

POLICY IMPLICATIONS OF URBAN GREENING TO SUSTAINABLE GENTRIFICATION: A CASE  
STUDY OF QUEZON CITY, PHILIPPINES



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Rapid urbanization entails a number of urban problems that need to be confronted. There is a call to utilize urban spaces while observing the pillars of sustainability wherein the harmony among aspects such as economic, social, and environmental must be achieved. Urban greening, a tool for urban planning is one of the solutions being seen by different stakeholders globally in addressing urban problems. However, in the process of urban development, gentrification, an unchecked phenomenon arises. The movement of middle class people to either developed or redeveloped urban areas can possibly entail social issues such as displacement and exclusivity of urban projects. In this regard, urban policies play a huge role in achieving sustainable cities. Having Quezon City, Philippines as the study area, this research looks at the possible relationship between urban greening and green gentrification, a kind of gentrification that is triggered by green initiatives. This study uses a mixed-method approach to further understand the relationship between urban greening and green gentrification. Quantitative data are derived from questionnaire while qualitative data are derived from in-depth interviews and policy study. Modes and percentages are used to analyze quantitative data while content analysis is used to derive qualitative data. Research results from various tools mentioned are cross-examined through data triangulation deriving the following research findings: *Friction between Social and Economic Development, Manifestation of Urban Greening Policies in the Case Study Area, Infusion of Sustainable Considerations, and Indication of Certain Trade-offs in the Process of Urban Development as the Phenomena of Gentrification, Green Gentrification, and Urban Greening Coincide*. Since the process of gentrification amidst urbanization is something that cannot be easily halted in this period of time, a number of policy recommendations are provided in this study trying to look at the possibility of seeing gentrification in a sustainable manner, hence sustainable gentrification.

Field of Study: Environment, Development and Sustainability      Student's Signature .....

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## CHAPTER I INTRODUCTION

### 1.1 Background of the Study

Urbanization can be present as a society develops. As cities increase in population, economies of scale are being formed (Liu et al., 2022). However, in the twenty-first century, it would be a great risk if societies would look at development through the economic lens alone. One of the fundamental definitions given to the term development tells that it refers to 'good change' (Chambers, 1997). But a good change is apparently broad and vague as it entails a lot of considerations such as the context of the community, and the policies best suited for them. In the year 1972 when the United Nations (UN) Conference on the Human Environment took place in Stockholm, international communities explicitly agree to the notion of sustainable development. Fifteen (15) years after the UNCHE, in the report of the World Commission on Environment and Development entitled "Our Common Future", sustainable development receives proper recognition and is defined as "the development which guarantees meeting the needs of the present generation without reducing the ability of future generations to meet their own needs" (Hajian and Kashani, 2021). Following that, sustainability model having three pillars (which are economy, society, and environment) is popularized aiming for a development that caters the needs of the present generation without jeopardizing the needs of the future generations.

Globally, most countries adhere to the principles of sustainable development. Nevertheless, there is still an internal friction taking place among the three pillars- economy, society, and environment. Failing to achieve harmony in these three produces conflicts. If one pillar surfaces the other, it gives unintended consequences that degrades the other pillars. For instance, an urbanizing city seeing the need for economic development may focus on attracting income generating establishments such as malls. However, land-use change can lead to degradation of land, and pollution. And, in some cases, it implies displacement.

As urbanization is continuously increasing and a number of urban issues continue to surface along with it, the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) in 2016 adopted the “New Urban Agenda”. In this conference, another perception about the cities was put into light- “that cities can be the source of solutions to, rather than the cause of, the challenges that our world is facing today” (UNCHSUD, 2015). This paradigm shift from the New Urban Agenda highlights that if a city is well-planned and well-managed, urbanization can be a tool for sustainable development.

This research studies urban greening, an urban planning tool to mediate problems related to urban living and betterment of quality of life (Sharifi, et al., 2021). Urban greening according to Gould and Lewis (2017) includes the literal increase in the amount of green spaces like parks; however it also extends to green initiatives such as “increasing the energy efficiency of buildings, developing public transportation, providing healthy, locally sourced food, and improving recycling programs”. The aforementioned explanation about urban greening by Gould and Lewis is the working definition of this study.

In this generation wherein the call for going ‘green’ has becoming of great importance, various benefits of urban greening are indeed being highlighted. However, in its implementation as a tool, some issues of social equity, can possibly arise. One of which is gentrification.

The term ‘gentrification’ is coined by Ruth Glass, a British sociologist in the year 1964. In the introduction of the book of essays entitled London, Aspects of Change, Glass describes the image of changing neighborhoods in London. It is of great importance to look back at how Glass presents the concept of gentrification as Atkinson and Bridge (2005) note that it can be a way to judge the history of gentrification, and gentrification research in the next four decades after its birth as a concept. Following Glass’s article, a number of researchers explore in order to contribute to understanding gentrification. That is the reason why presently there are a number of definitions that help in giving light to it. Gentrification in the course of time has become a complex topic for study as it is now being applied to different fields of study. Covering a wide range of discipline, different manifestations of

gentrification are now being put into consideration aside from how Glass sees it as a form of residential gentrification. Most literatures related to it discuss the impact of gentrification to socio-economic, and even political aspects of neighborhoods. However, that puts the environmental aspect into jeopardy.

As a developing country, the Philippines experiences rapid urbanization especially within the National Capital Region (NCR), also known as Metropolitan Manila, or Metro Manila. Quezon City (QC), a highly urbanizing city resides in the northern part of Metro Manila. In a newsletter, Ben Rosario (2020) elaborates the report of Commission on Audit (COA) of the Philippines, hailing QC as the richest city in the county in 2020. Aside from the city's wealth, QC is also well-distinguished as it has the largest population and the largest territory within NCR. With that distinction, QC is a fitting place to conduct a ten-year study on how it aims towards sustainable development. Using policies promoting urban greening of the said city, stakeholders try to confront social and environmental issues while observing economic growth to achieve sustainable development. This study looks into the gap between the efficiency of "going green" through policies, and gentrification. Urban greening policies and initiatives are analyzed and evaluated to see if they actually addresses environmental issues or if they just lead to another form of gentrification, that is green gentrification (also known as ecological gentrification, eco-gentrification, and environmental gentrification) which focuses on building, and transforming areas into green spaces and green infrastructures.

## **1.2 Significance of the Study**

Given the fact that the Philippines is a developing country, a lot has been happening in the present times that make the living condition, especially in the metropolis indeed fast-paced. In terms of neighborhood change in Novaliches-Lagro, one of the five growth centers in Quezon City, an evident ongoing transformation has been happening entering the twenty-first century. Fairview Terraces, a mall under the Ayala Corporation is built and opened in the year 2014, alongside with Robinsons Novaliches Mall in 2001, and adjacent to SM Fairview in 1997. Aside from these malls with luxurious stalls, gated residences are also present. The area has The Redwoods

Fairview and Trees Residences, both mid-rise condominium under DMCI Homes, and an on-going high-rise condominium project under Euro Towers International Inc., called Milan Residenze. And to reach the location with an ease, an MRT line, MRT Line 7 in particular, is presently being constructed in the area headed by the national government under Public-Private Partnership (PPP).

In this study, the above-said changes are not being seen as negative drivers of the neighborhood of Novaliches-Lagro, Quezon City. Apparently, these infrastructures contribute on the socio-economic development of the city. These projects also adhere to the legalities and policies set forth by the city that is why they are either being built or already built. However, it is of great importance to assess how these changes meet the objectives of urban greening. Global Lead City Network (GLCN) on Sustainable Procurement quotes city mayor Ma. Josefina Belmonte as she said: *“Quezon City prides itself as one of the pioneer cities on eco-governance. We have incorporated a deep sense of responsibility towards the environment as reflected in our policies on environmental protection and climate change”*.

Even though there are policies aiming to protect the environment and to address climate change in Quezon City, the relationship between urban greening and gentrification still remains undetermined. It is the main problem that this research address. By reviewing certain policies of the city, this study determines if or if not urban greening catalyses green gentrification. The findings of this research offers tremendous help in crafting future possible policies that would indeed support the intentions of Quezon City in realizing a kind of development inclining towards a more sustainable city.



### 1.3 Research Questions

This research aims to answer the following questions:

What is the current relationship between gentrification and urban greening in Quezon City?

- What are the current policies in Quezon City that are linked to the phenomenon of gentrification?
- What policies set forth by the Quezon City Local Government aim towards urban greening?
- What are the implications of Quezon City's policies inclining in going "green" to the phenomenon of green gentrification?
  - Does urban greening catalyze green gentrification?

### 1.4 Objectives of the Research

The objective of this thesis are as follows:

- To identify the current policy and its implications on gentrification in Quezon City
- To study the policies linked with urban greening in Quezon City
- To analyze the gap, potential, and possibilities between gentrification and urban greening
- To propose policy recommendations for the potential implication of urban greening with green gentrification

### 1.5 Expected Outcomes

Prior studies examining the link between urban greening and green gentrification had different outcomes. On the one hand, the study conducted by Sharifi et al. (2021) concluded that gentrification actuates urban greening. On the other hand, Wu and Rowe (2022) stated that the increase in green spaces trigger gentrification. In this study, the possible link between urban greening and green gentrification is understood by identifying and studying the current policies of Quezon City within a chosen time-frame. Generally, the researcher expects a relationship between urban greening and green gentrification. And upon analyzing the policies relating to urban greening, and seeing its link with green gentrification, the researcher tries to figure out if there can be a way to balance aspects such as economic, social, and environmental in the midst of the gentrification process-hence, sustainable gentrification.

### 1.6 Research Framework

In order to meet the research objectives and thus answer the research problems, the researcher implemented a mix-method case study. Figure 1 shows the flow of the study. This research framework shows how logically linked all the parts of this research are.

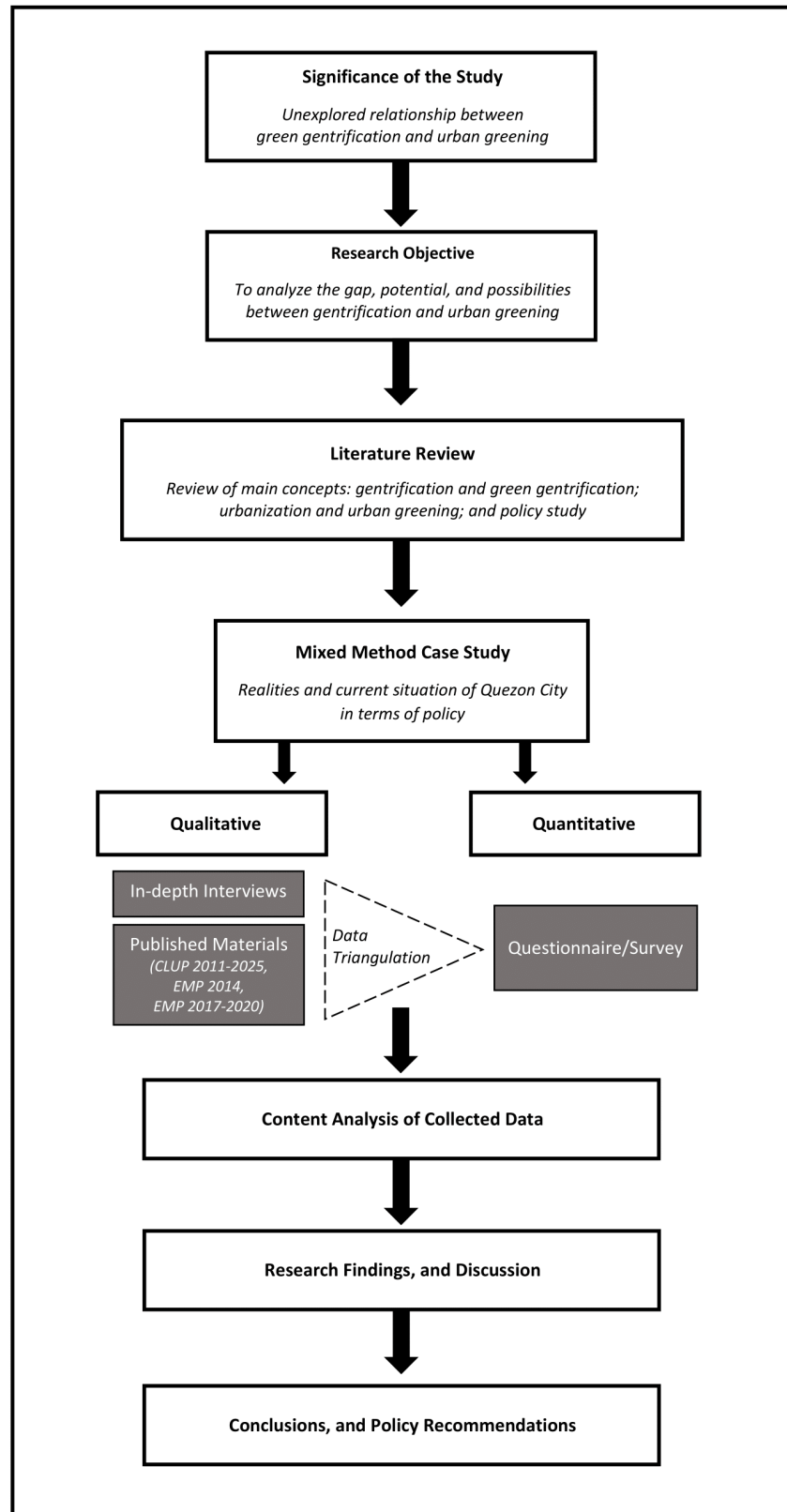


Figure 1. Research Framework.

In the significance of the study, the problem was being shown, and that is the unchecked relationship between green gentrification and urban greening. By being able to understand the importance of conducting this study, the questions and objectives were raised. To further understand the theories and concepts, chapter two focused on the review of related literature which provided an overview of the theories and concepts involved in this study. After being grounded with the fundamental theories and concepts, a mixed method case study was conducted. The research methodology and the case study area were discussed in chapter 3. The data gathered in the case study were analyzed through content analysis and were presented in chapter 4, Research Results. In the next chapter, the results from chapter 4 were then studied and cross-examined through data triangulation to derive reliable and corroborative research findings. In the same chapter, those finding are also discussed. Finally, conclusions and policy recommendations obtained from the research findings were provided by the researcher covering chapter 6.



## CHAPTER II

### LITERATURE REVIEW

#### 2.1. Introduction

The literature review of this research is divided into three sections. The first section introduces urbanization and the need of the implementation of urban greening within cities. The following section provides a brief history of the gentrification theory and green gentrification, and the integration of green gentrification with urban greening in various studies. The context of the Philippines in terms of gentrification studies is also provided and discussed. And lastly, an overview of policy study, policy cycle, and the concept of policy failure are tackled.

#### 2.2 Urbanization

Before mulling over to the definition of urbanization, it is of great importance to first understand that urbanization should be seen as a historic continuous process as it is not just a modern phenomenon (Chaolin, 2020). As a historical process, Chaolin (2020) further explains that urbanization is “initiated by the growth and development of industrialization, modernization, and globalization and accompanied by changes in population, society, economy, culture, politics, and ideology”. That premise implies that a lot has been being put into consideration shaping the common understanding about urbanization in the present.

One fundamental understanding about urbanization is that it refers to the concentration of population into urban areas such as towns and cities of a particular territory (Chaolin, 2020). The increase of population may seem easy to be understood; however, it also entails transformations that serve the needs of humanity. These transformations produced by urbanization are being linked with ‘built environment’ which according to Karen Franck “include[s] buildings and interiors as well as designed open spaces such as streets and plazas, neighborhoods, communities, and cities” (2005).

Even though the transformations that has been taking place alongside urbanization cater human needs toward a quality life, recent studies show how the drivers of urbanization stated by Chaolin inflict negative impacts especially in the environment. As Jinqiang He et al. (2017) argue, increasing pressure on the environment is being created by urbanization. Socio-economic factors are being considered alongside the process of urbanization which, at some point put the environment in jeopardy. To confront that problem, increasing number of studies are trying to link the relationship among urbanization, economic development, and environment. One of the tools being considered is urban greening (Sharifi et al., 2021). Presently, urban greening is being considered globally. To respond to the ecological crisis that has been happening due to urbanization, cities and mayors are leading the way in ‘going green’ (Gould and Lewis, 2017).

### **2.3 Gentrification**

The roots of the term ‘gentrification’ can be traced in Western countries considering that it was first coined by Ruth Glass, a British sociologist in 1964. The creation of the term began by the way Glass described the neighborhood of London:

“One by one, many of the working class quarters of London have been invaded by the middle classes, upper and lower. Shabby, modest mews and cottages- two rooms up and down- have been taken over, when their leases have expired, and have become elegant, expensive residences. Large Victorian houses, downgraded in an earlier or recent period- which were used as lodging houses or were otherwise in multiple occupation- have been upgraded once again. Nowadays, many of these houses are being subdivided into costly flats or ‘houselets’ (in terms of the new real estate snob jargon). The current social status and value of such dwellings are frequently in inverse relation to their size, and in any case enormously inflated by comparison with previous levels in their neighborhoods. Once this process of ‘gentrification’ starts in a district, it goes on rapidly until all or most of the original working

class occupiers are displaced, and the whole social character of the district is changed” (Glass quoted in Atkinson and Bridge, 2005: 4).

Simply being put, gentrification refers to the process wherein urban spatiality is experiencing an “upward” transformation (Gray and Wyly, 2020) that causes the movement of middle-class people to lower-class neighborhoods that was developed. It is of great importance to look back at how the term gentrification was given birth by Glass as it shaped the way the theory was studied in the succeeding four decades.

### 2.3.1 Waves of Gentrification

After the coinage of the term gentrification, further studies have been developing making it more complex and diverse. One way to understand its development and how we perceive the theory in the present times is through its waves or periods.

After Glass, Jason Hackworth and Neil Smith introduced the first three waves in *The Changing State of Gentrification* in 2001. It was then followed by the introduction of the fourth wave by Loretta Lees et al. in *Gentrification* published in 2008. Ten years after the spring of a fourth wave, Manuel Aalbers argues that we now entered the fifth-wave of gentrification which is characterized by “materialisation of financialised or finance-led capitalism” (Aalbers, 2018).

One of the commonalities that is evident in each wave is the neighborhood transformation that happened in a certain period of time. What differentiates a wave to other waves are the driving forces of gentrification. In figure 2, Hackworth and Smith provided a timetable for the first three waves of gentrification.

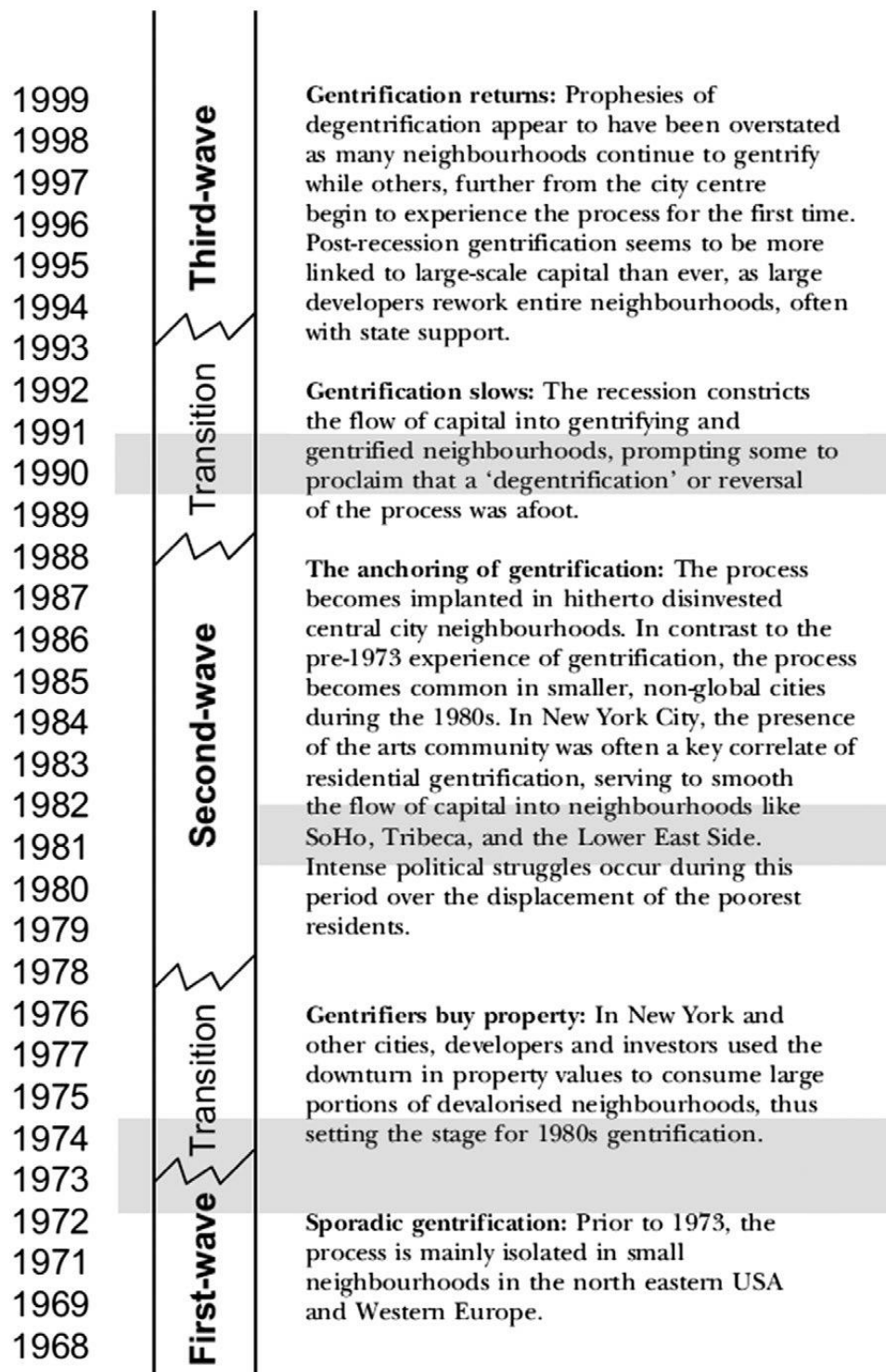


Figure 2. History of the First Three Waves of Gentrification (recessions in grey).

Source: Hackworth and Smith (2001), Aalbers (2018).



The schematic history of gentrification by Hackworth and Smith clearly shows the different neighborhood changes that had happened in the context of the United States of America (USA) from 1968 to 1999. The state played a huge role in generating capital to certain neighborhoods that were studied. In the fourth wave of gentrification, the concept of financialization of housing reflected on pro-gentrification politics and urban policies was given highlight by Lees et al. (2008). The transition between third wave and fourth wave shows nothing much transformation in the manifestation of gentrification but rather an intensification. Similar stance can be seen in the studies of Urban Geographer, Brian Doucet in 2014, and of Aalbers in 2018, who then proposed that we are now in the fifth-wave of gentrification. Contrasting from the fourth wave by Lees et al., fifth-wave:

“is not simply about the financial sector facilitating homeownership through mortgages (as in earlier waves), but also about finance taking a stronger foothold through the rise of corporate landlords (i.e. landlords backed by international capital markets) and platform capitalism (e.g. Airbnb)” (Aalbers, 2018).

Considering the historical development of gentrification through various studies, neighborhood changes mostly gear towards the socio-economic, and even political aspects. It is clear in the transition of waves that economic crises that had happened in various places in the past push local and state governments in ‘revitalizing’ urban spaces to attract middle-class residents that would eventually strengthen the flow of capital. Economic development still is development; hence it has positive impacts. However, focusing on it alone while jeopardizing other areas of development (i.e., social, and environmental) would definitely be problematic. Because as Aalbers (2018) describes the fifth-wave, gentrification is not only being generalized but being naturalized as well.

### 2.3.2 Green Gentrification

Green gentrification can be considered as one of the kinds of gentrification being considered especially in the contemporary times. In this kind of gentrification, ‘going green’ is being seen as a possible solution to confront problems amidst urbanization. Simply being but, green gentrification refers to gentrification inflicted by green initiatives (Gould and Lewis, 2017). The process of green gentrification has been identified in different terminologies in various literature (Sharifi et al., 2021) including ecological gentrification (Dooling, 2009), environmental gentrification (Checker, 2011), and eco gentrification (Patrick, 2011). One of the common trends that we can derive from these studies is that the transformation (or sometimes called as ‘renewal’, ‘revitalization’, ‘reinvestment’, ‘redevelopment’, and ‘regeneration’ to avoid community resistance (Gray and Wyly, 2020)), of an urban space, extending to the establishment of green infrastructures can lead to displacement.

Furthermore, we can also see a kind of trend in which academics associate the process of green gentrification with environmental justice since gentrification in the first place is a concern of neighborhood equity. It is indeed important to highlight what Checker (2011) refer to as the ‘paradox of sustainability’ raising the question- “must they, [the low income residents] reject environmental amenities in their neighborhoods in order resist the gentrification that tends to follow such amenities?”

### 2.3.3 Green Gentrification and Urban Greening

Rapid urbanization that has been happening over time entails urban problems that calls for attention and confrontation. To address the problems related to urban living and betterment of resident’s quality of life, urban greening is one of the tools being considered (Sharifi et at., 2021). And in the history of the development of gentrification studies, the first to link urban greening and gentrification was done by Sharifi et al., focusing on Metropolitan Melbourne. Sharifi et al., (2021) emphasized that the “critical knowledge gaps in our understanding of this relationship [between urban greening and gentrification] could lead to urban policies and initiatives failing to adequately consider the risks or benefits of urban greening.”

Statistically, Sharifi et al. (2021) conclude that gentrification actuates urban greening. This pioneering study examining the link between urban greening and green gentrification offers a new perspective on how the term “gentrification” is being perceived. It shows a new perspective into understanding the whole gentrification process because prior studies to Sharifi et al. like that of Jonas Doctor Hove (2014), argue that gentrification was and, in the course of time, is still a process of displacement. However, it is important to put into consideration that gentrification does not directly displaces the lower and working class people. In 2017, an affairs program, *The Agenda* with Steve Paikin interviewed urbanist Richard Florida. Quoting the scholar Lance Freeman (2005), Florida said that gentrification does “not really” displaces the lower and working class people and that the rising house prices has the huge effect towards these vulnerable groups (Paikin, 2017).

Another literature studying the linkage of urban greening and gentrification in East Asia surfaced in the following year. The pioneering study in China by Wu and Rowe (2022) explored the ‘green space paradox’ focusing on Beijing Metropolitan Area.

The similarity between the study conducted by Sharifi et.al, and Wu and Rowe is that they focused on green spaces. Sharifi et. al explicitly used the term ‘urban greening’ while Wu and Rowe implicitly studied urban greening by focusing on green spaces. On the one hand, Sharifi et., al (2021) did not find statistical evidence that urban greening leads to gentrification, but did find that gentrification actuates urban greening. While on the other hand, Wu and Rowe (2022) concluded that the increase of green spaces can trigger gentrification.

#### **2.3.4 Gentrification in the Philippines**

Despite the fact that Hackworth and Smith provided a periodization of gentrification (see fig. 2) in the context of the USA, Aalbers (2018) debates that it still can help us in understanding how international trends of gentrification happen in the real-world as the mutations of gentrification are not limited to the USA. The stance of Aalbers reinforces other studies like that of Atkinson and Bridge (2005) who argue

that “the view of the process [of gentrification] linked only to the west is now firmly out of date”, hence gentrification is now global.

Even though it is not largely explored yet, various literature already shows gentrification studies in the context of the Philippines. By studying Metro Manila, Annisson Ortega (2016) argues that the process of gentrification is present in the Philippines which operates “by the annihilation of informality, a process undergirded by neo-liberal developmentalism and facilitated by post-colonial relations on land and the state.” In the same year, Narae Choi, who also used Metro Manila as a case study, had the same findings concluding that gentrification is indeed happening in the Philippines. Choi (2016) argues that the urban change in Metro Manila demonstrates the core features of gentrification, that is the exclusion of the working class from their original neighborhood because of “land development for the more affluent class.” Choi (2016) also gave emphasis on the role the state has to play, in contrary to the power of landed elites, in defining the use of urban space.

Prior gentrification studies in the Philippines focused on socio-economic, and political impacts of gentrification, which is the common issue of commercial and neighborhood gentrification. In this study, gentrification was extended to the neighborhood transformations inclining to green spaces, initiatives, and projects like infrastructures, thus the green gentrification.

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## 2.4 Policy Study

A fundamental yet comprehensive definition of the term ‘policy’ is that coming from Merriam Webster which states that policy is “a definite course or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions”. This course of action is being used not only by the government, but of various participants in public life “in their attempts to shape the way public life is organized” (Colebatch, 2009). Even though these definitions seem to have direction in giving light to what policy is all about,

it is still uncertain if the crafted policy would be able to serve its purpose. Hence, policy needs to be studied and analyzed. One way of doing so is through its cycle.

#### 2.4.1 Policy Cycle

One way of understanding the policy process is through the Policy Cycle Model. This 'cyclical model of decision making' was first raised in the work of Harold Lasswell (1956, 1971). Presently, it has different versions depending on the number of stages a particular version has, but the five-stage model is the most commonly used (Howlett and Giest, 2015). The five stages are: *Agenda Setting, Policy Formulation, Decision Making, Policy Implementation, and Policy Evaluation*.

'Agenda setting' is the first stage in which the problem is being recognized. To confront the issue at hand, different solutions are then being suggested by the policy actors. After having variety of possible solutions, 'policy formulation' takes place. Suggested solutions are being narrowed down, excluding those that are infeasible to develop specific policy options. The third stage, 'decision making' happens and is being fulfilled once the formal actors in the government adopt a particular course of action. This leads to the fourth stage, that is 'policy implementation'. Complementing with other tools of public administration, governments now put their decisions into effect. And lastly, 'policy evaluation', the stage when both state and societal actors start to monitor the result of the policies, "often leading to the reconceptualization of policy problems and solutions in the light of experiences encountered with the policy in question and the start of a new iteration of the cycle" (Howlett et al., 2009; Howlett and Giest, 2015).

By understanding the policy cycle in making courses of action regarding the promotion of urban greening, this research was able to uncover if, or if not, these policies lead to green gentrification. Being asked by Paikin (2017) if the process of gentrification can be stopped, Florida argues that the "market forces [are too strong]" to do it. He went further explaining that "the better solution is to try to create more affordable housing, to build more transit, to make the city overall more affordable" keeping the innovative dynamic caused by the movement of gentrifiers

to the city and at the same time keeping more people in it. Since halting the process of gentrification in the midst of urbanization is indeed difficult, efficient policies inclining to urban greening can possibly lead to a point wherein the process of gentrification is being seen sustainably, balancing the aspects of social, environmental, and economic.

Since gentrification sprouted as mainly a socio-economic issue in which cities try to revitalize the flow of income within an urban area, the study of policies can address matters concerning social justice by tackling the participation of all stakeholders, the inclusivity of urban greening projects, and even open speech of community members considering their perception towards urban greening projects that does not only promote quality life to the people but also promotes taking good care of the environment.

#### **2.4.2 Policy Failure**

In the last stage of a policy cycle, the policies are being evaluated if they were able to serve their purpose. As Howlett and Giest (2015) put further, the analysts' conclusion in a policy evaluation often resort to concepts like 'success' or 'failure'. However, evaluating policies is not as easy as it may seem. The same thing goes with confining and labeling them with the concepts of success and of failure. Howlett and Giest (2015) even echo Ingram and Mann (1980) with their stance that "such concepts [of success and of failure] are slippery and often highly subjective". It is indeed good to remember that the progress of policies depends on the process of implementation (Hudson, et al., 2019).

## 2.5 Conclusion

In the selected literature discussed in this chapter, a trend can be established leading to the objectives and importance of this study. As population grows in an urban area, certain transformations occur in many aspects to cater the needs of the people, and the development of the area. These changes aim toward socio-economic development; however, in the course of time, a number of unintended negative impacts of that process surface in the form of environmental degradation. To confront environmental issues, urban greening is being seen as a tool. Urban greening policies are being implemented globally. Nevertheless, there is a call for the analysis of these policies for they might be a driver of another urban issue, that is gentrification. This study sought the relationship between urban greening and green gentrification by analyzing the policies of Quezon City in terms of going green. As Atkinson and Bridge (2005) argue: “it remains important for policy-makers and academics to try and understand how equitable [urban] development can be achieved without the stark problems associated with unchecked gentrification.”

### CHAPTER III

#### RESEARCH METHODOLOGY

Following the research framework of this study (see fig.1), various data collecting tools, data analysis tools, and target groups and samples are discussed in this chapter. The case study of a particular location in Quezon City, Philippines is also presented in this chapter.

Table 1 shows the summary of the research methodology of this study. The tools that are used in data collection and data analysis are aligned with the objectives of this study to make sure that the research problems are addressed.

Table 1. Research Methodology

<b>Objectives</b>	<b>Data Collecting Tools</b>	<b>Data Analysis Tools</b>	<b>Target Groups</b>	<b>Sample Size</b>
To identify the current policy and its implications on gentrification in Quezon City	Survey and Questionnaire	Likert Scale, Content Analysis	Community Members	400
To study the policies linked with urban greening in Quezon City	In-depth Interviews	Content Analysis	<ul style="list-style-type: none"> <li>• Local Government Officials</li> <li>• Barangay Officials</li> <li>• Non-Governmental Organization</li> <li>• Private Sector</li> <li>• Academic</li> <li>• Community Members</li> </ul>	16
To analyze the gap, potential, and possibilities between gentrification and urban greening	Literature		<ul style="list-style-type: none"> <li>• Published materials from the Local Government</li> <li>• Secondary materials</li> </ul>	
To propose policy recommendations for the potential implication of urban greening with green gentrification				



### **3.1 Data Collecting Tools**

To achieve the research objectives aligned with the research questions, this study used the following tools for data collection:

#### **3.1.1 Questionnaires**

The quantitative data of this research was gathered from the short online questionnaire, designed using the Likert Scale (Likert, 1932) focusing on the key concepts of this study. Alongside with fundamental questions seeking answer to the research problem, the questionnaire also provided necessary information about the respondents' period of residency in the study area as it may cause a significant impact on how they perceive gentrification, how they experience urban greening initiatives in the city, and how they engage in making and implementing these courses of actions regarding urban greening.

#### **3.1.2 In-depth Interviews**

In-depth interviews served as an important tool in gathering comprehensive information about how the theory and concepts of this study has been working in the study area. The main objective of this data collecting tool was to gather comprehensive data that satisfy the research problem. The interviews conducted by the researcher was complemented by a short online questionnaire. Both addressed the key concepts of this study. Questions asked in the questionnaire were related to the questions asked during the interview so that these data gathering tools could generate reliable results upon analysis.

#### **3.1.3 Data from Published Materials**

To know the implications of the urban greening policies in Quezon City, data coming from valid sources such as the policies, and ordinances from the Local Government of Quezon City were gathered and reviewed. These data were analyzed together with the other data collecting tools used in this study.

### 3.2 Data Analysis Tools

This study used both quantitative and qualitative research approaches. For the quantitative data, a 5-point Likert type scale of questionnaire was used. Series of related Likert type items were grouped and measured together as they were expected to derive common themes, perceptions, and opinions on the variable being measured. Variables in this research include the main concepts of this study which are gentrification, green gentrification and urban greening. Frequency and percentage of each Likert type item was computed and interpreted.

For the qualitative data, a content analysis of the interviews and data from published materials showing the policies related to the main concepts were studied. Content analysis provided essential research data by determining the presence and frequency of certain words, themes, and concepts. Aside from the aforementioned data, meaning and possible relationship between these variables, and in this particular research, of urban greening policies, and of gentrification were identified.

After proceeding with all the data gathering tools with their respective data analysis tools, results were derived. The researcher cross-examined the results from the three data gathering tools (e.g., Questionnaire, In-depth Interviews, and Policy Study of Published Materials) used in this study. These results were reviewed and analyzed by the researcher using data triangulation to come up with validated research findings. Findings were identified by looking at the common themes and perceptions among the three different set of results that came from three various research tools used in this research.

#### 3.2.1. Limitations of Research Tools

**Limitations of Modes and Percentages in Likert-type Questionnaire.** As a data gathering tool, the questionnaire already has its own limitations. These limitations tremendously affected the data analysis tool used in evaluating and interpreting the data gathered from it. For instance, in this study, the analysis tool used in interpreting the questionnaire was by computing the modes and percentages

of each Likert-item. These numerical data were highly influenced by the limitations in using questionnaire. The education and awareness of the respondents about the key concepts of the study (e.g., Gentrification, Green Gentrification, and Urban Greening) mattered as their knowledge about the concerns of the study were reflected on the computed numerical data such as the modes and percentages.

Another limitation in computing for the modes and percentages was that even though they were the most appropriate measure for the basic analysis of a Likert type of data (Analysing Likert Scale/Type Data, 2014), there were also other ways in computing and interpreting a Likert-type data. That stance does imply that other statistical methods can derive different results from the one used in this study.

Despite the above-said limitations from the questionnaire, this research still upholds that the data gathered from the Likert-type questionnaire correspond to the truth. First, the design of the scale having 5 sentiment scores gives an option to the respondents to choose sentiment score 3 or neutral, if in case they do not understand, or they lack necessary information regarding the statements covering the main concepts of this study. This type of Likert design confronts the first limitation about education and awareness. Furthermore, results discussed in the next chapter shows that majority of the modes and percentages fall on sentiment score 4, which implies that the respondents have a stance as they agree on most of the statements provided in the questionnaire. It is logical to say then that they have the decent amount of information to take the questionnaire; hence making the result valid and reliable. Sincerity and commitment of the respondents in taking the questionnaire are seen as the subjects really took their time in understanding each of the 10 statements in the 5-point Likert type questionnaire. Also, as they were taking the questionnaire, some of the respondents were even asking if there were things they either do not know or do not understand.

With regards to the second limitation about the statistical method used, the researcher sees it more of a possibility than a limitation. It is because there are various statistical methods that can be used for the analysis of a 5-point Likert scale

questionnaire. These methods can derive varying results as well. Given that, it can be realized that by using another statistical method in further research after this study, a new layer of understanding about the relationship of urban greening and gentrification can be unveiled. Nonetheless, the use of modes and percentages in the analysis of the questionnaire in this study still reflect reflects the realities of the case study as the method is also acceptable. Moreover, questionnaire results are reinforced by the cross-examination done in data triangulation which makes not only the research results corroborative but the research findings as well.

**Limitations of Content Analysis in In-depth Interviews.** Employing content analysis in the in-depth interviews entails several limitations as well. One of which is the subjective approach. Tendency of subjectivity is not new in qualitative or mixed-method research. It is because the interpretation the researcher attaches to the data gathered can be different from the perspective of other person who looks at the same situation with the same data.

Reductive approach is also considered as a limitation of this analysis tool as the researcher must interpret numerous and complex amount data from the interviewees in consideration of the timeframe of the research. With that possibility, loads of information can be reduced by the researcher affecting the result of the data gathered.

**Limitations of Content Analysis in Policy Study.** One of the limitations of the content analysis done in policy study is the availability of resources. The researcher has to utilize the only available resources such as published reports, programs, and plans reflecting the policies related to the main concepts of this study. The change of leader in the case study area is also a factor the researcher has to deal with as the plans from the previous administration does not align with the thrust of the present administration. These limitations affected the result of content analysis done in policy study.

### 3.3 Target Groups and Samples

Table 2. Target Groups and Sample Size

Target Groups	Population	Sample Size
<b>Quantitative Data</b>		
Community Members	31,591	400
<b>Qualitative Data</b>		
Local Government Officials	Parks Development and Administration Department	1
Barangay Officials	Sangguniang Kabataan Chairperson	2
Non-Governmental Organization (NGO)	Organization Mission	1
Private Sector	Developer	1
Academic	Urban Studies	1
Community Members	Barangay Novaliches Proper	1
	Barangay Pasong Putik Proper	2
	Barangay Santa Monica	2
	Barangay San Agustin	2
	Barangay Kaligayahan	2
	Barangay Greater Lagro	1

Table 2 shows the summary of target groups and samples of this research. For the quantitative data of this study, the researcher used a 5-point Likert type questionnaire. The total number of respondents was derived using the Taro Yamane sampling formula (Yamane, 1967) with a 95% confidence level. According to the Comprehensive Land Use Plan issued by the Quezon City Local Government, the total estimated population of Novaliches-Lagro Growth District is 31,591 (Quezon City Council, 2020). Taro Yamane Sampling Formula is:

$$n = \frac{N}{1 + Ne^2}$$

Where:

- n = sample size
- N = total of estimated population
- e = margin of error

Given the Taro Yamane sampling formula, the calculation for the sample size was:

$$n = \frac{31,591}{1 + (31,591)(0.05)^2}$$

Therefore:

$$n = 394.99 \text{ (rounded-off to 400)}$$

$$n = 400$$

The researcher had someone who assisted in the distribution of the online questionnaire using google forms. Before doing the random sampling technique in each of the six barangays included in the case study area, the researcher divided the total sample size derived from Taro Yamane sampling formula with the total number of barangays. This is to guarantee that the total number of questionnaire respondents were well distributed within the case study area.

Presented in Table 3 is the total number of responses per barangay:

Table 3. Respondents in Each Barangay

Barangays	Number of Respondents	Percentage
Greater Lagro	68	17.00 %
Kaligayahan	69	17.25 %
Novaliches Proper	65	16.25 %
Pasong Putik Proper	62	15.50 %
San Agustin	67	16.75 %
Santa Monica	69	17.25 %

Complementing the quantitative data from the questionnaire, the researcher employed policy study of published materials and in-depth interviews to gather the qualitative data needed for this study.

The researcher used two techniques in choosing the respondents for the interview. On the one hand, purposive sampling technique was used in choosing stakeholders appropriate to conduct an interview with particularly on local government officials, barangay officials, non-governmental organization, and private sector. By the word appropriate, the researcher meant individuals who are either working, or has an involvement regarding the concerns of this research (e.g., gentrification, green gentrification, urban greening policies, and initiatives). These respondents were chosen because they are experts, hence were considered knowledgeable about their own respective fields.

The researcher observed the following criteria in choosing the interviewees under purposive sampling:

- Someone who holds an office and is involved in crafting urban greening policies and initiatives within the city
- Someone who has an expertise in urban development studies including the aspect of urban greening
- Someone who holds an office in local communities such as barangay level
- Someone who is involved in pursuing and actualizing urban greening policies and initiatives in Quezon City

On the other hand, the researcher used random sampling technique for the community members. It was done to avoid any form of bias since their perception, and involvement towards the main concepts of this study such as gentrification, green gentrification, and urban greening projects and initiatives are crucial in identifying the implications of policies set forth by the Quezon City Local Government Unit.

### 3.4 Case Study

Situated at the northern part of Metro Manila, Quezon City is the largest city in the National Capital Region in terms of both land size and population. Currently, the city has five growth centers (see fig. 3). In this research, the case of Novaliches-Lagro, one of the five growth centers of the city was studied.

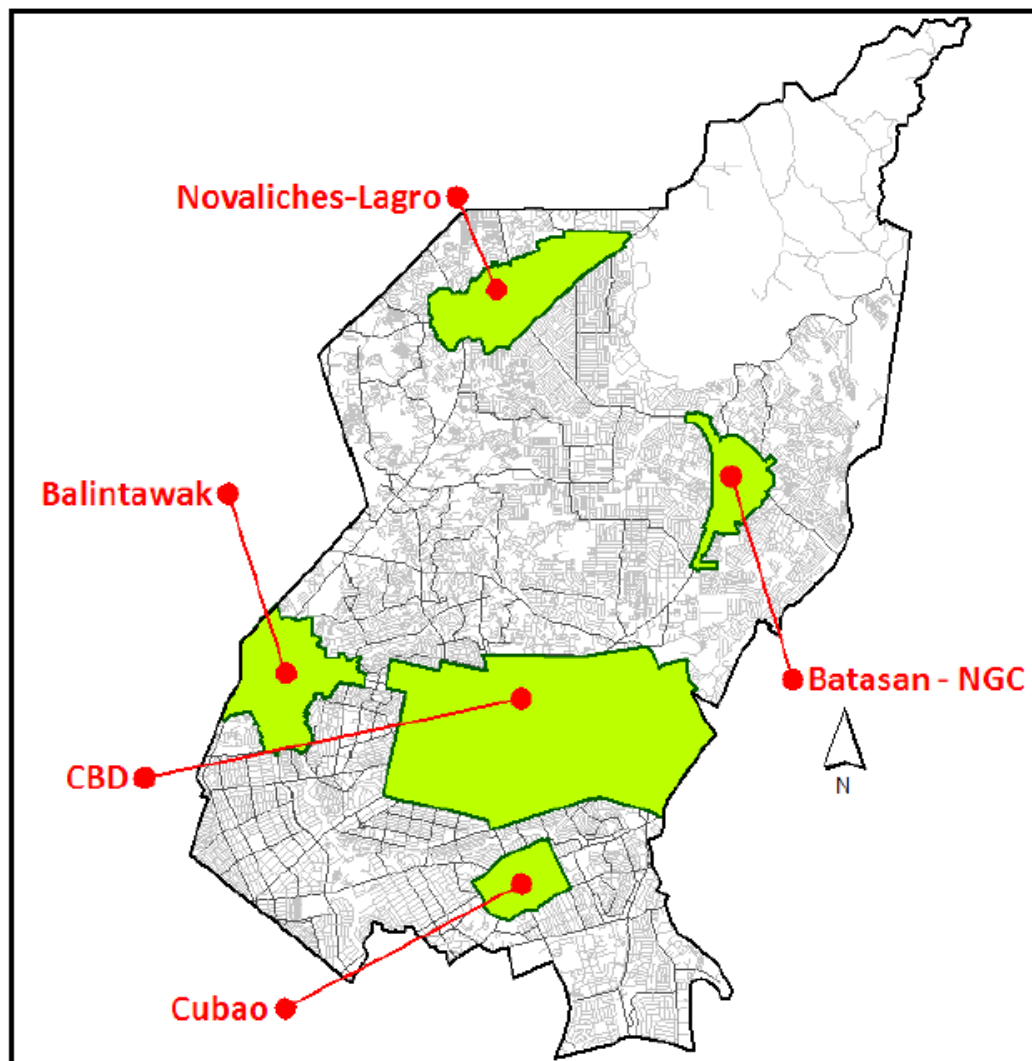


Figure 3. Five Growth Centers in Quezon City

Source: Quezon City Council (2020).



The Novaliches-Lagro Growth District (see fig. 4) covers 2.76% of the land area of the city. It includes Barangay Novaliches Proper, Pasong Putik Proper, and portions of Barangay Santa Monica, San Agustin, Kaligayahan, and Greater Lagro. In terms of estimated population, it has 31, 591 (Quezon City Council, 2020).

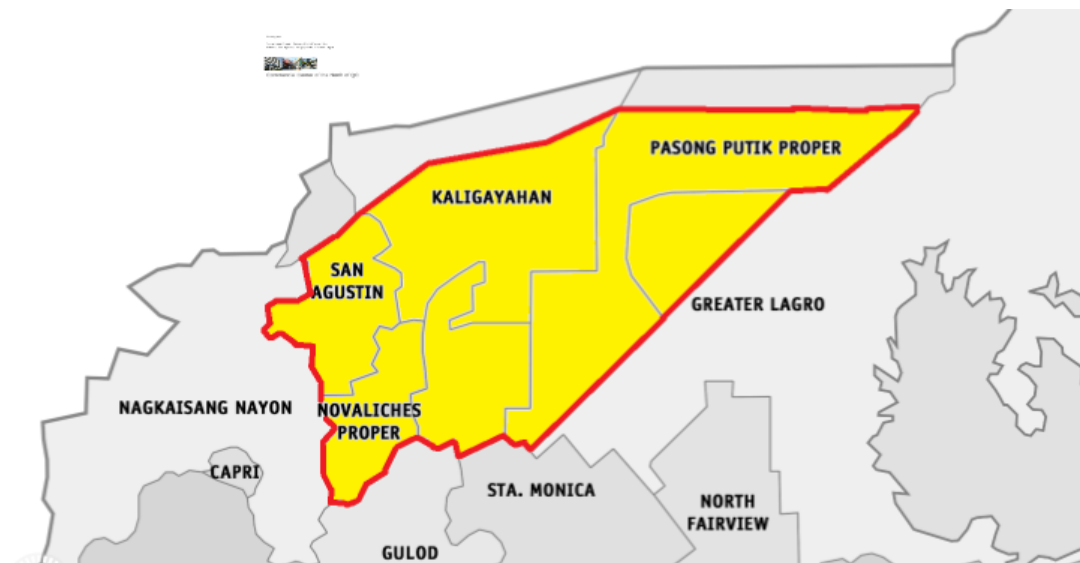


Figure 4. Novaliches-Lagro Growth Center

Source: Arcilla (2014).

The researcher saw the Novaliches-Lagro growth center as a fitting location for this study for the following reasons: First was the change of land use. The Quezon City Council has shown the comparative actual land use of this growth center in 2003 and 2009.

In Table 4, change in land use in 2003 and in 2009 have a significant difference especially in residential and commercial, and these are key features to observe in gentrification studies. The rate of open space and vacant lands are among the important variables in observing green gentrification. Secondly, this growth center covers the Neopolitan Business Park, which according to the Asian Pacific Group of Companies “is now rising to become the New Business District of the North [of Quezon City]”.

Table 4. Comparative Actual Land Use of 2003 and 2009.

COMPARATIVE ACTUAL LAND USE OF 2003 AND 2009							
LAND USE	2003		LAND USE	2009		DIFFERENCE	
	AREA (IN HAS)	%TO TOTAL		AREA (IN HAS)	%TO TOTAL	AREA (IN HAS)	% DIFFERENCE
Residential	89.64	20.14%	Residential	93.51	21.01%	3.87	0.87%
Commercial	75.54	16.97%	Commercial	77.65	17.45%	2.11	0.48%
Industrial	16.51	3.71%	Industrial	16.51	3.71%	-	0.00%
Institutional	11.82	2.66%	Institutional	11.82	2.66%	-	0.00%
Informal Settlers	9.35	2.10%	Informal Settlers	8.89	1.99%	(0.46)	-0.11%
Open Space	10.76	2.42%	Open Space	10.93	2.46%	0.17	0.04%
Cemetery	0.92	0.21%	Cemetery	0.92	0.21%	-	0.00%
Utility	8.27	1.86%	Utility	8.10	1.82%	(0.17)	-0.04%
Vacant	131.64	29.58%	Vacant	125.94	28.30%	(5.70)	-1.28%
Road	89.26	20.06%	Road	89.44	20.10%	0.18	0.04%
Waterways	1.29	0.29%	Waterways	1.29	0.29%	-	0.00%
<b>Total</b>	<b>445.00</b>	<b>100.00%</b>		<b>445.00</b>	<b>100.00%</b>		

Source: Quezon City Council (2020).

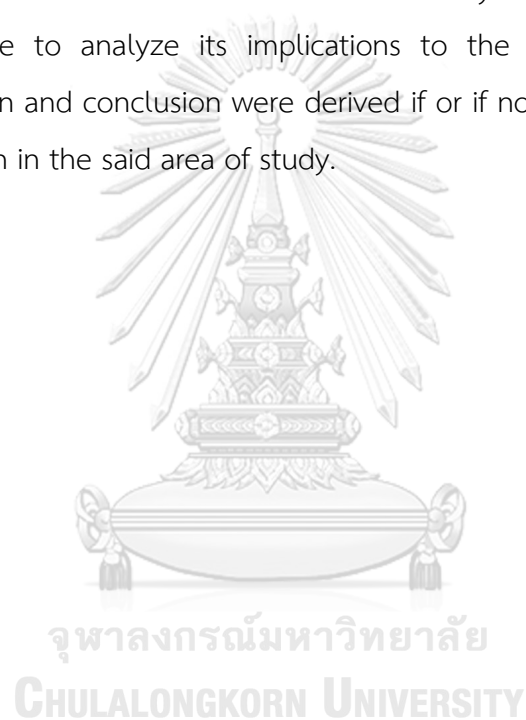
Presently, the Novaliches-Lagro houses major shopping malls, major IT companies, several transportation terminals, and the old community and old commercial center of Novaliches District with the existence of Novaliches Market and other markets within the area (Quezon City Council, 2020). In addition, several mid-rise condominiums are built beginning the early 2010s, and a high-rise condominium is currently being constructed within the area. The fact that the place has been developing in the course of time implies that numerous transformations occurred within the neighborhood of Novaliches-Lagro.

The third criterion considered by the researcher in choosing the Novaliches-Lagro area is that the said location is subjected to all urban greening initiatives implemented by the local government of Quezon City including the revitalization of green spaces, green infrastructures such as energy efficient buildings and modes of transportation, and even projects that encourage urban farming.

Aside from the above-said three reasons, the Novaliches-Lagro area is similar to the model case in the study conducted by Moreno et al. in 2021. They studied the area of São Paulo Metropolitan Region in Brazil which manifests the characteristics and context of the Global South. Moreno et al. (2021) studied the policy and practice of São Paulo Metropolitan Region that involves the socio-

economic and environmental aspects promoting urban greening and adaptation to climate change.

In this study, the transformations with emphasis on urban greening were taken into account. Since these transformations happened and are currently happening, it is indeed sound to say that they met the legalities and policies of Quezon City, including those that incline towards the greening of the city. By studying the urban greening policies, together with the data and information that were gathered from certain stakeholders within the currently changing neighborhood, this research was able to analyze its implications to the community. Through the analysis, evaluation and conclusion were derived if or if not urban greening catalyses green gentrification in the said area of study.



## CHAPTER IV

### RESEARCH RESULTS

In this chapter, research results from both qualitative and quantitative data obtained from the different data gathering tools (e.g., Questionnaire, In-depth Interview, Published Materials) are presented. The results were individually analyzed through their respective data analysis tools discussed in the previous chapter. After obtaining all the results on each tool, data triangulation was done to derive research findings discussed in the succeeding chapter.

#### 4.1 Questionnaire Result

The results from the 5-point Likert questionnaire accomplished by the respondents from the six barangays included in the case study location were obtained through the data's mode and percentage. The researcher employed that method as it is the most appropriate measure for the basic analysis of a Likert type of data (Analysing Likert Scale/Type Data, 2014).

The questionnaire was divided into two parts. The first part surveyed the demographic information of the respondents while the second part contained the ten Likert items which could measure the main concepts of this study which are gentrification, green gentrification, and urban greening policies and initiatives.

In Table 5, the demographics of the respondents are presented. In terms of the respondents per barangay within the case study area, the number of respondents were well distributed. And in terms of the years of residence in Quezon City of the respondents, majority of them, 249 respondents or 62.3% of the total number of respondents to be specific, have been living in their respective barangays within Novaliches-Lagro area. With that information, it is sound to make a claim that it can increase the reliability of the result of the research questionnaire as the respondents have been residing in the area long enough to see the transformations that has been happening due to the process of gentrification and green gentrification, and of urban greening which are the concerns of this study.

Here is the summary of the results of the demographic information of the respondents gathered from the first part of the questionnaire:

Table 5. Respondents' Demographics

DEMOGRAPHIC INFORMATION		
<b>Respondent's Barangay</b>		
Barangays	Number of Respondents	Percentage
Greater Lagro	68	17.00 %
Kaligayahan	69	17.25 %
Novaliches Proper	65	16.25 %
Pasong Putik Proper	62	15.50 %
San Agustin	67	16.75 %
Santa Monica	69	17.25 %
<b>Respondent's Sex</b>		
Sex	Number of Respondents	Percentage
Male	204	51 %
Female	176	44 %
Prefer not to say	20	05 %
<b>Respondent's Age</b>		
Age Bracket	Number of Respondents	Percentage
Under 18	12	03.0 %
18-24	61	15.3 %
25-34	85	21.3 %
35-44	74	18.5 %
45-54	64	16.0 %
55-64	65	16.2 %
Above 64	39	09.8 %
<b>Respondent's Years of Residency in Quezon City</b>		
Number of Years	Number of Respondents	Percentage
5-9 Years	66	16.5 %
10 Years	88	21.3 %
More than 10 years	249	62.3 %

Here is the summary of results obtained from all ten Likert items included in the second part of the questionnaire:

Table 6. Summary of Questionnaire Results

Likert Items/ Questions:	Sentiment Scores with Mode and Percentage				
	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. Gentrification, in my opinion, is part of city development.	1 (0.25%)	9 (2.25%)	96 (24%)	217 (54.25%)	77 (19.25%)
2. I see Green Gentrification as an indicator of a sustainable city.	1 (0.25%)	6 (1.5%)	119 (29.75%)	204 (51%)	70 (17.5%)
3. I feel like the existence of malls, and condominiums around my area in the past ten years have been making an impact on the increase of my living expenses.	3 (0.75%)	7 (1.75%)	110 (27.5%)	207 (51.75%)	73 (18.25%)
4. The aesthetics and benefits from the green spaces around my area make the cost of living more expensive.	2 (0.5%)	9 (2.25%)	118 (29.5%)	211 (52.75%)	60 (15%)
5. The series of park rehabilitations for the past ten years made the living expenses around my location more costly.	2 (0.5%)	14 (3.5%)	113 (28.25%)	208 (52%)	63 (15.75%)
6. I can freely use the amenities of the park in my area.	7 (1.75%)	17 (4.25%)	154 (38.5%)	162 (40.5%)	60 (15%)
7. I find the green spaces around the city beneficial to my well-being.	1 (0.25%)	9 (2.25%)	108 (27%)	221 (55.25%)	61 (15.25%)
8. I noticed that the existence of green spaces in my area has been attracting people to move and reside in the neighborhood.	1 (0.25%)	11 (2.75%)	116 (29%)	210 (52.5%)	62 (15.5%)
9. I can utilize the free bus rides provided by the Quezon City Local Government.	7 (1.75%)	9 (2.25%)	105 (26.25%)	210 (52.5%)	69 (17.25%)
10. I either enjoy or receive the benefits of the Urban Farming initiative of the Quezon City Local Government.	13 (3.25%)	27 (6.75%)	177 (44.25%)	124 (31%)	59 (14.75%)

In the analysis done within the ten Likert items or questions, results were derived by identifying the mode of each sentiment scores, and computing for the percentage of the mode in accordance with the total number of respondents.

Table 6 shows the summary of all Likert items in which the mode, together with the highest percentage of each item were highlighted. These items were chronologically arranged the way they were in the questionnaire provided to the respondents. Take note that this questionnaire does not constitute a single Likert scale. The researcher made sure that in all ten Likert items, the three main concepts which are gentrification, green gentrification, and urban greening and initiatives would be included; hence, these ten Likert items should be grouped since they answer certain concept this study is trying to give light into.

#### 4.1.1 Likert Items on Gentrification

Table 7. Results of Likert Items on Gentrification

Likert Items/ Questions:	Sentiment Scores with Mode and Percentage				
	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1. Gentrification, in my opinion, is part of city <i>development</i> .	1 (0.25%)	9 (2.25%)	96 (24%)	217 (54.25%)	77 (19.25%)
3. I feel like the existence of malls, and condominiums around my area in the past ten years have been making an impact on the <i>increase of my living expenses</i> .	3 (0.75%)	7 (1.75%)	110 (27.5%)	207 (51.75%)	73 (18.25%)

Items 1, and 3 tried to gather the data with regards to the respondents' perception about gentrification. As presented in Table 7, both items had their modes and high percentages in the column of Agree. However, item 1 was presented as a positive indicator as it talked about development while item 3 was presented as a negative indicator as it talked about the increase in living expenses. With these data, it can be said that the perception of the respondents about gentrification is a process of city development, but entails increase in living expenses.

#### 4.1.2 Likert Items on Green Gentrification

Table 8. Results of Likert Items on Green Gentrification

Likert Items/ Questions:	Sentiment Scores with Mode and Percentage				
	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
2. I see Green Gentrification as an indicator of a sustainable city.	1 (0.25%)	6 (1.5%)	119 (29.75%)	204 (51%)	70 (17.5%)
4. The aesthetics and benefits from the green spaces around my area make the cost of living <i>more expensive</i> .	2 (0.5%)	9 (2.25%)	118 (29.5%)	211 (52.75%)	60 (15%)
5. The series of park rehabilitations for the past ten years made the living expenses around my location <i>more costly</i> .	2 (0.5%)	14 (3.5%)	113 (28.25%)	208 (52%)	63 (15.75%)
8. I noticed that the existence of green spaces in my area has been attracting people to move and reside in the neighborhood.	1 (0.25%)	11 (2.75%)	116 (29%)	210 (52.5%)	62 (15.5%)

The researcher grouped Likert items 2, 4, 5, and 8 as these items provide the respondents' perception about Green Gentrification. With regards to its result presented in Table 8, all these four had their modes and high percentages in the column of Agree. It is also good to take note that in all these four items, more than half of the participants, more than 200 in terms of frequency, and more than 50% in terms of percentage had their responses in sentiment score 4, that is Agree.

Moreover, Likert items 2, 4, 5, and 8 were presented in the questionnaire by varying indicators. On the one hand, Likert item 2 was presented as a positive indicator. It looked at how the respondents see Green Gentrification as an indicator of a sustainable city. On the other hand, Likert items 4, and 5 were presented as negative indicator. They tried to look at the increase of cost of living, an impact that is usually implied and attached to the phenomenon of Green Gentrification to the residents' socio-economic status. And lastly, Likert item 8 was presented neutrally as it only projected the process that is happening in Gentrification in general, and Green Gentrification in particular. Similar to what was inferred from the result on Likert items on Gentrification, respondents' see Gentrification as an indicator of sustainable city. However, alongside with that positive perception are the unintended negative consequences like that of increase in living expenses.



#### 4.1.3 Likert Items on Urban Greening

Table 9. Results of Likert Items on Urban Greening

Likert Items/ Questions:	Sentiment Scores with Mode and Percentage				
	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
6. I can freely use the amenities of the park in my area.	7 (1.75%)	17 (4.25%)	154 (38.5%)	162 (40.5%)	60 (15%)
7. I find the green spaces around the city beneficial to my well-being.	1 (0.25%)	9 (2.25%)	108 (27%)	221 (55.25%)	61 (15.25%)
9. I can utilize the free bus rides provided by the Quezon City Local Government.	7 (1.75%)	9 (2.25%)	105 (26.25%)	210 (52.5%)	69 (17.25%)
10. I either enjoy or receive the benefits of the Urban Farming initiative of the Quezon City Local Government.	13 (3.25%)	27 (6.75%)	177 (44.25%)	124 (31%)	59 (14.75%)

Likert items 6, 7, 9, and 10 are questions meant for urban greening initiatives. The researcher reviewed the different urban greening policies in Quezon City, and identified which initiatives are included in the case study area. With that, the statements in items 6, 7, 9, and 10 gathered the respondents' perception about some of the urban greening projects found in the Novaliches-Lagro area.

Out of the four items highlighting different urban greening projects, three items had the highest frequency and percentage in sentiment score 4, that is Agree. However, it is important to note that in the case of item 6, mode, and percentage of sentiment scores 3 and 4 are close to each other having 154 (38.5%), and 162 (40.5%) respectively (see Table 8). Despite the fact that the results derived from frequencies and percentages between sentiment scores 3 and 4, which are Neutral and Agree respectively were close to each other, it is still logical to say that majority of the population were agreeing in the statement found in Likert item 6. Remember that the responses gathered in a Likert-type questionnaire are ordinal data (Mizumoto, 2010), that is why distances between sentiment scores are not known. And lastly, the mode and highest percentage from item 10 was found in sentiment score 3. That result signifies that the way the respondents' experience that urban greening project, that is Urban Farming was neutral.

#### 4.1.4 Summary of Questionnaire Results

The questionnaire was able to cover the main concepts of this study which are Gentrification, Green Gentrification, and Urban Greening Policies and Initiatives. Despite that, the researcher still acknowledged the limitations attached in using questionnaire as a research data gathering tool. For instance, it was also noticeable that even though most of the modes and highest percentages were located at sentiment score 4, that is agree, the second highest modes and percentages would likely to be at sentiment score 3, that is neutral, and not at sentiment score 5, that is strongly agree. Most of the time, respondents tend to avoid choosing the “extremes” option on the scale since there is a negative implication regarding “extremists” even either sentiment score 1 or 5 is the most accurate option to choose (LaMarca, 2011).

The researcher decided to have questionnaires to know the perception of the respondents, who are community members of the case study, towards the said concepts of this study. The way these community members experience the processes involved in Gentrification, Green Gentrification, and Urban Greening are essential data as these people are the recipients of the policies crafted by both the national and local government. The result gathered from the questionnaire was able to derive data showing the implications of urban greening policies and initiatives on Gentrification in general, and Green Gentrification in particular, through the perception of the community members.

#### 4.2. In-depth Interview Results

The researcher conducted individual in-depth interviews with sixteen (16) respondents. These interviewees were from Local Government Office, Barangay Office, Non-governmental Organization, Private Sector, Academic, and Community Members. The interviews conducted by the researcher were recorded and transcribed with the respondents' permission. Clear transcription was employed, and the transcription was done by the actual language used during the interview, that is *Taglish*, or the combination of Tagalog and English language. Important statements that needed to be directly quoted were translated by the researcher who has a grip in both languages.

In conducting content analysis, the researcher reviewed the transcriptions of the interviews and looked for frequently said words or phrases to derive certain themes and perceptions out of those data. Collected data were grouped under certain codes and categories that would satisfy the research questions and research objectives.

Content analysis was done by combining deductive and inductive coding. Deductive coding was employed by considering the research questions and research objectives to establish different categories. Hence by considering the main concepts of this study that try to address the main research question, that is knowing the current relationship between gentrification and urban greening in Quezon City, Gentrification, Green Gentrification, and Urban Greening Policies and Initiatives were used as the categories. After establishing the categories, inductive coding was done by the researcher.

The inductive coding began as the researcher studied the transcriptions to identify words, phrases, and statements that appeared frequently. These words were derived as presented in Table 10. After identifying these words, the researcher grouped the phrases and sentences in which these words (see table 10) were found. Units of meaning were derived from these data which were tabulated and studied for the researcher to extract certain codes. These codes were then classified into the different categories obtained from deductive coding.

Here is the summary of the words in which units of meanings were derived:

Table 10. Frequency of Repeated Words

No.	Repeated Words	Frequency
1	Displace/ Displacement	23
2	Transformation	13
3	Develop/ Development	123
4	Green/ Greening	192
5	Thrust	5
6	Benefit	28
7	Spaces	34

Alongside with the repeated words shown in Table 10, the researcher tabulated several phrases in which the codes of the content analysis were identified. It was found that some codes overlap with other categories. In Table 11, the result of the analysis on questionnaire is presented.

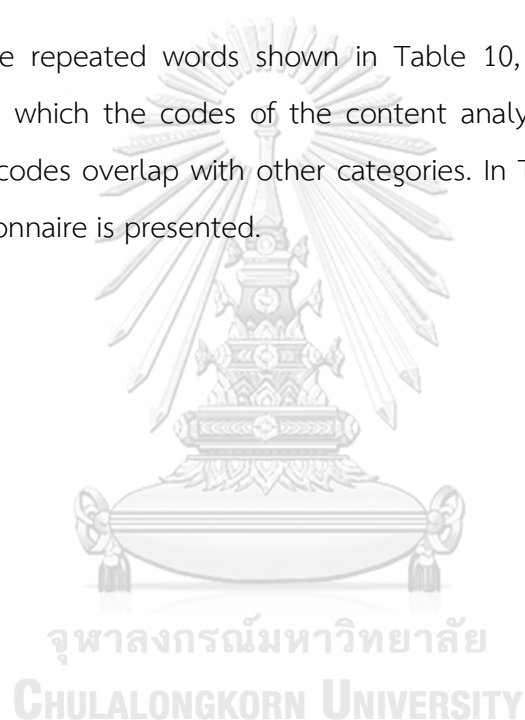


Table 11. Result of Content Analysis in In-depth Interviews

Categories	Codes	Meaning Units	Sector
Gentrification	Displacement	"Its [gentrification] connotation is displacement."	NGO
		"We are aware of displacement because part of the initial process is the Right of Way."	Developer
		"Of course, the lower class will always be defeated because they are actually not displaced but removed."	Developer
	Economic Development	"For many city governments, development is seen in a particular way, increased investments, increased commercial space, increased taxes, perhaps more high-rise buildings and things like that."	Academic
		"For me, urban development in QC [Quezon City] is more on commercial."	Community Member
Green Gentrification	Concerns on Sustainability	"For Green Gentrification, I think it refers to the process of making the city more proactive, more conscious in the environment, like they will give priority in being sustainable, eco-friendly."	Community Member
Urban Greening Policies and Initiatives	Lack of Policy Implementation	"...proper implementation [of the policies] is needed."	NGO
		"Policies are useless unless implemented."	Developer
Categories	Codes	Meaning Units	Sector
Gentrification and Urban Greening Policies and Initiatives	Perception of Development	"... transformation of areas... that requires injection of capital, transformation of space, and of course governments, that's what they want."	Academic
		"It is not only about this greening program and it's not only about the economic welfare, but it is as a whole."	Community Member
Gentrification and Green Gentrification	Context of Phenomena	"...case of Quezon City... that can be seen as a form of gentrification, but it doesn't fit the kind of model developed in western global north cities."	Academic
		"But us here in the Philippines [in comparison to other countries], it is more of blighted area, developing it into a greener area, and into a more developed area."	LGU
Green Gentrification and Urban Greening Policies and Initiatives	Thrust of the Government	"... to whom these policies are made for."	Academic
		"... this [greening] is a part of the thrust of the current administration."	LGU
		"...mass development of parks, green infrastructures, of everything green because it's part of the climate action of the city as well."	LGU
		"I think QC needs more green spaces."	Community Member
		"I think the effort on urban greening is miniscule."	Community Member
Categories	Codes	Meaning Units	Sector
Gentrification, Green Gentrification, and Urban Greening Policies and Initiatives	Education and Awareness	"I am not aware of the term[s] [Gentrification and Green Gentrification], but I am aware of the process."	Community Member
		"I can't feel the green [aspect]."	Community Member
		"I really don't know if the QC government has these greening policies even initiatives...."	Community Member

#### 4.2.1. Category of Gentrification

**Displacement.** Most of the subjects had a negative impression on the process of gentrification as they see the movement of people upon the development or redevelopment of an urban area a catalyst of displacement, especially of those who are poor. One of the respondents even said that what this vulnerable group of the society experience is not being displaced but rather being removed from that site of development wherein they reside. This point of view supports the idea of gentrification done in the study of Ortega (2016) wherein the accumulation of land happens through dispossession especially of those informal settlers within the Metropolitan Manila.

**Economic Development.** The respondents had the perception that the process of gentrification leans towards economic development. They talked about taxes and investments, infrastructures, and commercial spaces.

#### 4.2.2. Category of Green Gentrification

**Concerns on Sustainability.** Even though the greatest number of interviewees had a negative outlook regarding gentrification, most of them on the other hand had a good impression about green gentrification. In fact, 60% of the respondents gave a positive statement about green gentrification, while both negative perception and neutral perception about the said concept got 20% on each.

#### 4.2.3 Category of Urban Greening Policies and Initiatives

To determine how well-aware the subjects of the interview were in terms of the policy driven initiatives, the researcher computed for the percentage of subjects who discussed certain urban greening projects in which they were familiar with. The result are as follows:

Table 12. Subjects' Familiarity on Urban Greening Initiatives

<b>Projects/ Initiatives</b>	<b>Subjects Who Discussed the Initiative during the Interview</b>	<b>Total Subjects and Percentage</b>
Solid Waste Management (SWM)	6, 9, 10, 11, 12, 13, 14, 16	8 subjects (50%)
Parks and Open Spaces	1, 2, 3, 6, 7, 8, 9, 10, 11, 16	10 subjects (62.5%)
Transportation and Mobility	1, 2, 3, 4, 7, 8, 10, 11, 12, 14, 15, 16	12 subjects (75%)
Urban Agriculture	1, 2, 3, 4, 5, 7, 9, 11, 14	9 subjects (56.25%)

Presented in Table 12 are the subjects who discussed certain urban greening projects in which they are aware of existing in their respective communities. Each subject is being represented by a particular number to protect their identity.

**Lack of Policy Implementation.** In the data found in Table 12, it can be concluded that in each urban greening initiatives, at least half of the total number of subjects are aware about those projects. However, subjects' awareness of the existence of urban greening initiatives should not be equated with their satisfaction since those are two completely different things to consider. Despite their awareness of projects presented in Table 12, most of the subjects think that the city can still do better. On the one hand, some said that the government has not prioritized this kind of policy emphasizing on green spaces and that they need to work on it. On the other hand, some said that proper implementation of policies is needed as it would be pointless if those policies are not strictly observed.

#### 4.2.4. Category of Gentrification and Urban Greening Policies and Initiatives

**Perception of Development.** For the respondents, understanding what development means is crucial for all stakeholders as it shapes the outcome of everyone's actions. Most of the interviewees pointed out how gentrification leans more on economic development; however, there were some who pointed out that it is not only about economic welfare and greening. Societal considerations were being both explicitly and implicitly raised as well by some of the subjects. With that, the idea of sustainable development can be derived from the points of the interviewees as it has its three pillars which are the society, economy, and environment.

#### 4.2.5 Category of Gentrification and Green Gentrification

**Context of Phenomena.** Interviewed experts in the main concepts of this study said that there might be some differences in how gentrification and green gentrification operates in the global north and the global south. They raised some points on how the processes differ from one place to another. It is something that must be considered in knowing and understanding how people experience urban greening in relation to these two phenomena (e.g., Gentrification, and Green Gentrification).

#### 4.2.6 Category of Green Gentrification and Urban Greening Policies and Initiatives

**Thrust of the Government.** The thrust of the government is an essential data found in the analysis of interviews as it can bridge the gap between urban greening and gentrification. Some had good understanding about urban greening as they experience the benefits of the initiatives and projects; however, not all had the same fate. One way to see the relationship between urban greening and gentrification is by looking at the thrust of the government. By asking to whom these policies are made for, we can see the kind of vision the government has to its community. And as per the result of the interviews, it was found that the local government of Quezon City has been striving to cater the needs of the city in a sustainable manner as it is part of the thrust of the current administration.

#### 4.2.7 All Categories

**Education and Awareness.** Some community members who were interviewed seemed to be puzzled not only about the terms Gentrification, and Green Gentrification but on Urban Greening Policies and Initiatives as well. It is understandable about the first two concepts– gentrification, and green gentrification since nothing much have been written regarding their respective studies. However, in terms of urban greening policies and initiatives, unfamiliarity of those who were interviewed showed that there is still so much to work on in terms of educating not only the people in the office but the people in the community as well. In fact,



a few respondents reiterated the importance of having community members involved while planning and crafting policies.

#### 4.2.8. Summary of Content Analysis

Figure 5 summarizes the result of the content analysis done in the in-depth interviews.

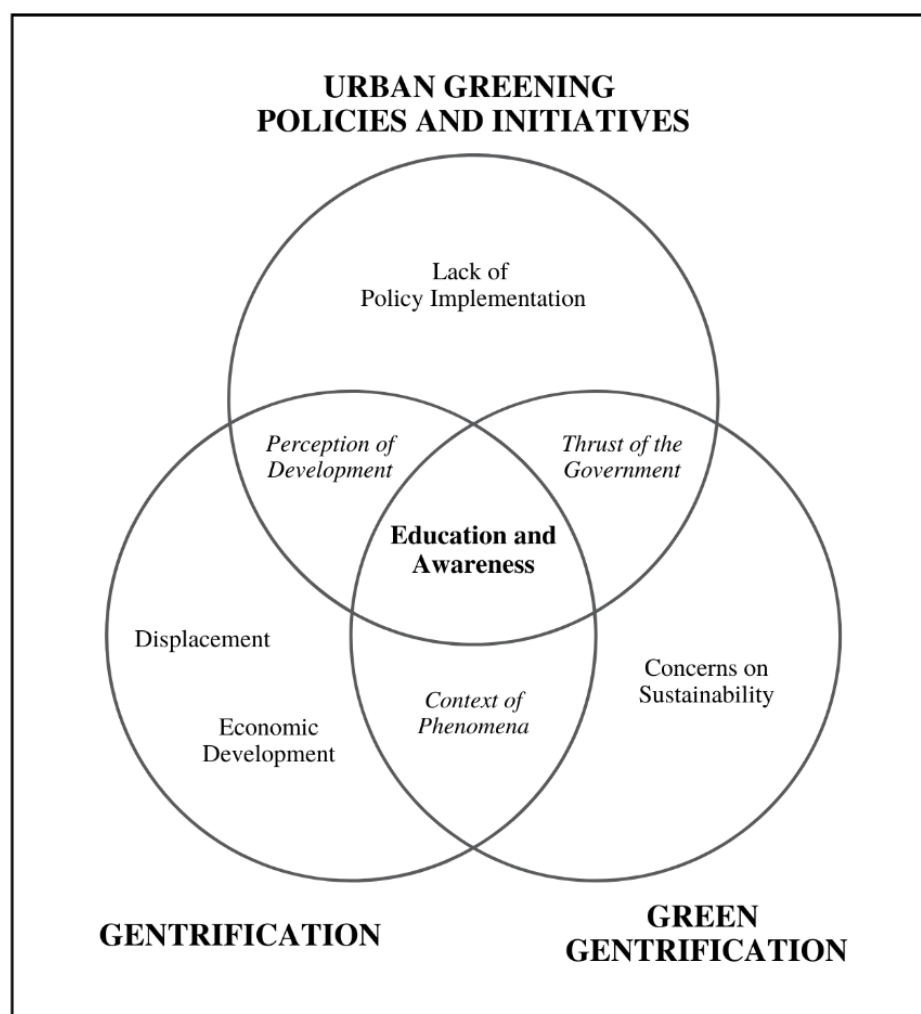


Figure 5. Summary of Content Analysis in In-depth Interviews

### 4.3. Policy Study

This research also employed policy study on published materials provided by the Quezon City Local Government. The researcher gathered certain documents that are related to gentrification, and urban greening policies and initiatives present in the case study area, that is the Novaliches-Lagro Growth Center. And as a complementary source of qualitative data, those documents were assessed and evaluated using content analysis to draw certain themes.

Table 13. Documents Released by the Quezon City Local Government Unit

Inclusive Date/s	Documents	Concepts Related to the Study
2011-2025	Comprehensive Land Use Plan (CLUP)	Gentrification, Green Gentrification
2014	Environmental Management Program	Urban Greening, Green Gentrification
2017-2020	Environmental Management Plan	Urban Greening, Green Gentrification

#### 4.3.1. Comprehensive Land Use Plan (CLUP 2011-2025)

The Comprehensive Land Use Plan 2011-2025 (CLUP 2011-2025) is a document showing the plans of Quezon City (QC) Local Government Unit (LGU) in compliance with the Local Government Code (RA 7160) which directs all local government units to prepare. Moreover, the above-said CLUP was crafted since the preceding CLUP 2000 already expired in the year 2010 (Quezon City Council, 2020). The Comprehensive Land Use Plan 2011-2025 is divided into eleven (11) chapters which are as follows:

Chapter 1:	Development Framework
Chapter 2:	Land Use and Infrastructure Development Challenges
Chapter 3:	The City's Vision and the National Planning Goals
Chapter 4:	The Long-Term Spatial Strategy
Chapter 5:	Growth Centers
Chapter 6:	The Non-Growth and Special Development Areas
Chapter 7:	The Green Lung Network
Chapter 8:	The Proposed Circulation Network
Chapter 9:	The Land Use Plan
Chapter 10:	Comprehensive Land Use Framework
Chapter 11:	Implementing the Comprehensive Land Use Plan

In this study, the researcher focused on Chapter 5, in which the case study location was derived and considered. In Chapter 5, the QC LGU stated that there are five areas considered to be as '*Growth Centers*' and one of which is the Novaliches-Lagro.

In terms of the development of the Novaliches-Lagro Growth Center, it was noticeable that in the CLUP 2011-2025, most considerations were leaning more towards the socio-economic aspect. Constraints and potentials, were considered to draw some proposals for the area. And to progress with the things that were proposed, several policy interventions were given. The policy interventions are as follows:

- Widening of roads especially in Novaliches Proper and decongesting Quirino Highway by providing alternative or parallel routes
- Encourage private investors to put up modern medical centers to supplement the few small hospitals that serve the growing population of the area and the neighboring cities
- Put up tertiary educational institutions to accommodate the growing student population taking up Vocational, IT, Medical Courses in the area instead of going to the University Belt of the City of Manila

- Establish a firefighting and first-aid response unit along Quirino Highway at Zabarte area for improved emergency response time
- Installation of a police community precinct at the Lagro-Fairview area is necessary to provide crime prevention and deterrent services in the zone where commuters and pedestrians often converge

The above-cited policy interventions reflect certain features that are present to the gentrification process. Looking at how gentrification progressed (e.g., the waves of gentrification), socio-economic concerns pushed certain communities to ‘redevelop’ or ‘revitalize’ the current state of their areas to strengthen the flow of capital. And in the case of Novaliches-Lagro in Quezon City, the policies cited in CLUP 2011-2025 reflected how social considerations were not intended to be jeopardized while trying to attain economic development.

#### **4.3.2. Environmental Management Program (2014)**

Environment Management Program is a summary report of Quezon City shared to the Asian Development Bank (ADB) in 2014. The report contains several programs related to environmental management. Among those projects, the concern for the Solid Waste Management (SWM) was highlighted. It complied to the Republic Act 9003 (RA 9003), also known as Ecological Solid Waste Management Act of 2000. The Quezon City LGU crafted a ten-year Solid Waste Management (SWM) Plan and was approved on the 22<sup>nd</sup> of October 2010. All programs related to SWM such as the creation of city’s Solid Waste Management Board, strict implementation of waste segregation at source, and dedicated collection schedule for biodegradable and non-biodegradable wastes (Quezon City Council, 2014), are part of urban greening projects and initiatives that the researcher is trying to study. It is because this study’s understanding of urban greening is patterned to that of Gould and Lewis (2017) that does not confine the concept with just the literal increase of green spaces. Alongside with the SWM-related projects are the different greening programs such as the following:

- Citywide Greening- Introduction of pockets of greenery in center islands and along waterway embankments
- Biodiversity Profiling- Documentation of carbon sequestration potential of the city's green spaces through tagging of trees
- Urban Farming Project- Provision of trainings on eco-waste management, vermi-composting, nursery management, and organic farming

Since the mentioned projects and initiatives were done city-wide, those were all done as well in the Novaliches-Lagro Growth Center, which is the case study area of this research. Urban Greening Policies and Initiatives under Environmental Management Program 2014 were mostly focusing on Solid Waste Management; however, hint of green, open spaces was being observed already in this particular report.

#### **4.3.3. Environmental Management Plan (2017-2020)**

Environmental Management Plan (2017-2020) is the eight (8<sup>th</sup>) chapter of the Comprehensive Development Plan 2017-2020 issued by the Quezon City Local Government Unit. It is crafted in compliance to the Local Government Code of the Philippines, Section 16 (Sec. 16), General Welfare. “The environment sector [of Quezon City] seeks to create a clean, green and resilient environment that is conducive to healthy living and attracts not only the local residents but also visitors from outside the country” (Quezon City Council, 2020). The Environmental Management Plan 2017-2020 has three main goals which are as follows:

Goal 1: To create a clean environment that is conducive to healthy urban living

Goal 2: To nurture and sustain a green environment where there is an ample and convivial space for living

Goal 3: To build a resilient city

These goals have their specific strategies. Goals 1 and 2 have six (6) strategies under them, while Goal 3 has three (3) strategies under it. Here are the following goals and strategies that are found within the case study area of Novaliches-Lagro, and policy interventions that are related to this research:

Goal 1: To create a clean environment that is conducive to healthy urban living.

Strategy 1: Reduce the volume of solid waste reaching the final disposal site to 50% of the amount generated.

Table 14. EMP 2017-2020, Goal 1, Strategy1 Policy Interventions

POLICY INTERVENTIONS			
Category	Programs/Projects	Services	Legislations
Waste Management	-Capacity development for barangays to implement proper Solid Waste Management (SWM)	-City-wide implementation of waste segregation by all stakeholders (e.g., barangays, schools, hospitals, establishments, etc.)	-Mandatory compliance with the provisions of RA 9003 and EO 774 (e.g., waste segregation, establishment of Materials Recovery Facilities (MRFs), 50% reduction, etc.)  -Enactment of Plastic Bag Regulation to reduce the use of plastic bags

Goal 2: To nurture and sustain a green environment where there is an ample and convivial space for living

Strategy 1: Develop an integrated system and hierarchy of parks and open spaces to make Quezon City the greenest city and most disaster-resilient community in Metro Manila

Table 15. EMP 2017-2020, Goal 2, Strategy 1 Policy Interventions

POLICY INTERVENTIONS			
Category	Programs/Projects	Services	Legislations
Parks and Open Spaces	<ul style="list-style-type: none"> <li>-Formulation of the Integrated Parks and Open Spaces</li> <li>-Clearing, recovery and/or development of green spaces, easements and utility corridors into parks and urban forests to increase the green areas to 25% of the city's total land area</li> <li>-Survey of easements, open spaces, and other potential green areas</li> <li>-Parks Development Program</li> <li>-Comprehensive Parks Development Program</li> <li>-Development/ Rehabilitation/ Improvement of Parks</li> </ul>	<ul style="list-style-type: none"> <li>-Maintenance and improvement of parks</li> <li>-Promotion of the use of parks</li> </ul>	<ul style="list-style-type: none"> <li>-Strong policy/ ordinance on open space and parks preservation and prohibiting the conversion of easements, parks, and park strips for other use</li> <li>-Mainstreaming green development in the Land Use Plan</li> </ul>
Transportation and Mobility	<ul style="list-style-type: none"> <li>-Green development of center islands, directional islands, and sidewalks</li> <li>-MRT Line 7*</li> </ul>	<ul style="list-style-type: none"> <li>-Implementation of the Green Building Ordinance</li> </ul>	<ul style="list-style-type: none"> <li>-Ordinance requiring developers/builders to replace every single tree affected/ removed during development with 10 trees and replace every planted tree that dies</li> <li>-Mainstreaming green development in the Land Use Plan</li> </ul>
Urban Agriculture	<ul style="list-style-type: none"> <li>-Urban Farming</li> </ul>	<ul style="list-style-type: none"> <li>-Public education on environment protection</li> </ul>	<ul style="list-style-type: none"> <li>-Mainstreaming green development in the Land Use Plan</li> </ul>

*\*MRT Line 7 is a project by the National Government under Public-Private Partnership (PPP)*

Strategy 5: Provide citizens, regardless of age, gender and status in life, access to people friendly parks.

Table 16. EMP 2017-2020, Goal 2, Strategy 5 Policy Interventions

POLICY INTERVENTIONS	
Category	Programs/Projects
Parks and Open Spaces	<ul style="list-style-type: none"> <li>-Parks Development Program</li> <li>-Acquisition of lands for parks</li> <li>-Development of safe access to parks like underpasses, overpasses, and walkways</li> <li>-Identify open spaces for barangay/community parks</li> </ul>

Strategy 6: Actively engage participation of the community and all sectors of the society in the care, protection and promotion of the environment based on concept of stewardship with respect to sharing of knowledge, capabilities, and resources

Table 17. EMP 2017-2020, Goal 2, Strategy 6 Policy Interventions

POLICY INTERVENTIONS		
Category	Programs/Projects	Services
Parks and Open Spaces	-Agreements between Homeowners' Associations (HOAs) and barangays for the maintenance and management of parks in the community	-Memorandum of Agreement between homeowners' Associations and barangay (rules and regulation)

For the Environmental Management Plan (2017-2020), a more detailed plan is now apparent compared to Environmental Management Program in 2014. The researcher decided to add columns for categories to clearly introduce what kind of urban greening project is being discussed. Moreover, goals, strategies, and policy interventions were clearly specified in the said plan. Aside from the emphasis given in Solid Waste Management that surfaced from the Environmental Management Program 2014, Environmental Management Plan 2017-2020 showcased a more diverse plan in which policies related to urban greening were planned to be seen in different projects.



#### 4.3.4. Policy Study Analysis

Applying content analysis to the three documents released by the Quezon City Local Government Unit, the researcher saw that following:

- Concerns on the process of Gentrification were found in the Comprehensive Land Use Plan (CLUP 2011-2025).
- Concerns on the process of Green Gentrification were found in the both the Environmental Management Program (2014), and Environmental Management Plan (2017-2022).
- Concerns on Urban Greening Policies and Initiatives were found in all three documents discussed in this section of the study.

**Concerns on the process of Gentrification.** This study looks at Gentrification as the process wherein urban spatiality is experiencing an “upward” transformation (Gray and Wyly, 2020) that causes the movement of middle-class people to lower-class neighborhoods that was developed. Prior studies had different finding regarding the outcome of this phenomenon as some researchers found that it leads to displacement, while some concluded that it does not. This study looks at gentrification as a neutral process that is, a transformation of an urban area that involves the movement of people, because only in that way the researcher can find out the relationship of policies with gentrification and its outcome in an unbiased manner.

Based on the policy interventions provided in the Comprehensive Land Use Plan (CLUP 2011-2025), the researcher found that each intervention provided for the Novaliches-Large area tried to address socio-economic issue. Economic development goals set forth by the Quezon City Local Government Unit found in this document showed certain considerations for the welfare of the society. Hence, the objectives of the policy interventions for the case study area of this research were leading towards the positive impacts of socio-economic aspect and if in any case there would be negative outcomes, it is sound to say that those were unintended.

**Concerns on the Process of Green Gentrification.** In this study, Green Gentrification is being seen as gentrification triggered by green initiatives. In that regard, the researcher gathered materials containing various urban greening policies and initiatives that can be found in the Novaliches-Lagro area, the case study area of this research.

For the Environmental Management Program 2014, the most reiterated policy and initiative was on Solid Waste Management (SWM). The researcher saw other urban greening projects that might trigger green gentrification such as urban farming, open spaces, and green spaces; however, nothing much was indicated compared to the well-detailed policy and program on SWM. Transitioning to the Environmental Management Plan (2017-2020), the researcher found out that most policies and programs from Environmental Management Program in 2014 were continued in this plan. However, in terms of the emphasis given, Environmental Management Plan, despite being more comprehensive than Environmental Management Program in 2014, reiterated more on the category of Parks and Open Spaces. With that, the researcher was able to derive a thought that in the course of time, the thrust of the QC LGU has becoming more adaptive into making the city 'green'.

**Concerns on Urban Greening Policies and Initiatives.** Despite the fact that the main concern of each analyzed document in this section cater a particular concept of this study, such as CLUP 2011-2025 on Gentrification, and Environmental Management Program 2014 and Environmental Management Plan 2017-2020 on Green Gentrification, the researcher saw that all these three provided details on Urban Greening Policies and Initiatives. For instance, in CLUP 2011-2025, the main concern is on the process of gentrification. An example policy intervention is to establish more tertiary educational institutions so that the growing population would not bother to travel from Quezon City to the City of Manila. Such policy clearly caters socio-economic aspect; however, that implies less carbon footprint as well which caters the concern of urban greening. Given that example, it is noticeable that the three pillars of sustainability (e.g., society, economy, and environment) are being covered. Remember that this study does not only look at Urban Greening

as the literal increase of green spaces. This study adopted the definition provided by Gould and Lewis (2017) wherein urban greening extends to green initiatives such as “increasing the energy efficiency of buildings, developing public transportation, providing healthy, locally sourced food, and improving recycling programs”. On the one hand, concerns on urban greening policies and initiatives were easily found in Environmental Management Program in 2014, and Plan in 2017-2020. But on the other hand, the researcher was also able to realize some implicit urban greening concerns from CLUP 2011-2025. Hence, these documents studied by the researcher using content analysis all possess concerns on Urban Greening Policies and Initiatives.

**Synthesis of Policy Study.** Even though the materials used for policy study addressed different concepts of this research, these three could still be synthesized given the fact that they address changes towards urban development. Their interrelation was seen not only in the content analysis done by the researcher but also by realizing that these concepts were in the first place related to each other. Green gentrification is related to gentrification as it is a kind of gentrification triggered by green initiatives. These green initiatives then are being seen through the different urban greening policies set forth by the local government of Quezon City.

By conducting content analysis through the different materials gathered for policy study, the researcher was able to identify the different urban greening policies and initiatives in the case study area. The objectives of these policy-driven plans in the city were important information used by the researcher in generating research findings through data triangulation discussed in the next chapter.

#### 4.4 Summary of Research Results

Presented in Table 18 is the summary of research results.

Table 18. Research Results Summary

QUESTIONNAIRE	IN-DEPTH INTERVIEWS	POLICY STUDY
<b>Gentrification</b>	<b>Gentrification</b>	<b>Gentrification</b>
1. Gentrification is a process of development ( <i>Likert item 1: 54.5%, Agree</i> ), but entails increase in living expenses ( <i>Likert item 3: 51.75%, Agree</i> ).	1. Displacement 2. Economic Development	1. Socio-economic Aspect
<b>Green Gentrification</b>	<b>Green Gentrification</b>	<b>Green Gentrification</b>
1. Green Gentrification is an indicator of sustainable city ( <i>Likert item 2: 51%, Agree</i> ), but has unintended consequences like that of increase of living expenses ( <i>Likert item 4: 52.75%, Likert item 5: 52%, both Agree</i> ).	1. Concerns on Sustainability	1. Shift in highlighted greening initiative 2. Goals are inclining toward social and environmental aspects
<b>Urban Greening Policies and Initiatives</b>	<b>Urban Greening Policies and Initiatives</b>	<b>Urban Greening Policies and Initiatives</b>
1. Urban Greening Initiatives: a.) Accessibility of Parks b.) Benefits of Green/Open Spaces c.) Transportation and Mobility d.) Urban Agriculture ( <i>Likert items 6, 7, 9, 10 proves the existence of the above-said initiatives</i> )	1. Urban Greening Initiatives: a.) Solid Waste Management (SWM) ( <i>8 subjects</i> ) b.) Parks and Open Spaces ( <i>10 subjects</i> ) c.) Transportation and Mobility ( <i>12 subjects</i> ) d.) Urban Agriculture ( <i>9 subjects</i> )	1. Urban Greening Initiatives: a.) Solid Waste Management (SWM) b.) Parks and Open Spaces c.) Transportation and Mobility d.) Urban Agriculture
2. Most people enjoy urban greening initiatives ( <i>Likert item 6: 40.5%, Likert item 7: 55.25%, Likert item 9: 52.5%, all Agree</i> ), but some residents have a neutral perception about those projects ( <i>Likert item 10: 44.25%, Neutral</i> ).	2. Lack of Policy Implementation	2. Concerns on Sustainability
	Gentrification and Urban Greening Policies and Initiatives	
	1. Perception of Development	
	Gentrification and Green Gentrification	
	1. Context of Phenomena	
	Green Gentrification and Urban Greening Policies And Initiatives	
	1. Thrust of the Government	
	All Categories	
	1. Education and Awareness	

## CHAPTER V

### RESEARCH FINDINGS AND DISCUSSION

By using the data from the research results discussed in the previous chapter, the researcher employed data triangulation to derive with corroborated research findings. Moreover, aside from having corroborated research findings, having various lines of sight, and understanding regarding the phenomena being studied, (e.g., Gentrification, Green Gentrification, and Urban Greening) is also a tremendous role data triangulation plays in this study. These findings extracted from triangulation are then discussed to see how they satisfy the questions and objectives of this research.

#### 5.1 Research Findings

By cross-examining the research results, the researcher was able to draw the research findings. These findings were able to satisfy the research objectives that seek to understand the problems being posed in this study. Urban greening policies and initiatives in the case study area were identified. Furthermore, the implications of those policy driven initiatives to the processes of gentrification, and of green gentrification were found.

The policy driven urban greening initiatives found in the case study area are as follows:

- Solid Waste Management (SWM)
- Parks and Open Spaces
- Transportation and Mobility
- Urban Agriculture

**Solid Waste Management (SWM).** Solid Waste Management in the case study area includes proper segregation of wastes. There is an existing schedule when a particular type of waste is about to be collected. Collected wastes undergo environmentally friendly processes such as efficient recycling programs. Moreover, the city also discourages the use of plastic bags to control the amount of plastic wastes.

**Parks and Open Spaces.** Parks and open spaces include the development and redevelopment of parks in the city. Acquisition of lands for parks and open spaces in communities is also one of the objectives of this policy-driven initiative.

**Transportation and Mobility.** This initiative includes the promotion and production of public e-vehicles within the city to reduce air pollution from cars since private ownership of vehicles has been increasing in the course of time. Moreover, the MRT Line 7 initiated by the National Government through Public-Private Partnership crosses a part of the case study area promoting mass transit. Aside from these green movements included in transportation, the city has also been developing sidewalks and islands making the city walkable.

**Urban Agriculture.** The city also promotes urban gardening addressing its main concern on food production. Through urban gardening, locals are able to produce locally sourced food confronting the issue of hunger especially in poverty-stricken communities. Some barangays not only allow them to borrow lands or mediate in borrowing lands where they can do urban gardening but also provide seeds to those who have lots in their own properties so they can participate in the said initiative within their homes.

With the urban greening initiatives mentioned, research finding regarding the *manifestation of urban greening policies in the case study area* was concluded by the researcher. In terms of the implication of the current policy to the phenomena of gentrification, and of green gentrification, the researcher was able to draw the following research findings: *friction between social and economic development*, and *infusion of sustainable considerations*, respectively. And lastly, by further analyzing the said findings, the researcher was able to deduce that there is an *indication of certain trade-offs in the process of urban development* as the concepts of gentrification, green gentrification, and urban greening coincide.

## 5.2 Discussion

In section 5.2 of this chapter, the research findings derived from the research results were introduced. In this section, each finding is further discussed by the researcher. Presented in Table 18 are the research findings of this study alongside with the addressed research objectives and research problems.

### 5.2.1 Friction between Social and Economic Development

This research finding claims that there is an existing friction between social and economic development. This is the implication of the current policy toward gentrification. Such stance is being suggested upon cross examining the research results.

Content analysis of the Comprehensive Land Use Plan (CLUP) 2011-2025 shows that the policies meant for the case study area aim for socio-economic development. However, it is not being actualized as the result of other data gathering tools such as the questionnaire and the in-depth interviews show a different result. Questionnaire result shows that 54.25% of the respondents agrees that gentrification is a part of city development; however, 51.57% of the total respondents also agrees that the process triggers the increase of living expenses. Related result is present in the in-depth interviews since most of the interviewees talk about the reality of displacement.

By looking closely at the above-said results, the link between gentrification and displacement is noticeable. However, the increase in the cost of living mediates. Such linkage supports the stance of urbanist Richard Florida who quotes scholar Lance Freeman (2005), saying that gentrification does “not really” displace the lower and working class people and that the rising house prices has the huge effect towards these vulnerable groups (Paikin, 2017).

Table 19. Derivation of Research Findings

RESEARCH QUESTIONS	RESEARCH OBJECTIVES	RESEARCH RESULTS	RESEARCH FINDINGS
What is the current relationship between urban greening and gentrification in Quezon City?	To analyze the gap, potential, and possibilities between urban greening and gentrification	<b>A:</b> (Questionnaire)- Gentrification is a process of development ( <i>Likert item 1: 54.5%, Agree</i> ), but entails increase in living expenses ( <i>Likert item 3: 51.75%, Agree</i> ).	<b>A, B, E, F:</b> Indication of certain trade-offs in the process of urban development as the phenomena of gentrification, green gentrification, and urban greening coincide.
		<b>B:</b> (Questionnaire)- Most people enjoy urban greening initiatives ( <i>Likert item 6: 40.5%, Likert item 7: 55.25%, Likert item 9: 52.5%, all Agree</i> ), but some residents have a neutral perception about those projects ( <i>Likert item 10: 44.25%, Neutral</i> ).	
		<b>C:</b> (In-depth Interviews)- Perception of Development	
		<b>D:</b> (In-depth Interviews)- Thrust of the Government	
		<b>E:</b> (In-depth Interviews)- Lack of policy implementation	
		<b>F:</b> (In-depth Interviews)- Education and Awareness	
		<b>G:</b> (Policy Study)- Urban Greening Initiatives: a.) Solid Waste Management (SWM) b.) Parks and Open Spaces c.) Transportation and Mobility d.) Urban Agriculture ( <i>Based on EMP 2014, EMP 2017-2020</i> )	
What are the current policies in Quezon City that are linked to the phenomenon of gentrification?	To identify the current policy and its implications on gentrification in Quezon City	<b>A, F</b>	<b>A, H, I, J:</b> Friction between social and economic development
		<b>H:</b> (In-depth Interviews)- Displacement	
		<b>I:</b> (In-depth Interviews)- Economic Development	
What policies set forth by the Quezon City Local Government aim towards urban greening?	To study the policies linked with urban greening in Quezon City	<b>J:</b> (Policy Study)- Socio-economic Development ( <i>Based on CLUP 2011-2025</i> )	<b>G, K, L:</b> Manifestation of Urban Greening Policies in the Case Study Area
		<b>G</b>	
		<b>K:</b> (Questionnaire)- Urban Greening Initiatives derived from policies: a.) Accessibility of Parks b.) Benefits of Green/Open Spaces c.) Transportation and Mobility d.) Urban Agriculture ( <i>Likert items 6, 7, 9, 10 proves the existence of the above-said initiatives</i> )	
		<b>L:</b> (In-depth Interviews)- Urban Greening Initiatives: a.) Solid Waste Management (SWM) ( <i>8 subjects</i> ) b.) Parks and Open Spaces ( <i>10 subjects</i> ) c.) Transportation and Mobility ( <i>12 subjects</i> ) d.) Urban Agriculture ( <i>9 subjects</i> )	
What are the implications of Quezon City's policies inclining in going "green" to the phenomenon of green gentrification?	To propose policy recommendations for the potential implication of urban greening with green gentrification	<b>M:</b> (Questionnaire)- Green Gentrification is an indicator of sustainable city ( <i>Likert item 2: 51%, Agree</i> ), but has unintended consequences like that of increase of living expenses ( <i>Likert item 4: 52.75%, Likert item 5: 52%, both Agree</i> ).	<b>M, N, Q:</b> Infusion of Sustainable Considerations
		<b>N:</b> (In-depth Interviews)- Concerns on Sustainability	
		<b>O:</b> (Policy Study)- Shift in highlighted greening initiative	
		<b>P:</b> (Policy Study)- Goals are inclining toward social and environmental aspects	
		<b>Q:</b> (Policy Study)- Concerns on Sustainability	



### 5.2.2 Manifestation of Urban Greening Policies in the Case Study Area

Research finding about the manifestation of urban greening policies in the case study area attests how the policy driven urban greening initiatives are being actualized and experienced by the people.

Policy study on the Environmental Management Program 2014, and Environmental Management Plan 2017-2020 shows that the following urban greening initiatives are existing in the case study area:

- Solid Waste Management (SWM)
- Parks and Open Spaces
- Transportation and Mobility
- Urban Agriculture

The manifestation of the above-said urban greening initiatives is being supported by the research results from the questionnaire and in-depth interviews. On the one hand, Likert items 6, 7, 9, and 10 of the questionnaire prove the existence of these various initiatives. On the other hand, content analysis done in the in-depth interviews echoes the same result. In each of the mentioned urban greening initiatives, at least half of the interviewees are aware of the existence of those project in their respective barangays. 8 subjects (50%) talk about SWM, 10 subjects (62.5%) talk about Parks and Open Spaces, 12 subjects (75%) talk about Transportation and mobility, and 9 subjects (56.25%) talk about Urban Agriculture.

### 5.2.3 Infusion of Sustainable Considerations

Despite the fact that some negative connotations such as increase in living expenses and displacement are being associated with gentrification, green gentrification on the other hand is being seen as sustainable. This research finding suggests that stakeholders acknowledge the infusion of sustainable considerations in green gentrification as it is being triggered by green initiatives.

Result from the questionnaire shows that 51% or 204 of the total respondents agree that green gentrification is an indicator of sustainable city. In the policy study, the result of the analysis shows how each published material addresses some aspects that are considered and are included in the pillars of sustainability (e.g., Society, Economy, and Environment). For instance, on the one hand, the Comprehensive Land Use Plan (CLUP) 2011-2025 addresses socio-economic aspects. On the other hand, Environmental Management Program 2014, and Environmental Management Plan 2017-2020 addresses aspects leaning towards social and environmental. With all these three policy-containing materials, the manifestation of Green Gentrification is being seen, alongside with the objectives that fit the concept of sustainability. Hence, Green Gentrification is seen as sustainable.

Furthermore, the above-said stance of this finding is also being reinforced by the results from the in-depth interviews. Subject 14 says: *“For Green Gentrification, I think it refers to the process of making the city more proactive, more conscious in the environment, like they will give priority in being sustainable, eco-friendly”*, while for Subject 3, *“[green gentrification] is infusing green concepts, environmental concepts, and sustainable concepts into development”*.

#### **5.2.4 Indication of Certain Trade-offs in Urban Development**

Deduced from the results and findings discussed in the previous sections and chapters of this study, indication of certain trade-offs particularly in urban development of the case study area is found.

Through policy study, the published materials unveil the objectives of the policies related to the phenomena of gentrification (including green gentrification), and urban greening. However, even though the objective of Urban Greening is innately for the benefit of everyone, unintended consequences can possibly arise if policies within a particular area fails. As Atkinson and Bridge (2005) argue: “it remains important for policy-makers and academics to try and understand how equitable [urban] development can be achieved without the stark problems associated with

unchecked gentrification.” Hence, there is an important call to study the relationship between urban greening and gentrification.

The result of questionnaire shows that even though there is a huge population that sees gentrification and green gentrification positively, there are still some unintended negative consequences alongside with those phenomena. One of which is the increase of living expenses, which may lead to displacement. That is why it is important for stakeholders to understand what kind of development it is that best fit the community considering their context. The kind of development a city is leaning into is seen through its policies. Now comes a very important question, which is being raised as well by Subject 1 in the in-depth interviews: “... *to whom these policies are made for?*” This question is indeed consequential as it is not easy to just attach a label into a particular policy after evaluation. Howlett and Giest (2015) even echo Ingram and Mann (1980) with their stance that “such concepts [of success and of failure] are slippery and often highly subjective”. It is indeed good to remember that the progress of policies depends on the process of implementation (Hudson, et al., 2019). As Subject 4 says in the interview, “*Policies are useless unless implemented. [That is why] proper implementation [of the policies] is needed*”.

The analysis done in data triangulation solidifies this finding of this study. Seeing things from varying perspectives offers different layers of understanding with regards to what is happening in the community. That is the reason why the researcher also tries to understand the perception not only of those who are in position, like for instance those who are in the office having certain power in crafting policies but also of those who are recipients of these policies, the community members.

## CHAPTER VI

### CONCLUSION AND RECOMMENDATIONS

#### 6.1 Conclusion

This study tried to understand the unexplored relationship between urban greening and gentrification within the case study area situated in Quezon City, Philippines. Among the five growth centers the said city has, the researcher chose Novaliches-Lagro the place to conduct the study in consideration of several criteria.

The research was conducted using a mixed-method research approach. Qualitative data was derived from in-depth interviews, and policy study of published materials, while quantitative data was gathered from a 5-point Likert type questionnaire. Content analysis was done to the data gathering tools mentioned to get the research results. The results of these data were cross-examined by data triangulation to come up with corroborative research findings. Satisfying the objectives of this research, the research findings are as follows: *Friction between Social and Economic Development, Manifestation of Urban Greening Policies in the Case Study Area, Infusion of Sustainable Considerations, and Indication of Certain Trade-offs in the Process of Urban Development as the Phenomena of Gentrification, Green Gentrification, and Urban Greening Coincide*. These findings were able to answer the research objectives of this study, which were then aligned to answer the research questions. Hence, the relationship between urban greening and gentrification (including green gentrification) was identified in this research.

## 6.2 Policy Recommendations

Considering the research findings mentioned in the previous sections, here are a few policy recommendations:

Table 20. Policy Recommendations and Targets

<b>RESEARCH FINDINGS</b>	<b>POLICY RECOMMENDATIONS</b>	<b>TARGETS</b>
Friction between Social and Economic Development	Policy on Affordable Housing	National Government and Local Government
Infusion of Sustainable Considerations	Policy on Sustainable Urban Planning	Local Government
Indication of Certain Trade-offs in the Process of Urban Development	Education and Participatory Planning on Sustainable Community Development	Barangay Level and Community Members

**Policy on Affordable Housing.** Since the increase in living expenses and the reality of displacement are being associated with the concept of gentrification, policy on affordable housing is being recommended to the National Government to avoid the unintended negative consequences being posed by rapid urbanization. For this to happen, proper budget must be allocated to the concerned government office. Local Governments are encouraged to work together with the National Government in order to manage the effects being imposed by the friction between social and economic development.

Both the National and the Local Government must work hand in hand in providing affordable housing. These stakeholders must work efficiently; hence, not only making housing projects for the sake of making one. Matters regarding the accessibility, and the size of the houses must be decent enough so that people relocated to that area would not seek to find another area within the city.

**Policy on Sustainable Urban Planning.** In the course of time, cities tend to expand as the population tend to be denser as well. Apparently, larger population would have more demands than areas with sparse population; hence, sustainable

considerations is of great importance regarding this matter. In this study, community members are aware of the urban greening policies and even associate sustainability concepts with the process of gentrification, particularly of green gentrification. However, their awareness is not to be equated with their satisfaction. It is not enough to have policies be realized, they are also meant to be actualized through effective and efficient implementation. With this, there is a call for all public servants to make their urban greening policies and initiatives strongly implemented as it is of great importance especially in this point of history.

**Education and Participatory Planning on Sustainable Community Development.** Trade-offs are evident as stakeholders try to balance the aspects of sustainability. With that, educating the community members regarding the possible trade-offs of urbanization is being recommended in Barangay Level. If community members are well informed about the risks and possibilities of living in an urban area, they will be more encouraged to be involved in achieving the current thrust of the local government of Quezon City towards sustainability.

Barangay Level should not be lax with regards to their duties and responsibilities. They are responsible as well in making the community and its people aware not only of the projects but also of the realities of the community and of the city. Seminars and workshops can be a tremendous help. However, the initiatives of the local officials would not work if community members would not volunteer and involve themselves. Thus, participation of all stakeholders is important in achieving a sustainable city.

## REFERENCES

- Aalbers, M. B. (2019). Introduction To The Forum: From Third To Fifth-Wave Gentrification. *Tijdschrift voor Economische en Sociale Geografie*, 110(1), 1-11. <https://doi.org/https://doi.org/10.1111/tesg.12332>
- Analysing Likert Scale/Type Data. (2014). <https://www.st-andrews.ac.uk/media/ceed/students/mathssupport/Likert.pdf>
- Arcilla, R. (2014). *QC Growth Areas*. <https://prezi.com/yv7i1zlbxix/qc-growth-areas/>
- Atkinson, R., & Bridge, G. (Eds.). (2004). *Gentrification in a Global Context (1st ed.)*. Routledge. <https://doi.org/https://doi.org/10.4324/9780203392089>
- Chambers, R. (1997). *Whose Reality Counts? Putting First Last*. ITDG Technology.
- Chaolin, G. U. (2020). Urbanization. In A. Kobayashi (Ed.), *International Encyclopedia of Human Geography (Second Edition)* (pp. 141-153). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-08-102295-5.10355-5>
- Checker, M. (2011). Wiped Out by the “Greenwave”: Environmental Gentrification and the Paradoxical Politics of Urban Sustainability. *City & Society*, 23(2), 210-229. <https://doi.org/https://doi.org/10.1111/j.1548-744X.2011.01063.x>
- Choi, N. (2016). Metro Manila through the gentrification lens: Disparities in urban planning and displacement risks. *Urban Studies*, 53(3), 577-592. <https://doi.org/10.1177/0042098014543032>
- Colebatch, H. K. (2009). *Policy*. McGraw-Hill.
- Council, Q. C. (2014). *Environmental Management Program*. Retrieved from <https://events.development.asia/system/files/materials/2014/05/201405-quezon-citys-environmental-management-program.pdf>
- Council, Q. C. (2020a). *Comprehensive Land Use Plan 2011-2025*. Retrieved from <https://quezoncity.gov.ph/wp-content/uploads/2020/12/CLUP-2011-2025-Final-Version.pdf>
- Council, Q. C. (2020b). *Growth Centers*. Retrieved from <https://quezoncity.gov.ph/wp-content/uploads/2020/12/2011-2030-CLUP-Annex-03-Growth-Centers.pdf>
- Council, Q. C. (n.d.). *Environmental Management Plan*. Retrieved from

- <https://quezoncity.gov.ph/wp-content/uploads/2021/01/08-CDP-2017-2020.pdf>
- Dooling, S. (2009). Ecological Gentrification: A Research Agenda Exploring Justice in the City. *International Journal of Urban and Regional Research*, 33(3), 621-639.  
<https://doi.org/https://doi.org/10.1111/j.1468-2427.2009.00860.x>
- Florida, R. (2017). *Richard Florida on 10 Questions on Gentrification* [Interview]. TVO.
- Franck, K. A. (2005). Built Environment. In K. Kempf-Leonard (Ed.), *Encyclopedia of Social Measurement* (pp. 203-209). Elsevier.  
<https://doi.org/https://doi.org/10.1016/B0-12-369398-5/00526-0>
- Freeman, L. (2005). Displacement or Succession?: Residential Mobility in Gentrifying Neighborhoods. *Urban Affairs Review*, 40(4), 463-491.  
<https://doi.org/10.1177/1078087404273341>
- Gould, K., Lewis, T. (2016). *Green Gentrification: Urban sustainability and the struggle for environmental justice (1st ed.)*. Routledge.  
<https://doi.org/https://doi.org/10.4324/9781315687322>
- Gray, D., Wyly, E. (2020). Gentrification. In A. Kobayashi (Ed.), *International Encyclopedia of Human Geography (Second Edition)* (pp. 335-341). Elsevier.  
<https://doi.org/https://doi.org/10.1016/B978-0-08-102295-5.10881-9>
- Habitat III: Third United Nations Conference on Housing and Sustainable Urban Development. (2015). *Journal of Education for Sustainable Development*, 9(2), 125-125. <https://doi.org/10.1177/0169796X15600604c>
- Hackworth, J., Smith, N. (2001). The changing state of gentrification. *Tijdschrift voor Economische en Sociale Geografie*, 92(4), 464-477.  
<https://doi.org/https://doi.org/10.1111/1467-9663.00172>
- Hajian, M., & Jangchi Kashani, S. (2021). Evolution of the concept of sustainability. From Brundtland Report to sustainable development goals. In C. M. Hussain & J. F. Velasco-Muñoz (Eds.), *Sustainable Resource Management* (pp. 1-24). Elsevier.  
<https://doi.org/https://doi.org/10.1016/B978-0-12-824342-8.00018-3>
- He, J., Wang, S., Liu, Y., Ma, H., Liu, Q. (2017). Examining the relationship between urbanization and the eco-environment using a coupling analysis: Case study of Shanghai, China. *Ecological Indicators*, 77, 185-193.  
<https://doi.org/https://doi.org/10.1016/j.ecolind.2017.01.017>



- Howlett, M., Giest, S. (2015). Policy Cycle. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)* (pp. 288-292). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-08-097086-8.75031-8>
- Howlett, M., Perl, A., Ramesh, M. (2009). *Studying Public Policy: Policy Cycles & Policy Subsystems*. Oxford University Press.  
<https://books.google.co.th/books?id=9I1zPwAACAAJ>
- Hudson, B., Hunter, D., Peckham, S. (2019). Policy failure and the policy-implementation gap: can policy support programs help? *Policy Design and Practice*, 2(1), 1-14.  
<https://doi.org/10.1080/25741292.2018.1540378>
- Ingram, H. M., Mann, D. E. (1980). Why policies succeed or fail.
- LaMarca, N. (2011). The Likert Scale: Advantages and Disadvantages. *Field Research in Organizational Psychology*. <https://psyc450.wordpress.com/2011/12/05/the-likert-scale-advantages-and-disadvantages/>
- Lasswell, H. D. (1956). The Decision Process: Seven Categories of Functional Analysis.  
<https://psyc450.wordpress.com/2011/12/05/the-likert-scale-advantages-and-disadvantages/>
- Lasswell, H. D. (1971). *A Pre-view of Policy Sciences*. American Elsevier Publishing Company. <https://books.google.co.th/books?id=MY1RAAAAMAAJ>
- Lees, L., Slater, T., Wyly, E.K. (2008). *Gentrification*. Routledge.  
[https://books.google.co.th/books?id=J\\_pfOgAACAAJ](https://books.google.co.th/books?id=J_pfOgAACAAJ)
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22 140, 55-55.
- Liu, Y., Gao, H., Cai, J., Lu, Y., Fan, Z. (2022). Urbanization path, housing price and land finance: International experience and China's facts. *Land Use Policy*, 113, 105866. <https://doi.org/https://doi.org/10.1016/j.landusepol.2021.105866>
- Mizumoto, A., Takeuchi, O. (2009). Comparing Frequency and Trueness Scale Descriptors in a Likert Scale Questionnaire on Language Learning Strategies. *JLTA Journal Kiyō*, 12, 116-136. [https://doi.org/10.20622/jltaj.12.0\\_116](https://doi.org/10.20622/jltaj.12.0_116)
- Moreno, R., Braga, D., Xavier, L. (2021). Socio-Ecological Conflicts in a Global South Metropolis: Opportunities and Threats of a Potential Greenway in the São Paulo

- Metropolitan Region [Policy and Practice Reviews]. *Frontiers in Sustainable Cities*, 3. <https://doi.org/10.3389/frsc.2021.706857>
- Ortega, A. A. C. (2016). Manila's metropolitan landscape of gentrification: Global urban development, accumulation by dispossession & neoliberal warfare against informality. *Geoforum*, 70, 35-50.  
<https://doi.org/https://doi.org/10.1016/j.geoforum.2016.02.002>
- Patrick, D. J. (2011). *The politics of urban sustainability: Preservation, redevelopment and landscape on the High Line* Central European University].
- Quezon City- Philippines. (n.d.). Global Lead City Network on Sustainable Procurement. Retrieved May 1, 2022 from <https://glcn-on-sp.org/cities/quezon-city/#>
- Rosario, B. (2021). COA 2020 financial report: Quezon City, Makati top list of richest LGUs. *Manila Bulletin*. <https://mb.com.ph/2021/12/22/coa-2020-financial-report-quezon-city-makati-top-list-of-richest-lgu/>
- Sharifi, F., Nygaard, A., Stone, W. M., Levin, I. (2021). Green gentrification or gentrified greening: Metropolitan Melbourne. *Land Use Policy*, 108, 105577.  
<https://doi.org/https://doi.org/10.1016/j.landusepol.2021.105577>
- Wu, L., Rowe, P. G. (2022). Green space progress or paradox: identifying green space associated gentrification in Beijing. *Landscape and Urban Planning*, 219, 104321.  
<https://doi.org/https://doi.org/10.1016/j.landurbplan.2021.104321>
- Yamane, T. (1967). *Statistics : an introductory analysis / by Taro Yamane*. Harper and Row.



**POLICY IMPLICATIONS OF URBAN GREENING TO SUSTAINABLE  
GENTRIFICATION: A CASE STUDY OF QUEZON CITY, PHILIPPINES**

**Background Information:** This questionnaire is part of the data collecting tools of the master's thesis of Mr. Joachim James R. De Castro. The completion of his thesis entitled, **POLICY IMPLICATIONS OF URBAN GREENING TO SUSTAINABLE GENTRIFICATION: A CASE STUDY OF QUEZON CITY, PHILIPPINES**, is part of the requirements for the attainment of the degree in Master of Arts in Environment, Development and Sustainability, Graduate School, Chulalongkorn University.

**Age:** \_\_\_\_\_ **Sex:** \_\_\_\_\_ **Years of Residence in Quezon City:** \_\_\_\_\_  
**Address (Barangay, District):** \_\_\_\_\_ **Hometown (if applicable):** \_\_\_\_\_

**Instructions:** The following questions ask you about your perception about the changes related to urban greening that has been happening in Quezon City for the past ten (10) years. Kindly choose your answer by marking a check (✓) on the appropriate column having five (5) as the *Strongly Agree*, and one (1) as the *Strongly Disagree*.

Questions	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
1. Gentrification, in my opinion, is a part of city development.					
2. I see Green Gentrification as an indicator of a sustainable city.					
3. I feel like the existence of malls, and condominiums around my area in the past ten years have been making an impact on the increase of my living expenses.					
4. The aesthetics and benefits from the green spaces around my area make the cost of living more expensive.					
5. The series of park rehabilitations for the past ten years made the living expenses around my location more costly.					
6. I can freely use the amenities of the park in my area.					
7. I find the green spaces around the city beneficial to my well-being.					
8. I noticed that the existence of green spaces in my area has been attracting people to move and reside in the neighborhood.					
9. I can utilize the free bus rides provided by the Quezon City Local Government.					
10. I either enjoy or receive the benefits of the Urban Farming initiative of the Quezon City Local Government.					

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**FOR INDIVIDUALS INVOLVED IN POLICY MAKING  
QUESTIONS DURING THE INTERVIEW:**

***On Gentrification and Green Gentrification***

- How do you perceive the term Gentrification? Green Gentrification?
  - Do you think that these phenomena are prerequisite for development?
- Do you think that the present state of development of Quezon City shows certain features of Gentrification, Green Gentrification?
  - How do you experience it?

***On Urban Greening Policies and Initiatives***

- How do you craft certain urban greening policies?
  - What are the factors that you put into consideration?
- How familiar are you with the urban greening policies and initiatives in Quezon City?
- Do you participate in those initiatives?
- Are you able to enjoy the benefits of those initiatives?
  - How frequent?

***On Urban Greening an Green Gentrification***

- Do you think Urban Greening policies and initiatives lead to Green Gentrification? Why?

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**FOR COMMUNITY MEMBERS  
QUESTIONS DURING THE INTERVIEW:**

***On Gentrification and Green Gentrification***

- How do you perceive the term Gentrification? Green Gentrification?
  - Do you think that these phenomena are prerequisite for development?
- Do you think that the present state of development of Quezon City shows certain features of Gentrification, Green Gentrification?
  - How do you experience it?

***On Urban Greening Policies and Initiatives***

- How familiar are you with the urban greening policies and initiatives in Quezon City?
- Do you participate in those initiatives?
- Are you able to enjoy the benefits of those initiatives?
  - How frequent?

***On Urban Greening an Green Gentrification***

- Do you think Urban Greening policies and initiatives lead to Green Gentrification? Why?

**VITA**

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