.

With support from MISEREOR, the German Catholic Bishops’ Organization for Development Cooperation, ICLEI – Local Governments for Sustainability South and Southeast Asia offices implemented a project titled “Informal Sector and Urban Resilience” in 2016. The project assessed and relayed lessons learned on building urban resilience with particular focus on integrating the informal sector in planning and decision-making processes. One city each in India and the Philippines served as project sites.

2. Study Site

Quezon City, the largest city in NCR in terms of land area and population, served as pilot city in the Philippines. The city covers 161.126 square kilometers and has an estimated population of 2.94 million as of 2015 (Philippine Statistics Authority, 2017). Quezon City’s Housing Community Development and Resettlement Department (HCDRD) estimated that there are at least 195,875 informal settlement families

in the city as of 2014. Upon consultation with HCDRD, Sitio Asprer in Barangay Bagong Silangan was identified as pilot community for the MISEREOR project.¹

Sitio Asprer has a total land area of three hectares and composed of 491 informal settlement families. It is situated near the Payatas Sanitary Landfill which caters to the solid waste disposal of Quezon City. The area occupied by Sitio Asprer is owned by the City Government. A Memorandum of Agreement was signed and a City Resolution was passed which allowed the awarding of land to occupants through direct selling. At present, community members are gradually paying for their respective lots.

3. Urban Gardens as a Resilience Strategy

During the onset, project implementers conducted focus group discussions, key informant interviews, and immersion in Sitio Asprer to identify the people's problems and concerns. From the consultations, the following problem areas emerged: 1) high dependence on local nongovernment organization (NGO) support to provide and sustain basic services (e.g., sanitation, health, and livelihood); 2) economic insecurity; and 3) lack of awareness on climate change mitigation and adaptation resulting to lack of regard to sustain a safe and healthy environment. Following this, a solutions basket was developed and presented to the community. The establishment of communal urban gardens was identified as priority project. The community leader strongly supported this explaining that urban gardens can improve existing open spaces in the area.

The urban gardens are envisioned to 1) build a productive green space within the community; 2) improve the aesthetics of the community's surroundings; 3) address food security as co-benefit component; and 4) provide alternative source of livelihood and activities for residents. The College of Human Ecology, University of the Philippines Los Baños (CHE-UPLB) served as ICLEI's technical partner in establishing and setting up the urban gardens. Their study noted that "urban agriculture can tap social capital and social relationships communities. This is especially true for poorer parts of a city that may lack economic resources but has abundance of social and relational wealth."

3.1 Stakeholder Engagement and Buy-in

Stakeholder engagement and buy-in is crucial in any intervention as it determines the success or failure of a project. The Sitio Asprer Homeowners' Association (HOA) supervises the management of

¹ In the Philippines, the term *sitio* refers to a small area or zone that form part of a barangay. On the other hand, *barangay*, which roughly translates to "village," is considered as the smallest unit of government in the country.

community affairs and welfare in the project site. Hence, the project implementers coordinated closely with the HOA officials to ensure that key stakeholders within the community are represented, informed, and engaged during all stages of project implementation. The partnership with HOA eased the facilitation of consultation workshops regarding the project. Furthermore, the HOA officials were in-charge of information dissemination and feedback collection from community members to ensure active representation and participation during project activities. These were validated by the number of volunteers, especially women and youth, who participated both during the implementation phase and after the urban gardens were turned over to the HOA.

3.2 Setting up the Urban Gardens

Ocular inspection showed that there is a creek passing through Sitio Asprer. Since the area has a downward terrain, storm water drainage drains into the creek. A resident claimed that the creek's condition worsened over the years due to waste accumulation. The streets and vacant lots are also littered with solid waste including animal waste. These conditions contribute to the unsuitability of the soil and water in the area for urban gardening (UPLB, 2016).

To address these concerns, technical experts opted to utilize container gardening as a strategy. Soil materials were exported to produce healthy plants suitable for human consumption. The Enhanced Potting Preparation (EPP)² was employed as urban gardening technology. Plant species selected were based on food preferences and health needs of households in the community gleaned through survey.

A total of three sites were selected for setting up the urban gardens. These included the 1) Multipurpose Center (MPC) rooftop, 2) vacant lot beside the MPC, and 3) vacant lot beside the basketball court. Volunteers assisted during the set-up which lasted for three consecutive Saturdays. The collective effort made it possible to prepare the three sites with more than 800 containers and 31 plant species. Examples included basil, eggplant, lettuce, morning glory, stevia, tarragon, and tomato to name a few.

3.3 Sustainability of the Urban Gardens

² EPP uses plastic container (softdrink bottles) as pots, and compost soil mixture as potting medium supplemented by Compost Soil Extract (CSE) as organic fertilizer. Dr. Eduardo Paningbatan, a retired professor from UPLB, developed this technology.

The three urban gardens were officially turned over to the HOA last October 2016. The HOA was designated as managing organization of the urban gardens. Prior to the turnover, a management workshop was conducted to train the officials on how to effectively operationalize the production and marketing activities of the urban gardens. The urban garden's sustainability is highly dependent on the HOA's commitment to work together and maintain the gardens' productivity.

Recognizing the urban gardens' potentials, the organization added the management of urban gardens in their regular functions. The HOA designated two groups to oversee the gardens' daily operations and maintenance. An action plan was formulated to guide both groups and ensure that the urban gardens' optimal yield remains adequate for the community's consumption. It was also agreed that a portion of the income generated from the urban gardens will be secured to sustain production and envisioned expansion to supply nearby markets. In the future, it is hoped that Sitio Asprer can tap the assistance of the Quezon City Local Government as well as the Department of Agriculture to provide assistance in sustaining the urban gardens and devising competitive marketing strategies.

3.4 Benefits of the Urban Gardens

In the succeeding months following the turnover, the envisioned benefits of the urban gardens are already being felt by the residents. A qualitative, semi-structured interview with selected HOA members reflected their notions on the perceived benefits of the urban gardens.

Source of Local Food Supply. Florida de Loyola Lambot, 64, recalled that tending to the gardens enabled her family access to fresh and affordable supply of vegetables and herbs. Community members involved in managing the gardens are allowed to harvest any plant of their liking, provided that they pay for these for a very minimal amount. Narratives from other HOA members reflected that having supplies of vegetables and herbs in the community reduced the need to go to the town market, located approximately two kilometers away from Asprer. While there are no statistics to support this claim, some interviewees noted that the residents' nutrition improved since families are able to prepare healthier dishes from their harvest.

Potential for Income Generation. To date, income generated from the gardens are kept by the HOA's treasurer. Proceeds from harvest sales are safeguarded until they can buy more seedlings, soil, pots, and other supplies. For sustainability purposes, the HOA decided not to distribute profits to their members yet until they find a bigger market for their products. Despite this, members are satisfied with the current financial model. The HOA also shares a collective vision of making the gardens last for generations to come.

Opportunity to Promote Social Cohesion. Apart from providing alternative livelihood to community members, interviewed participants reported that since they started managing the gardens, they found worthwhile activities to pass their time with. Atanacio Barcinas, 48, had a sickness that rendered him unable to work. He usually spends time at home but when he started getting involved with the gardens, he found an activity that helps him exercise, stay connected with the rest of the community, and achieve a general feeling of happiness. Atanacio's experience is echoed by most interviewed participants, particularly the elderly, as most of them are always at home. Gardening proved to be a productive physical activity that serves as foundation of social activities as well.

4. Conclusions and Recommendations

Working with the informal sector requires an in-depth understanding of their local context including the issues they face on a daily basis. Hence, resilience needs to be approached from a human development perspective. It should be communicated in a way that is understood by the community members. The resilience discussion with Sitio Asprer started with the question: "what are your main problems?" rather than "how can you make your community more resilient?"

By identifying economic insecurity as one of the community's pressure points, the idea of establishing communal gardens in Sitio Asprer came about. Through continued consultations and mentoring, the project gained traction and support from community members. Now, Sitio Asprer is harnessing the benefits of their urban gardens. The gardens have become a source of local food supply while also generating income for the HOA. On-site monitoring also showed that the urban gardens helped enable the re-integration of senior citizens into the community. The elderly consider looking after the gardens as their leisure activity.

Since the project is relatively new to the HOA, it is best to set up a knowledge management system to capture and document experiences, learnings, and challenges relative to management of the gardens. It is also recommended that the HOA and key stakeholders are equipped with basic business management and financial literacy training to ensure that the HOA comes up with a viable and feasible business model. In the future, it will be ideal if the HOA can identify institutions and establishments which can buy their harvest on a regular basis.

In the Philippines, various projects are underway to involve the informal sector in resilience planning and implementation. This is part of ICLEI Southeast Asia's efforts to contribute to this initiative. While the urban gardens are still at piloting stage, they have shown potential for replicability and scaling up. More

importantly, the story of Sitio Asprer shows that collectively, the informal sector can help create a more vibrant and resilient community.

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Additional Reading

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Acknowledgements

The authors would like to acknowledge the support provided by MISEREOR in funding this project and Quezon City Local Government for their help in identifying the target community. The authors also recognize the technical expertise provided by Prof. Efraim Roxas of the Department of Community and Environment Resource Planning (DCERP) of the College of Human Ecology, University of the Philippines Los Baños (CHE-UPLB) and Dr. Eduardo Paningbatan, retired professor from UPLB, in setting up the urban gardens. Most importantly, the authors thank Sitio Asprer residents for their time and effort during project implementation.

Attachments

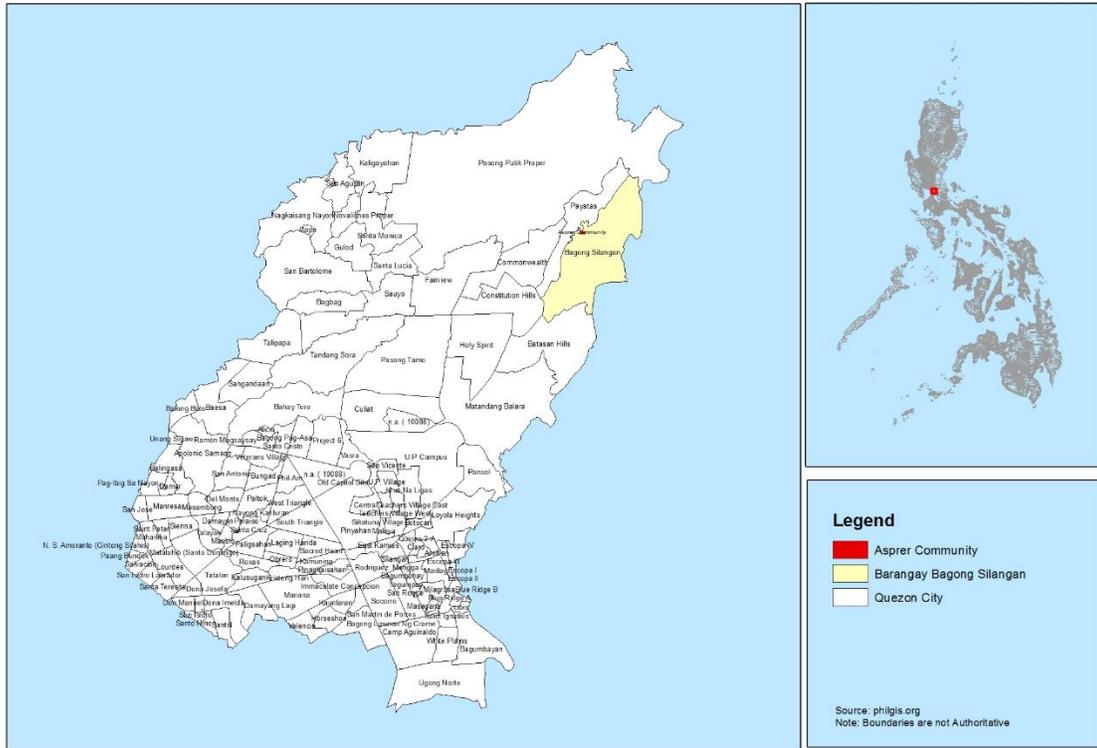


Figure 1. Location map of Sitio Asprer (Source: UPLB, 2016)



Figure 2: Spot map of the three urban gardens (Source: Google Maps as cited by UPLB, 2016)

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