Sense of Place, Places of Vulnerability: Exploring Home and Resettlement of River-Fronting Informal Settlers using Narratives and Images

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B.A., Willamette University, 2011

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DUAL DEGREE OF

MASTER OF ARTS IN ASIA PACIFIC POLICY STUDIES AND MASTER OF ARTS IN PLANNING

in

The Faculty of Graduate and Postdoctoral Studies

THE UNIVERSITY OF BRITISH COLUMBIA (Vancouver)

March 2015

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Abstract

Informality of housing, micro economies, and social networks have emerged over the last century as the dominant morphology in large cities and urbanizing rural municipalities. In the Philippines, this phenomenon has been exacerbated by colonial influences on urban design and declining rural agricultural livelihoods. Informality has historically been addressed as a planning problem to be solved with social housing and zoning. This research attempts to capture the subjective, human side of informality using images and narratives to examine place-making processes and place attachment of persons living informally along the Angat River in the peri-urban municipality of Plaridel in Central Luzon, Philippines as well as local service providers and a sample of persons who have been successfully relocated to social housing within Plaridel. This study uses Photovoice and ethnography to characterize how informal settlers, relocated informal settlers and service providers make sense of informal spaces and places and Jubilee Homes social housing site in Plaridel in the context of vulnerability and place-making. Through historical and current policy analysis paired with Photovoice images and personal narratives, this research asserts that decentralizing shifts in policy, such as the Local Shelter Plan, create a window of opportunity for transition into a new policy paradigm of meaningful consultation and planning with informality and informal settlers. Informality has been, and will continue to be a part of reality in Plaridel and other peri-urban satellite municipalities to Metro Manila.
Preface

I, Gabrielle Esser, conducted all of the research and wrote all aspects of this thesis, but this thesis is part of a larger research project with Dr. Leonora C. Angeles as the Principal Investigator as well as many Co-Investigators. The larger project, “Collaborative Governance of Urbanizing Watersheds: Integrated Research, Institution- and Capacity-Building for Sustainability and Climate Risks Adaptation in Angat River Basin, Bulacan, Philippines,” and its associated sub-projects, including this one, were approved by The University of British Columbia’s Behavioral Research Ethics Board, the Certificate Number of the Ethics Certificate is H12-01252. Consent documents are attached in Appendix 1.
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<th>Full Form</th>
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<tbody>
<tr>
<td>BSU</td>
<td>Bulacan State University</td>
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<tr>
<td>CL-RDP</td>
<td>Central Luzon Regional Development Plan</td>
</tr>
<tr>
<td>CLUP</td>
<td>Comprehensive Land Use Plan</td>
</tr>
<tr>
<td>CMP</td>
<td>Community Mortgage Program</td>
</tr>
<tr>
<td>DBP</td>
<td>Development Bank Of The Philippines</td>
</tr>
<tr>
<td>DILG</td>
<td>Department of Interior and Local Government</td>
</tr>
<tr>
<td>HGC</td>
<td>Home Guaranty Corporation</td>
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<tr>
<td>HUDCC</td>
<td>Housing and Urban Development Coordinating Council</td>
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<tr>
<td>LBP</td>
<td>Land Bank Of The Philippines</td>
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<tr>
<td>LGU</td>
<td>Local Government Unit</td>
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<tr>
<td>LSP</td>
<td>Local Shelter Plan</td>
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<tr>
<td>MTPDP</td>
<td>Medium Term Philippines Development Plan</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>NHA</td>
<td>National Housing Authority</td>
</tr>
<tr>
<td>NHB</td>
<td>National Housing Bank</td>
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<tr>
<td>HDMF</td>
<td>Home Development Mutual Fund</td>
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<tr>
<td>HLURB</td>
<td>Housing and Land Use Regulatory Board</td>
</tr>
<tr>
<td>NHMFC</td>
<td>National Home Mortgage Finance Corporation</td>
</tr>
<tr>
<td>PPP</td>
<td>Local Pabahay Program</td>
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<tr>
<td>PO</td>
<td>People’s Organization</td>
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</table>
Acknowledgements

I have been greatly humbled and inspired by the relationships and bonds that have been formed and strengthened by this research. To Nora, my advisor, you have become an intellectual mother figure in my life and I treasure your guidance, feedback and support, but also our connection that working with you has strengthened. This experience has transformed me. Thank you.

I cannot extend enough thanks to my second reader Abidin Kusno, who helped me shape much of my literature review and thinking about this topic as well as reviewed my second draft. Thank you also to Prod Laquian who served as external examiner and whose research has inspired me.

To everyone in Plaridel who supported and were a part of this research, you opened your hearts and homes and welcomed me. Father Dennis, thank you for making your parish my home and sharing your pangarap (dream) by supporting my research with your perspectives and staff. To all of my key informants as well as the Mother Leaders and Jubilee residents who are the heart of this research, I am forever in gratitude to you. I particularly want to thank Jubilee resident H, Ian, Marlon, and Adrinao for acting as translators for me and being friends. To the rest of the municipal staff and Mayor Jocell Vistan, thank you for supporting and working with me.

To my UBC and broader family of peers, you have co-created such a meaningful community with me that has seen me through these years. Each person in my cohort deserves personal thanks. To Eliana, Frankie, Mel, Daniel, Lavino, and Krystie who came to Plaridel with me, thank you for all those times we shared. To Katie, Rosa, Brett, Sarah, Christa, Sameer, and Theresa for our Urbanizing Watersheds research community. To Dennis for the artistic inspiration and Tagalog help. To Erin, Sarah, and Jenna for working with me and keeping me on task or in reflective discussion. To Megan, Mel, and Christa for sharing yoga with me and so much more. To Katie, Frankie, Amanda, and Elise for emotional support when I have needed it most. And Finally to Kayla, my kasama, our lives run strangely parallel. Thank you

To my parents, who have been there every step of the way, you are my biggest fans, listening to my thoughts blossom. To my brother for encouraging me to maintain perspective. To Colin, who may have lengthened this process, but who has certainly made it a deeper process. Thank you.

Maraming Salamat Po.
Dedication

To Jubilee resident H who acted as a primary translator and who I am honored to call a dear friend. Your words, your heart, your story of transformation make me feel at home whenever I interact with you. You sent me this picture six months after I left Plaridel and returned to Canada saying “look how it has grown.” We planted these papaya trees and chili plants together in August, 2013 and look how they have grown and blossomed like our friendship. Follow your dream, your pangarap. You have a strong voice that needs to be heard. Bloom. Mamukkadkad.

“The inevitable bond of friendship. We created an inevitable bond that we call friendship.”

(Words and photo credit, Jubilee Resident H)
Chapter 1 Introduction

“The edges of the Metropolis’ urban fabric are frayed. The danger is that, coupled with so many other informal settlements stitched within, these frayed edges may make the whole weave of the metropolis lose its integrity.” (Alcazaren et al 2011: 33)

“The texture of informality becomes finer and finer as jerry-built dwellings and shanties shrink in size. The flotsam and jetsam of more formal construction is continually being recycled in permutations of the barong-barong. Ultimately, formality will be overtaken completely in an ocean of informality. Formal constructs of society are also crumbling as people turn to NGOs and POs to champion their causes eschewing an unresponsive government.” (Alcazaren et al 2011: 216)

Informality of housing, micro economies, and social networks have emerged over the last century as the dominant morphology in large cities and urbanizing rural municipalities all over the world, including those in the Philippines. Rapid demographic transitioning and migration to cities in the latter half of the 20th century have led to an entirely new phenomenon of more than half of the world’s population living in urban and built areas (UNPF 2013). In the Philippines, this phenomenon has been exacerbated by colonial influences on urban design and declining rural agricultural livelihoods (Alcazaren et al 2011).

This issue of problematized informality has been well-documented in Philippines policy, history, and discourses. However with changing climate patterns and recent accelerations of storm surges, particularly those brought by typhoon Ondoy in 2009 and Haiyan in 2013, the Iskwater sa Tabing-ilog morphology, or informal development of communities along coasts and rivers, has become increasingly dangerous during storm and flooding events (Laquian 1971, Alcazaren et al, 2011). Vulnerability to biophysical harm has highlighted the pressing need for comprehensive housing policy to address the immediate danger that informal settlers face living in the peripheries of cities along riparian habitat and storm buffer zones.

While biophysical vulnerability underscores the overall vulnerability of these informal communities making their plight and relocation status a spotlight in national policies, the
intersection of biophysical with socioeconomic vulnerabilities that this research addresses frames the underlying reasons why people continue to live in these spaces.

This research is geographically focused on Plaridel, Bulacan, a peri-urban municipality in Central Luzon in the Philippines and is part of a larger project funded by Social Science Research Council of Canada (SSRHC), titled: Collaborative Governance of Urbanizing Watersheds: Integrated Research, Institution-and Capacity Building for Sustainability and Climate Risk Adaptation in Angat River Basin, Philippines with Dr. Leonora C. Angeles as the principal investigator. This research on informal settlers and relocation housing policy options along the Angat, focuses on the critical social and disaster risk reduction (DRR) issues related to collaborative governance of the Angat river watershed that ecologically encapsulates the municipality of Plaridel.

**Context of the Research Problem**

The Angat Watershed in Bulacan Province, north east of Manila, holds national significance because it produces over 10% of electricity and 97% of water in Metro Manila (see Figure 1.1) (Angeles 2011, Tabios and David 2002). This vital source of water and electricity is threatened by river fronting industrial and informal housing developments that contribute to water source pollution and deterioration of riparian ecology and fish populations which affect local nutrition and economic livelihood. The broader Angat River research project is focused on rescaling of governance options to include collaborative and multi-scale policy options to holistically address the watershed’s ecological health (Angeles 2011).
Rescaling of social housing governance has recently gained momentum in Bulacan and The Philippines national context with the National Housing Authority (NHA), and Department of Interior and Local Government DILG, which have coalesced to mandate the Local Shelter Plan (LSP) for all Philippine cities and municipalities (HUDCC 2013). The LSP fits into the Philippine current policy paradigm of decentralization, devolving governance to local village, municipal and city governments and away from direct national government authorities and agencies (Angeles and Magno 2004, HUDCC 2013). The LSP will be outlined and discussed at length in Chapter 2. The timing of the LSP mandate in 2013 frames the temporal context and relevance of this research because the mandate and its subsequent implementation time represent an important window of policy change opportunity and potential for a paradigm shift away from mass social housing projects of the past which will be discussed further in Chapter 2. Local, context sensitive social housing projects suggested by the LSP will encounter funding and spatial challenges, but still present opportunities to integrate local knowledge, particularly from municipal staff and citizens, of local social and economic realities into community social housing project design and development.

Relocating flood-vulnerable informal settlers along the Angat River to keep them out of harm’s way from flooding and away from the sensitive ecosystem service has become a policy priority at the local, provincial, and national levels of government. This policy of relocation of informal settlers, however, has been historically fraught with complexities of unsuccessful relocation and human rights of forced evictions (Laquian 1971, Alcazaren et al 2011). This history will be discussed further in Chapter 2. The sheer number of persons living informally along the Angat River, despite zoning, the river’s riparian easement, and past relocation attempts frames this policy challenge as a wicked problem with no simple, comprehensive solution. The reality that people build more than just tangible, physical structures in these vulnerable areas gets at the heart of this research’s problem and central questions in trying to understand sense of place and place-making in places of vulnerability in Plaridel.
Research Objectives

The primary research objective of this thesis is to explore personal, community based perspectives on social, place-based vulnerabilities as they relate to biophysical factors of vulnerability. The broader, more thematic intention is to examine the intersections of social and biophysical vulnerability in Plaridel, Bulacan. The use of photos to show narratives of social vulnerability is intended to provide visual data in conversation with verbal data, and will hopefully be used by local governments and citizen groups to create capacity to continuously track and monitor public safety in regard to environmental hazards in the Angat River basin and aquifer. Community-derived photos and images create a means of social inclusion of the potentially marginalized perspectives of persons living in informal settlements along the river flood plain.

This research objective is framed in the broader SSHRC project’s goal of capacity building and knowledge mobilization in local communities. While the (post)colonial context of the Philippines creates a strong legacy of centralized governance power, legislation like the Philippine Disaster Risk Reduction and Management Act of 2010 and Local Shelter Plan of 2013 call for community-based initiatives (Angeles and Magno 2004, Philippines Government 2010). The ultimate goal of this research is to examine how photo and narrative sharing can mobilize multiple knowledge pathways towards a common planning goal through a collaborative, interactive, and iterative process that will serve to connect local and regional communities and provide an outlet for disenfranchised voices to participate in planning processes.

Research Questions

This research primarily grapples with the question:

- How do policy makers, informal settlers, and major players in social housing initiatives understand why and how persons living in vulnerable informal settlements along the Angat River develop attachment to place?
Research sub questions include:

- How do persons living in vulnerable informal settlements along the Angat River in Plaridel, Bulacan make sense of space and their place and biophysical vulnerability context?
- What is the current status quo of efforts to relocate and provide social housing alternatives for these highly vulnerable informal settlers?
- What are the perceived issues with these housing alternatives?

To address these questions a mixed methods approach was employed. A literature review of the history of informality as a dominant housing and development morphology in the Philippines was conducted, as well as a multi-scale investigation of current central, provincial, and local municipal policies regarding social housing and relocation of informal settlers. This historical and legal literature review makes up Chapter 2 of this thesis. Chapter 3 discusses the research methodology. Chapter 4 blends literature review with primary photo and narrative data as it discusses place-making in the context of informality in Plaridel while introducing the perspectives of mother leader community members from the informal communities about why people develop place attachment in these biophysically vulnerable places. Chapter 5 delves into the hopes and realities of relocation exploring and contrasting the perspectives of service providers with community members living informally and those who have been relocated. Photovoice was used in conjunction with interviews and focus groups to combat the language barriers to carrying out in-depth interviews in English with Tagalog speakers so as to capture nonverbal elements of personal place-making narratives and processes.

Outline of Methods

The methodology and methods used in this research were unique and complex enough that a separate Methodology Chapter 3 was written to discuss the research process, limitations, and ethical considerations in greater depth. To briefly summarize, this research used a mixed methods approach and a diverse sample of service providers in Plaridel, persons who have been relocated into social housing in Plaridel, and community leaders who live and work inside or near the informal settlements below the municipal dyke in three Barangays or neighborhoods in
Plaridel: Banga I, Banga II, and Parulan. The total sample included twenty four persons who were interviewed either personally or in focus groups. I primarily used Photovoice as a method where informants are given cameras and asked to provide a photo essay about their home and attachment to place. I collected 250 images in total as part of the Photovoice study. In addition, a few of the 194 images that I took as part of my methodological control were included, but these images were only noted for data triangulation, and were excluded from the co-constructive data analysis with local participants. The specific procedures of this method will be discussed at further length in Chapter 3. Seven mother leaders from the informal settlements participated in the Photovoice; they coded their images with me and were interviewed in two focus groups. Six persons living in Jubilee homes subdivision participated in the Photovoice and were interviewed about their relocation and subsequent place-making processes at Jubilee. There were eleven additional, thirteen total, because two participants were from Jubilee homes Of these key informants who were interviewed in depth for one and a half to two hours each, four of these key informants participated in the Photovoice and the remaining seven key informants requested that I interview them only due to their professional position and/or time constraints. Additionally, because many informants stressed that Plaridel needed resilient communities, I started asking different informants and others I met in passing all over the Philippines to define resilience for me. I collected these personal definitions of resilience as a side curiosity at first, but the concept of resilience became increasingly relevant in the course of this research.

**Clarification of Terms/Concepts**

Informal settlers are technical terms for persons occupying land who do not hold formal land tenure, sometimes derogatorily referred to as “squatters.” United Nations Habitat defines this as “residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim, or which they occupy illegally” (UNDP 2013). Informal communities have been described negatively as “slums” or squatters, “iskwater” in Tagalog.

Self-built, self-help, or informal structures refer to homes that families and communities build themselves. Self-built homes generally follow a progressive process of development and expansion. A home can start with something as simple as a tent or skeletal structure covered by
tarpaulins and evolve into more permanent wooden or concrete block structures in some cases (see Figures 1.2 and 1.3).

When this study discusses informal settlements built up in the easement of the Angat River as a non-conforming use, it specifically refers to development within twenty meters of the Angat river in areas that are zoned as open space or agricultural (see Figure 1.4). When biophysical vulnerability of living directly adjacent to the Angat River is discussed, the study is referring to this type of informal community and housing development on the river banks (see Figure 1.5).
(Post)coloniality, in the context of planning and policy regarding informal settlers in the Plaridel is marked by legacies of centralized top-down policy approach (Reed 1978, Angeles and Magno 2004). Language and religion played huge roles during the Spanish colonial period (Constantino 1978, Rafael 1988). This deep and persistent colonial presence will be discussed in the context to urban form and design in Chapter 2. The American colonial presence leaves a tangible and physical legacy of military bases, market commodities, and plastic packaging. Informality in peri-urban areas like Plaridel can be interpreted as byproduct of centralized colonial urban design and of the rapid urbanization associated with colonial periods.

Vulnerability is broken down in this study into biophysical and socioeconomic vulnerability, but additional conceptual distinction underlying this research, is a division between personal vulnerability and structural vulnerability. The separation of these definitions of vulnerability is deliberately used to examine the intersections between different vulnerabilities and the interplay between these different ideas of vulnerability. There is an element of causality between socioeconomic and biophysical vulnerability because it is the urban poor who have been pushed to the margins of Plaridel by living along the banks of the Angat River. However, there is interplay between biophysical and socioeconomic vulnerability because many service providers

Figure 1.5: Informal developments on the banks of the Angat River in Banga I. (photo credit G. Esser)
would argue that the biophysical living conditions of river-fronting informal settlers makes them more vulnerable because they do not have secured land rights and have no legal claim on their homes. The relationship between structural and personal vulnerability is more difficult to clearly outline. The river-fronting informal settlers who I interviewed as a part of this study understood that they lived in a floodplain, but did not view themselves as personally vulnerable. Some were very proud of their homes and self-sufficiency. They accepted flooding as part of their daily and seasonal reality. On a structural level these people are vulnerable; they are the urban poor whose lives have been pushed out of city zoned neighborhoods. Their poverty is largely invisible to members of society who avoid going into informal settlements. At the individual level, many informal settlers exercise a great deal of agency over their lives and their homes, but individuals and families living informally are unable to create societal change or raise awareness of their plight alone. As semi-organized communities, they can exercise agency by collectively expressing desires to their village government officials, particularly the Barangay Captain and Mother Leaders. This tension between structural and personal vulnerability and agency is explored through image data and narratives about how informal settlers develop place attachment in vulnerable spaces; the theme runs throughout this research.

**Why Examine Informality? And What is Meant By Informality**

Informality as a dominant development paradigm is associated with rapid urbanization, rural to urban demographic transitioning, and the inability of existing urban form and zoning practices to catch up with the high rates of in-migration to cities (UN Populations Fund 2014). This research will delve into an extensive exploration of the history of informality and waves of different policy paradigms in the Philippines in Chapter 2. Situating Plaridel, Bulacan in the context of the body of literature on informality frames this study in terms of similarities and differences with existing studies and writings about informality.

**Peri-Urbanism and Migration Pull Factors to The City**

Peri-urbanism, as Douglas Webster asserts, is “a process in which rural areas located on the outskirts of established cities become more urban in character, in physical, economic, and social
terms, often in piecemeal fashion” (Webster 2002). The “urban edge,” which is constantly variable and dynamically expanding is where urban expansion and the majority of population growth occurs (Webster 2011). Rural and formerly hinterland spaces are slowly becoming absorbed by mega cities like Manila.

Plaridel is what can be described as a peri-urban, urbanizing municipality due to its relatively close proximity to Metro Manila (on peri-urbanization trends, see Leaf 2011). While Bulacan cities like San Jose del Monte and Valenzuela have become formally or informally incorporated into Metro Manila as suburbs, the rapid urbanization and suburbanization of Metro Manila have expanded over to Bulacan’s provincial border, especially its southernmost municipalities along the national highway, such as Marilao, Bocaue, Meycauayan, Guiguinto, Plaridel, and Pulilan (see Figure 1.6). Plaridel is also located directly adjacent to Malolos, Bulacan, the provincial capital, which lies to the West. Plaridel’s easternmost Barangays, particularly Poblacion, Banga 1st, Agnaya, Sta. Ines, Sipat, Lumang Bayan and Santo Nino, are affected by Malolos traffic and commuting patterns. Rapid suburbanization and urbanization that mark Plaridel as a “bedroom community” to Metro Manila situate the municipality as highly susceptible to informality. The dominance of informality as a development paradigm in peri-urban locales such as Plaridel is common and often heralds suburbanization and urbanization (Leaf 2011).

![Figure 1.6: Map of Bulacan and Metro Manila. Source: Provincial Government of Bulacan, 2015](image-url)
As the town continues to transform from a small rural municipality to an urban satellite and northern gateway to Manila, migration pull factors of its expanding economy continue to draw people from more rural and remote regions in the Philippines. Some low-income and middle-class new migrants settle down in Plaridel but commute to Metro Manila for work. Some of the informal settlers who I spoke to as part of this research have been living in the Plaridel area for years, but many others share stories of recent migration towards new opportunities. This “right to the city” as Holsten, (2009) would describe, will be discussed further in Chapters 4 and 5 with my image data in the context of place claiming and place attachment. Mobility and “right to the city,” and the building of temporary and permanent low-cost housing in unsafe places are important themes in situating Plaridel in the context of other studies of informality.

How Informality is Written and Not Written About

There are huge bodies of literature on informality across disciplines. This study focuses directly on applicable planning literature on informality rather than sampling a broad spectrum of spectrum of writings. This limitation of the study’s literature review was deliberate in an effort to frame findings and recommendations as clear actions that planners and planning policies can consider.

The term informality itself is layered with complexity, yet the use of the term “informal” as opposed to irregular or illegal is deliberate (Leaf 1994). In Western academic contexts, including the context where I have received education and training, informality is used as a term that seeks to de-problematize and de-humanize people living outside of formal zoning and legal land tenure (Gilbert 1990, Leaf 1994). In the Philippines, the term informal settlers is a term that is beginning to be adopted by academics and certain services providers such as social workers and other professionals who work directly with these people. The vast majority of people I met in the Philippines during this research used pejorative terms such as “squatters” or “slum dwellers” to describe them and their communities. These terms tend to highlight illegality of self-help housing.
The illegality of these settlements can be disputed, but the primary reason that informality has been assessed using a legal or extra-legal categorical analysis is because industrialization processes in Western world happened at a slower pace and informality was not as necessary (Gilbert 1990). Informality or “self-help housing” is a function of the poor, who are active parts of the state economy, but are not able to afford housing that has been designed by an architect and written into zoning and official community planning (ibid). While de jure interpretations of the law indicate that these types of settlements are not lawful, de facto circumstances, or community level realities of enforcement, have permitted these settlements to develop and grow (Leaf 1994). Western development and policy paradigms towards housing and perceptions of self-help housing as illegal highlight the shadow of (post)coloniality alive and well in the Philippines (Constantino 1978, Porter 2006). Ananya Roy (2005) calls for housing planning research to move beyond and away from political dichotomies of the developed world and argues for the creation of new developing world policy paradigms. The legal status of the settlements and the people who call these places home is muddled in a grey area. When viewed and judged by developed world-trained planners, it is easy to point to the close living conditions and often dangerous structures as “squatters,” but this ignores the role that these people play in the economy and the often contradicting information and regulation that has led them to live in this way (ibid). In the Philippines, as in other developing Southeast Asian contexts, notably Indonesia, contradictions between policies and regulation as different levels of government and governmental corruptions have created non-state legal authority that have permitted this development to continue. Their continuation come in the form of a de jure illegal practice that has been sanctioned by local law, in Plaridel’s context, primarily Barangay captains and others who permit and benefit from the presence of these settlements (Gilbert 1990, Leaf 1994, Kusno 2012). Perceptions of “legal” versus “illegal” have become a highly geographically specific social construct which reflects the reality that formal urban form has not been able to keep up with rural to urban migration and demographic transitioning, thus dividing the urban poor from the rest of formalized society (Perlman 1987, Gilbert 1990, Leaf 1994). This same “will to improve,” as Tania Li (2007) would describe, and discussed further in Chapter 5, is present in different forms in society, even in informal settlers. This “will to improve” has been used as a form of social control in historical paradigms of social housing (Li 2007).
The era of neo-liberalism and World Bank programs in the Philippines in the 197’s will be discussed further in Chapter 2, but the legacy of those discourses on informality (e.g. De Soto (2001) also frames this research. The Philippines, during this time, was economically influenced by the United States and bought into many of the mass relocation movements that attempted to abruptly push informal settlers into formal land tenure and into participation in markets. Many of these projects have failed at retaining residents and thus have failed at challenging the dominance of informality as development paradigm in the face of rapid suburbanization and urbanization because these plans created legal housing without the means for wealth transfer and proximate means of livelihood (Roy 2005, Gilbert 2011).

A New Paradigm in Informality

Ananya Roy (2005) argues that the developing world must challenge the inequitable and environmentally degrading development trajectories that the Western world has followed. This research thus seeks to help build the capacity for a Filipino and Plaridel or Angat watershed specific plan to address housing for informal settlers who are in immediate danger of flooding. This planning challenge in the Philippines has been addressed with different theoretical frames drawn from western literature which will be expanded upon in Chapter 2: an abrupt land formalization approach (De Soto 2001), an approach of reversed sequencing of servicing and planning (Baross 1990, Gilbert 1990), or an NGO led model (Roy 2005, Gawad Kalinga 2013). Roy argues for a new paradigm that is cognizant of these past paradigms, but ultimately engages with informality and does not ignore these unplanned communities at the margins of cities (Roy 2005, Kusno 2012). But how do planners begin to engage with informality?

Informality in the Philippines, as it is in most contexts, is textured and variegated with layers of meaning. Specific circumstances vary dramatically even within the same settlements as each person has a different story of why he or she is there. Much of the existing body of literature on informality tends to start at a national level of policy then narrows focus on specific regions, cities, or villages. The narrow geographic scope of this study allows me to start from the bottom with data collection that focuses on the personal narratives of informal settlers and local
municipal level service providers rather than engaging directly with the national level policies or high level poverty morphology theories that have affected their lives. By creating a mechanism that allows informal settlers to “talk back” to the policies that affect them, this research seeks to let the people show, through images and narratives, the tangible effects and indicators of the concepts around informality and self-help housing that planning academics have been writing about for the last thirty years.

**Organization of this Study**

This study is organized into six chapters. The first, this introductory section provides the context, objectives and research questions. The second chapter delves deeper into historical and political contexts of informality, social housing, and relocation in the Philippines first exposing the history of informality in the Philippines, then looking at the roles that the national, provincial, and municipal governments as well as NGO have played and will continue to play in social housing efforts. Chapter 3 provides a deeper look into my methods, methodologies, ethical considerations, and data limitations introducing Photovoice and its use in this study. Chapter 4 introduces primary data captured from community members in informal settlements in Plaridel about personal place-making processes and place attachment in conjunction with interdisciplinary literature review of academic views on place-making. Chapter 5 uses primary data to explore different views for service providers, informal settler communities, and relocated persons on the hopes and realities of resettlement. Chapter 6 concludes with recommendations and synthesis of literature and data on why people remain in highly vulnerable environments and what planners can do with this information. Additionally this final chapter concludes with some research reflections and academic recommendations for future research on this topic.
Chapter 2 Historical, Policy, Institutional and Governance Contexts of Dealing with River-fronting Informal Settlements in the Philippines

*Iskwater sa tabing-Ilog* (riverfront squatters) in Tagalog refers to people who live in informal settlements along rivers. In the Philippines, particularly, in municipalities like Plaridel which is proximate to Metro Manila and encompass bodies of water like the Angat River, this development morphology has emerged as a self-help housing alternative to high cost and exclusive formal land holdings of the middle and upper class (See Figure 2.1) (Alcazaren et al 2011). Informal settlers have been characterized as a problem that the Philippine government must solve since the 1930s, yet waves of migration and failed government projects in the form of evictions and mass social housing projects have not been able to disrupt the dominant development pattern of informality in the Philippines (ibid). This chapter reviews the physical and political evolution of informality as a dominant paradigm (see Figure 2.1) in Philippines cities and towns like Plaridel, my research site. It also explores overlapping scales of governance and laws regarding informal settlers, housing, and eviction from the national level to the local municipality and barangay scale of enforcement in Plaridel.

![Table: Informal vs. Formal](image)

**Figure 2.1**: Informal versus formal morphology, architecture, and infrastructure (Alcazaren et al, 2011, pp. 148)
The origin of informal, self-help, temporary housing in the Philippines is the Bahay Kubo or Nipa hut (See Figure 2.2). This cube shaped bamboo hut was usually twenty square meters for a family and elevated up to six meters above the ground, these huts were built for extended families working in seasonal agriculture (Reed 1978, Alcazaren et al 2011). The values of the Bahay Kubo lifestyle were linked to nature and focused on family and community (Alcazaren et al 2011). Prior to Hispanic contact, the country was divided between ethnic Malays and the lowland indigenous people of the north, who practiced swidden agriculture and conceived of the Bahay Kubo to fit their transitory lifestyle (Reed 1978). This pre-colonial period was hallmarked by decentralized settlement morphology that initial colonizing Dominicans tried to maintain in the south in the form of ethnic ghettoization and racial segregation. The most notable example of segregation in development planning is Intramuros in Manila, a walled city for Spaniards (ibid). Ethnic natives and Chinese, Malay Filipinos who worked inside Intramuros but were excluded from living inside the walls built self-help housing along the walls; this originated the Iskwater morphology of “gillages” or side villages, a play on the words “gilid” (side) and villages (Alcazaren et al 2011).

The opening of the Suez Canal in 1869 led the transitory, swidden agriculture practicing highlanders to migrate south via the Pasig River to Manila for varied job opportunities (ibid).
When the Manila-Dagupan Railway opened in 1891, informal shanties began to rapidly pop up along the publically owned thoroughfare (ibid). When the United States took over as the primary colonial power at the end of the 19th century, it began a process of allowing refugees and the poor to move into city hamlets and implemented the Burnham Plan of 1905 to modernize Manila. Both of these pulled migrants to Manila and surrounding areas for jobs associated with new developments (ibid). After the Philippines became a Commonwealth in 1935, the Philippine Housing and Homesite Commission was created to build some of the first tenements in Tondo and social housing for workers in Kamuning (ibid). At the end of the Second World War, the National Housing Commission was created. During this time, mass migration to Manila occurred in the form of refugees escaping the violence caused by encounters between the government’s military forces and political opposition, largely composed of farmers involved in the Huk Rebellion in Central Luzon (Reed 1978, Alcazaren et al 2011).

In 1951, Manila and some surrounding municipalities were so overcrowded that the first forced relocation of squatters to Bagong Bantay and Diliman occurred and after this, in 1953, informal settlers were evicted and moved to other parts of Quezon City (Reed 1978, Alcazaren et al 2011). Again in various episodes in the years 1956, 1958, and 1963, the government force evicted and relocated thousands of informal settlers from areas surrounding Metro Manila including Pampanga, North Harbor, and Intramuros (See Figure 2.4) (Alcazaren et al 2011).

![Figure 2.4: Map of site area proximity to Metro Manila. Adapted from Google Maps](Image)
This period between the 1950s to early 1960s has witnessed largely unsuccessful relocations, because rural to urban migrations and demographic transitioning continued, bringing with it waves of new and repeat migrants (Laquian 1971, Alcazaren et al 2011). Aprodicio Laquian characterizes informality in the Philippines as “the urban problem” in his 1971 book, *Slums Are for People*. He argues, that informal settlers often self-select as innovative, resourceful, and ambitious migrants who are eager to root to a place where they perceive a potential for livelihood and prosperity. Laquian (1971) and Roy (2005) assert that self-help housing was and is a natural answer to the high costs of rural to urban migrations and that this demographic transition, and the inventive migrants it brings with it, directly relates to the ongoing modernization process of the Philippines and other developing world contexts (Laquian 1971, Roy 2005).

Informality has been problematized at a global scale. Numerous institutions and intellectuals of the neo-liberal tradition, most notably De Soto’s 2001 *Mystery of Capital*, have offered solutions and land tenure formalization strategies (De Soto 2001). These solutions are reductive and tend to take a “one size fits all” approach to comprehensive social housing that ignores some of the foundational aspects of adequate shelter as a human right including forced evictions, displacement, and limits economic mobility (De Soto 2001, Carver 2011). In the Philippines, the dominance of informality in the housing sector, or persons occupying self-built housing, is complexly intertwined with history, ethnic identification, and other socio-economic and governance factors (Alcazaren et al 2011). Displacing disasters like Typhoon Haiyan and annual monsoonal storm that cause localized dam breeches highlight the “informal settler issue” at a national scale, creating a window of opportunity for a critique of current national and local government housing policies from a human rights lens and a tipping point for potential policy transformation (Pelling 2010, 2011).

One of the most problematic and politically complex issues around adequate housing as a human right in the Philippines, at a national scale, is relocation and forced evictions of informal settlers who do not hold formal land titles (Reed 1978). Forced eviction is the most serious violation of adequate housing as a human right (Carver 2011). Forced eviction or demolition of “self-built” housing is often done without sufficient prior warning. The lack of adequate relocation or replacement housing is a long-term cyclical issue highlighted in the experiences residents of
North Triangle in Quezon City near Manila, but also in barangays, or neighborhoods, in peri-urban Plaridel where relocations may be less dramatic in magnitude, but where informal or irregular housing fall into a grey area in terms of legal tenure status (Gilbert 1990). These residents often do not have legal documentation to prove legal ownership of the land on which they built their house, but, in many instances, have been “given” this piece of land or have been told that building a home there is permitted by a local government official such as the barangay or village captain (Alcazaren et al 2011). This informal permission granted by local politicians reflects a degree of governmental informality, if not political influence peddling and corruption, but also highlights disconnections in policy objectives between national and local scales of governance in the Philippines (Angeles and Magno 2004).

The inevitability of informality suggests that mass housing projects and forced evictions or relocation that seek to formalize land tenure status will not benefit the incremental development and modernization processes occurring in and around Metro Manila and peripheral municipalities like Plaridel (Laquian 1971, Baross 1990). The Philippine government, both historically and presently, favors relocation as a strategy to address the issue of informality because the process of relocation appears simple. However, given gaps in funding and overly flexible timelines for relocation, this seemingly simple process in theory is complicated in practice and continues not to succeed (Laquian 1971). Some of the simplest reason for failure of mass relocations include: insufficient or non-existent provision of water, electricity, and sanitation in housing; forced long deferred gradual payment structures that are inflexible; lack of accessibility of amenities including livelihood; physical design of social housing that is not appropriate for family size; and exclusion, because of distance, from existing networks or means of livelihood (ibid). After Laquian’s research was released, pointing to these reasons for the failure of mass relocations, the Philippines began a mass housing project for the Tondo area in funding partnership with the World Bank. During the mid-1970s, the Marcos regime sponsored several events that attracted international attention, such as the IMF-World Bank Conference in Manila, the Miss Universe Pageant of 1974, and visit from U.S. President Gerald Ford, which prompted demolitions of self-help housing to hide the informal settler “problem” from the public eye (Alcazaren et al 2011). Within the next few years, the National Housing Authority, NHA was created (ibid). Between the late 1970s and late 1980s, the NHA began construction of
socialized housing sites aided by the 1977 Zonal Improvement Program and 1979 Urban Land Reform Program, but financing mechanisms were weak (Alcazaren et al 2011, Angeles and Magno 2004). These initiatives in the Philippines were often well drafted plans that had implementation issues or resulted in increased housing stock intended to house informal settlers but the apartments were not affordable or flexible enough for the low-income settlers and thus became housing for middle class (De Soto 2001, Alcazaren et al 2011). Initiatives mostly aligned with IMF and World Bank policies of the time. These prioritized securing of legal tenure and recovery of sunk capital through processes of subtle social engineering to integrate legal tenure into the social contract or public policy of the urban poor (De Soto 2001). Prior to this time, national laws regarding housing such as the 1976 Presidential Decree No. 957 involved regulating the sale of subdivision lots and condominiums, mostly applied to persons and families already holding formal land tenure (HUDCC 2013). The birth of the HUDCC provided the mechanism to discuss rapid rural to urban migration patterns and issues with the density of urban housing stock not being able to accommodate growing urban populations, but it was not until 1989, when Executive Order No. 357 and the 2001 Executive Order No. 20 passed that the HUDCC was endowed with the administrative and delegation powers to access governmental funding and connect with decentralized housing agencies (ibid).

In 1986, the EDSA/ People Power Revolution overthrew the Marcos regime. Shortly after this in 1988, the Community Mortgage Program became law, but policies towards eviction, resettlement, and housing did not significantly differ from previous regimes under the new President Corazon Aquino (Alcazaren et al 2011). The mortgage program simply allowed for families to take out loans to slowly purchase and formalize the land tenure on their constructed self-help housing (ibid). During the 1990s, road and flood control infrastructure projects like Plaridel’s unused railway tracks owned by the Philippine National Railway (PNR), municipal dikes and national irrigation canals created more public spaces for mass informal resettlement (Alcazaren et al 2011, Municipality of Plaridel 2013). These projects have met with mixed results, but for the most part, have been unsuccessful for the same reasons that Laquian outlined in 1968. At this point, it became apparent that some alternative policy paradigm was needed to address housing for informal settlers. In the early 2000s, NGO fever gripped the Philippines and organizations such as Gawad Kalinga emerged as grassroots, capacity building alternatives to
government programing (Alcazaren et al 2011, Gawad Kalinga 2013). *Gawad Kalinga*, which remains a successful NGO today, places a heavy emphasis on breaking down the supposed “slum mentality” through capacity building and subtly pushes holding of formal land tenure as the ultimate socioeconomic aspiration (Gawad Kalinga 2013).

In 1992, the Lina Law (Republic Act 7279), sponsored by then Senator Joey Lina, fundamentally altered ownership structure by allowing the government to transfer parcels and lots of land to informal settlers and set important protocols for valuation and acquisition of lands for social housing including the critical, but often unenforced, Section 18 Balanced Housing Development Requirement which requires that 20% of land purchased for new developments be allotted for social/affordable housing (Alcazaren et al 2011, HUDCC 2013). While this still allocates legal tenure to informal settlers, it simplifies the purchasing and loaning processes. The ability to transfer land has unfortunately contributed to the selling and making profit off renting housing units while remaining in their informal settlements, thus perpetuating the negative stereotype of the “professional squatter” (Laqian 1971). While NGOs explored a more decentralized housing policy paradigm, the government used legislation like the Lina Law to explore alternatives like the centralized Singaporean model of public housing (Alcazaren et al 2011). Since 1999, the Philippine Supreme Court ruling regarding the petition of Concerned Citizens of Manila Bay and 2001 Executive Order No. 20: Reaffirming Mass Housing as a Centerpiece Program, comprehensive resettlement programs have created government funded infrastructure projects, aided by the creation of the Social Housing Finance Corporation by Executive Order No. 272 in 2004 (Alcazaren et al 2011, HUDCC 2013). By the late 1990s and early 2000s, the national government began to engage Local Government Units (LGUs), like Plaridel, in a conversation about decentralized interventions that would hopefully be more successful and sensitive to the needs of informal settlers (ibid).

With this evolution of national laws regarding informal housing, informality still persists. As of 2005, approximately a third of people living in the National Capital Region, or about fifteen million people, are considered informal settlers or “squatters.” In Plaridel, which is considered a smaller agro-industrial municipality, there were 1,776 informal settler families of approximately five persons recorded to be living within LGU boundaries as of July 2013 (Alcazaren et al 2011,
Municipality of Plaridel 2013). In 2013, the NHA and HUDCC, Housing and Urban Development Coordinating Council, began the Local Shelter Plan (LSP), process which decentralizes social housing responsibility to LGUs (HUDCC 2013). While the NHA is still building some large-scale social housing sites, the LSP reflects a new policy paradigm to address the issue of informality of housing in the Philippines.

*The Province of Bulacan and Its Relationship With The NHA*

During the period of mass relocations beginning in the 1950s, the NHA started to explore land outside Metro Manila’s core and think strategically about social housing and development of relocation sites in peri-urban areas and beyond into northern provinces. The Province of Bulacan is situated close enough to Manila, that it became an attractive place to relocate Manila’s informal settlers, but if Manila’s informal settlers are being relocated north to Bulacan, where are Bulacan’s informal settlers going to be settled? This question is particularly critical because under the Supreme Court’s 2013 ruling to relocate informal settlers along all waterways, Metro Manila has vested interest in keeping informal settlers off the riparian buffer zones of the Pasig, Marikina, Angat and other Rivers.

The National Shelter Framework was negotiated alongside provincial planning representatives, particularly the Province of Bulacan, because the province holds several large scale social housing sites, including Catacte housing Project in Bustos, Bulacan; Balagtas Heights in Balagtas, Pandi, Norzaray, and many others. Together, provincial governments and the NHA have calculated housing needs by combining backlogged and recurrent future needs in an algorithm that takes into account displacement of individuals due to condemned, marginal, or self-help housing that does not meet safety code as well as population growth projections (HUDCC 2013). Actions to address housing need at the national and provincial scales include increasing the physical inventory of dwelling units, but also “slum upgrading,” assistance with housing repairs, and aid in housing financing and securing of tenure (ibid). Under this umbrella term of housing support and services, securing tenure and site development are prioritized. The NHA works closely with provinces to find suitable areas for large-scale site development. The social housing site of Catacte in Bustos, Bulacan, which is a neighboring municipality to
Plaridel, is estimated to provide housing for roughly 3,000 families with the average size of families as five persons (personal correspondence L. Capiral, August 6, 2013). The physical design of these units is confined to 20 cubic meters of floor space on a 40 cubic meter lot, with the option to add a second floor for additional cost (ibid).

These large-scale social housing sites have not experienced uniform success based on past track record (Alcazaren et al 2011). Retention at these large provincial scale developments has been low, and questioning the root causes of these low retention rates is part of what this research attempts to capture through images and narratives.

**Decentralization and The LSP**

The Local Shelter Plan (LSP) is a mandate from the Philippines National Housing Authority (NHA) intended to “meet housing needs in the formal and informal sectors” by assessing housing demand and incorporating projections into comprehensive land use planning (HUDCC 2013). The Plan mandate decentralizes the responsibility for social housing to Local Government Units (LGUs) through the National Department of the Interior and Local Government (DILG) local offices (Municipality of Plaridel 2013). The LSP decentralizes planning power for social housing, but unfortunately, it also decentralizes funding resources for housing development projects (HUDCC 2013). The LSP aligns itself with the 1991 Local Government Code in the Philippines which began the decentralization of political powers (Angeles and Magno 2004). In Plaridel, the LSP goal is to relocate informal settlers and provide them affordable housing opportunities by the year 2022 (Municipality of Plaridel 2013).

The LSP’s decentralized approach to social housing works well in the Philippines context because it aligns itself with the 1991 Local Government Code and presents an opportunity for increased consultation and co-development of local-scale social housing communities with the informal settlers (Angeles and Magno 2004). However, barriers to local alignment with national government housing policies, including the LSP, are rooted in budget the shortfall for this program, and, in many cases, shortage of land to adequately house the projected growing number of families that need to be relocated (Municipality of Plaridel 2013). While this decentralized
approach has the potential to foster a more holistic discourse about housing, legal land tenure status, and underlying issues of poverty and socioeconomic inclusion and exclusion, leaving LGUs unsupported or under supported by national government funding sources perpetuates lack of success of smaller scale local housing projects. Along with the LSP, the NHA has also continued to invest in large-scale socialized housing projects replicating the housing planning paradigm that has been the status quo since the 1960s (Alcazaren et al 2011).

Plaridel’s Context

The Municipality of Plaridel is viewed by some as a “bedroom community” to Manila because it is just 40 kilometers north of Metro Manila. Because of this proximity, many persons who live, both formally and informally, in Plaridel commute to Manila for employment. A recent housing survey conducted by the Municipal Social Welfare and Development Office (MSWDO) in July 2013 counted 1,776 families of five persons on average living informally in the town (Municipality of Plaridel 2013). Over the past fifteen years, Plaridel has experienced a 3.37% growth rate in the number of families living informally within its municipal boundary (Avila et al 2008, Legaspi 2013, Municipality of Plaridel 2013). The majority of informal development has occurred along the Angat River which serves as the northern municipal boundary between Plaridel and Pulilan (Legaspi 2013). Figures 2.5 and 2.6 are maps of riparian land use changes from 1997 to 2007 surveyed and mapped by Rellie Legaspi, one of the researchers on the larger SSHRC-funded project, as part of his Master’s thesis research at Bulacan State University. These maps track changes in land use, but highlight an increase in “built up areas” that violate the easement of the Angat River (See Figures 2.5 and 2.6) (ibid).
Figure 2.5: Map of land uses in the riparian zone of the Angat River 1997. Source: Legaspi 2013
Figure 2.6: Map of land uses in the riparian zone of the Angat River 2007. Source: Legaspi 2013
The indigenous term for this particular morphology of informal settlement is “tabing-ilog,” or by the river (Alcazaren et al 2011). Build up in these areas has mostly occurred along the municipal dikes, leaving families in self-help housing without proper servicing of electricity and water and extremely vulnerable to flooding (see Figure 2.7). These people are also legally and structurally vulnerable because they do not hold legal land tenure and are in violation of the 3-meter easement for urban areas and 20-meter setback for rural areas from the river’s edge, as mandated in Plaridel’s Comprehensive Land Use Plan (CLUP), even though, in many cases they have been informally told that they can build on this space (Municipality of Plaridel 2013).

![Figure 2.7: Tabing Ilog without servicing, sanitation, and garbage pickup (photo credit G. Esser)](image)

The set back is not being enforced because local government officials and Barangay (neighborhood) Captains want to house newcomers, also potential voters, in their community, but formal development cannot keep up with migration and population growth, or persons living
these areas are so poor that they are excluded from formal land tenure (Avila et al 2008, Municipality of Plaridel 2013). Additionally, the river-fronting areas are closest to Plaridel’s main transportation hubs and primary sources of livelihood including: the municipal slaughter house, public market, fishing areas, watercress/swamp cabbage harvest areas, and the central location of other service industry offices and food carts (University of the Philippines 2012).

Plaridel is aware of its need for a comprehensive plan to address the number of informal settlers within its municipal borders. The Department of the Interior and Local Government (DILG) and the Municipal Government of Plaridel jointly have the long-term goal:

“to reduce the targeted housing needs by 10.52% or 909 houses annually beginning in the year 2014 up to year 2022; to purchase and make available the 54.17 hectares of land needed for the municipality’s local shelter program within the targeted time frame beginning in year 2014 up to year 2022; and finally to lessen displaced households in danger zones by 11% or 348 households annually beginning in the year 2014 up to year 2022” (Municipality of Plaridel 2013).

The first priority for resettlement is informal settlers living in self-help housing along the Angat River below the municipal dikes. As of July 2013, there were 1,776 informal settler families of approximately five persons per family recorded to be living within LGU boundaries; 1,034 informal housing units will be displaced due to their proximity to the Angat River alone (ibid). To successfully house people who will be displaced, the LGU will require 54.91 hectares of land; Plaridel only has 50.29 hectares available and will require additional land or densification to meet the housing stock need of displaced persons (ibid). Additional data from Plaridel regarding the LSP, populations projections, and housing stock can be found in Appendix 2.

Additionally, costs of infrastructure rebuilding, health, and social services without an LSP vary from year to year, depending on the magnitude of storm surges, but minimum estimates from the Municipal Disaster Risk Management Office hover around $4 million PHP annually, which exceed the annual costs of the LSP (See Figure 2.8).
LSP Long Term Tentative Annual Budget Timeline

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td><strong>Phase 1: 2014-2015</strong></td>
<td></td>
</tr>
<tr>
<td>Creation of Local Housing Board/Local Housing Office</td>
<td>Total Plaridel Estimated/proposed budget allocation</td>
</tr>
<tr>
<td>Identification of informal settlers</td>
<td>$3 million PHP/year for 8 years =</td>
</tr>
<tr>
<td>Land banking strategy and expropriation on delinquent tax payers</td>
<td>$24 million PHP over 8 years = $ 69,558 USD/yea for 8 years =</td>
</tr>
<tr>
<td><strong>Phase 2: 2015-2016</strong></td>
<td></td>
</tr>
<tr>
<td>Purchase of Available Land</td>
<td>$ 555,554.40 USD over 8 years</td>
</tr>
<tr>
<td><strong>Phase 3: 2016 and Beyond</strong></td>
<td></td>
</tr>
<tr>
<td>Imposition of additional 0.5% in real property tax</td>
<td></td>
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<tr>
<td>Registration of socialized housing beneficiary</td>
<td></td>
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<tr>
<td>Processing Projects</td>
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</table>

**Figure 2.8: LSP Long-term tentative annual budget timeline. Source: Municipality of Plaridel 2013**

The phases of the LSP are carefully outlined with reachable benchmarks, but some of the proposed actions are troubling from a human rights perspective and not likely to be successfully carried out by local politicians in Plaridel and other municipalities. The most notable example of this is the Phase one step of land expropriation on delinquent tax payers (See Figure 2.8). The history of land grabbing and rent seeking complicates monitoring of tax delinquency and holding of land title. It is doubtful that any expropriation happened thoughtfully, if at all, in 2014 because the implementation framework and capacity to monitor this tax issue were not developed at this point (Municipality of Plaridel 2013). There are additional issues with Phase three’s imposition of additional 0.5% in real property tax registration of socialized housing because this step assimilates informal settlers into the existing legal land tenure framework that they may not want to participate in or may not be able to afford. Social welfare programs are pointed to as a solution to helping persons afford registration and property taxes, but the sustainability of funding mechanisms for these social assistance programs is uncertain, especially because the primary mechanism would be taxation, which as previously stated is not well monitored (ibid).

The LSP has been presented as the primary option for municipalities, and, given that the annual LSP budget is less than current annual disaster recovery amounts, it is a suitable option. However, there are other housing projects and options that exist currently in the Philippines. The Municipality of Plaridel already has a small-scale social housing project in barangay Lumang Bayan that is affiliated with the Catholic Church and funded by faith based organizations both in the Philippines and internationally. The presence of this social housing subdivision called...
Jubilee Homes Subdivision allows for capturing the narratives of informal settlers who have been resettled in this particular housing community and are still living informally along the Angat River. Because this social housing project is affiliated with the Church, it reflects a more dramatic transition from informality as a way of life to a formalized system. These circumstances make Plaridel an interesting case study to examine perspectives on what is important to service providers and informal settlers both before and after relocation.

The strongest point in the LSP policy planning structure is the fact that small-scale, community specific social housing should greatly lessen large distance displacements from existing sources of livelihood and social networks. Strengths of the LSP are that it is local and thus allows for increased quantity and quality of consultation with informal settlers about housing stock needs and social housing community structure (Municipality of Plaridel 2013). Issues with the LSP as a policy paradigm are mostly concerned with the fact that it proposes expropriation of land from delinquent tax payers, which is not feasible, given that sophisticated monitoring systems of tax delinquencies have not yet been developed (ibid). The other major issue with the LSP is that it essentially leaves LGUs high and dry to search out funding sources. The LSP guidelines from the HUDCC point to suggested resources for funding of social housing development projects including: the NHA, Community Mortgage Program of the Social Housing Finance Corporation, Pag-IBIG Group Housing Loan Program, a local 20% socialized housing tax, or private sector NGOs like Gawad Kalinga or Habitat for Humanity (HUDCC 2013). This puts a great deal of pressure on municipalities that do not have the staff capacity to chase funding to support these large development projects. If LGUs have to turn to the private sector and NGOs for funding, this can lead to non-conforming and sometimes unsafe design guidelines.

**The Non-Government Options**

When the Philippines housing sector caught NGO fever in the early 2000s, international aid from organizations like the United Nations Development Program (UNDP) and Habitat for Humanity gained popularity, particularly in cases of post-disaster relief and recovery operations (Alcazaren et al 2011). External funding sources and aid can be problematic in Philippines context, given the country’s colonial legacy and recent history of IMF and World Bank structural adjustment
influences (Constantitino 1978, Angeles 1992, 2003, Ileto 2005). Aid programs that do not build up autonomy and capacity in the communities can do more harm than good by creating cycles of dependence and exacerbating the existing power dynamics in splintered urban settings with disconnects in infrastructure access (Marvin and Graham 2001, Crawford 2011).

An excellent case study of a Filipino NGO directly related to housing is Gawad Kalinga. Gawad Kalinga, which roughly translates to “give care,” tries to restore dignity and autonomy to informal settlers by involving them in the building and planning processes of housing projects (Gawad Kalinga 2013). Families donate their labor, which acts as a form of a payment that helps them secure tenure in the social housing site (ibid). Gawad Kalinga is not perfect. It is tied to external funding from multinational corporations such as Nestle, Shell, and Hyundai (ibid). Gawad Kalinga is another housing option and aspects of this NGO model could be useful in consultation and co-construction of housing with the people who will be moving into the housing.

**Incrementalism as an Alternative Paradigm**

Another housing policy paradigm option for some informal, self-help communities that are not in immediate danger or biophysical hazard zones is the incremental or informal city development process discussed by Baross (1990), Gilbert (1990), Laquian (1971), and others. Formalized development frequently follows a pattern of planning, building, servicing, then occupation (PBSO) trajectory, but the high price of this self-help housing style of housing leads to failure because informal settlers generally cannot afford this arrangement and the government cannot cover the entire overhead cost (Baross 1990). The self-help housing process tends to incrementally follow an “unplanned community” trajectory of occupation, then building, then servicing, and finally community planning (OBSP) (ibid). The main obstacles to this paradigm in the Philippines are: ISFs accessing land in unsafe places, including tabing-Ilog iskwater and other informal morphology patterns; access to development rights or tenure; access to development assistance or servicing; and access to development protection form eviction (ibid). Incrementalism is defined as gradual political or social change by degrees or benchmarks (ibid). In the context of land formalization or “slum upgrading,” this entails a graduated process of
servicing, taxation, and community planning ending with the eventual granting of land tenure (ibid). In some other contexts, such as Colombia, there have been policy experiments with removing some of these obstacles to informal development, but some issues in these experiments have included lack of standards for physical soundness of structures or lack of sufficient funding for adequate servicing (ibid). In the Philippines, the Community Mortgage Program provides a means by which the Filipino government could experiment with allowing for incremental development such as OBSP but this cannot occur in sites where informal settlements are in physical danger because of their proximity to hazards like waterways (Alcazaren et al 2011). The primary ideological issue with acceptance of the incremental OBSP model is the association of informality with illegality (Gilbert 1990). Cultural acceptance of informally and incrementalism as part of the modernization and demographic transitioning of Filipino cities like Plaridel requires a reframing of perceptions of the poor and self-help housing (Gilbert 1990, Laquian 1971, Roy 2005). However, in the context of river-fronting informal settlements vulnerable to floods which jeopardize people’s safety and home structures, incremental acceptance of settlements is not a viable policy option because it keeps people in dangerous living situations.

**Other Issues: Perception, Otherization, and Problematization**

A persistent public policy barrier to pragmatic housing planning for informal settlements in the Philippines is the public perception of informal settlers. Historically, the trend has been to pretend that informality does not exist (Laquian 1971). This has translated into a legacy of policy makers choosing to run for election on platforms related to other more manageable issues and focus their time in office towards dealing with different policy dilemmas such as youth staying in school. Laquian enumerates defense mechanism attitudes that have deeply rooted the otherization and problematization of informality. These problematic root perceptions are: squatters should not have moved from their previous places of residence in the countryside; squatters are breaking the law and should be punished not assisted by the government; helping informal settlers encourages them to stay in the slums by making slums tolerable; and the government should not help professional squatters making money off of informality and thus perpetuate this problem (Laquian 1971). These perceptions miss the economic realities of how
informal settlers play a critical role in Philippines society and international trade which relies on their cheap labour and services. These root perceptions also assume that “slum” areas will deteriorate to a degree that informal settlers will be forced out, but these attitudes miss the morphological reality that the “slum areas” are interwoven into the rest of cities, and that if these areas fall into disrepair, so too will the cities that contain these developments (Laquian 1971, Alcazaren et al 2011). Informality has been intertwined with the Filipino incremental modernization process (Laquian 1971, Roy 2005). Informal settlers are forced to constantly transform and adapt to the uncertainties of their home and social life, which is outside of De Jure legal authority (Laquian 1971). Criminalizing the poor and ignoring urban blight will not effectively find a new housing and resettlement policy paradigm (ibid).

The Possibility of a New or Blended Policy Paradigm

The history of mass resettlement of informal settlers into large-scale social housing has not successfully addressed the “problem” of Iskwater in the Philippines. There are several housing policy options outside of mass resettlement that exist in the Philippines, including the Local Shelter Plan and Gawad Kalinga, but the fundamental barrier to beginning to address informality in the Philippines is the fact that informal settlers have been turned into a societal problem and have been treated as such (Laquian 1971, Gilbert 1990, Appadurai 2001). The paradigm shift that needs to occur to begin to address this underlying issue of perception is a more respectful view of and dialogue with the urban poor (Appadurai 2001). Decentralized governance housing policy options like LSP and Gawad Kalinga are only as strong as the consultation and co-envisioning dialogues that must occur between informal settlers and service providers to envision and plan housing that people will stay in and create lives in. Another important policy idea related to addressing this complex issue of housing informal settlers who are in biophysical harm is that there is no “catch-all” approach. Elements of incrementalism or a co-op system of land tenure could be good options in some circumstances. Different informal housing morphologies and different settings may require different approaches and what works in one community or at one spatial scale may be irrelevant or inappropriate in another context. The people have ideas of what they want out of their homes and communities and they are willing to engage in discussions about these hopes and dreams. This participatory action research uses images and narratives to
explore place-making in informal settlements, hopes and desires for social housing, and the perspective of resettled informal settlers. The next chapters delve into methods and data to explore community voices. The real paradigm shift that must occur is a shift towards respectful engagement that is wary of power dynamics and sensitive to the negative legacy of past and present perceptions. When all involved parties are able to come to the discussion, all voices are heard with respect, and all knowledge pedagogies are appreciated, then innovation to tackle this complex issue can begin.
Chapter 3 Exploring Home and Resettlement through Photovoice and Mixed Methods Research: Collecting and Analyzing Verbal and Visual Data in Riparian Informal Settlements

This thesis is firmly situated in a mixed methods approach using Photovoice and interviews to integrate community perspectives on social vulnerabilities into already existing knowledge of biophysical hazards and subsequent official community plans. Interviews were carried out in collaboration with participants and translators who are also partners on the broader SSHRC project. These interviews were narrative and memory-based and framed in ethnography though local policies and community planning process are discussed.

As an external researcher, I do not speak Tagalog, but with the help of local translators, I used Photovoice to engage with participants in a critical reflection about personal hazard vulnerability and personal narratives about safety. Photovoice is a research method where participants from a chosen community are given a disposable camera and asked to photograph scenes form their community relevant to the study (Creswell and Miller 2000, Wang and Redwood-Jones 2001). In this study, participants were asked to take pictures that reflected place-making processes in informal settlements below the municipal dike along Angat River in Banga I, Banga II, and Parulan barangays, as well as a subset of participants that documented place-making processes in Jubilee Homes Subdivision, a relocation/social housing site in Lumang Bayan barangay in Plaridel. Photovoice, as a methodology is firmly situated in participatory action research; it has been used in studies to empower and give voice to marginalized groups in communities by casting them as co-researchers. Photovoice was selected to augment and drive interviews because it is grounded in feminist and critical social theories (Wang and Redwood-Jones 2001, Haque and Rosas 2009). Similarly, this research allows community member research participants to participate in monitoring and long term tracking of community vulnerabilities as well as share narratives about their experiences in the communities that they live and work in (Dunn 2007, Haque and Rosas 2009). The interviews and Photovoice outputs were facilitated but participant-led because the goal of this research is to help set up a mechanism for community collaboration.
and input on planning for hazards at the local level. This methodology was also selected because of its capacity to give voice to disenfranchised persons and engage in dialogue and sharing of stories that may otherwise be difficult to share while still protecting anonymity (Wang and Redwood-Jones 2001). This research methodology strives to be sensitive to cross-cultural contexts, utilizing a co-constructive hermeneutic analysis frame for images and interviews where participants coded for significance and themes with me based on their unique situation and experience (Wang and Redwood-Jones 2001, Laverty 2003). This co-coding process will be further discussed in my analysis in Chapters 4 and 5.

Cadag and Gaillaird’s (2012) participatory GIS study of Mansantol, Philippines used large-scale maps to allow community members to mark significant places and hazard prone areas. I similarly provided participants with maps of their community and markers to show me where Photovoice images were taken and where narratives or memories discussed in the interview are located geographically. Although (post)colonial legacies persist in the Philippines in the form of highly centralized government, the fact that similar methodologies have been used to increase community participation in hazard planning processes in nearby Mansantol and not just in western contexts speaks well to the methodology’s cross-cultural translatability (Cadag and Gaillard 2012). This research methodology was informed and influenced by the larger Urbanizing Watersheds projects goal of capacity building. By engaging vulnerable community members about vulnerability, participatory monitoring, visioning, and policy informing context are built into the planning for social housing process.

Why Photovoice?

When I began investigating the academic literature around place-making processes and place attachment, which explore in greater depth in chapters 4 and 5, I ran into two very different types of academic exploration. Classic discourses on space and place-making from Massey (1994, 2005), Friedman (2010), Lefebvre (1991), and Soja (1996 and 2004), as well as their modern contemporaries’ essays on place, tend to philosophically explore the cognitive and socio-political processes of place-making. Most of the time, primary data is not used to discuss or measure processes or place-attachment; these are instead used in thematic explorations. Participant
observation and case study methods are sometimes used, but for the most part these classics in the field are highly theoretical. Another flavor of academic studies on place-making and place attachment attempt to quantify processes of place-making. Several studies I encountered, notably Brown et al (2015) on mapping and Blockland (2008) on measuring place attachment, conceive of place-making in terms of boundaries. Blockland (2008) uses interviews to examine spatial and other perceived boundaries in identity, thus defining personal place attachment negatively by looking at places of exclusion and detachment from spaces. Brown et al (2008) take the idea of boundaries a step further towards quantifying place-making by using surveys and community mapping of resources to establish boundaries and areas of community value. This study rigorously categorized community values into: home, scenic, recreational, biological, economic, heritage/cultural, and cultural places and used spatial statistics in GIS (Geographic Information Systems) to find areas of value overlap and distance based ranges of community access (ibid).

Much of the existing research on place-making tended to be either too theoretical to too applied in a geographically specific context to have transferable methods that I could emulate as a methodological model. Community participatory mapping methodologies similar to Brown et al (2008), Cadag and Gaillard (2012), and Dunn (2007) struck me as ideal methods to create a community resource to monitor vulnerabilities and get informal settlers communities involved as stakeholders contributing to relocation and social housing policy discussions. I initially intended to use geo-referenced, community-derived Photovoice images in a community map of vulnerabilities below the municipal dyke, but because of lack of openness with GIS data on the part of the Philippine government, mapping of the Photovoice images became impossible, so I elected to identify images by Barangay to provide a rough spatial estimate of location.

Photovoice emerged as my primary method because I found much of the theoretical place-making research to be too theoretical for a local government unit service provider to find useful. I also found many of the quantifying of place-making studies to be very focused on urban design elements of place-making which misses some of the key intangibles to subjective place-making processes. I saw an opportunity to find some middle-ground between more philosophical discourses on space, place, and belonging and attempts to quantify place that tend to reduce place attachment to a fraction of its more complex definition of layered tangible and intangible components. Images and the power of storytelling seemed like a good way of relating to people
and their places of belonging without intruding on peoples’ sacred or value places. Every photo has a story behind it, but photos also communicate narratives on a non-verbal level that I thought was important in communicating through interpreters across language and cultural divides. Images can be interpreted differently, but this serves as a way to start conversations about what can be done. I had seen Photovoice used in non-planning contexts examining children’s’ perceptions of safety and looking at monitoring land cover change (Chonody et al 2013). I looked into Photovoice’s roots in public health and participatory decision making and saw a strong crossover between these contexts of reaching out to disenfranchised populations over neighborhood health and safety and the Plaridel context of examining the overlaps of biophysical and socioeconomic vulnerabilities (Wang and Burris 1997, Wang and Redwood-Jones 2001).

**Contributions to The Community Of Photovoice Researchers**

Photovoice has been used in many participatory action research contexts, most notably in community health, youth counseling, and education (Wang and Burris 1997, Smith et al 2010). Photovoice has primarily been used to engage vulnerable or disenfranchised populations including youth, women, the urban poor, and particular subsets of the urban poor, including sex workers and street youth. When Wang and Burris developed Photovoice, (1997) they intended it to demystify oppressive power structures and allow vulnerable and marginalized communities to record and document their experiences as a way to talk back to the policies that have perpetuated these power structures (Wang and Burris 1997, Sanon et al 2014, Desyllas 2014). Intended uses of Photovoice include: documentation of strengths and weaknesses of a community, empowerment of marginalized persons to participate in community discussions, and a method to influence policies and systemic change (ibid). For example, Haque and Rosas (2009) integrated Photovoice with concept mapping for planning of the St. James Town neighborhood in their 2009 study. Sum (2008) used Photovoice to examine the lived experiences of racialized girls in relation to place in the multi-cultural colonial city of Victoria, British Columbia. Another study by Maclean and Woodward (2012) used Photovoice to examine environmental and natural and natural resource management issues in Aboriginal communities in Australia.
The methodological root intentions of Photovoice are appropriate for this research. The heavy emphasis on subjective perception and experiences and the attention that Photovoice gives to the individual as a part of a connected community makes it a natural fit as a community planning methodology. Photovoice studies including Wang’s initial research project (1997) engaging rural, Chinese grandmothers as visual anthropologists have had a public health and well-being focus. More current studies using the method including Chonodoy at al’s (2001) examination of youth perceptions of community violence and Desyllas’ (2014) exploration of resistance and identity in sex workers extend the method to incorporate broader public health and societal contexts. In a later (2004) study conducted by Wang with others, she used the method to enable youth to talk back to policy makers about neighborhood violence and stigmatization. This study aimed to get the marginalized youth into planning for urban renewal and community well-being. I argue that these community health and safety contexts are aspects of most social planning processes and studies like these prove the transferability of this method. Photovoice has additionally been used in counseling and education studies (Smith et al 2010, Sanon et al 2014). A planning trend in Canadian and commonwealth countries with (post)colonial contexts is to explore the therapeutic powers and intentions in community planning processes (Porter 2006). Social planning ideally adapts and transforms to meet community needs. (Post)colonial legacies and skewed power imbalances are part of what defines Plaridel as a place (Constantitino 1978, Porter 2006). Photovoice serves as a method to enable communities to challenge this imbalanced status quo and claim voice in planning for the future on informal settlers.

Photovoice has not directly been used in planning processes, but its methodological roots can be traced back to the influential behavioral geography works of Kevin Lynch, notably the 1960, *The Image of The City*, which explores mental mapping of spaces. Lynch argues that a mental picture that an individual form of a space represents a critical nexus between objectives features of an environment and the subjective thoughts that the individual’s cognitive mapping imbue in that space (Lynch 1960). Photovoice as a methodology attempts to create a mechanism by which participants are able to communicate important components of this nexus to planners and policymakers. Lynch’s work explores mental and imagined images of place in terms of nodes, edges, paths, and landmarks. These subjective internal images shape people’s and community’s
experience of space but also lay the foundations for place making processes which will be explore further in the next chapter (Lynch 1960).

**Situating the Study Within the Larger Photovoice Community**

Traditional Photovoice methods had to be slightly adjusted to fit the Plaridel context. Because of my language barrier, I had to rely on formal and informal translation and interpretation when communicating with many of my informants. Clearly representing potential risks to participants is critical in all Photovoice studies, but I over emphasised this risk because I was afraid of my warnings and verbal consent procedures being muddled in interpretation. Typically, Photovoice uses focus groups as a means of community sharing images and co-coding data. This method worked with the images collected from the Mother Leaders of Banga I, Banga II, and Parulan but had to be adapted to more personal interviews with the key informants and most the residents of Jubilee homes because of risk to participants. People were afraid that in a group context images of illegal activities or viewpoints that could be interpreted as opposition or resistance against the government or the Catholic Church could hurt their job, housing, or social status and thus elected to meet with me alone or with a younger member of their family acting as an interpreter. Another key methodological difference was this study’s use of disposable cameras. Use of cheaper disposable cameras was mostly a product of not having sufficient funds to purchase non-disposable cameras for participants. In several studies, most notably Wang (1997, 2004) participants were purchased cheap models of cameras, and in more recent studies, participants are asked to use cell phone cameras (Smith et al 2010, Desyllas 2014). I purchased disposable cameras before I traveled to the Philippines because I did not want to assume that all participants had cell phones. When I started talking to participants, I learned that all participants had cell phones but roughly two thirds had cell phones without cameras. I asked participants with camera cell phones to still use the disposable cameras to keep data uniform for coding purposes. Using film cameras instead of digital cell phone cameras added an element of surprise and anticipation as people waited for their images to develop. Finding shops that developed film cameras was a challenge, as several local businesses I went to informed me that film was being “phased out.” I ended up commuting back and forth to nearby Baliuag Municipality to develop film, but this added privacy to my study data. I believe that Photovoice can and should be used
to further inform implementation of the LSP in Plaridel. If this method is repeated as a mode of community monitoring and visioning on a continual basis, I would recommend utilizing camera cell phones. My use of disposable film cameras added an artistic expression element and allowed me to print duplicates of particular images at the request of participants to keep as keepsakes. Another key difference between this use of Photovoice methods and others that will be discussed further in my research limitations is the fact that participants had non-uniform levels of engagement with their own images. Because of my language barrier, I had difficulties, particularly with the Mother Leaders and some residents at Jubilee Homes, in getting their input on problem solving issues, as some of the problems that their images pointed out. Thankfully, I was able to engage more fully with my English-speaking key informants who were service providers and two youth from Jubilee Homes, but this study ended up being less participatory action-oriented than I had originally planned.

Methods

Sample

The sample of twenty four persons was influenced by the physical and social geography of Plaridel. Because this study requires in-depth connection with consenting research participants, volunteering and thus volunteer bias factor into the results of this research. Selection and recruitment was highly subject to the partners in this study, including Dr. Leonora Angeles and the municipal government and office employees who connected me with staff and other informants, particularly those connected with the Catholic Church which runs the social housing project. The sampling frame was not random; general participants were approached about participating in the study based upon a hierarchy of factors:

1. Proximity to biophysical hazards (flooding, liquefaction, etc.);
2. Housing status (relocated in social housing or still living in vulnerable self-built housing);
3. Housing status (informal or legally documented structures); and
4. Duration of time lived in Plaridel (recent migrants or not).
The sample included seven Mother Leaders of communities living in informal settlements in Barangays Banga I, Banga II, and Parulan, and also included six persons living in the Jubilee Homes social housing project who have been relocated from other places in Plaridel and Marilao in southern Bulacan. Each informant was initially interviewed and presented with consent documents; some asked to keep a copy of the consent documents for their records, but most expressed verbal consent and then specified whether or not they wanted to take photos or have the interview recorded. After this, informants who participated in the Photovoice study returned their disposable cameras and met for the primary content interview. The seven Mother Leaders met with me in a two separate hour-long interview and a half-hour long focus group sessions. For the purpose of providing photo credits while maintaining anonymity of the Photovoice participants who were not service provider key informants, I have assigned identifying labels to the Mother Leaders and residents of Jubilee Homes. The informants have been identified as follows:

- Mother Leader A from Banga I
- Mother Leader B from Banga I
- Mother Leader C from Banga I
- Mother Leader D from Banga II
- Mother Leader E from Banga II
- Mother Leader F from Parulan
- Mother Leader G from Parulan
- Jubilee Homes Youth Resident H (abbreviated as Jubilee Resident H)
- Jubilee Homes Youth Resident I (abbreviated as Jubilee Resident I)
- Jubilee Homes Youth Resident J (abbreviated as Jubilee Resident J)
- Jubilee Homes Resident K (abbreviated as Jubilee Resident K)
- Jubilee Homes Resident L (abbreviated as Jubilee Resident L)
- Jubilee Homes Resident M (abbreviated as Jubilee Resident M)

Only two of these thirteen confidential, community interviews were fully recorded and transcribed. The rest declined being recorded, but allowed me to record via written notes.
Additionally, several “key” informants were approached to participate in the study. Some key informants elected not to participate in the Photovoice and some did. Three of these interviewees consented to being recorded and transcribed; the rest consented to written note recording. These key informants were:

- Lorie Capiral of the Municipal Assessors Office in Plaridel
- Randy Marcelo, Municipal Counsellor in Plaridel. Former staff of Jubilee Homes and the Social Action Center
- Tess Viernes of the MSWDO in Plaridel
- Lala Sanchez Hilera of the MSWDO in Plaridel
- Alma Ortiz Buhain of the Plaridel Community Affairs Office
- Mark Hilera of the Municipal Sanitation Office and Rural Health Unit in Plaridel
- Lettie Garcia, Midwife of Banga 1 Health Unit
- Rev. Fr. Dennis A. Espejo of St. James Apostle Parish Church and Jubilee Homes
- Edlin M. Indon of the St. James Apostle Parish Commission on Youth
- Christian Samson of Jubilee Homes and the Social Action Center
- Rizaleen Leigh Bico of the Disaster Outreach Office at St James Parish Church
- Jubilee Homes Youth Resident H (abbreviated as Jubilee Resident H)
- Jubilee Homes Youth Resident I (abbreviated as Jubilee Resident I)

An important element of the sample to take note of is gender. Of the twenty four persons who participated in this study, nineteen were female. All of the seven mother leaders were female, four of the six residents of Jubilee homes were female, and six of the eleven service providers were female. This uneven distribution within my sample is most influenced by different people’s level of comfort in interacting with me. Perhaps because I am female, females were more comfortable with me asking them to take images and talk to me about their life. Interestingly, there was the most even distribution of gender in service provider key informant participants. This is likely due, again to comfort in communicating with me. Service providers and the youth were the most comfortable working with me because they were more comfortable communicating in English without an interpreter or they knew the interpreter very well in a few notable cases.
Why were women more likely to participate in this study? Traditionally, women’s gendered roles in households and communities have been more closely associated with the home and elements of place making. Perhaps women were more willing to participate in this study because the subject matter of transforming space into place and house into home was more accessible to them. Additionally, the methods of this study, using anonymous images allowed for expression of opinions and ideas that may have held in or not shared because of perceived gender roles.

Interestingly, women in informal settlements and in resettlement locations play a large role in the decision to stay in a vulnerable place or move because of their role as mothers and caregivers. In some cases at Jubilee, the mother in a household had relocated with the family leaving the husband behind with his previously help livelihood. Women, either in informal settlements as Mother Leaders or in Jubilee Homes as co-breadwinners through the onsite livelihood programs exercised considerable influence in deciding the fate of their families. Many women felt excited about participating this Photovoice study, thus influencing my sample.

The basic directions that were given to participants in the Photovoice study were as follows:

<table>
<thead>
<tr>
<th>Photo Story of why people stay in vulnerable areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact: Gabi Esser Globe # 09157590343</td>
</tr>
<tr>
<td>Please use this disposable camera to take pictures that tell a story of why informal settlers living along the River Angat stay by the river or move back after they are evacuated during flooding</td>
</tr>
<tr>
<td>This can include images you take of</td>
</tr>
<tr>
<td>• Livelihood</td>
</tr>
<tr>
<td>• Family life</td>
</tr>
<tr>
<td>• Community</td>
</tr>
<tr>
<td>• Safety concerns</td>
</tr>
<tr>
<td>• Transportation Issues</td>
</tr>
<tr>
<td>• Anything else that you think is an important factor that drives staying in vulnerable areas based on your professional experience with issues of relocation and housing.</td>
</tr>
<tr>
<td>Please ALWAYS ask people if it is okay if you take their picture and tell them that you are taking pictures for a study on social housing in Pariadel. ALWAYS ask for verbal consent.</td>
</tr>
<tr>
<td>I will come back to collect your disposable camera in 1 week and then will arrange a time to interview you about the photos you have taken.</td>
</tr>
<tr>
<td>Salamat Po!</td>
</tr>
</tbody>
</table>

This document was altered slightly for the residents of Jubilee homes who participated to read:
“Please use this disposable camera to take pictures that tell a story of your move to Jubilee Homes and your life here. What are some aspects of your life that have stayed the same as before you moved and what has changed?”

**Guiding Principles of Interactions with Research Participants**

Because building trust and openness was so important to the success of this study, I established several guiding principles that informed my interactions with all research participants. A few of these came from my internal value systems, but some were informed and advised by a few of my service provider, key informant participants who wanted to support my study and assist me with cultural competencies.

The first guiding principle that I valued the highest was reciprocity of sharing stories and images. My interactions were focused on my informants. I prepared a photo album on my phone that was similar to the images that they provided to me so if participants asked me about my life, my home, my family, my livelihood I could share images and stories in the same way they had shared with me. This proved to be very important because it allowed me to introduce myself and seem less like an outsider. This also helped alter the tone of interactions to be more relaxed and like a conversation rather than a one-sided exposé of vulnerable conversation topics.

Another seemingly small, but important guiding principle I embraced was the power of food. Sharing food with someone can help neutralize uneven power dynamics and generate a mood of casual sharing. I brought snacks, usually in the form of bananas, cookies, and chips to every interview and focus group I conducted partially as an incentive for people to come back and discuss their photos with me, but also to breakdown some of the potential barriers to talking with me. Participants tended to light up and energize when I arrived with treats and the food often served as a transition into our more formal conversations because we would talk about a particular bakery or fruit stand. Food is an important cultural aspect of place and community in Plaridel and in the Philippines.
Consent, was one of the most important theoretical guiding principles. All participants gave verbal consent and asked for verbal consent from the subjects of their photographs. I asked for consent again whenever our conversations meandered into conversations about emotional topics, illegal topics, or if I perceived that the participant was uncomfortable in any way.

One guiding principle that came from the Principal Investigator of this study, Dr. Leonora Angeles was using my outsider status to ask seemingly simple or potential provocative questions to service providers. She refers to this as “the global village idiot,” borrowing a phrase originally used by the late Professor Geoffrey Hainsworth to refer to Canadians in overseas research or development work. It was a surprise to me how often informants would talk about issues of government corruption or controversial policies regarding reproductive health policies, past unlawful evictions of informal settlers, and politicians permitting informal settlements in the name of obtaining more votes in elections. While many of these conversations have been stricken from the record as primary data, some allowed me to leave these comments in.

Something one service provider advised me to “experiment” with was the perception of my own identity, age, and level of expertise. By presenting myself as young and not an expert, it was easier to relate to youth and some community elders who would see me as more of a peer or in a student role, but when I spoke with service providers, I discussed planning and ethical issues as a researcher to garner respect and confidence in my ability to conduct this level of investigation.

A final guiding principle that I adapted while conducting research was flexibility and spontaneity. There were times when I would catch people or they would catch me and feel like talking even thought I had planned to meet with them at another time. I gave all participants my local cell phone number and made myself open to text messages and phone calls at any time. I carried all of my primary data notebooks, rough interview guide, and voice recorder with me at all times, because I did not want to be caught unprepared. I feel this flexibility also acted to break down potential perceived barriers or power dynamics because I wanted to give my informants maximum control over the circumstances that they were interviewed under.
Data Description

The primary data collected in this thesis research are images and narratives of persons who live in or near the flood plain in Plaridel, persons who have been relocated and have had to begin place-making processes away from their places of origin, and selected key informants who are municipal employees involved in social housing and issues related in informal settlers or management of a particular social housing site, Jubilee Homes Subdivision. This information provides a human face and perspective on relocation options that have experienced varying degrees of success and political support from informal settlements and surrounding communities. Although my interview questions were semi-structured, two rough interview guides were used for the community Photovoice participants. The Mother Leaders and municipal staff informants were asked to photograph why they stay, or why they think people stay in vulnerable places. The informants living in Jubilee homes were asked to photograph things they had done to transform their house into a home and aspects of their new community that helped them feel at home. With the exception of key informants who elected to be interviewed without participating in the Photovoice study, group or individual interviews were framed around the images captured by informants. The quantified breakdown of photos is listed in Table 3.1.

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<th>Table 3.1: Summary of Photovoice Data</th>
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<td><strong>Mother Leaders</strong></td>
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Of the Photovoice images collected by participants in this study, images depicting the importance of livelihood in place making dominated at 49.6% of the 250 total images, but family at 28.4% of images and home at 23.6% of images were also of critical importance to participants.
Each image or set of images was accompanied by a narrative about the subject of the image. After the initial narrative sharing, participants were asked to identify the bridging or overarching themes between images and narratives. Participants made “theme cards” consisting of themes or factors that they identified as critical to understanding place-making and why people remain to live along the river. These community-derived theme cards included aspects of community such as: livelihood, family, friends/fun, safety, and others (see Figure 3.1 and 3.2). The information and narratives garnered from interviews parallels images submitted by participants to co-create complex in-depth dialogue about sense of place and place-based risk in neighborhoods along the flood plain of the Angat River in Plaridel.

![Figure 3.1: Image coding materials (photo credit G. Esser)](image1)

![Figure 3.2: The image coding process with theme cards and food (photo credit G. Esser)](image2)

**Analysis and Coding**

Using a co-constructive Hermeneutic approach after Rorty (from Zang 2006), I co-coded and analysed data with participants in order to engage in a critical and holistic interpretation of what are key vulnerability management priorities in Plaridel (Laverty 2003, Zhang 2006). This analytical frame was selected because it is historically rooted in a “non-Western” analysis
tradition, and it is inherently related to capacity building (Zhang 2006), which is one of the goals of this research and the larger SSHRC project. After data was collected, coding took place as additional interviews and consultations with participants. When significant, themes, images, and narratives were coded and selected by informants, these core themes was integrated into a visual concept map with informants so that information and their perspectives on informality, vulnerability, and place-making could be integrated into the discussion and policy recommendations about future relocation and social housing sites at the local and national scales (see Figures 3.1 and 3.2).

Validity of Methods

Building from Creswell and Miller (2000), this research ensures rigor in the co-constructive Hermeneutic approach by engaging in more than one form and one period of interaction with participants in hopes of building an in-depth critical approach to data analysis. I worked to triangulate or find themes in narratives that transcend across different participants’ perspectives through member response checking to note community level themes in vulnerability (Creswell and Miller 2000, Denzin 2012). Collaboration with my participants in analysis also served as a validity check; I did not make assumptions in my data coding and analysis, so these processes were carried out with, and were checked by participants as partners in the study (Creswell and Miller 2000, Cadag and Gaillard 2012).

One of the ways that I acknowledge my perspective as the researcher and engage in research reflexivity is my inclusion of “self” as a photographer in my own Photovoice data collection. I also took pictures using the same procedure and coded my own images with my participants to engage about how my perspectives on social and biophysical vulnerabilities are similar or different from theirs (Creswell and Miller 2000). Additionally, one of the main reasons why this study uses Photovoice and interviews is a contingency plan if one of these methods is not possible for particular participants. Validity is strengthened by the presence of both data collections methods, but it is important to build flexibility into a study that takes place in cultural, political, and social contexts and circumstances that are unknown to the researcher going in to the study.


\textit{Research Limitations}

This research is primarily limited by the fact that it incorporates several large theoretical concepts that could be and have been worthy of attention from independent bodies of researchers. Entire books have been written about informality in the Philippines and about place-making. In order to examine the role that place-making plays in the perpetuation of informality, I had to sacrifice some depth in the name of breadth attempting to understand the bigger picture of why informality persists despite efforts to stop informal development and awareness of the dangers and vulnerabilities associated with \textit{iskwater tabing-ilog}.

I initially wanted to conduct this research with informal communities only to capture how they make sense of space and place and their vulnerability, but because of difficulty directly accessing these communities, I decided to talk to service providers and persons who had been relocated to Jubilee Homes. This sacrificed some depth of examination of the views of informal settlers, in the name of looking at more variety of perspectives on this issue. This change emerged partially because I wanted to look at relocation more holistically, about also emerged because service providers and relocated persons were eager to talk to me and share their narratives.

The scope of data collection was temporally limited to the two months I spent living and working in Plaridel in July and August of 2013. I have been able to look at the delayed progress of the implementation of LSP programs, but there are conversations and repeat interviews that I would like to have with my informants about policy and community changes that came with the first phases of the LSP. Has land actually been expropriated from delinquent tax payers to be transformed into social housing? Official documents available online may not reflect on-the-ground realities.

The geographic scope of this project was limited to three barangay in Plaridel with \textit{tabing-ilog iskwaters}. As mentioned in Chapter 2, there are many other informal settlement morphologies that will be a part of the longer term LSP process. Because the broader research project was linked to watershed governance and the Angat River, I limited my focus on informal settlers who
are in the first level of priority for relocation due to the immediate danger of living below a municipal dike.

The largest limitation of this research’s data collection and analysis was my language barrier. Although, I am extremely thankful to all who formally and informally acted as translators and interpreters as a part of this research, there are always elements that are lost in translation. It is not a coincidence that my key informants are service providers and two youth leaders from Jubilee who are fluent in English. Photovoice methodology after Wang (1997, 2001, 2004) asks more analysis from participants. One methodology from Wang (2004) asks informants to follow the mnemonic “SHOWeD: What do you See here? What is really Happening? How does this relate to Our lives? Why does this problem or strength exist? What can we Do about it?” My interviews with key informants about images tended to satisfy all of these questions, but my interactions with the Mother Leaders and some of the Jubilee Homes community were not able to broach the last two action-oriented questions. Because of language issues, I was able to engage with them about the significance of their images only on a personal level, although part of the objectives of all Photovoice research is to let people “talk back” to policy. I think that in some cases, the Mother Leaders and Jubilee residents did talk back to policy, but because service providers interpreted for me, their criticisms were translated to me differently than intended or were not fully translated to me.

Additionally, a threat that always exists with Photovoice studies is what would happen if the images fall in the wrong hands or are used to excessively police people rather than to inform policy. Because I am an outsider to the community of Plaridel, I had the advantage of being able to block out faces and preserve anonymity, but if Photovoice is to be used as a long-term tool to inform planning policies and allow for the community to talk back to policy, aspects of privacy need to be ensured to make sure this “dark side” does not alter the intentions of the method.

With these limitations, I believe that Photovoice can be a way for community to talk back to housing policy in Plaridel and I believe it would benefit municipal policies and approval ratings to use this method to hear a greater breadth of community perspectives on issues of relocation.
Ethical Considerations

The broader SSHRC project has submitted a BREB ethics review and informed consent documents for interviews exist in English and Tagalog for interviews (See Appendix 1), but because I use Photovoice, I have additional ethical implications. My research topic explores vulnerability in informal settlements which are illegal, so participants may be in socially or legally compromised positions and thus may require additional identity protections. In photos that I take as part of my validity test of researcher reflexivity, I did not include persons’ faces, names, addresses, or identifying information or characteristics. I encouraged my participants to also not include persons’ faces in their images. This problem did come up, and rather than omitting faces which removes the human aspect of the images, I elected to keep these in with the careful guidance and supervision of my research supervisor and Principal Investigator of this study. In addition to administering full informed consent for Photovoice and interviews, I additionally talked to each participant about the risks associated with sharing images and narratives. I informed participants that any images of people or images taken in private places such as persons homes require direct verbal consent from the photo subject or structure owner. This aspect of Photovoice as a research method has been addressed by the larger community of Photovoice researchers as well. Naovk (2010) in particular discusses issues using Photovoice with vulnerable populations stating,

“I failed in adequately persuading them of the guidelines’ importance. As a result, I collected a large number of pictures that are unsuitable for academic presentation because they did not meet BREB (Behavioural Research Ethics Board of UBC) standards. The reality is that IRB regulations and guidelines are of little use or concern to people without homes.” (Naovk, 2010: 296).

Negotiating with my participants about what images were appropriate for presentation was a challenge. Many community members did not understand why anyone would not want to be photographed and thought that the faces and expressions were important to the narratives included in the pictures. I ended up electing to scratch out faces of the subjects in images and
omit names. All data and images in this study have been kept on a dedicated external hard drive shared only between the P.I. and myself.

**Reflections**

This project is cross-cultural and complex in nature because I, as an external researcher, am entering a community that I do not know intimately. Although the PI on this study, Dr. Angeles is from Plaridel and prepared me with history and educated me about particular contexts present in the city, there were aspects of this project that were difficult for me to predict. I built in flexibility into this project by mixing methods of data capture and leaving my interviews relatively unstructured, but it was important to keep a cultural sensitivity and openness to what was feasible, given the local context, and what participants were willing to share. One of the challenges in this regard was encouraging informants to be open and casual in their interactions with me, while keeping my data collection topical. With a topic like place-making that can be interpreted differently by different participants, it is difficult to draw a harsh boundary about what is topical and what is not. Participants’ personal narratives were disrupted as little possible in the name of allowing a story arch develop in my conversations, but this led to a great deal of information being stricken form the record when data was coded and reviewed with participants.

My positionality was important to keep in mind as an ethical consideration. My status as an outsider was unavoidable, and my identity as an American researcher may bring up memories of colonial occupation in the Philippines. I shaped my research objectives around the idea of community capacity building in hopes of avoiding the perception of a Western outsider from a former colonial power coming in as an outsider to offer governance and planning advice. I did not want this to be my perceived role, which I why I focused on “co-construction of meaning” with my informants and capacity building, but there was an extent to which my perceived identity as an expert and an outsider was unavoidable.

I carefully used local networks to build trust and rapport, starting with the project partners and community members. The privilege of being associated with the Principal Investigator on the project is also a reflection of previous students and research assistants who have traveled to
Plaridel with Dr. Angeles. The quality work of those who preceded me helped in my garnering trust and grounding in the communities where I worked and conducted research.

**Role of Partners**

The research partners on this project include Dr. Leonora Angeles, the principal investigator (PI), and all of the co-investigators who are listed in Appendix 1: the full BREB ethics review application. The full team includes professors from UBC and other intuitions in Canada as well as local researchers, professors, and government officials. Dr. Angeles influenced this project in her role as my primary research supervisor in terms of scoping and setting the geographic range of the study’s sample, helping edit access government documents, meet the municipal employees who I worked with, recruit interview participants, and disseminate information and reviewing my draft and finished thesis. The municipal health and social work employees, as well as the GIS provincial employees, were involved in the data capturing and some of the coding involved in my study. They also helped me recruit community members participated in the study.
Chapter 4 Home, Belonging and Place-Making: Why People Remain in Highly Vulnerable Spaces

From the horror of “placelessness” to vague and highly subjective personal definitions of place, the formal literature and broader discourse on place-making frames it as a vital community process that is nonetheless glossed over for the most part in political theory, formal plans, and municipal legislation. Place-making has been a part of interdisciplinary research discourse including geography, gender studies, policy, urban planning, disaster management, and cognitive psychology; however, definitions of place-making are elastic and have been altered to fit these different academic and applied contexts. Desire for place is described by John Friedman in 2010 as, “yearning for … solid connection to the earth, to the palpable physicality of cities and the everyday need for social contact” (Friedman 2010: 150). He defines place as something both tangible and intangible that is experienced by people, but also simultaneously is transforming and transformed by people (ibid). From this definition out of planning literature, it is clear that specific definitions of place do not exist. A few generalizations about place-making processes can be drawn from the cross discipline smattering of definitions. Place-making is clearly a process where people occupying and living in a particular space start to alter and adapt to a particular place thereby starting to take on responsibilities of ownership, attachment, and identity with the space (Meyers 2002, Friedman 2010, Fettes and Judson 2011).

This chapter will break the process of place-making and sense of place down into sub-concepts within the more complex process and explore each sub-concept in the context of literature then explore the implications in the Plaridel, Bulacan context of informality and resettlement. Because different disciplinal definitions of sense of place and place-making are context specific, the narrative and photographic data that was collected and analysed as part of this research can be used in concert with existing literature to establish when is meant by sense of place in informal settlements and what are some of the specific components of the place-making processes by families and households living informally in these vulnerable locations.
Space versus Place

Before unpacking specifics of place-making processes of informal settlers in Plaridel, we must delineate the difference between spaces and place. Space is usually perceived as a larger plain that can be divided up into distinct places where identification and social interactions develop with time; Lefebvre and Soja discuss spatial experience in terms of “trialectic spatiality” that is experienced and perceived in three unique, but often interrelated realms (Lefebvre, 1991; Soja, 1996). The first and dominant realm is our “conceived space” where abstracts like values and ideas are translated into tangible uses of space like signage and zoning (ibid). This realm allows planners and policymakers to engineer particular outcomes out of space. The second realm is “perceived space” which Lefebvre and Soja as coherent and measurable reactions and acute interpretations of the engineering mechanisms involved in conceiving of space. The third realm and the third layer in understanding space is “lived space” which can be viewed as spaces of representation as opposed to “conceived space,” which is described as representations of space (Chillers and Timmermans, 2014). “Lived space” is composed of the symbols and interpretations that users ascribe to a space including edges, nodes, paths, and landmarks in real time as they carry out every day activities in that space (Lynch 1960, Lefebvre 1991, Soja 1996).

Place, conversely, is seen a smaller division within space that has been endowed with unique, subjective meanings (Chillers and Timmermans, 2014). Place-making takes the third realm of “lived space” beyond users’ interpretations into the actions that users conduct in space that shape and mold uses and meaning in that space.

Place is a part of geographic space and temporal designation, but it is also comprised of other people, memories, and feelings (Chillers and Timmermans, 2014). The transformation of space into place, what Chillers and Timmermans argue is the place-making process, is the most raw form of urban design informed by bottom up planning processes (ibid). This portrays an idealistic image of participatory action planning; however, contextual realities leave place-making informal and are largely perceived as an illegitimate and even illegal form of urban design. This is seen repeatedly when guerrilla gardens are torn down to make room for development, but complexity increases when place-making process have led to the informal urban design of informal settlements. In the informal settlement context which is central to this research, in Plaridel, place-making processes have led to the development of self-help housing in
unsafe places. As discussed in Chapter 2, these informal communities have not been given legal land tenure, but were permitted, in a de facto policy sense, for years. The research sub question: How do persons living in vulnerable informal settlements along the Angat River in Plaridel, Bulacan make sense of space and their place and biophysical vulnerability context? Answers to these questions are deeply interwoven with factors of family, livelihood, and history. These unsafe spaces from outsiders’ perceptions have become sacred places of home and belonging. As demonstrated in the study, each structure and neighborhood feature in the informal settlements along the Angat in Barangays Banga I, Banga II, and Parulan has been built by the community from the ground up. These self-help houses, sari-sari (variety) convenience stores, and social network of family and friends represent the deepest level of place-making and grassroots urban design.

“This Might Be the Place”

“Home is where I want to be, but I guess I’m already there,” David Byrne’s lyrics from the Talking Heads album, Speaking in Tongues, echoed in so many formal and informal conversations that I had with informants and other community members.

What is home? What makes some spaces more attractive as homes than others?

In a western, academic planning context, place is often described as the nexus of sociability, uses and activities, access and linkages, and comfort and image (see Figure 4.1) (Chillers and Timmermans 2014; Baltimore City Department of Planning 2010). Figure 4.1, from the Baltimore City Department of Planning includes another layer outside the green circle with specific
tangible aspects of community place-making in Baltimore. Those were omitted because they are not relevant in the Plaridel context, but the key elements in orange and their associated intangibles are highly relevant in the Plaridel, Bulacan context. People are compelled to live in places that are close to work, imbedded in a community, and uncomfortable, but they also form attachment to places associated with memory and emotion (Lynch 1960, Meyers 2002, Friedman 2010, Chillers and Timmermans 2014).

What do the intangibles associated with the four key elements of place-making look like in Plaridel? The sub-question of this research about how persons living informally along the Angat River make sense of their place in spite of their biophysical vulnerability scratches the surface of their unique intangible factors associated with access, linkages, sociability, uses, and activities. Mother Leaders from the three study Barangay: Banga I, Banga II, and Parulan shared their perspectives as well as some of their community members’ personal narratives through images and storytelling.

The deeper, specific narratives that the Mother Leaders shared from their photos in our focus groups were organized into several themes to classify the images and stories. These themes, which coded the visual data, were created by the Mother Leaders. They were asked to photograph aspects of their communities below the municipal dyke that they liked and didn’t like in an effort to understand how this place by the river has become home and why people stay in this place despite being displaced by floods almost every year. The themes that the Mother Leaders chose as they looked over their images were: community amenities, community fun/activities, family, housing, livelihood, and neighborhood improvements transportation/access in pollution and safety.

**Community Amenities**

Community amenities are viewed by planners as official spaces that are generally zoned and specified in particular locations based upon maximizing usage. In informal communities, amenities are also needed. Some amenities, such as health clinics, are confined to remain within
formal, zoned land tenured spaces because of their official nature and requirements, but less tangible amenities and community services also develop unofficially in informal settlements.

One Mother Leader in Banga II emphasized how much the communities in her barangay who live directly adjacent to the Angat River and who were so reliant on the river worked to protect the river (see Figure 4.2). She photographed a community river cleanup that had developed based upon need. All of the Mother Leaders expressed that their communities were self-sustaining and talked about the specific ways that community members offered services to each other. In Banga I, a Mother Leader photographed a community road repair off the city grid road networked to address dangerous conditions that had caused a tricycle crash recently (see Figure 4.3). She also photographed a group transporting litter to the Banga I MRF, Municipal recycling facility (see Figure 4.4).
The Mother Leaders from Parulan brought up some of the problemitization and negative stigmas associated with informality saying, “When you look closer, there is so much more there.” That same Mother Leader photographed a community garden, saying, “It is beautiful, but people don’t see it, they just see poverty” (see Figure 4.5). Another Mother Leader from Parulan photographed a small community resource, a motor cycle, and tricycle repair shop tucked in among the self-built housing (see Figure 4.6). She said it was nice to have people in the community who had that technical mechanic knowledge; it keeps the community going.

These images and their commentaries from the Mother Leaders support the notion that place-making is not a singular process, but a community effort. Local ownership of place and reciprocity to spaces of community are often viewed as the deepest level of place-making (Chillers and Timmermans 2014). Doreen Massey argued in *Global Sense of Place*, “If places can be conceptualized in terms of the social interactions which they tie together, then it is also the case that these interactions themselves are not motionless things, frozen in time. They are processes” (1994: 8). These are community processes and assets that could be emulated in social housing because these contribute to place and augment a community’s cohesion.

**Community Fun and Activities**

Community came up as an umbrella factor that was present in every story and every image they shared. It became apparent that place-making and development of place attachment is never a process that individuals embark on alone, especially in a culture that is so welcoming and traditionally family oriented like that in the Philippines.
The Mother Leaders decided to make a distinction between community amenities and community fun stating that one was the resources and infrastructures, both tangible and intangible, built by the people, and the other was the people themselves coming together to create experience and meaning. These meaning-making processes were viewed as important pieces of place-based identity regardless of how small and localized they may seem to an outsider, like meeting up for billiards or a community dinner (see Figures 4.7 and 4.8). A few of the subjects photographed under this category are engaging in illegal activities, namely gambling, but the Mother Leaders trusted me, as an outsider not to expose the identities of the people engaging in these activities (see Figures 4.9 and 4.10). One older Mother Leader from Banga I said, “What is this life without those things?” with a chuckle. In some ways living informally, outside of the planned city system, has allowed these informal settler communities to claim space in the ways James Holsten discusses as “insurgent citizenship,” or a localized, illegal appropriation of space in the name of claiming increased rights, voice, and reforming regulations that are seen as non-essential or unjust (Holsten 2009).
One Mother Leader from Parulan emphasized, “It’s not just holiday or special events, it is every day.” Every day can mean playing basketball together in a self-built court which serves as a community node, stopping to pick guavas on the way home from school, taking time to play together, to talk together, and even sit and enjoy a sunset (Lynch 1960) (see Figures 4.11- 4.16).
Asking the SHOeD questions, what is really happening here? And what can be done about this? reveals a severe social planning deficit in many housing projects. What is really happening in these pictures is deeper than playing, eating, or talking together. Human interactions evolve into the same “temporary constellations” and networks that make up place on a spatial and temporal trajectory (Massey 2005: 141). When people are forced to leave these networks to move into housing projects they lose much more than service providers tend to recognize. A possible strategy to address this is to relocate by community not simply by household.

A close connection between community amenities as nodes and community fun that came up in my conversations with my groups of seven Mother Leaders was their communities’ relationship with the Angat River and natural features near the river in their communities (Lynch 1960). Many of the prized amenities in Banga I, Banga II, and Parulan have been created by the community, but the river, its function, and its beauty came up as a feature that bridges all aspects place-making. One Mother Leader said, “We are the Taga-ilog, the people of the river, it is a part of our lives.” This theme rang throughout the images and narratives from people fishing in the river, to using it for laundry, to swimming and enjoying the Angat despite its issues with pollution which will be discussed later in images in this chapter (see Figure 4.17). The river complexly serves community landmark but also an edge in these communities (Lynch 1960).

Figure 4.17: Children swimming and playing in the Angat River in Parulan (photo credit Mother Leader G)
Family

Family and livelihood were the key components in Plaridel that were captured the most in images taken by the Mother Leaders. Because of the extremely personal nature of some of the family images, they cannot all be included to uphold confidentiality, but their associated narratives will be discussed because these stories were highlighted by the Mother Leaders and other community members as highly important to local place attachment and place-making processes. Massey’s 2005 book, *For Space*, discusses networked place-making and community co-construction of place from space in terms of “temporary constellations” where purpose and meaning are created, but because of the prevalence of more traditional family values in Filipino culture, family represents a more permanent social constellation (Massey 2005, 141).

A few Mother Leaders and one service provider from the municipal social work department who went out and photographed/interviewed families in Banga II as part of my study mentioned that now in Plaridel, there are families who have been living informally along the Angat River for multiple generations. The popular perception of informal settlers is that they are recent migrants from more rural and remote places who have been displaced by the spread of mechanized labour and are looking for work closer to major metropolitan regions such as Malolos or Manila (Alcazaren et al 2011). Multi-generational informal settler status implies that informality is not just a transitive state; this also strengthens the argument that place attachment and not just necessity, or a “slum-mentality” drive people to remain settled in places of vulnerability (Reed 1978, Laquian 1971). Massey’s “temporary constellations” and the definition of informal housing as temporary are challenged by the emerging context of multiple generations of families living informally next to the Angat River (Massey 2005: 141). People’s perceptions of their place as temporary or permanent affect their development of place attachment and the roles they choose to take in community.

One great grandmother in Banga II told the municipal social worker who photographed her and her family in their home, “keeping the family together is everything … I was born here and I will stay here. I have been evacuated twelve times and relocated three times, I will always come back
this is my home.” She is photographed in Figure 4.18 below with her granddaughter and great grandchildren.

Mother Leaders had repeated, “Family is everything” in the same way that they discussed the significance of the river. I collected forty four images that the community tagged as representing how family ties people living in the informal settlements to their living arrangements and lifestyles. Some are photos of families talking, doing laundry and other household chores together, sharing meals, playing together taking care of each other, and living together in their homes and community public realm spaces (see Figures 4.19 – 4.26).
Figure 4.20: Family laundry time in Parulan (photo credit Mother Leader F)

Figure 4.21: Washing dishes in the River, Banga I (photo credit Mother Leader B)

Figure 4.22: Sharing a meal together in Banga I (photo credit Mother Leader A)

Figure 4.23: Family time in Banga I (photo credit Mother Leader A)

Figure 4.24: Taking care of a sick relative in Banga I (photo credit Mother Leader A)

Figure 4.25: Helping hang laundry and tidy the house in Parulan (photo credit Mother Leader F)
“Family is everything,” this simple statement proved so true in the Philippines, but especially in the sample who this study targeted for images and narratives. If family structures are broken apart during relocation, this negatively affects peoples’ willingness to stay in social housing. These images show simple things like sharing a meal or doing chores together as a family, but these small things are valuable. Uniform design of social housing for nuclear families of five to eight people does not allow for extended families to live together and engage in the activities shown in these images. Building social housing suitable for extended families or allowing for flexibility and additions to socialized housing could address this cultural and community desire to keep family together.

A planner would view these first three key categories as subjective elements of place-making and would observe community-level adaptation as part of what Lefebvre and Soja label as lived space (Lefebvre 1991, Soja 1996). Because these elements of local place attachment in Plaridel are not tangible, they are not directly addressed in existing local planning documents. There are some discourses about participatory planning from western academic traditions, notably Chillers and Timmerman’s 2012 that assert, “The importance of creative participatory planning in the public place-making process.” This literature supports the integrated collaborative governance framework of the larger research project that this study is a part of, and privilege the role that citizens play in shaping place. The municipality of Plaridel is aware of these shifting policy planning paradigms and understands that the LSP may present the challenge of planning with not for informality, but without sufficient funding for decentralized planning and a reframing of

Figure 4.26: Walking to school together in Parulan (photo credit Mother Leader F)
informality, recognizing the community cognitive processes essential for creating localized ownership and reciprocity to place cannot be supported by planning and thus remains in the realm of intangible place claiming by the poor (Holsten 2009, Chillers and Timmermans 2012).

Planners and other municipal staff, including the staff members I spoke with as part of this study, tended to focus most on tangible and measurable indicators and factors that drive people to remain in vulnerable informal settlements, the tangible uses that make up conceived and perceived space in “trialectic spatiality” (Lefebvre 1991, Soja 1996). I purposefully chose to present the factors that Mother Leaders deemed important that were less tangible and more aligned with Massey’s assertions (2005) around networked place-making because these are under addressed or not addressed in the discussion of why informality continues as a dominant development paradigm in the Philippines and why so many relocations attempts have been successful (Alcazeren et al 2011). Community and family and the feelings and memories associated with these factors are undeniable, yet these aspects of community are largely not addressed in visioning and planning for relocation housing in the Philippines. This will be discussed further in the next chapter which will discuss the hopes and realities of resettlement. The more tangible elements of space making cannot be ignored. However, the Mother Leaders provided me many images and stories about housing, livelihood, and community concerns about physical safety such as pollution, safety, and transportation access.

Housing

This set of images and narratives split across two opposing core narratives of informal housing. When I asked the Mother Leaders which narrative was more dominant, they said that the more negative narrative about poor construction and safety was talked about more frequently in planning, but in the community, this was balanced out by another common narrative of peoples’ personal pride in their self-built housing. Surprisingly, a few of the municipal service providers who participated in the Photovoice study also captured images and stories that aligned with this core narrative.
While many images highlighted the unsound physical structure of homes and were intended to tell a story of vulnerability to floods (see Figures 4.27 – 4.30), many of these images and their associated narratives contain an undercurrent of personal pride in home and community and the will to keep improving home and community (see Figures 4.31 and 4.32).
One of the mayor’s staff walked down from the Municipal hall towards the river and did an in-depth interview with one man who had been relocated and had returned. This man said he had everything he needed right by the river and had rebuilt his home to be more resilient to floods. He stood back and proudly displayed his home and talked about recent changes he had been making to prepare for monsoon season (see Figure 4.33). When asked about the dangers of living so close to water, he said that he had used trees and vegetation to create a wall to protect and lessen structural damage to his home (see Figure 4.34).

Figure 4.30: Banga II house by the Angat River (photo credit Mother Leader E)

Figure 4.31: “Our home and small business” in Parulan (Photo credit Mother Leader F)

Figure 4.32: “But it’s a beautiful place to make a home” Banga II (photo credit Mother Leader E)
The idea of home in an informal context is dynamic, rather than fixed, as it is in formal legal land tenured contexts. Land development sequencing of tenured land generally aligns itself with the sequence: planning (zone), servicing, building, and then finally occupation (Baross 1990). The images and narratives reflect gradual home improvement and incremental formation of communities in a way that flips traditional development sequencing to an “occupy, build, service, then plan” development trajectory (ibid). Rather than moving into a house that is a fixed point in terms of structure, number of rooms, and servicing, self-built housing in informal communities allows for flexibility of structure. As a family grows, the house can expand and adapt. The house can be elevated to adapt to flooding. The structures are not controlled by traditional zoning so the community is able to decide what amenities are needed and residents are able to adjust their homes to open up small sources of livelihood like a sari-sari store or motorcycle repair shop. Because the planning happens last, the community has more of a direct voice in decision making processes and grass roots urban design. This participatory and incremental approach to design and formalization of social housing could be emulated in community social housing. This would dramatically challenge past paradigms of social housing, but is closer to what is already happening in informal communities. Allowing people to have some role in the design and building could foster a sense of ownership and could serve as a partial payment scheme to make formal land tenure more affordable.
Livelihood

The factor that service providers and community members emphasized most as a reason that families return to their informal life styles was livelihood. When people living on the water front were asked if they would move if they were given a chance to relocate to someplace safer, a few said never, but many stated that they would consider moving provided they were close enough to suitable livelihood. Service providers felt that many of the large scale relocation and social housing sites had failed due to their remote locations away from employment opportunities and lack of support for onsite livelihood. I received eighty images and anecdotes about livelihood form the seven Mother Leaders alone. Service providers highlighted the variety of jobs that informal communities create to support, and in some of the more in depth interviews that service providers did with particular families in their homes, it became apparent that many head of households living informally by the Angat have multiple jobs to keep their families financially afloat. Many of these forms of livelihood were place-specific and reliant on either proximity to the river, public market, or municipal slaughter house, but other sources of livelihood had emerged to support these communities such as sari-sari stores, laundry shops, carinderias or small foot stands, and even some cyber cafes. Fishing and kang kong (watercress/swamp cabbage) harvesting were two of the place-based livelihoods that were photographed most (see Figures 4.35 – 4.37). I also received images of the Plaridel public market, which serves as an identifying landmark node of livelihood and economic activity, and images from inside the slaughterhouse that people provided as reasons why they had personally stayed in informal settlements along the river (see Figures 4.38 and 4.39).
People started settling along the urban edge of the Angat because of these geographically dependent forms of livelihood, but the communities that have developed around these industries have created service based livelihoods including laundry shops, barber shops, home electricians, food vendors, sari sari stores, bakeries, recycling collection, internet cafés, and even a specialty herb market in Banga I (Lynch 1960). I have only included a few selected images of these service jobs because there were so many images collected (See Figures 4.40 – 4.47).
Figure 4.40: Banga I laundry shop (photo credit Mother Leader A)

Figure 4.41: Home barber shop in Parulan (photo credit Mother Leader F)

Figure 4.42: Home electrician in Parulan (photo credit Mother Leader F)

Figure 4.43: Food vendor in Parulan (photo credit Mother Leader G)

Figure 4.44: Caranderia and sari sari in Banga I (photo credit Mother Leader A)

Figure 4.45: Bakery in Parulan (photo credit Mother Leader F)

Figure 4.46: Banga I recycling collection (photo credit Mother Leader D)

Figure 4.47: Banga II internet café (photo credit Mother Leader E)
One service provider told me, “The Filipino people are resilient and do not like to feel helpless; you cannot just build them a house in the middle of nowhere with no way to support their family, they would just die in such a place” (personal correspondence Fr. Dennis July 21, 2013). Contrary to some assertions about a so-called “slum mentality,” these families do not act helpless or perceive themselves as helpless. They are often working hard so their children can attend school and break into the formal sector employment. Viewed in this way, the status of informal settler families as squatters or persons operating outside of the formal economy and land tenure system may be transitional as a younger generation moves into the formal economy, but it is not always a transition.

When I asked a service provider in the Bulacan provincial office what was being done to address the issue of livelihood in large-scale social housing developments such as Catacte, I was told that there would be job retraining programs offered for adults in relocated families. When I pushed the issue and asked if there would be any NHA funded commercial or industrial developments near these large scale developments to provide employment opportunities, my answer was not answered. Municipal service providers identified this lack of planning for jobs as a huge barrier to success and retention at housing sites; one social worker in Plaridel further argued that without jobs people will continue to work in the informal sector and that will, in a sense, “transfer that same slum to a new location,” but the same problems will persist.

The importance of livelihood to both community members and service providers highlights a deep level of place-making, but also represents a tangible and measurable component issue that can and should be addressed in the planning of social housing. These images show some of the basics to keep a community self-sufficient and economically afloat with a variety of employment opportunities. Social housing sites could also be enriched by bakeries, internet cafés, barber shops, electricians, laundry services, sari saris, and food vendors if they were permitted. If social housing is close to some primary source of livelihood such as a farm or factory and these service livelihoods are permitted in the housing site, this would help keep people living in these homes. Working and living in the same community makes living more affordable and streets safer and cleaner because it cuts down on need for vehicle transportation.
Other Key Elements: Transportation/Access, Safety, and Pollution

Although I received fewer images reflecting these three elements to place-making, they were coded as important themes by the Mother Leaders and can be discussed together in the context of place-making. They represent a deep level of place-attachment, referred to as local ownership of space and the will to improve the community. In western planning contexts, planners have been able to shift emphasis towards new urbanist and walkable community principles. Because of rapid demographic transitioning and (post)colonial contexts, guiding principles for urban design and planning have washed through communities leaving disjointed zoning and non-highway road networks. This has led to issues around access, automobile reliance, safety, air pollution, and transportation of trash to landfills particularly in Plaridel which still classified as agro-industrial, but is urbanizing faster that formal planning has been able to keep up with.

A Mother Leader in Banga I was very concerned with the amount of garbage building up in the River near the informal settlements there. She recognized that the community living informally there was contributing to the trash problem, but also talked about the community efforts to clean up trash, she took this picture of the pollution (see Figure 4.48) and expressed that she wished there was more education around recycling. The midwife at the Banga I health unit echoed this concern and when I showed her this image that one of the Banga I Mother Leaders took, (see Figure 4.49) she exclaimed that the number one cause of child morbidity is the polluted river saying, “the little ones swim in it and drink it, they do not know better, and then the adults are eating that fish.”

![Figure 4.48: Trash or Basura by the Angat River in Banga I (photo credit Mother Leader C)](image1)

![Figure 4.49: Fishing in the garbage, Banga I (photo credit Mother Leader C)](image2)
Other Mother Leaders talked about the need for safer road conditions and alternative modes of transportation. Because most informal settlers are living below the dyke, an urban edge separating formal and informal communities, there are no formalized roads in the informal settlements rather there is an informal network of community cared for paths (Lynch 1960). Walking alongside vehicles in the road puts people at risk of getting hit and increases exposure to air pollution (see Figure 4.50). An alternative to crossing the congested bridges from Banga I and Banga II into Pulilan, Plaridel’s neighboring municipality across the Angat is water crossing on rafts or *bankas*, small boats. There is an existing raft service in Parulan that serves as another source of livelihood to that community’s population (see Figure 4.51). While water crossings keep people closer to the river, which can be dangerous during monsoons, this service could potentially be expanded alleviating transportation and access issues while creating green jobs. More traffic on the river could also help bring attention to pollutions issues. Additionally this alternative transportation challenges the river as an edge and expands lived space (Lynch 1960, Lefevre 1991, Soja 1996).

![Figure 4.50: Mixed traffic on the street in Banga II (photo credit Mother Leader D)](image1)

![Figure 4.51: Raft crossing as a transportation alternative in Parulan (photo credit Mother Leader G)](image2)

**Making sense of Informal Places in Plaridel**

Place-making processes have led to the formation of meaningful communities along the Angat River despite the flooding hazard and absence of the ability to obtain legal ownership of land in these areas. Stories from everyday life in these neighborhoods cast a spotlight on how persons living informally along the river make sense of space and their place in community through
landmarks, nodes, edges, and paths, but also the communities that form as the less tangible aspect of place (Lynch 1960, Massey 2005). People have claimed these spaces along the margins of the city and river in an act of reclaiming their rights to the city that they have been financially excluded from (Lefebvre 1991, Holsten 2009). Discourses that otherize these families and communities as having a “slum mentality” ignore the fact that in many cases these individuals and families are contributing not just to their community, but to the larger community of Plaridel as fisherfolk, laundry services, and other small businesses. These informal communities have started to understand their biophysical vulnerability as flooding has worsened in the last few years, but the community they have co-created with family and friends is stronger than their fears of damage to their housing. Many are self-described, “people of the river” (see Figure 4.52).

![Figure 4.52: Woman by the Angat River in Banga I (photo credit Mother Leader C)](image)

While identification with River and its associated livelihoods is an important facet of place-attachment, the intangibles of community, family, social networks, and the flexible adaptability
of urban form have been equally important in the process of transforming space into place. These intangibles should not be ignored in understanding why people remain in vulnerable places. Places of community and neighborhood along the Angat River have become sacred and tied to experience and memory. Hearing people’s narratives of place-making and place attachment is an important step in trying to understand why this *Tabing-illog Iskwater* persists despite efforts to relocate vulnerable informal settlements, but also may provide insight into what are important steps in co-constructing meaningful communities in social housing sites away from the dangers of the Angat.

While my language barrier prevented the Mother Leaders and I from delving into a pragmatic, in-depth problem solving and brainstorming session about social housing in Plaridel, some of our discussions meandered into answering the more analytical Photovoice questions “Why does this problem exist? What can we do about it?” (Wang et al 2004) They stressed that “all those small things” community, fun, family, housing, livelihood, safety, and transportation access are why people remain by the river. When I asked how this knowledge could be used to form meaningful and lasting social housing, they laughed a little and said that there would always be people by the river, but that asking people about “all those small things” and incorporating this into the social housing plans and blue prints would be a good place to start. Those “small things” echo Kevin Lynch’s theories about mental mapping and imaging of place (Lynch 1960). His emphasis on subjective perceptions of paths, edges, nodes, and landmarks that are influenced by non-physical factors is echoed in the images that these Mother leaders chose to capture to discuss community and their ideas of home (ibid). While the Mother leaders did not offer clear planning strategies, their images suggest important starting places for consultation. I was able to engage service providers in more specific planning conversations; their perspectives are shared in the next chapter’s exploration of social housing hopes from above.

Planners and service providers tend to focus discussions about informality and relocation on tangibles like livelihood and access, yet these planning goals have not been realized in much of the existing large-scale social housing. Informal communities have been functioning as planners of their communities in Plaridel for generations; they have a sense of what works and does not work in developing sense of place and belonging. Planning for resettlement of informal settlers
at the municipal level serves as a window of opportunity to engage in more meaningful consultation and crafting of social housing. There is opportunity to plan with informal settlers not form them. The development of relocation housing does not need to, and should not reiterate the status quo of large tracts of row housing in relatively remote locations not close to forms of livelihood. Talking to the community about what they want and paying attention to social planning for community cohesion and networked place-making is an important step that has largely been overlooked (Chillers and Timmermans 2012). An important first step to really listening to the community is treating persons living informally with respect and not otherizing them as criminals or depressed persons suffering from a “slum-mentality”. The community is already subtly making their hopes and desires heard through their place-making processes in their current locations. It is up to service providers and planning mechanisms to listen to the grassroots urban designing that is already happening and negotiate safer places with these communities as people not as problems to be dealt with.
Chapter 5 Narratives and Images of Home and Resettlement: Hopes and Realities

The Philippines is known for its highly visible iskwaters or squatting informality, particularly in large metropolitan centers which are areas of rapid economic expansion and other social factors that pull people towards the promises and dreams of opportunity (Alcazaren et al 2011). Poverty morphology in physical space and the complexity of informality are often attributed to rapid rural-to-urban demographic transitioning and a lack of affordable and humane housing in urban areas drawing migration (ibid). Informality has been problematized particularly in international contexts where academics of the neoliberal tradition such as Hernando De Soto (2001) frame informal settlements as a development issue that can be prescriptively solved by formalizing property rights following development examples in the United States. The Philippines is not the United States and its unique challenges present a possibility for the country to create a new paradigm to address informality not as a problem to be solved, but an inevitability that can be worked with (Roy 2005).

The reality of climate change and extreme weather events that already affect the Philippines, causing annual displacement of the urban poor who are living informally in self-built housing, has made this issue more tangible as the government is challenged to protect people from physical harm (Bankoff 1999). Alcazaren et al (2011) explore why informality has become a dominant development paradigm in the Philippines and suggest that reductive solutions like assimilation of all people into the formalized land tenure system will be systematically ineffective in the Philippines context. If formalization of land and assimilation of informal settlers into the land tenure system is not the policy paradigm shift that the Philippines needs to address this issue, then what new types of policies are necessary to address this dilemma? (Gilbert 1990) What are the challenges that housing service providers face? And what are the hopes and barriers that people moving into socialized housing perceive? When people choose to move or are forced to move into socialized housing, what do they gain and what do they have to give up? Is there a policy paradigm that protects against the physical vulnerability of informal settlers in self-help housing without forcing them into a formalized land tenure system?
Informality is textured with overlapping political, economic, social and cultural nuances. What one level of government sees as illegal, has been, in the case of Plaridel, permitted by non-state or lower levels of governance or legal authority (Leaf 1994). There are personal and societal benefits to the continuance of informality in dense urban and peri-urban areas. As will be further discussed below, there are structural reasons why informality has maintained in the Philippines despite relocation efforts.

_Hopes From Above: The Perspectives of Service Providers_

As a part of this research, I spoke to different service providers who work with social housing and informal settlers issues. The key issue that came up with every service provider who was interviewed as a part of this research was how to get informal settlers who have been moved into socialized housing to stay there and not move back to their former self-help housing and an informal lifestyle. One Social Worker from the Municipality of Plaridel talked about this issue explaining, “We have a problem with ‘professional’ squatters who rent out their social housing and move back [to their old place] or others who rent out the structure and space they don’t even own.” This was said in a hushed voice, knowing that it would appear taboo to a western academic to say something that villainized the poor, but this statement highlighted an example of informal settlers’ resilience. Living under such physically and legally vulnerable conditions, informal settlers in Plaridel have ruggedly adapted and transformed their circumstances by tapping into the electrical grid and sharing in running water supply (see Figures 5.1 and 5.2).

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**Figure 5.1:** Informally tapping into the formal electrical grid (photo credit G. Esser)

**Figure 5.2:** Informal tapping into water and drainage (photo credit G. Esser)
The informal networks and connections within informal settler communities imbue them with a unique strength. Other service providers spoke to the importance of community by either fostering or emulating organic sense of community of informal settlers in social housing projects. However, most emphasized physical safety, health, and proximity to livelihood in their discussions of what keeps people resettled in social housing (See Figures 5.3 and 5.4). A field Social Worker with at-risk youth emphasized the significance of livelihood arguing that, “Livelihood to keep families going is what the people want, livelihood close to home.”

Figure 5.3: Street in Banga II with informal access to water and quick access to the main road and market (photo credit L.S. Hilera)

Figure 5.4: Image of grandmother supporting a Banga I family fishing in the Angat River (photo credit M. Hilera)
Another Social Worker candidly reflected on some existing social housing projects that have structurally deteriorated stating, “When government housing fails it looks like what they are living in now,” implying that neglect, abuse, and alteration to social housing units will render them looking like the self-help housing that informal settlers have been relocated from. This perspective presents the issue of place-making in socialized housing. If relocated informal settlers are unable to alter the house to help it suit their needs, how are they able to transform the house into a home? This same Social Worker additionally highlighted that some government funded mass projects have been built in areas that were still flood prone and physically vulnerable (see Figure 5.5). This comment points to poor design and maintenance failures in state-funded mass housing projects, but also subtly blames relocated informal settlers for some degree of deterioration of social housing structures.

![Figure 5.5: Dangerous expansion added on to an existing home in Banga II (photo credit L.S. Hilera)](image)

When some service providers opened up to reveal deeper concerns with housing formalization, the theme of order and control emerged. On a site visit to the provincial Catacte housing project in Bustos, Bulacan, and fireman candidly remarked, “We are just going to have to pick people up
and bring them here.” Another politician in Plaridel who had worked on the planning and administration team of the Catholic Church housing project in Plaridel said, “They need discipline and order.” While this perspective was only expressed directly by one service provider, this view was implied in the views of other service providers. This highlights a tension between informality as a culture and lifestyle with its associated informal economic and social networks and formality and rigidity of planned housing (see Figures 5.6 and 5.7) (Gilbert 1990, Roy 2005).

Figure 5.6: Balagtas Heights a mass government social housing site being constructed south of Plaridel. (photo credit G. Esser)

Figure 5.7: Balagtas Heights in the distance and the sterility of row housing tracts. (photo credit G. Esser)
There is an order to the seeming disorder of self-help housing that allows for spontaneity and adaptation of housing to meet evolving needs as families grow and water levels in the Angat River rise (See Figures 5.8 and 5.9) (Baross 1990, Alcazaren et al 2011). If resettled persons are unable to adapt and subtly claim the social housing sites that they are resettled into, they are unable to engage in place-making and are unlikely to stay resettled (Meyers 2002).

**Figure 5.8:** An ocean of rooftops in Banga I ever changing and adapting (photo credit L. Garcia)

**Figure 5.9:** A community developed there for a reason in Parulan (photo credit G. Esser)
Service providers were aware of this. For example, the director of the church-affiliated housing project expressed this sentiment, with particular focus on the need for integrations of livelihood opportunities into social housing saying, “They need a job to have a life … I cannot build a house that is just a house with no job, no community … They would die in that place … They would not really live in that place” (personal correspondence Fr. Dennis July 21, 2013). While service providers do not have a truly emic perspective on the lives and needs of informal settlers, they understand the administrative aspects of the issues and their views reflect some of the troubling disconnect between state and community perceptions and priorities on the issue of social housing needs.

Conversations with service providers were able to move into more pragmatic discussion of policy and social housing strategy that “sticks.” The primary hope about social housing that service providers expressed was that relocated persons would stay in housing, but secondary hopes included the aspiration that a good home could open the door to an “orderly” life, separate from some of the illegal activities and markets such as drug use and dealing that are recognized as pressing social issues in the self-help communities in Plaridel.

Ultimately service providers who were more integrated into the community, such as nutrition officials and Social Workers, took a more sympathetic view towards the activities and lifestyle choices of informal settlers acknowledging their personal agency, sense of belonging, and pride in their communities that they had built. All service providers expressed their primary concern for the health and safety of these people and families, but a range of tones and attitudes were represented in my sample from a paternalistic “we know best” perspective to a willingness to meet informal settlers half way and compromise on housing. A few service providers even recommended potential sites for small scale social housing constriction in Barangays Tabang, Bagong Silang, and Sipat, but recognized that these areas with open developable land are not close to central sources of livelihood, or require significant transportation expense to get to areas where they can work, peddle goods, or collect recyclable materials.

I asked each service provider about the possibility of working with informal settlers to develop meaningful and permanent housing and reactions were surprisingly positive. The service
providers from Jubilee Homes Subdivision and the Plaridel Parish Commission on Social Action outlined their consultation and selection process for their small-scale housing that has maintained residents with onsite livelihood opportunities and training. However, consultation processes for Jubilee Homes were restricted and framed by the fact that this housing was intended to be a “faith-based community.” The architecture for Jubilee Homes was non-negotiable because it was designed by the financial donor, CARITAS Australia, and a model of the housing blueprint was actually brought to the consultation processes (see Figure 5.10) (personal correspondence C. Samson August 4, 2013). Residents of Jubilee were rigidly screened for crime, marriage, and work records, but they were also asked to abide by the community rules of Jubilee before they even moved in (personal correspondence R. Mercaldo August 12, 2013). Families were consulted about community resources, activities, and livelihood programs. While this may only constitute tokenistic consultation, residents were generally happy that their perspectives were heard. This small amount of consultation is much greater than what has happened during the construction of past mass relocation housing sites. Municipal service providers expressed concerns that consultation is important before starting to build social housing, but consultation mechanisms needed to be expanded and made more accessible. If informal settlers perceive their housing status as illegal or illegitimate, they will not come to talk to members of the Municipality; representatives of the Municipality have to seek them out (see Figure 5.11). An official from the Municipal Tax Assessors office told me, “Some informal settlers are revealed in tax mapping because those houses are erected on private lots” (personal correspondence L. Capiral, August 6, 2013). As is the case with municipal politics and
processes everywhere, there are community voices that are always heard and other community voices that are never heard. The challenge is finding a mechanism to get the perspective of the informal settlers who would be moving into the community social housing.

Hopes From Below: The Perspectives of People Affected by Resettlement

Conversations with Mother Leaders in the informal settlements of Plaridel and persons who had been successfully relocated into a particular Catholic church run social housing site, Jubilee Homes, revealed other hopes and priorities in forming successful social housing for the informal settlers of Plaridel. Not surprisingly, livelihood was the number one priority that people brought up as the determinant of whether or not they would stay in state-provided social housing. One man told a Mother Leader in his neighborhood, “I cannot move from the river; the fish are my only source of money.” Others expressed similar concerns that social housing is frequently situated wherever there is open land in community and that is usually not close to current or new sources of livelihood (see Figure 5.12).

Figure 5.12: Fishing for livelihood in Banga I (photo credit G. Esser)
Similarly, access to resources was a concern. Transportation costs are relatively high for informal settlers who have relatively low incomes. The informal development along the Angat River in Plaridel is situated close to a variety of sources of livelihood, but also many community amenities like the rural health unit, bakeries, the market, and the central public transportation hub of the Municipality. As discussed in the previous chapter, people did not want to move far away from their current homes, sources of work, barangay hall, medical clinic, and other community resources. People did not want their community, family, and other social networks broken apart by relocation. This assertion highlights some of the positive qualities of informality including organic spontaneity and intimacy that informal settlers hoped to keep in the event that they had to be relocated. Informal settlers interviewed expressed a hope that social housing could be flexible and adapt with the changes in their lives in the way that self-help housing had been evolving. The primary additional hope they expressed regarding socialized housing was opportunity for new sources of livelihood, education, or economic advancement. This hope reflects a desire to potentially climb up the social and economic mobility ladder in Plaridel’s local society, but this “will to improve” can be exploited to push particular flavours of social order and values onto resettled persons (Li 2007). Creation of social housing can be an opportunity to work with informal settlers, but it frequently has become a means of imposing particular dreams of utopia and visions of society on persons who may not share in that dream.

**Realities of Resettlement**

Although both service providers and informal settlers alike hope for a smooth transition into social housing, if social housing is a necessity, the “transition” is truly a transformation of lifestyle and world view that fundamentally alters the culture and networks in current self-help housing (Lu 2007, Li 2010). The hard modernist structures of social housing exude a soft power over people’s behavior imposing order, and discipline but these structures also take away some of the flexibility and spontaneity of self-help housing (Baross 1990, Alcazaren et al 2011). As part of the transformation of identity that relocated informal settlers submit themselves to, they gain but also loose tangible and intangible facets of their lives (See Figures 5.13 and 5.14) (Lu 2007, Li 2010). The process of place-making that resettled informal settlers engage in transforms the house into a home but also reflects a degree of subversion of the authority imbued
in the house’s structure (Pierce et al 2010). The small things people do in place such as decorating, planting a garden, small enterprises people run out of their homes, and the social interactions and moods that people bring to a space shape it into home and imbue a sense of belonging and ownership (see Figures 5.15 and 5.16) (Chillers and Timmermans 2014).

A well-known Filipino proverb reads: *Dito ako itinanim; dito ako nararapat mamukadkad at yumabong* or “Here I am planted, here I should bloom and flourish.” This proverb came up in interviews with resettled and non-resettled informal settlers in Plaridel. It speaks to a Filipino indigenous idea of resilience or adaptive transformation to fit and thrive in a place. Tagalog has no direct word for what western academics deem as resilience; instead they have these proverbs and idioms that are more specific and richer in meaning than the term resilience (Rosca 2013). Other ideas of resilience came up in my interviews and these will be discussed in my conclusions.
with relevance to the different types of vulnerability that run as themes thought-out this study. This idea of blooming where you are planted speaks to something beyond “bouncing back” or resilience. It implies transformation, both of the self to thrive in any surrounding, but also transforming the ground that one is placed on to thrive and blossom. Reflecting on their Photovoice results, I was touched by the place-making stories that resettled informal settler families at Jubilee Homes shared with me about their processes of transforming space into place, house into home, and blooming in their new homes (see Figures 5.17, 5.18, 5.19, 5.20, 5.21).
The study participants from Jubilee shared those images when they were asked what helped and continues to help make your house a home. These appear to be images of simple things, like a room, or a garden or a pet, but these where aspects of their housing situation that they felt they had some amount of power to shape and to make their own in their new houses. That could be something small like bringing a loved pet or decorating a room or deciding to take up gardening. This calming of space exists because it is an important step in the process of developing place attachment. Community social housing should allow and encourage these small actions that allow people to claim their homes and develop some sense of ownership.

*Perspectives of Resettled informal settlers in Jubilee Homes Social Housing Project*

“GE: How did you personally get here?
H: It was last year in the month of August, when the … when the Habagat strikes, the monsoon, it’s a heavy rain and the river was/ it was
GE: It was coming up? It was rising?
H: It reached our home, our houses and we relocated at the school and that is the time that the church decided to relocate to, to bring us here in Jubilee. So the following day we fixed our things and relocated here in the housing area …
GE: So then you came here; what was it like the first day you were here?
H: On our first day here you know …Some have nothing to say and some desperately look for someone they already knew. At first, it is hard for us because we have culture shock and we don’t know how to start our life, our new life, but as days pass by, we adapt here and the surroundings here though it’s hard. It is also hard to find new friends, especially for the youth, but through constant chatter, pranks, jokes, we created a friendship that imbeds in our hearts. I met boyfriends, best friends here.” (see Figure 5.22 and 5.23) (excerpt from interview with Jubilee resident H)

This brief story genuinely shares what resettled persons could experience having to live someplace different in a way that that have not previously lived. His words share personal
feelings of displacement, but then, with time, came the building of a new community. Almost every resettled person I spoke with expressed initial fear of such a large life change. One youth leader, 19 years old, in the church run social housing told me, “One year ago when I came, so many rules and so many changes … I lost freedom … now I cannot be bad” (personal correspondence, Jubilee Resident J, August 16, 2013). This comment points out fears of lifestyle change, but also the level of order that the social housing has created. Another youth echoed this saying, “I have less freedom, but I feel safe … You see the children (pointing at children) running playing naked in the rain? They are not afraid now. The sound of laughing in the rain makes me happy. They are naked because they have no shame. They do not sit inside with their mothers crying afraid of the thunder” (See Figures 5.24 and 5.25) (personal correspondence, Jubilee resident H, August 15, 2013).
At Jubilee Homes, residents, particularly the female heads of household, were quick to recognize and share what they had gained from their move into social housing. One young mother said, “I make these bags while my husband leaves the housing to work so I help support our family too (see Figures 5.26 and 5.27) ... and all of us women who sew and weave here can still watch them (points to children playing on the porch of the small factory) we help each other” (personal correspondence, Jubilee homes resident L August 16, 2013).

This comment speaks to the community aspect of place-making. One of the hopes that informal settlers expressed was maintenance of social networks, this perspective speaks to a formation of new informal social bonds existing even in a “planned” community (Pierce et al 2010). Another resident spoke to her source of livelihood at the social housing as an opportunity to move ahead economically. She said, “I run the bakery here that helps feed the children and supplies some of the school lunch programs in the city, I never thought I would do this … and now we can even help my daughter go to university. I am so proud of her. She will be a high school math teacher” (See Figures 5.28 and 5.29) (personal correspondence, Jubilee resident K August 15, 2013).
A different youth resident of 21 echoed this sentiment in his unique context saying, “I had to work since I was twelve to help my family, (of ten siblings) but here I farm for livelihood and can go to the school program. I will finish high school” (See Figures 5.30 and 5.31) (personal correspondence, Jubilee Resident J August 16, 2013).

These residents expressed social mobility additions that they have gained in their resettlement process. A hope or dream, pangarap in Tagalog, which is commonly expressed by service providers and informal settlers is unlocking mobility and movement up the ladder of socio-economic progress. Personal responsibility for social mobility has pervaded the popular mindset. Planning literature and NGOs that work with “slum upgrading” in the Philippines point to an elusive “slum mentality” as a major driver keeping persons living informally in poverty (Laquain 1971, Gawad Kalinga 2013). A “slum mentality” may or may not exist, but presenting this as a depression or psychological barrier on personal advancement pathologizes the poor as helpless and unable to change their situation without help perpetuating reliance on aid (Crawford 2011).

Place-making enters the resettlement narrative as a subtle assertion of citizenship to the culture and life that came before (Holsten 2009). This claiming of social housing and adaptation both of and to the order imposed from above is a threat to the social engineering implied in social housing design but it is also integral in the process of successful and permanent resettlement (Meyers 2002). This dichotomy of place-making is known to service providers and they struggle with finding a balance that will maintain order and lawfulness while allowing resettled informal
settlers to craft a home out of the house they have been given. While resettled informal settlers are expected to transform in order to live in their new housing, successfully resettled informal settlers also transform the house into a home and make it a place to not just live, but to thrive in.

The ecological realities that have created physical hazards cannot be silenced in the name of progress and social welfare. Housing and livelihood programs must keep the ecological context in mind because that will be the ultimate deciding factor of the social and economic success of housing and resettlement. Building capacity is critical to crafting of successful societies around housing options, but an unhealthy obsession with the idea of progress will disconnect housing planning from its current context and will perpetuate western development patterns that have been ecologically devastating (Swyngedouw and Heynen 2003).

Social housing, especially Jubilee Homes, is intended to create order and transform people’s lives by giving them access to a safe and permanent home, but the design of housing affects experiences and place-making. The design of socialized housing is twofold: the physical, tangible design and the social engineering of the community around the housing (Lu 2007). Jubilee Homes in Plaridel is close to the town centre, Poblacion, with the town market and sources of livelihood; it is also close to the Angat River and farm land which situates it perfectly for job creation. The housing has onsite livelihood including a farm, bakery, and small repurposing and weaving factory. These livelihood features reflect a blend of physical design with community engineering; they present a work program to help families pay for their homes in the housing.

Other examples of physical design and social engineering include the fact that there is no public access road into the housing from the city and there is strict community curfew. The housing site is accessible via a dirt road, but the isolation of the community was intended to keep politicians and persons who are not aligned with the Catholic community values such as reproductive healthcare workers out. The curfew is strict; unmarried youth are not allowed to be outside of their home after 9:00pm, and adults who work outside of the housing later than 11:00pm need a special permit granted by the director of the housing who is a priest (see Figure 5.32). One youth resident said, “one year ago, when I came, so many rules and so many changes … I lost some
freedoms” (personal correspondence, Jubilee Resident H August 15, 2013). Another said, “sometimes I run to my friend in the housing’s house and break the curfew, but if we are inside are we breaking the curfew?” (personal correspondence, Jubilee Resident I August 15, 2013). Another youth resident said “for us it’s so fulfilling to be out in the late night because we talk a lot during this time. In the morning we are all in our houses, so we meet in the evening. We are sitting along the street talking with friends, and it’s a problem here because not everybody follows the rules … Following the rules can make you miss the fun. We, sometimes, not all the time wish we could just not follow the rules for us youths, for us to have fun” (see Figure 5.33) (personal correspondence, Jubilee Resident H August 15, 2013).

While these youth residents have largely subscribed themselves to being a part of this community, their subtle resistance to order imposed upon them highlights the tensions between individual and community identity. Socialized housing frequently reflects the designer of the community’s vision of utopia or dream, pangarap (Lu 2007). In the case of the church housing, the dream expressed by the service provider, a priest, was and is to provide people with a community and a home, not just a house, but some of the relocated informal settlers in the

Figure 5.32: Curfews at Jubilee (photo credit Jubilee resident H)  
Figure 5.33: Breaking curfew (photo credit Jubilee resident I)
housing have different ideas of what home is. The priest, for example, wanted to limit the number of sari-sari food stalls and vendors that residents operate out of their homes, but the presence of these small-scale businesses was an integral part of livelihood and the previous morphology of their informal communities (See Figure 5.35). The residents have been working to reconcile their visions of community with the order imposed in them in their processes of place-making. One resident showed me some repurposed art saying, “I cut this tree out of basura (trash), a bottle, isn’t it beautiful? I gave it to my family to make the house ours” (see Figure 5.34) (personal correspondence Jubilee Resident H, August 15, 2013). Another resident showed me her garden and custom façade that makes her housing unit unique and more like home (See Figure 5.36).
**Transformation as a Reality and What This Means**

*Banyuhay* in Tagalog means new form of life. This term ad idea came up in conversations with the residents of Jubilee. Relocated residents have had to transform when moving from the informal to the formalized, structured lifestyle of social housing, but is it fair and ethical to impose dramatic transformations on informal settlers? If a transformation is too dramatic or unfeasible, informal settlers will be excluded from accessing the housing or will not stay in a community that is too radically different than their own. Some informal settlers in Plaridel were rejected from this church affiliated social housing site because they had children out of wedlock or had other experiences from their past that Church did not allow or considered shameful. There were aspects of choosing to be a part of this social housing that closely resembled joining a commune. The transformation that informal settlers experience moving into social housing roots back to the *pangarap* or the utopic dream of community, service providers are superficially from the same culture, the same state of the Philippines or LGU of Plaridel, but the innate culture or nation of the informal settlers is fundamentally different (Scott 1997). Service providers are influenced by external funder’s design guidelines or developed world modernism that cuts off much of the organic spontaneous life, adaptability, and spirit in self-help informal communities (Scott 1997, Lu 2007). The design of the homes in social housing sites is frequently culturally inappropriate (see Figures 5.37 and 5.38).

![Figure 5.37: Large-scale construction at Balagtas Heights (photo credit G. Esser)](image)

![Figure 5.38: Uniform design of social housing (photo credit G. Esser)](image)

The traditional morphology of the self-help housing is one large room that is multipurpose and can be altered to accommodate different uses and different privacy demands, but the allure of
modernist design creates row housing with separate rooms (Alcazaren et al 2011). Both government and church housing have been seduced by western design guidelines that render housing inflexible and with a larger spatial footprint than informal settlements. Rhetoric of self-improvement and transformation is used to sell this western modernist dream, but it is also used to control and engineer the urban poor towards a self-sufficiency that shames their former lives as a “slum mentality” and ignores the broader economic and geopolitical factors that have perpetuated their poverty (Scott 1997, Alcazaren et al 2011).

Place-making enters the resettlement narrative as a subtle assertion of citizenship to the culture and life that came before (Holsten 2009). This claiming of social housing and adaptation both of and to the order imposed from above is a threat to the social engineering implied in social housing design but it is also integral in the process of successful and permanent resettlement (Meyers 2002). This dichotomy of place-making is known to service providers and they struggle with finding a balance that will maintain order and lawfulness while allowing resettled informal settlers to craft a home out of the house they have been given. While resettled informal settlers are expected to transform in order to live in their new housing, successfully resettled informal settlers also transform the house into a home and make it a place to not just live, but to thrive in.

Reflecting on the Pangarap

The Local Shelter Plan, as it has been presented, cannot and will not be the solution to informality as a dominant development pattern in the Philippines or Plaridel, but it does provide a window of opportunity for re-evaluation of policies towards informal settlers in the Philippines. The mass relocation projects of the past have been largely unsuccessful, but an overly decentralized funding structure that relies on expropriation is likely to also fail at keeping informal settlers away from the physical hazards of waterways like the Angat River. Finding a single policy solution to the iskwater informality remains a utopic dream. Social housing sites that are not co-constructed with the informal settlers who will move into these sites will remain the dream, pangarap, of the government or other source of authority. Forcing resettled informal settlers to buy into and invest themselves in someone else’s dream called upon these people to make a dramatic transformation that not all will be willing to make (see Figure 5.39).
There is hope in the local aspect of the LSP because in a local context, communities may be able to reconcile some of the differing hopes and realities of resettlement to find zones of compromise. A critical step in this reconciliation and co-designing process will be to deproblematize informality and to not villainize the urban poor and as victims of their own lack of capacity and “slum mentality.” Informal settlers have survived on the margins of cities’ urban fabric and at the margins of society, ruggedly crafting communities and social networks that have allowed this development to persist successfully as living spaces not just temporary or transitory spaces. There is an exchange of knowledge and values that needs to occur to find a meeting point between the sterile order of hard modernism and the *Tabing-ilog iskwate* that occurs in Plaridel. The LSP provides an impetus and reason to start this dialogue about how far people are willing to go along a trajectory of transition to transformation or *Banyuhay*. The government, service providers, and informal settlers together can formulate new more holistic paradigms that will be tailored to local context (Roy 2005).

*Figure 5.39: Jubilee Homes the pangarap (photo credit G. Esser)*
Chapter 6 Moving Forward: The Future of Resettlement Planning for/with River-fronting Informal Settlers

The two fears expressed in quotes that open this piece from Alcazaren et al (2011) echo stories and perspectives collected as primary data in this study. Will “informal settlements stitched within these frayed edges (of metropolis) make the whole weave of the metropolis lose its integrity?” (Alcazaren et al 2011: 33) Will “formality [be] overtaken completely in an ocean of informality (as) formal constructs of society … crumble as people turn to NGOs and POs to champion their causes eschewing an unresponsive government?” (Alcazaren et al 2011: 216)

Informal settlers are largely otherized and associated poverty and problems in cities and municipalities like Plaridel. Informality is largely viewed as a problem by the planning profession, yet discourses from academic planners, notably Laquian (1971), Barross (1990), Gilbert (1990), Leaf (1994), and Roy (2005), frame informality as an inevitable aspect of the development of all cities. There is a creativity and ingenuity of informal communities that is sometimes problematized in association with the persistence of informality, but is also discussed in a positive light particularly in the writings of Roy (2005) Scott’s discourses on the right to the city and space claiming associated with insurgent citizenship (1997). Tensions between the negative and positive perceptions of informality must be reconciled to address the persistence of these communities strategically and without strong biases in either direction. Informality is a policy challenge. If it is viewed as removing people from a glamorized nostalgic existence free of the confines of taxation and legal land tenure this view is equally harmful to progress as viewing all informal settlers as law breaking “squatters.”

Fears and exclusion of those living informally undermine the sheer scale of this planning challenge because the informal sector is everywhere and it benefits the formal society through cheap and readily accessible labour and services. Depending on how vulnerability of informal settlers is framed, this symbiosis between the formal and informal societies can be characterized as mutually dependent, where both benefit; commensalistic, where one benefits and the other is not affected; or parasitic, where one benefits at the expense of the other. A strong argument
exists for the relevance of each power dynamic, which is why there is not been a successful, prescriptive, “catch-all” planning solution to addressing informality of housing in the Philippines. The reality that each informal settlement community has unique, site-specific characteristics and issues underscore that there cannot be a singular approach and that a notion of “best practices” may be irrelevant. The resettled persons who participated in this study were living in a site not run by governmental actors. This social housing site suited the community of individuals who elected to live in this development, but would not suit all informal settlers. There are many different truths and many different dreams that can shape Plaridel’s implementation of the LSP and different housing projects.

What mechanisms exist to reconnect informal settlers with government in the context of the LSP? Can the government become a champion of the people’s housing needs? How can this complex policy challenge begin to be broken apart into manageable policy actions?

The Local Shelter Plans in Plaridel and elsewhere are taking much longer than their initial timetable to get up and running because recent calamities, including Typhoon Haiyan in 2013, which have diverted attention away from long-term housing planning towards immediate relocation and housing rehabilitation at a national level. At provincial and municipal levels of government, lack of access to sufficient funding mechanisms and lack of capacity to seek out external funding have stalled the process. Is a crisis necessary to push all scales of government to come together and accept the planning challenge that informality offers? Have Typhoons Ondoy (2009) and Haiyan (2013) reframed climate related displacement as this crisis?

If a state of crisis has already arrived, it appears that only some have been called to action. As dam spilling events and storms have worsened, the people living along the Angat have transformed their lives and homes. In many ways they have changed because they are more acutely in touch with the effects of a changing climate on their lives. However, without local or governmental support there is limit on their capacity to change their situation and it is difficult to reconcile their perspectives with other factions of society that are not directly faced with the effects of a changing climate. Climate resilience is a term and a policy objective that is thrown around in many plans and documents that do not directly address the crises that climate change
in the Philippines is creating. One service provider defined resilience this way: “Because no one understands Climate Change resilience fully we make sense of it based on personal experience. People will act based on instinct, like with Ondoy; it caused some people to change behaviors but not others” (personal correspondence, L. Capiral, August 6, 2013). Making sense of things based on personal experience is ultimately the way change is motivated. Planners and policy makers may obscure themselves behind a veil of objectivity, but, even in political rhetoric, appeals to ethos and pathos trump the logic of “studies.” How people make sense of their vulnerability on different levels dictates their response, whether they are individuals transforming and adapting to a new place to live or policy makers prioritizing different community goals and policies.

Why People Remain in Highly Vulnerable Environments and What Planners Can Do With This Information

“Dito ako itinanim; dito ako nararapat mamukadkad at yumabong.”
“Here I am planted, here I should bloom and flourish.”

- Mother Leader C, Banga 1

There are tangible and intangible reasons why people remain in vulnerable places. There are structural and economic conditions that have enabled informality to persist as a dominant development paradigm in the Philippines and in Plaridel. But, looking at only that side of this policy challenge reduces a complex process to an issue, a problem that can be stripped of its humanity. Perhaps at its human heart, informality is community, place attachment, and rugged personal and community agency that laughs in the face of the structural disadvantages and biophysical vulnerabilities that perpetuate it as a strategy for the marginalized and subaltern factions of society. In effect, informality is a resilience strategy. One service provider described resilience as “the quality of being adaptive to different situations without compromising self-preservation and self-determination” (personal correspondence, T. Viernes, August 9, 2013). Personal agency of informal settlers and their communities have led to these communities returning year after year despite flooding and evacuation. Another service provider commented,
“Filipinos are resilient; we have seen the foreigners come and go but we stand our ground” (personal correspondence R. Mercaldo August 12, 2013). Operating outside of the formal system, these people fiercely advocate for themselves and their families, improving their homes and often working multiple jobs to support their families. They continually transform circumstances and adapt to what they are confronted with. This is why informality has persisted, but also represents an opportunity for the success of meaningful social housing. People will adapt to new circumstances and a new home if they are allowed some personal autonomy and agency. One resettled resident at Jubilee described this as “fitting oneself to reality,” but people need some say in dreaming up their reality and fitting it to themselves as well (personal correspondence Jubilee resident H August 15, 2013).

To address my primary research question: How do policy makers, informal settlers, and major players in social housing initiatives understand why and how persons living in vulnerable informal settlements along the Angat River develop attachment to place?

There exists a disconnect between the views of policymakers, major players in social housing, and informal settlers of why people stay and why people form attachment to place. Policy makers and major player service providers tend to focus on the tangibles of housing affordability, proximity to livelihood, and issues of access. Informal settlers also feel these are important factors keeping them living where they are, but they also emphasized strong community, family, safety, personal autonomy, and flexibility of living arrangements. Structurally, informality will continue as long as the poor are excluded from land tenure and conventional “home ownership” by high prices. At a demographic, geographic and infrastructural level, informality will persist as long as the rate of urbanization of peri-urban spaces exceeds the rate of development to house new rural to urban migrants (Leaf 2011). These larger more tangible solutions to the planning challenge of informality are an important part of the larger picture of relocation/social housing for informal settlers, but they are not the entire picture. Some of the intangibles such as community development and flexible design of housing are also important. These less tangible priorities of informal settlers are equally important in designing housing that people will stay in more permanently.
To address the question: How do persons living in vulnerable informal settlements along the Angat River in Plaridel, Bulacan make sense of space and their place and biophysical vulnerability context?

River-fronting informal settlers are well aware of their biophysical vulnerability. Many have multiple stories of evacuation, rebuilding, and adapting their self-built housing and lifestyles to the *Habagat* (monsoon rains). They do not perceive nor do not believe they are vulnerable in other ways. Many exercise a strong level of personal agency to improve their home and family life. Advocating for social housing has not been a priority because the structural and legal vulnerabilities of living informally in the margins are not what these people are focusing on. They are focusing on the day-to-day, family, friends, livelihood and they tend to value space and place on these terms.

To address the questions: What is the current status quo of efforts to relocate and provide social housing alternatives for these highly vulnerable informal settlers? What are perceived issues with these housing alternatives?

This research question was mostly addressed in Chapter 2, but the main point to emphasize is that right now the LSP presents a window of opportunity for a policy and planning paradigm shift in the way relocation and social housing for informal settlers is addressed. Decentralization challenges the centralized colonial policy legacy, but it also presents an opportunity to plan with instead of for informal settlers (Angeles and Magno 2004, Roy 2005). Past paradigms of building mass tracts of row housing have not retained relocated persons mostly because of lack of livelihood in or near these housing sights and their relative isolation from the places people lived before and exterior amenities (Alcazaren et al 2011). If communities are able to properly access funding for LSP municipal level housing projects, then persons would not have to be so dramatically displaced. Also, at a local level, there is greater potential to tap into the wisdom of the community and hear the perspectives of persons who would be moving into this social housing through meaningful consultation and even visioning and community design forums. The challenge is finding a mechanism to engage with informal settlers about housing options and alternatives.
**Recommendations for Policy Makers/Service Providers: What Planners Can Do About this**

**Information on Why People Remain in Highly Vulnerable Environments**

The enabling conditions that have perpetuated informality in Plaridel include: lack of affordable housing, economic and livelihood pull factors to the municipality, Plaridel as a “bedroom community” to Manila, lack of enforcement of the river’s easement, lack of enforcement of zoning, and overlapping claims of land tenure granted by non-state legal authority. The big picture recommendations and conclusions that can be drawn from the data collected as a part of this study are to tolerate, to some extent, informality that does not place people in direct biophysical danger and to clearly identify potential relocation zones for informal settlers who are in immediate danger living next to the Angat River in Plaridel to meaningfully consult and vision with the community. Municipal planners might want to consider some of the following recommendations to begin the process of localized social housing projects:

**Dedicated Staff Person/Team:**
Currently the knowledge, resources, and responsibilities for informal settlers and social housing are spread across different offices: the DILG, PPDO, MSWDO, Municipal Planning and Development Office, Community Affairs Office, Engineering Office and Municipal Health Office. The mandate for the LSP comes from the office of the DILG, but this staff person rotates between several different municipalities. If one staff person was dedicated to social housing and resettlement of Priority One category people, i.e., river-fronting informal settlers, this staff person could manage information and chair a task force of the different major players in Plaridel’s social housing strategy who already exist in the social work, sanitation, assessor, planning, and nutrition offices. Ideally, this staff person would be skilled with writing budgets, writing loan/grant applications, and have high level engagement and facilitation skills to enable Plaridel to carry out the next recommendation.

**Planning With Informal Settlers:**
People have different ideas of what home is and what home should be. Some of these ideas may not align with traditional perceptions of formal land ownership. However, different alternative ideas, like the potential of co-op ownership or self-built instead of paid for housing, present new
opportunities to help people stay out of immediate flooding danger and hopefully find more permanent homes. Most informal settler participants in this study recognized the danger in their current home situation and were receptive to the idea of moving, they just wanted to ensure that relocation would not bar them from livelihood and the sense of community that they had worked so hard to establish. There are barriers to direct engagement when people perceive their housing status as illegal. Methods like the Photovoice, used in the research, allow more a more accessible way for persons to “talk back” to policies and voice their values anonymously. Most people in the Philippines have access to cell phones with cameras; setting up an anonymous database accessible from internet cafés and incentivizing participants with food could be a meaningful first step. People in Plaridel were curious about my study and willing to share ideas and perspectives through the medium of photography but there are other creative ways to engage and plan with informal settlers too.

**Identify Local Champions and Success Stories:**

There are many pragmatic ideas for housing that exist in Plaridel. Collecting data for this study revealed some of these ideas to me, but a troubling trend emerged. Many of the service providers I spoke with shared their views and even had particular locations in Plaridel that they thought would work as small scale housing sites, but none felt comfortable voicing this to the Mayor or her staff, one even said with reference to the LSP, “it will be expensive, they will not like it.” This communication gap indicates differential power structures. This gap needs to be bridged to create meaningful policy change. Politicians and municipal staff could champion social housing. Others in Plaridel could also champion this cause such as the Church or civic organizations. In Plaridel, Jubilee is a small, local example that has experienced some success. While Jubilee’s particular flavor of faith based community may not work for all members of the greater Plaridel community, it has many good qualities that could be replicated in other small scale housing sites such as built in livelihood, nutrition, and education programing. There is so much to learn from that already exists in Plaridel. It is a matter of connecting disjointed information and strategy through the dedicated staff person/team and local champions.
Look into External Funding for Housing Development Projects:
The LSP handbook in the DILG office recommends many external sources of funding including: NHA, HUDCC, Land Bank of the Philippines, Development Bank of the Philippines, President’s Social Development Fund, DOF-BLGF Municipal Development Fund, Local appropriations for housing, Bond flotation, Calamity Funds, Gawad Kalinga, Caritas, Alterplan, Habitat for Humanity. There may be undesirable strings attached to some of these revenue streams, but this is where careful planning with informal settlers will allow planning to come up with a strategic list of negotiable and non-negotiable planning and design guidelines.

Monitoring and Enforcement of the Angat River Easement:
Municipal service providers are already monitoring these areas for sanitation and health care services. In the medium and long-term, once informal settlers have been relocated, it will be essential to keep these dangerous spaces along the river unoccupied. Photovoice is another way that community can participate in monitoring and evaluation. This, of course, could bring up some of the “dark side” of Photovoice being used to police people and perpetuate the criminalization of informal settlers. However, Photovoice as a planning tool, could also be used to start conversations with informal settlers to address some of the root causes of why informal river-fronting communities persist including rent seeking small-scale actions of governmental corruption that have led to the ripple effect of persistence of these communities.

Reflections
Home is imprinted with layers of experience, memory, narrative, and hope. Place-making is a deeply personal and emotional process, but also a networked community process that occurs in a different cognitive plane than traditional physical planning (Chillers and Timmermans, 2014). Development of place attachment trumps all other conventional planning aspects of social housing. Yes, there must be livelihood and safety and community amenities, but co-creating the community that supports these is the greater challenge in creating social housing. This research has explored the possibility of meaningful social housing in Plaridel by hearing the perspectives of service providers, but also creatively engaging with informal settlers still living by the Angat River and some resettled, former informal settlers living in Jubilee Homes in Plaridel. River-fronting informal settlers recognized their biophysical vulnerability to flooding but enjoyed their
autonomy and flexibility of housing. They did not perceive that they were vulnerable on other levels. They were sometimes incredibly proud of their community and homes. They did not exhibit a “slum mentality,” but conversely, a capacity to aspire, a “will to improve”, and they were intrigued and excited about being engaged about what home and community meant to them. Resettled persons shared narratives of fear, adjustment, but also hope in finding a new home. There are different dreams, different truths that people seek in establishing a sense of place and a home. One social housing arrangement may work for some but not for others, and the Local Shelter Plan allows for different smaller scale housing sites that allow for the formation of different communities to fulfill these different hopes and dreams.

People shared these perspectives and stories and they are still willing to share, they just need to be asked and heard. There are so many pragmatic, thoughtful, creative ideas that are already there in the community, it is up to the community as a whole: planners, service providers, and informal settlers to talk together, to dream together, to plan together, and to create together.
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Appendix 1: BREB Informed Consent letters

CONSENT FORM FOR PARTICIPATION IN AN INTERVIEW (English)


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Institutional Partners
Provincial Government of Bulacan – Office of the Governor, BENRO, PPDO
Bulacan State University Office of Research and Development & Graduate School
De La Salle University Institute of Governance
UBC School of Community and Regional Planning & Centre for Human Settlements
UBC Program on Water Governance

Gabrielle Esser, Gabi, is using photographs to research housing along the Angat River and relocation sites where people living along the river have been sent to live. She will ask you to take photos with a camera she has provided about your life, home and things that connect you with the place you live. She
will collect cameras and develop the photos for you and then will schedule an interview with you to discuss your images with you.

**Purpose:**

You are being invited to participate in the research component of above project because [of your role at / you are involved with / you participated in] an Image based interview about community and housing safety form floods and storms. This research will identify and analyse the system of relationships among political, economic, social and cultural factors supporting (or hindering) the regional institution-building and collaborative governance needed in urbanizing watersheds; generate knowledge about the kinds of collaborative action that could be taken by governments and civil society organizations to strengthen inter-jurisdictional governance for watershed sustainability and climate change adaptation.

Through this research partnership, we also want to strengthen ongoing connections among researchers, governments, and civic organizations for collaborative governance of watersheds and climate change adaptation efforts. We will assess what types of knowledge and capacities are useful to governments and civil society leaders as they enhance collaborative governance through institution-building, human resource development, and other means; 2) assess the means by which such knowledge and capacities can be generated and usefully shared to other regions, municipalities, and wider society.

**Study Procedures:**

You are being asked to participate in a 60-90-minute interview at a location that is convenient for you. You are also being asked to participate in a follow-up one-hour meeting to give your feedback on the draft summary of plans or policies concerning Angat River.

It is up to you if you want to participate. You can refuse to participate or withdraw from the research at any time. If you decide to participate, feel free to answer only the questions you feel comfortable answering. With your consent, the interview focus group will be tape-recorded. If tape-recording causes you any discomfort, notes can be taken instead. You may refuse to answer any questions if you are uncomfortable doing so.

**Possible Risks:**
A possible risk to participating in this research is feeling uncomfortable if you are asked a question that relates to a challenging situation in your community or something you want to keep private. Feel free to say that you do not want to answer any question if you are uncomfortable.

**Possible Benefits:**
A major benefit to participating in this research is for you to feel empowered from sharing your contributions to Enhanced capacity of local/provincial/regional government officials and civic leaders to contribute to collaborative governance and climate adaptation in Angat region and Bulacan province.

**Confidentiality:**

We guarantee your complete confidentiality in the interview, if you do not want your name or identity identified in the research report. During the research process, all documents and/or audio recordings from the focus group will be kept in a password-protected computer in the office of the PI or one of her co-investigators, or their graduate students. After the research is completed, the interview transcript will remain in the locked cabinet in the office. If you choose to not to be identified in the reports, your name will be removed from any interview transcript [focus group documentation] and recordings of your voice will be erased from audio files, if created.

**Contact for information about the research:**
Please contact Leonora Angeles, Tel/Text: [number], or BENRO office ( [number]) if you have any questions. If you have any concerns about your rights as a research subject and/or your
experiences while participating in this study, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

Consent:
Your participation in this study is completely voluntary. You may refuse to participate or withdraw from the study at any time without judgment. You do not waive any of your legal rights by signing this consent form.
Your signature indicates that you received a copy of this consent form for your own records.
Your signature indicates that you consent to participate in the study.

Signature of the Research Participant          Date

Printed Name of the Research Participant          Date
PAGSANG-AYON SA PAKIKILAHOK SA PANANALIKSIK SA PROJEKTONG:

"Tulong-tulong na Pamamahala ng mga Ilog at Daluyang-Tubig: Pinagsamang Pananaliksik at Pagtataguyod ng mga Lokal na Institusyon at Kapasidad Para sa Pangmatagalang Kaunlaran at Pagtugon sa Climate Change Related Risks sa Ilog Angat Basin, Bulacan, Pilipinas"

Pangunahing Mananaliksik na may mga Kasamang Istudyanteng nag-ma-Masters o Doktorado:
Leonora Angeles, Associate Professor, School of Community and Regional Planning, UBC Faculty of Applied Science; Tel/Text: Landline:
Email:

Mga Kamahang Mananaliksik na may mga Kasamang Istudyanteng nag-ma-Masters o Doktorado:
Atty. Rustico de Belen, Director, Bulacan Environment and Natural Resource Office (BENRO)
Ms. Arlene Pascual, Director, Provincial Planning and Development Office (PPDO)
Dr. Tony del Rosario, VP- Planning and Extension, Bulacan State University
Dr Emerlita Sebastian Nagui, Director, Office of Research and Development, Bulacan State University
Dr Victoria Valenzuela, Director, Graduate School, Bulacan State University
Dr. Tim McDaniels, Professor, UBC School of Community and Regional Planning
Professor Aprodicio Laquian, Professor Emeritus, UBC School of Community and Regional Planning
Professor Peter Boothroyd, Professor Emeritus, UBC School of Community and Regional Planning
Professor Terry McGee, Professor Emeritus, UBC Department of Geography
Dr. Mark Stevens, Associate Professor, UBC School of Community and Regional Planning
Dr Leila Harris, Program on Water Governance, UBC Institute for Resources and Environmental Studies
Dr Mark Johnson, Program on Water Governance, UBC Institute for Resources and Environmental Studies
Dr Joselito Arocena, Canada Research Chair in Soil Engineering, University of Northern BC
Dr Nonita Yap, Professor, School of Environmental Design & Rural Development, University of Guelph

Mga Ka-Partner na Institusyon:
Provincial Government of Bulacan – Office of the Governor, BENRO, PPDO
Bulacan State University Office of Research and Development & Graduate School
De La Salle University Institute of Governance
UBC School of Community and Regional Planning & Centre for Human Settlements
UBC Program on Water Governance

Gabrielle Esser, Gabi, ay gumagamit ng mga larawan upang magsaliksik ng pabahay sa kahabaan ng Ilog Angat at paglilipat site kung saan taong naninirahan sa kahabaan ng ilog ay naipadala sa mabuhay. Siya ay hihiling sa iyo na kumuha ng litrato na may camera siya ay ibiningay tungkol sa iyong buhay, tahanan at mga bagay na maikonekta ka sa lugar na kayo ay nakatira. Siya ay mangoleta ng mga camera at bumuo ng mga larawan para sa iyo at pagkatapos ay mag-iskedyul ng isang pakikipanayam sa iyo upang talakayin ang iyong mga larawan sa iyo.

Hangarin ng Pananaliksik:
Kayo po ay ina-anyayahan na makilahok sa aming pananaliksik sa naasaad na proyekto sa itaas dahil po sa iyong pangangatawan bilang [sahibin dito ang tungkulin ng pakikinayamin] sa [sahibin dito ang pangalan ng lugar, proyekto o aktibidad na nilahukan ng pakikinayamin]. Ang pananaliksik pong ito ay (1) tatalakayin at susuriin ang sistema ng relasyon o pakikik-ugnayan ng mga pang-pulitikal, pang-ekonomiya, pang-kultural at pang-lipunang sangkap at mga aktor na maaaring sumuporta (o humadlang) sa pagtugon ng mga lokal, pambayan, panglalawigang at pang-rehinyo institusyon para sa tulong-tulong na pamamahala ng Ilog Angat; (2) mangangalap ng mga datos at kaalaman un sa sama-samang pagkilos na kailangang gawin ng ating pamahalaan at mga organisasyong pang-tao upang makalikha at maitaguyod ang ating mga institusyon para maki-pagtulungan ang pamahalaan at taumbayan para sa ikagagaling at ating ilog at iba pang daluyang-tubig at para sa ating paghahanda sa nagaganap na kakaihang pagbabago ng ating klima.

Sa pamamagitan po ng pananaliksik na ito, inaasahahan rin naming mapapatibay ang kasalukuyang pakikipag-ugnayan ng mga mananaliksik sa pamantasang mga opisales ng pag-organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat at sa sama-samang pagkilos na kailangang gawin ng ating pamahalaan at mga organisasyong pang-tao upang (1) malaman at masuri ang mga kaalaman at kapasidad na kailangan ng ating pananaliksik para sa paghahanda para sa pagtugon ng mga aktor sa pang-ekonomiya, pang-kultural at pang-lipunang sangkap; at (2) malaman at masuri kung paano makapalawigan ang mga kaalaman at kapasidad na kailangang gawin ng ating mga institusyon para sa infilakshon ng mga aral mula sa pag-aaral sa Ilog Angat.

**Pamamaraan ng Pag-aaral:**

Kayo po ay tatanungin upang lumahok sa isang pakikipanayam na tatagal mula 60 hanggang 90 minuto. Kayo rin po ay tatanungin upang lumahok sa isang follow-up interbiyong magkakagaling at ating ilog at iba pang daluyang-tubig at para sa ating paghahanda sa nagaganap na kakaihang pagbabago ng ating klima;

Sa pamamagitan po ng pananaliksik na ito, inaasahahan rin naming mapapatibay ang kasalukuyang pakikipag-ugnayan ng mga mananaliksik sa pamantasang mga opisales ng pag-organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat at sa sama-samang pagkilos na kailangang gawin ng ating Pamahalaan at mga organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat; (2) mangangalap ng mga datos at kaalaman un sa sama-samang pagkilos na kailangang gawin ng ating Pamahalaan at mga organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat; (2) mangangalap ng mga datos at kaalaman un sa sama-samang pagkilos na kailangang gawin ng ating Pamahalaan at mga organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat; (2) mangangalap ng mga datos at kaalaman un sa sama-samang pagkilos na kailangang gawin ng ating Pamahalaan at mga organisasyon para sa tulong-tulong na pamamahala ng Ilog Angat.

**Posibilidad Epektivo:**

Isang posibilidad epektivo po ng inyong pakikalahok sa pananaliksik na ito ay ang inyong pakikidapat sa pag-organisasyon ng pakikidapat na hindi kumportable kayo sa pagbabago. Sa iyong pangalan, ang inyong pakikidapat ay limitado bilang maaaring ma-i-aralan kung ano ang tinalakay sa grupo sa kanilang sarili. Sa panahon ng proseso ng pananaliksik, ang lahat ng mga dokumento at / o mga audio recordings

123

Kontakin ang Mga Kinauukulan Tungkol sa Pananaliksik:
Kung kayo po ay may katanungan o gusting ipahatid sa kinauungkulan, hinggil sa pananaliksik na ito, maari pong kontakin si Dr Leonora Angeles, Tel/Text: 044-896-1974, o BENRO office (791-8163, 791-8164) if you have any questions. Kung mayroon po kayong isyu ukol sa inyong karapatan o karanasan bilang kalahok sa pananaliksik na ito, maari po ninyong kontakin and Research Subject Information Line sa UBC Office of Research Services, telepono 604-822-8598, o kung long distance, magpadala po ng e-mail sa: RSIL@ors.ubc.ca o tumawag nang toll free 1-877-822-8598.

Pagbibigay ng Pahintulot:

Ang iyong lagda ay nagpapahiwatig na ikaw ay nakatanggap ng isang kopya ng form na ito ng pahintulot para sa iyong sariling mga talaan.

Ang iyong lagda sa ibaba ay patunay na kayo sa sumasang-ayong makilahok sa pag-aaral na ito.

_________________________________
Lagda ng Kinapanayam o Kalahok sa Pananaliksik
Petsa

_________________________________
Pangalan ng Kinapanayam o Kalahok sa Pananaliksik
Petsa
Appendix 2: Plaridel Local Shelter Plan Materials

Obtained directly from the office of the DILG.

**LGU: PLARIDEL, BULACAN**

**LOCATION & NUMBER OF INFORMAL SETTLER FAMILIES/HHs:**

<table>
<thead>
<tr>
<th>A. Families/HHs in danger areas</th>
<th>No. of Families/HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterways (rivers and creeks)</td>
<td></td>
</tr>
<tr>
<td>11 barangays along the Angat River</td>
<td>1,034</td>
</tr>
<tr>
<td>Railway tracks</td>
<td></td>
</tr>
<tr>
<td>4,000m/8m wide x 2 sides</td>
<td>1,000</td>
</tr>
<tr>
<td>Road easement</td>
<td></td>
</tr>
<tr>
<td>5 x 18 barangays</td>
<td>110</td>
</tr>
<tr>
<td>20 - Bulihan</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Informal settlers in private lands</th>
<th>No. of Families/HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(w/ impending / threats of demolition/eviction orders)</td>
<td></td>
</tr>
<tr>
<td>13 x 19 barangays</td>
<td>247</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D. Informal settlers in government lands</th>
<th>No. of Families/HHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 barangays</td>
<td>742</td>
</tr>
</tbody>
</table>
Shelter Needs Assessment

BASIC DATA AND ASSUMPTIONS

<table>
<thead>
<tr>
<th>Population in 2013</th>
<th>105,857</th>
<th>Households/Dwelling Unit</th>
<th>1.014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Population Growth</td>
<td>3.37%</td>
<td>Displaced Units</td>
<td>3,133</td>
</tr>
<tr>
<td>Household Size</td>
<td>5</td>
<td>Homeless</td>
<td>0</td>
</tr>
</tbody>
</table>

POPULATION PROJECTION

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Year</th>
<th>I Planning Period</th>
<th>II Planning Period</th>
<th>III Planning Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2013</td>
<td>105,857</td>
<td>107,374</td>
<td>108,907</td>
</tr>
<tr>
<td>Population</td>
<td>21,171</td>
<td>21,745</td>
<td>21,781</td>
<td>22,095</td>
</tr>
<tr>
<td>Households</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Average HH size</td>
<td>15,014</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I. NEW HOUSING UNITS NEEDED

1.a New units needed due to backlog

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Annual</th>
<th>Program Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doubled-up</td>
<td>212</td>
<td>30</td>
<td>2014-2020</td>
</tr>
<tr>
<td>Displaced</td>
<td>3,133</td>
<td>348</td>
<td>2014-2022</td>
</tr>
<tr>
<td>Homeless</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>3,345</td>
<td>378</td>
<td></td>
</tr>
</tbody>
</table>

1.b New units needed due to population growth

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>ANNUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Planning Period 2014-2016</td>
<td>620</td>
<td>207</td>
</tr>
<tr>
<td>II. Planning Period 2017-2019</td>
<td>645</td>
<td>215</td>
</tr>
<tr>
<td>III. Planning Period 2020-2022</td>
<td>674</td>
<td>225</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,939</td>
<td>647</td>
</tr>
</tbody>
</table>
Summary of new units due to backlog and population growth were computed as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Doubled-up</th>
<th>Displaced</th>
<th>Homeless</th>
<th>Population Increase</th>
<th>Annual Total</th>
<th>Total for the planning period</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>30</td>
<td>321</td>
<td></td>
<td>207</td>
<td>563</td>
<td>1,755</td>
</tr>
<tr>
<td>2015</td>
<td>30</td>
<td>321</td>
<td></td>
<td>207</td>
<td>563</td>
<td>1,779</td>
</tr>
<tr>
<td>2016</td>
<td>30</td>
<td>321</td>
<td></td>
<td>206</td>
<td>563</td>
<td>1,751</td>
</tr>
<tr>
<td>2017</td>
<td>30</td>
<td>321</td>
<td></td>
<td>215</td>
<td>571</td>
<td>1,751</td>
</tr>
<tr>
<td>2018</td>
<td>30</td>
<td>321</td>
<td></td>
<td>215</td>
<td>571</td>
<td>1,751</td>
</tr>
<tr>
<td>2019</td>
<td>30</td>
<td>321</td>
<td></td>
<td>215</td>
<td>571</td>
<td>1,751</td>
</tr>
<tr>
<td>2020</td>
<td>32</td>
<td>321</td>
<td></td>
<td>225</td>
<td>581</td>
<td>1,751</td>
</tr>
<tr>
<td>2021</td>
<td>321</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>321</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,284</td>
</tr>
</tbody>
</table>

1.c Summary of new units needed (due to backlog and population growth)

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>ANNUAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Planning Period 2014-2016</td>
<td>1,754</td>
<td>585</td>
</tr>
<tr>
<td>II. Planning Period 2014-2019</td>
<td>1,779</td>
<td>593</td>
</tr>
<tr>
<td>III. Planning Period 2020-2022</td>
<td>1,783</td>
<td>605</td>
</tr>
<tr>
<td>Sub Total</td>
<td>5,284</td>
<td>1,783</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Upgrading Needs

### PRESENT UPGRADE NEED

<table>
<thead>
<tr>
<th></th>
<th>% of housing stock</th>
<th>Total</th>
<th>Annual</th>
<th>Program Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tenure Need</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Infrastructure Need</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Units w/o electricity</td>
<td>2.00%</td>
<td>300</td>
<td>75</td>
<td>2014-2017</td>
</tr>
<tr>
<td>Units w/o adequate water supply</td>
<td>15.27%</td>
<td>2,292</td>
<td>764</td>
<td>2014-2016</td>
</tr>
<tr>
<td>Units w/o adequate sanitation</td>
<td>2.00%</td>
<td>300</td>
<td>75</td>
<td>2014-2017</td>
</tr>
<tr>
<td>Units w/o drainage system</td>
<td>5.91%</td>
<td>888</td>
<td>127</td>
<td>2014-2020</td>
</tr>
<tr>
<td>Units w/o adequate road access</td>
<td>2.00%</td>
<td>300</td>
<td>50</td>
<td>2014-2019</td>
</tr>
<tr>
<td>Units w/o regular garbage collection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Structural improvement need</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current Housing Stock is **15,014**
Affordability Analysis and Land Need Calculation

<table>
<thead>
<tr>
<th>Income Group</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income (minimum, maximum)</td>
<td>P3,000 and Below</td>
<td>P3,000–6,000</td>
<td>P6,000–10,000</td>
<td>P10,000–20,000</td>
<td>P20,000 and Above</td>
<td>100%</td>
</tr>
<tr>
<td>% of new units</td>
<td>66%</td>
<td>16%</td>
<td>9%</td>
<td>9%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Number of units</td>
<td>3,487</td>
<td>845</td>
<td>476</td>
<td>476</td>
<td>5,284</td>
<td></td>
</tr>
<tr>
<td>Typical monthly income</td>
<td>P3,000</td>
<td>P4,500</td>
<td>P8,000</td>
<td>P15,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential % of income for upgrading / new housing</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential annually for capital cost of housing</td>
<td>P7,200</td>
<td>P10,800</td>
<td>P19,200</td>
<td>P36,000</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Loan Terms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Interest rate</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Repayment period, years</td>
<td>25 Years</td>
<td>25 Years</td>
<td>25 Years</td>
<td>25 Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affordable housing loan</td>
<td>P92,037</td>
<td>P138,056</td>
<td>P242,877</td>
<td>P419,544</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Affordable option

- Developed Land
- Developed Land with Row Houses – Area 24sqm
- Developed Land with Row Houses – Area 30sqm
- Developed Land with Duplex Houses – Area 30sqm

<table>
<thead>
<tr>
<th>Land Area per unit</th>
<th>57.15sqm</th>
<th>71.43sqm</th>
<th>85.72sqm</th>
<th>71.43sqm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot size</td>
<td>40sqm</td>
<td>50sqm</td>
<td>60sqm</td>
<td>50sqm</td>
</tr>
<tr>
<td>Required land (in has.)</td>
<td>19.88ha</td>
<td>6.0ha</td>
<td>4.05ha</td>
<td>3.38ha</td>
</tr>
</tbody>
</table>

Total requirement (all income groups) 33.31ha
LAND NEED CALCULATIONS AND AFFORDABLE HOUSING OPTIONS

<table>
<thead>
<tr>
<th>MAIN OPTIONS</th>
<th>LOT SIZE (m²)</th>
<th>TOTAL LAND NEED/UNIT (m²)</th>
<th>LAND COST ($P) Per m²</th>
<th>LAND DEVELOPMENT COST (P) Per m²</th>
<th>COST OF HOUSE CONSTRUCTION (P) Per m²</th>
<th>12% INDIRECT COST Per m²</th>
<th>TOTAL UNIT COST ($P)</th>
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<tbody>
<tr>
<td>1st Income Group</td>
<td>40</td>
<td>57.14</td>
<td>480</td>
<td>27,360</td>
<td>300</td>
<td>17,100</td>
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<td>2nd Income Group</td>
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<td>71.43</td>
<td>480</td>
<td>34,080</td>
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<td>21,300</td>
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<td>3rd Income Group</td>
<td>60</td>
<td>85.71</td>
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<td>41,280</td>
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<td>25,800</td>
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<td>4th Income Group</td>
<td>80</td>
<td>114.29</td>
<td>480</td>
<td>54,720</td>
<td>300</td>
<td>34,200</td>
<td>12,000</td>
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RESOURCE ANALYSIS: LAND INVENTORY (in progress)

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<tr>
<th>NO.</th>
<th>OWNER</th>
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<th>LOCATION</th>
<th>LAND USE CLASSIFICATION</th>
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<td>2.</td>
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<td>Bagong Silang</td>
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