

# MSc Programme in Urban Management and Development

Rotterdam, the Netherlands

October 2022

## Thesis title:

**The influence of access to information on the women's social capital in the resettlement site Perumbakkam in Chennai, India**

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**Country:** Sudan

**Report number:** 1646

**UMD 18**

## Summary

The expanding extent and effect of development-induced displacement and resettlement (DIDR) have highlighted the threat to relocated people's livelihoods. With the construction of resettlement areas on the city's outskirts, Chennai, the capital city of the Indian state of Tamil Nadu, has an increasing population of DIDR. Perumbakkam, a neighbourhood of 15,252 tenements located 6544.2 miles from the city centre, is one of the locations. Women in Perumbakkam face more livelihood deprivation, particularly in terms of social capital; consequently, a gender-sensitive strategy for livelihood restoration is necessary. There is evidence of potential relation that access to information helps to improve livelihood, particularly in terms of social capital, by providing information on the resettlement site, the environment, challenges, and opportunities, which allows to psychologically prepare for adaptation and enhance and build their social capital after resettling.

This research aims to explain how women's livelihood at the Perumbakkam resettlement site is influenced by access to resettlement information in terms of social capital. The case study is used as a research strategy, along with a combination of quantitative and qualitative methodologies. A closed-ended questionnaire survey with 100 respondents was conducted. Additionally, we conducted 20 interviews with Perumbakkam women and five key informants to enrich the study. To explain the link between women's access to resettlement information before resettling and their social capital, quantitative data were evaluated using Pearson Chi-Square tests, correlation tests, and regression analysis.

Although Basic Principles and Guidelines on Development-based Evictions and Displacement affirm the importance of the right to access resettlement information, especially for vulnerable groups, women, children and the elderly, many international treaties have also called for gender justice and the eradication of gender inequalities. Many of these treaties remain in force in India. Still, among the women in Perumbakkam, A small percentage had high access to resettlement information, which positively influenced their social capital after resettlement. Thus, the study reveals that access to resettlement information before resettling correlates positively with social capital level after resettling. Furthermore, the study explored there were other factors that positively and negatively influenced women's social capital in Perumbakkam that should be considered besides providing access to resettlement information while designing the resettlement programmes.

## Keywords

Access to information, RTI, DIDR, Resettlement, Social capital, Chennai

## **Acknowledgements**

My utmost gratefulness goes to Almighty Allah for giving me everything required to accomplish this study. Despite these exceptional circumstances that I am going through and I believe that everything happens for a reason in life.

At this moment, I would like to offer my sincere thanks to everyone who always supported me during my study period and recovery and contributed to completing this thesis.

I want to express my profound gratitude to my supervisor Dr Maartje van Eerd. Without her guidance, input, encouragement, and support throughout the thesis period, I could never arrive at this point of achievement. Also, I would like to thank her for the opportunity of doing my research in Chennai. That will not happen without her help and countless support.

Likewise, I would like to express my profound gratitude to my second reader Dr Banashree Banerjee for her valuable input and guidelines in my thesis.

Thanks to Dr Alonso Ayala, Dr Bahar Sakizlioglu, and Ellen Geurts for sharing their knowledge through lectures and constant support throughout my study.

I am also thankful to all respondents in Perumbakkam resettlement housing for their valuable time and help during the fieldwork, especially miss Mercy for her collaboration.

I am thankful to the Educational Management Office of IHS, especially René van der Zwet for his continuous support.

I am also indebted to IHS for bestowing me with this unique opportunity to take up this master's in this international environment and to the Netherlands Government for awarding me the NUFFIC scholarship.

I am very thankful to my best friends Sara Zein, Moumin Talaat and Mona Magdi for their motivation. Special thanks to my IHS classmates for their support and encouragement.

My brother and sister, thank you for always encouraging me to pursue my dreams. Thanks for always helping me reach my goals and supporting me every time I make new ones, no matter how crazy they seem. Thanks, Ahmed and Hind, for always having my back.

I dedicate my thesis to the memory of my father, Dr Eltohami Ahmed Eltohami (he passed in June.2021). Who always believed in my ability to be successful in the academic arena. You are gone, but your belief in me has made this journey possible.

Finally, words cannot express my gratitude to my mother for their countless love, prayers and support. I feel your presence at every step of my life. Your prayers for me and your belief in my abilities prompted me to do my best.

## Foreword

This thesis was written for submission to the IHS "Institute for Housing and Urban Development Studies" at Erasmus University Rotterdam, Netherlands, as part of the requirements for an MSc degree in Urban Management and Development with a specialization in Urban Housing, Equity, and Social Justice. The subject of this thesis is to explore the potential influence of access to information on women's social capital, in the context of a resettlement site, Perumbakkam, in Chennai, India.

The issue urgently needs to be discussed as the trends show that DIDR "development-induced displacement and resettlement" are becoming more common, and livelihood restoration in social capital is a big challenge in that context. Furthermore, the issue is much more pressing for women. Thus, a right to information and communication in the resettlement approach is necessary for women to enhance and build their social capital after resettling. Access to resettlement information before resettling might help to support the methods to improve the opportunities for women's livelihood in terms of social capital in the resettlement site after resettling. As there is no previous study about the influence of access to resettlement information before resettlement on women's social capital in the resettlement context, this research might start the discussion and bring the issue forward.

## Abbreviations

<b>CMDA</b>	Chennai Metropolitan Development Authority
<b>DFID's</b>	Department for International Development
<b>DIDR</b>	Development-induced Displacement and Resettlement
<b>IHS</b>	Institute for Housing and Urban Development
<b>HLRN</b>	Housing and Land Rights Network
<b>IRCDUC</b>	Information and Resource Centre for the Deprived Urban Communities
<b>PAPs</b>	Project affected persons
<b>R&amp;R</b>	Rehabilitation and Resettlement
<b>RTI</b>	Right to Information
<b>SLF</b>	Sustainable Livelihood Framework
<b>TNUHDB</b>	Tamil Nadu Urban Habitat Development Board (Was called Tamil Nadu Slum Clearance Board)

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# Chapter 1: Introduction

## 1.1 Background

The term "development-induced displacement and resettlement" (DIDR) first appeared in scientific publications in the mid and late eighties in line with sociological variables in development. Thus, in the scientific literature in the first half of the nineties (Terminski, 2013). Displacement is neither unusual nor new in the development process. Nonetheless, its fast-expanding scale and severe adverse effects are currently a cause for issue anywhere, especially in developing countries (Mathur, 2014; Vanclay, 2017). Natural disasters, conflict, and development are significant causes of displacement (Muggah, 2008). Despite decades of experience and research on development-induced displacement and resettlement (DIDR), the severity of the problem remains, with its negative consequences still unaddressed (Satiroglu & Choi, 2015).

## 1.2 problem statement

In the latest decade (2010 - 2019), an estimated around 15 million people to be displaced owing to development initiatives throughout the world (Cernea, 2008). India, along with China, is one of the two countries that contribute significantly to the growing number of persons affected by DIDR (Stanley, 2004). Even though relocation and resettlement have grown rapidly, it has never been easy to successfully manage development-induced resettlement programs (Quy Nghi et al., 2021). As a result, practitioners and researchers believe that the program's participation methods are critical to its success (Horowitz et al., 2019). Thus, developing a resettlement program that includes effective participation of the critical actor (i.e., local governments, affected households, non-governmental organizations, etc.) and is tailored to meet the needs and ambitions of particular groups of the affected populations is a significant challenge (i.e., women, men, children, elderly). Notwithstanding the literature on the gendered effects of DIDR, studies on women's participation in such protracted (and often traumatic) procedures are few. In practice, resettlement programs are frequently constructed in a one-size-fits-all manner, ignoring gender issues at all stages (Mehta, 2009). Moreover, Both Ramya and Peter argue that the resettlement process is gender-insensitive; women feel threatened due to the lack of sufficient essential services that should serve women's specific necessities (2014). Also, Kothari emphasises that the impacts on women are more severe as they suffer from more significant deprivation of livelihood and the right to adequate housing (Kothari, 2009). However, India has not adequately handled this issue. Chennai, the state capital of Tamil Nadu, is seeing an increase in the number of DIDR cases as the Tamil Nadu Urban Habitat Development Board (TNUHDB) (was called slum clearance board) approach to dealing with slums is resettlement. Although Chennai is one of the world's ten fastest-growing cities, 28 % of the population lives in slums due to uncontrolled urbanisation and growth (Krishnamurthy & Desouza, 2015).

In order to discover loopholes in the resettlement process, Ramya and Peter conducted a human rights research study in Kannagi Nagar with the Information and Resource Centre for Deprived Urban Communities (IRCDUC) and Housing and Land Rights Network (HLRN). The critical study results related to the relocation process were severe violations of their human rights regarding proper housing, information, food, water, education, health, work/livelihood, and personal and home security (2014). According to the report, 92.6 % of respondents were not contacted nor asked for their opinion on the relocation (Ramya & Peter, 2014). Kothari states that all potentially affected groups and persons, including women, indigenous peoples and persons with disabilities, should be informed before resettlement (2009). Herein lies the problem that this rarely happens; people are told or provided access to information without

filtering the information (location, choices, understanding, entitlements, livelihood, opportunities and alternatives), the participation mechanism, sources of the information supplied and the scale of the access population. As Frankovits emphasises, among other benefits of accessibility in resettlement projects, enabling meaningful access to information would reduce the uncertainty experienced by the affected people. It shows respect for their human (Frankovits, 2006).

The term "participation" in resettlement refers to actors' meaningful engagement and involvement in resettlement processes. This conceptual approach aligns with the World Bank (1996). In Mehta's view, resettlement affects men and women differently, leading to disparities in how they deal with social unrest (2009). One of these disproportionate consequences on social capital.

In literature and theory, there is potential relation between access to information and communications and social capital. Yang, Lee, and Kurnia emphasize the importance of social capital in understanding current cultures in social science. It has been discovered to impact many facets of social life, including quality of life, both directly and indirectly. It also investigated found an increasing relationship between information and communications. Nevertheless, little identified a link between information, communication, and social capital. (Yang et al., 2009). The relationship study is still in its early stages and has not produced consistent results (Yang et al., 2009). Pigg and Crank concur that developing community social capital is widely viewed as one of the benefits of providing access to information and communications. Furthermore, their results from a review of the literature on social capital and information and communications highlight the fact that much work has to be done before it can be argued with any validity that information and communications may produce community social capital. (Pigg & Crank, 2004).

Therefore, this research will highlight the gap in potential relation between access to information and social capital as a significant pillar of livelihood and understanding the influence of access to resettlement information for women on their livelihood in terms of social capital at the resettlement site. By taking Perumbakkam resettlement sites in Chennai as a case study, the research will explain to what extent did women access resettlement information and how that influenced women's social capital. This is an interesting perspective due to the sensitivity and challenge of access to information and social capital regarding the consequences of human rights in the context of DIDR. Thus, understanding how women access resettlement information and its influence on livelihood in terms of social capital might help to improve the housing and livelihood strategies for women in the resettlement sites in Perumbakkam.

### **1.3 The research objective**

The main objective of the research is to explain how access to resettlement information influences the women's livelihood in terms of social capital in the resettlement site and to conclude what needs to be improved in the access to resettlement information process for women to become able to enhance their social capital in resettlement site and thereby also benefit from development causing their resettling. Therefore, the research will describe:

- How resettled women received the information about the resettlement process before their resettlement.
- How the resettled influenced women's social capital.

This research will draw the correlation between the performance of access to resettlement information from a women's perspective and its influence on women's social capital. The respondents are the resettled women in Perumbakkam to know how women were informed about the resettlement process before their resettlement and measure their social capital after resettling.

## **1.4 Main research question and research sub-questions**

### **Main research question**

How does access to information influence the women's livelihood in terms of social capital in the resettlement site Perumbakkam in Chennai, India?

### **The sub-questions:**

1. How were women informed about the resettlement process before their resettlement?
2. How was women's social capital affected after resettlement to Perumbakkam?
3. What factors in the resettlement process affected women's social capital?

## **1.5 Social and Scientific Relevance**

Women should have the right of access to information on livelihoods in resettlement sites. There are studies on the consequences of development-induced resettlement, but there's potential relation between access to information and communications and social capital (Beriya, 2022; Yang et al., 2009). Therefore, this research will contribute to filling that gap in the body of knowledge on the potential relation between access to resettlement information and social capital as a significant pillar of livelihood. Moreover, the focus on women will enrich the knowledge about the gendered impacts of resettlement from a woman's perception and perspective. The research will illustrate the influence of access to resettlement information from women's views on their social capital after resettlement. Thus, the study might contribute to better social awareness of women's needs and gender-insensitive resettlement sites. Moreover, this study will draw attention to the link between participation in terms of access to information and livelihood in terms of social capital in resettlement planning. As well as provide a recommendation of possible actions by various stakeholders and policymakers to ensure better performance of access to resettlement information before resettling for women and improve the opportunities for their livelihood in terms of social capital in the resettlement site.

## **1.6 Scope and limitations**

The scope of this research is the influence of participation in terms of access to information on livelihood in terms of the social capital of women in the resettlement site induced by development projects. Some scientific literature suggests that the RTI and livelihood restoration in the DIDR project need various strategies. The limitations of this research were that the fieldwork trip was cancelled due to the restrictions of the Covid -19 at that time, which required me to work remotely with an assistant; the language was also a barrier sometimes, especially in interviews, as well as working with recall data. Furthermore, the research subject is a sensitive issue; thus, some of the participants were reluctant to take part in the questionnaire or interviews. Finally, research participation took time from women who face financial difficulties, and may have, therefore, affected the amount of time and participants involved.

## **Chapter 2: Literature review**

### **2.1 Introduction**

This chapter will present the academic debate to illustrate the principles necessary for research conceptualization. It will begin by discussing the concept of resettlement in DIDR, followed by the gendered consequences of resettlement, and the scope and impact of DIDR. Furthermore, this chapter introduces the concept of information access through the idea of participation and women's challenges. The concept of livelihood restoration will next be reviewed in the context of DIDR, focusing on social capital and women's perspectives. The researcher will also explore the link between access to information, communication processes, and livelihood in terms of social capital, particularly in resettlement. Following the discussion, the final section of this chapter will provide a conceptual framework for the research.

### **2.2 The concept of resettlement in DIDR**

Development-induced displacement and resettlement (DIDR) became widely acknowledged in the 1980s as global infrastructure boomed in the 1970s, followed by the enormous pushback against DIDR in the 1990s (Dwivedi, 2002). Oliver-Smith (2006) defines development as a process through which public and private investment improves economies' productive forces and supports infrastructures. According to this concept, DIDR mostly involves physical development initiatives and land loss (Stanley, 2004). Cernea (2006) defines displacement as losing a house, land, or both. Somayaji and Talwar argue that development is a quandary "Involuntary land acquisition and the compulsory displacement of communities for a larger 'public purpose' centrally capture the quandary of 'development' in the modern state. Nominally, this quandary speaks to the need to balance the interests of the majority while protecting the rights of the minority" (Somayaji & Talwar, 2011, p. 2). Moreover, Michael M. Cernea emphasises, "Forced population displacement and resettlement is among today's most complex and controversial development problems globally. Despite advanced planning, displacement is virtually always a mess and a breeding ground for unanticipated consequences and impoverishment risks" (2015, p. 11). Due to land-based development projects, tens of millions of people are displaced every year from their home, livelihoods, and social networks. There is no restriction on what constitutes a "development project." Even after decades of study and experience, our understanding of development-induced displacement and resettlement (DIDR) is inadequate (Satiroglu & Choi, 2015). What constitutes "success" in resettlement remains an open subject. Is development possible without displacement? In certain circumstances, displacement and economic disruption occur without the physical relocation of the community. In contrast, resettlement often includes displacement and livelihood restoration (Asthana, 1996; Terminski, 2013). However, Satiroglu & Choi (2015) argue that displacement and resettlement will create impoverishment hazards regardless of the displaced consent. Thus, it depends on how this displacement and resettlement are implemented.

#### **2.2.1 The gendered impacts of DIDR**

According to the literature, scientists are paying more attention to the consequences of development-induced displacement and resettlement (Cernea, 1996; De Wet, 2006). Without practical reduction of these consequences, impacted people can be exposed to substantial impoverishment threats (Cernea, Michael & McDowell, 2000). DIDR effects on women can be more prominent and severe than on men, especially in countries with significant gender gaps and injustices. Gender inequalities may widen as a result of resettlement, particularly in regard to livelihood losses, income restoration, social network disruption, intrahousehold interactions, and planning into host communities; this gap usually negatively impacts women. Resettlement



planners frequently neglect to account for the contributions of women to compensation packages. (Asthana, V., 2012; Perera, 2012; Thukral, 1996). This failure is generally credited to women's unprotected land ownership as well as legal property rights (Hay et al., 2019; Mehta, 2009), as well as a failure to acknowledge their contribution of unpaid labour (e.g., caring for kids, elderly, or household duties) (Asthana, 2012). Being excluded from traditional livelihood patterns (e.g., land-based farming activities, access to natural deposits) commonly makes women more at risk in new living areas in the post-resettlement stage. They may be compelled to take informal and low-pay jobs (Mehta, 2009) and have restricted access to formal employment owing to their limited interaction with employers, such as government enterprises (Lin, 2001). Added to this is the fact that women in this environment are more sensitive to changes in their living situations due to their limited mobility and exposure to the “outside world” (Ganguli, 2003). Change and disruption appear inescapable on social networks since resettlement involves a process of "reordering of place, time, relationships, norms, and psycho-social-cultural constructs" (Scudder, 1993, p. 13). Ramanath (2018) discusses the importance of understanding resettlement, especially through women's experiences. Thukral (1996) emphasizes that resettlement often makes it harder for women to integrate into host communities, reducing their ability to adapt to the new environment in periods following resettlement. Women may be the first victims of retaliation if they are newcomers who are not accepted (Mehta, 2009). In certain circumstances, hostile host communities abuse female resettlers severely (TISS, 1997). Relocation consequences at the household level also damage marital and family connections. For example, husbands may limit the movement of their wives, restricting them from engaging in social life (Mehta, 2009), which directly destabilizes livelihood restoration and reduces their social capital.

### **2.2.2 The scale and impoverishment of DIDR**

In developing nations, DIDR is expanding due to population growth and infrastructural needs (Asthana, 1996; Van Eerd, 2016). Although development projects aim to reduce poverty, Somayaji and Talwar (2011) argue that involuntary resettlement has frequently generated new pockets of poverty. Also, Cernea (2000) argues that DIDR introduces impoverishment risks to resettles. Social exclusion contradicts Amartya Sen's form of development as the expansion of individual liberties (Cernea, 2000). Cernea designed the Impoverishment Risks and Reconstruction model on such understanding (IRR). This model predicts and evaluates relocation issues for planners and policymakers to deliver better solutions for Project Affected People (PAPs). Impoverishment fragmentation, a lack of access to basic necessities like food and shelter, a rise in disease and death, and a decline in the standard of living are all possible risks of growing social insecurity in developing nations. Marginalisation and social disarticulation cause social capital deprivation. Marginalisation results from the loss of economic power and a spiral of "downward mobility", but social disarticulation results from a shredded social fabric. These social traumas might damage the already-established social networks and important components of social capital. According to Cernea (2000), the effect of resettlement varies by subgroup, region, season, and resettles' characteristics, which lacks a gender perspective. Thus, understanding women's vulnerability is critical to introducing gender-sensitive solutions in livelihood restoration.

### **2.3 The concept of access to information**

Human rights are generally comprehended as “inalienable fundamental rights to which a person is inherently entitled simply because she or he is a human being” (Sepulveda et al., 2004, p. 3). They are commonly acknowledged as universal principles that exist to safeguard human dignity and the fulfilment of fundamental human needs. Human rights are defined as universal and inalienable (all individuals have the right to them); indivisible (all human rights have equal

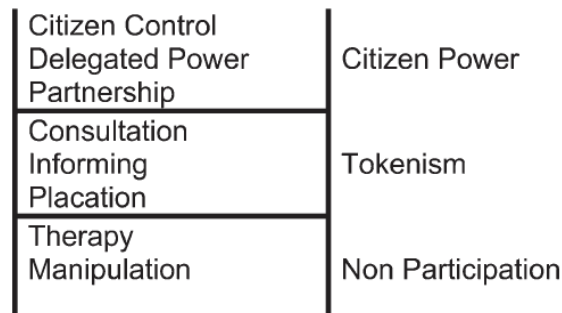
significance and cannot be ranked); and interconnected and inter-related (the fulfilment of one right frequently depends on the achievement of others) (HRBA Portal, 2016). International law establishes human rights, which are reflected in treaties and legal decisions. As part of the resettlement process, the right to information must be respected and met to the full extent possible. According to the Basic Principles (Kothari, 2007; United Nations 2007, p. 9) “All potentially affected groups and persons, including women, indigenous peoples, and persons with disabilities, as well as others working on behalf of the affected, have the right to relevant information, full consultation and participation throughout the entire process”. Before making any decisions, all relevant information must be supplied to impacted communities, and individuals must have enough time to evaluate the information. However, the right to information and the right to participation is among the human rights at stake in the resettlement process. In fact, the fundamental human right to information and the right to participate is frequently violated, impeding effective resettlement outcomes (AfDB 2015; World Bank 2016).

All groups, particularly the vulnerable, must access and understand the information provided. Depending on the local culture, information should be delivered in relevant languages and formats (Kothari, 2007). Respecting the right to information necessitates that individual have access to all relevant material as well as independent counsel (legal, technical, and other) (Kothari, 2007; United Nations, 2007). It also necessitates that information is updated frequently and that there be continuous communication. Project authorities should not underestimate the time and resources required to guarantee that the right to information is met. However, people are not effectively informed when the informing process is hurried, and they do not have enough time to comprehend the information (Kemp & Owen, 2013). As a result, they may get confused, and there is a more significant risk of disagreement, undermining the process's validity. As a result, a lack of knowledge might lead to complex issues to resolve later on. Thus, project operators must determine how all affected individuals will be informed about all elements of the resettlement process and its processes, including information about their rights and alternatives, applicable government laws, and the criteria for participation in decision-making. According to IFC PS5 (IFC, 2012), resettlement should guarantee proper information disclosure to affected people. However, "sufficiently early" (IFC 2012, p. 12) is too broad. The legislative framework, which creates the playing field for all concerned parties, is the first essential component determining public engagement in resettlement procedures. While India's legislation is reasonably well-developed, it lacks precise (or thorough) instruction on altogether accounting for numerous gender factors. Moreover, Article 11.1 of the International Covenant on Economic, Social, and Cultural Rights (CESCR), in line with general comment 4.25 of the Indian Housing and Land Rights Network, ensures the breadth of the right to adequate housing. For housing to be adequate (2009), people's rights to access information and participate have been enshrined in the 2007 specialized legislation.

### 2.3.1 The concept of participation in access to information

The term ‘participation’ is not new but takes on different meanings, depending on the context and who uses it for what purposes. One of the most well-known is Arnstein's (1969) ladder of participation (figure 1).

Figure 1: Arnstein’s (1969) ladder of participation.



Eight rungs illustrate three levels of participation: non-participation, tokenism, and citizen power, despite critiques of its significant concentration on state-citizen power dynamics and its inflexible hierarchy of participation levels (Bishop & Davis, 2002; Collins & Ison, 2006; Tritter & McCallum, 2006). However, it is still a used approach when came to participation. Furthermore, The World Bank considers both information providing and consultation to be kinds of participation and associates information provision with "empowerment" (1996). Additionally, Nghi, Phuong, and Hang (2021) emphasise the level of participation, in their opinion it may be gauged by understanding three distinct aspects: "access to information, consultation processes, and decision-making processes" They are not viewed in a hierarchical sequence but as equal pieces that supplement each other and contribute to a complete understanding of participation.

Thus, in this study, I will use the term ‘access to information’ to refer to meaningful participation and involvement by referring to the ‘tokenism’ levels of informing, which implies giving access to information in resettlement procedures.

### 2.3.2 Women and the Gender challenge of participation and enabling access to resettlement information

Scholars such as Gallin and Fergusson (1991) have agreed since the early 1990s that gender is most typically used to refer to social roles, social interactions, and social activities. Moreover, Mehta and Srinivasan (2000) cite that Gender is a major social and cultural construct that shapes how men and women interact with one another. Gender influences how cultures allocate men's and women's roles, duties, resources, and rights. Gender becomes especially important, as emphasised in the context of development projects, “for several reasons: gender and class/race-based division of labour and distribution of property and power structure - people's interactions with nature and in the process structure effects of environmental change on people and their responses to it” (Agarwal, 1996, p. 126). “Gender Analysis also points out the way in which these development projects are endured differently by women and men” (Asthana, 2012, p. 97). Several studies explore and elaborate that women and children are among the most vulnerable populations affected by displacement in ways that necessitate for an assessment that goes beyond monetary losses of land (Colson 1999; Thukral 1996; Parsuram 1993, 1997; Srinivasan 1997; World Bank 1994, 2001).

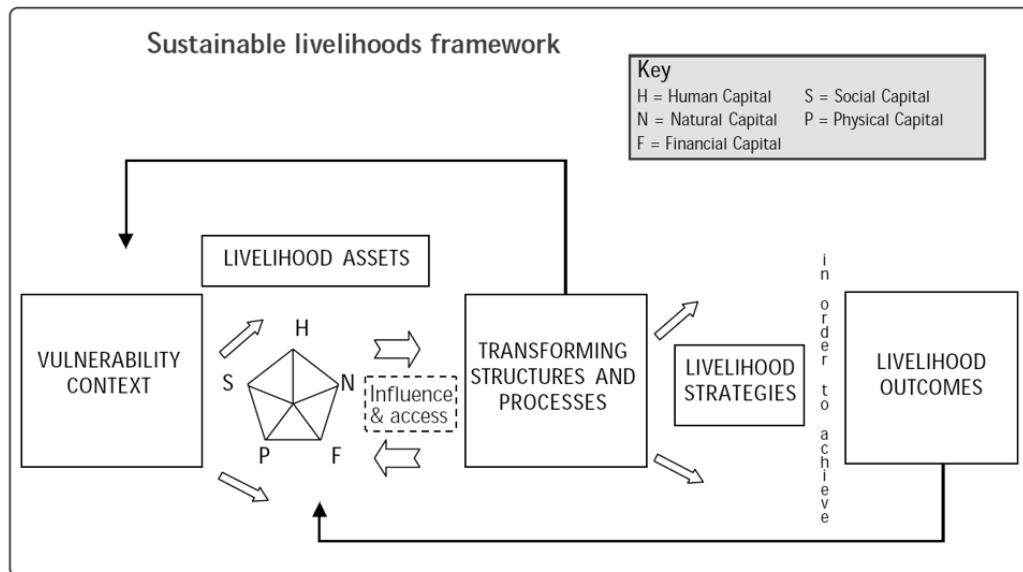
Cornish & Ramsay (2018) emphasize that access to information is an early barrier affecting women. A common stereotype is that information exchange concerning the resettlement plan and execution is always "top-down" and "male-dominated". Women primarily learn about the project through their husbands and neighbours, which exposes the information to filtering and distortion thus, affects its validity and credibility. This indirect and informal information sharing causes a disconnect between information provided and comprehension of what the project and resettlement process entailed, as it happened in the resettlement programme in Myanmar (Cornish & Ramsay, 2018). Also, many international treaties have called for gender justice and the eradication of gender inequalities. Many of these treaties remain in force in India, although there is a discrepancy between the reality on the ground and the government's commitment to these rights. Frequently, women are treated as dependents rather than complete citizens by legislation intended to protect them (March et al, 1999). As a consequence of their misunderstanding of what constitutes gender-sensitive initiatives that suit the needs of the people, state institutions end up marginalizing women (Asthana, 2012). However, the government has a key role to act in the community development problem, particularly with respect to marginalized populations (Young, 2002). They take on that position in an accountable and supportive manner, rather than taking over and instructing 'the people' on how to speak to authority in 'acceptable' ways (Barnes, 2007). Thus, participation and access to information are key difficulties that need to be addressed in order to encourage community development (Cornwall, 2008). Patel (2001) asserts that the involvement of key stakeholders, particularly women, in planning and decision-making is a must for any resettlement process, and such suppression of people's right to involvement in the decision-making process contradicts the spirit of the Indian Constitution. (Fernandes & Paranjpye, 1997; Baxi 1989).

## **2.4 The concept of the sustainable livelihood framework in resettlement**

The term "livelihood" refers to the numerous mechanisms through which individuals, families, and communities create a living (IFC, 2012; Standard, 2012) It includes the local knowledge, skills, assets/capitals, materials, and social resources needed to make a living (Scoones, 1998). According to Vanclay (2017), being resettled has a tremendous impact on people and communities, regardless of how well-intentioned and planned the resettlement is. Due to the breadth and magnitude of the social ramifications, the resettlement process generally dominates the lives of the resettled and their community for many years. Thus, as DIDR increases, Vanclay (2017) believes that livelihood restoration needs more focus. For planners and policymakers to understand how resettlers might cope with poverty hazards, understanding livelihood is critical. The challenge comes in measuring and understanding livelihoods, as resettlers, planners, and policymakers may see the progress of development differently (Parkinson & Ramirez, 2006). Planners and policymakers may comprehend much from resettlers; however, resettlement requires more intricate strategies. A sustainable livelihood strategy must reflect the urban poor's varied viewpoints and reality. DFID's Sustainable Livelihoods Framework (SLF) is one of the most prominent examples of this concept in action (Conway, 2022; DFID, 2000; Krantz, 2001; Rakodi, 2002) defines livelihood as a mix of "the capabilities, assets (including both material and social resources) and activities required for a means of living." A sustainable livelihood bounces back from stress and creates short- and long-term assets without damaging natural resources. Nevertheless, shocks, patterns, and seasonality may cause stress or vulnerability.

A person's primary means of subsistence in the SLF are based on a combination of social, financial, natural, physical, and human capital. SLF identified macro and microstructures and processes that could impact livelihood assets and vulnerabilities. Regarding these factors, families mix activities that contribute to livelihood strategies and outcomes (DFID, 2000). figure 2 below shows the complete framework of SLF.

Figure 2: SLF framework (Dfid, U. K., 1999).



Resettlement often destroys livelihood assets; social capital is a significant pillar that can restore livelihood (Serrat, 2017).

### 2.4.1 The concept of multidimensional social capital

There are two distinct (but related) ways in which academics have discussed social capital (Woolcock & Narayan, 2000). The first is based on the work of sociologists Burt, Lin, and Portes (2000). It deals with how people might gain resources (such as information, inspiration, and assistance) through interpersonal connections. Unlike physical (tools, technology) or human capital (knowledge, skills), these resources ("capital") are "social" and can only be obtained through connections. The flow of resources via a network is influenced by who talks with whom, how frequently, and on what terms. Those in vital strategic network positions, particularly those whose relationships overlap with critical groups, have more social capital than their peers because they have access to more and better resources (Burt, 2000).

An individual's involvement in informal networks and formal civic groups refers to the second strategy for building social capital. From speaking with neighbours to joining environmental groups and political parties, social capital highlights the numerous ways community members interact. So understood, one can map a community's associational life and, consequently, civic health. These issues impact both high- and low-income countries.

In summation, Bourdieu defines social capital as the "aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectively owned capital, a credential which entitles them to credit, in the various senses of the word" (Bourdieu & Richardson, 1986).

Scholars from both schools of thought believe that social capital is multidimensional (Grootaert et al., 2004). Woolcock (2001) defines social capital as collective activity resulting from networks, membership, and trust. These dimensions of social capital include bonding, bridging, and linking. "Bonding" describes how people with similar aims interact in terms of their demographic characteristics. "Bridging" accesses outside resources. "Linking" is like bridging with a power differential. It includes institutional rules and politico-cultural aspects (Carmen et al., 2022; Choo & Yoon, 2022; Woolcock, 2001). Thus, in this study, I will measure the social capital score (for women) after resettling, as well as compare it with pre- resettling score

by using the Integrated Questions to Measure Social Capital within their six dimensions: Groups and Networks, Trust and Solidarity, Collective Action and Cooperation, Information and Communication, Social Cohesion and Inclusion, Empowerment and Political Action, of the Integrated Question by the World Bank (Grootaert, 2003). Furthermore, I will look at the external factors that may influence the women's social capital after resettling through the multidimensional social capital lens of 'Bonding, Bridging, Linking'.

#### **2.4.2 The challenges of livelihood in term of social capital**

A lack of attention to livelihood restoration has generated increased poverty among resettlers. Moreover, urban livelihood restoration is a complicated process (Koenig, 2014). Increasing urban land rivalry causes this complication (Vanclay, 2017); land-based resettlement is unrealistic. Koenig (2014) also argued that the growing distance from previous employment is the most significant cause of failing to maintain their quality of life, resulting in "joblessness". Thus, travel costs and times are rising due to distance. This issue affects women and company owners more than other groups since they struggle to maintain their previous livelihoods.

From a social standpoint, resettlement disturbs social networks. Changes in the social network make it difficult to get community help. They also cut links with previous-moving neighbours (Koenig, 2014). DIDR can cause physical, economic, and social stress and suffering (De Wet, Chris, 2009). Moreover, understanding the resettlers' characteristics should precede any complicated livelihood restoration operations (Koenig, 2014). Koenig (2014) advised pre-resettlement research to capture settlers' diverse demands, which means pre-resettlement research will be used to build livelihood restoration strategies. Using Cernea's (2000) IRR model, livelihood restoration should restore jobs, increase social inclusion, and reconstruct the community. Due to the lack of land, Xiao, Liu et al. (2018) suggest that income-based resettlement is especially crucial in the urban context. These measures should result in better employment opportunities and skills training; maintained tight relationships and capacity to make friends; greater community support and participation in organizations (Almira & Eerd, 2021; Eerd, 2008; Glied & Miller, 2015; Ievdokymov et al., 2020; Ismail et al., 2018; Lueyeevang, 2018; Perera, 2014; Randell, 2016; Sayatham & Suhardiman, 2015; Souksavath & Nakayama, 2013).

#### **2.4.3 Women and the challenge of social capital restoration in DIDR**

Social, cultural, and vocational dislocation is more intense for women in the DIDR (Bajpai and Gautam, 2018). Due to exclusion from establishing a daily routine, women typically have fewer opportunities to earn a living (Bisht, 2009; Sikka and Mathur, 2018; Smyth, Steyn, et al., 2015). One of the practical instances is the uneven compensation advantages, which are routinely awarded to males but over which women have little control (Bala, 2006). Bajpai and Gautam (2018) also emphasize that the majority of women lose their stable income. As many women had previously served as domestic servants, they were able to earn a living salary by working for several local clients (Koenig, 2014). From a social standpoint, resettlement weakens social networks and disrupts familial bonds, hence reducing a woman's space (Bajpai & Gautam, 2018). As resettlement often induces a sense of failure in men, there is a propensity for them to take out their anger on women and children. Due to the social disarticulation that occurs following resettlement, women and children frequently lose their safe space and lack a buffer against family disputes (Mehta, 2011). Nevertheless, despite the tremendous repercussions women must experience, they may also serve as change agents. Especially in metropolitan settings, women tend to have "triple roles" that include reproductive, productive, and community-management responsibilities (Moser, 1987). Displaced Muslims in Sri Lanka are

one example (Ghani, 2014), as is the case of women in Indio Guayas (Moser, 1987), who battled to obtain adequate infrastructure. Building specifically for women's livelihoods will accomplish two goals: rescuing them from harsh poverty risks and vulnerabilities and empowering them to be agents of change in their households and communities.

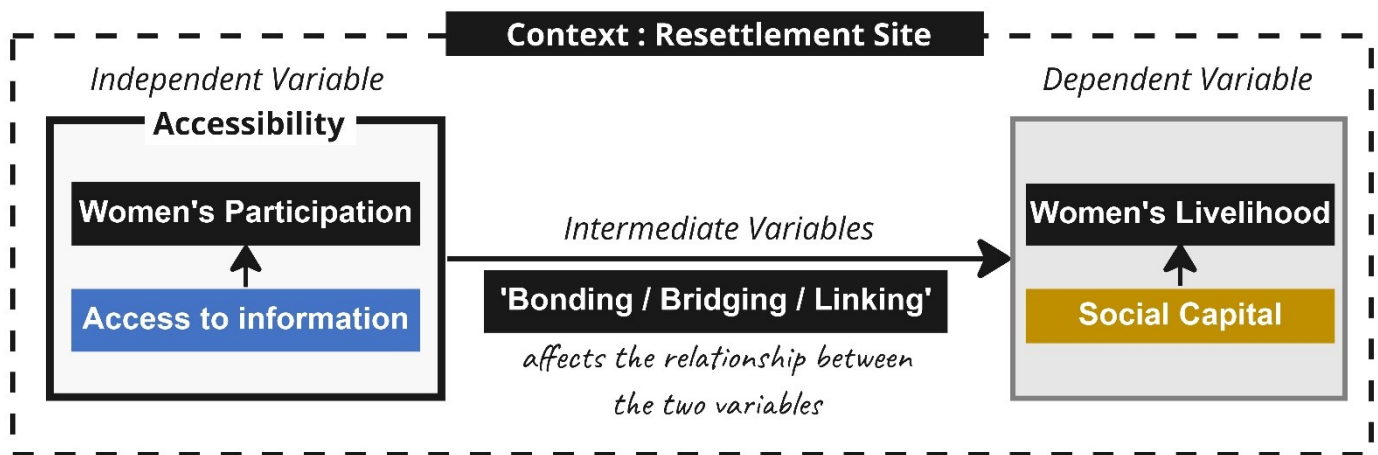
## **2.5 The relationship between access to information and livelihood in terms of social capital**

According to Yang, Lee, and Kurnia (2009), social capital is a crucial notion for understanding social societies. For instance, the quality of social life is only one of many facets that have been proven to be affected by this phenomenon. Providing access to information and communications is likewise becoming a primary focus of united nations basic principles and guidelines on development-based evictions and displacement (Kothari, 2007; United Nations, 2007). However, the relationship between information, communications, and social capital is poorly understood. The association study is still in its initial stages and has not produced consistent results. Pigg & Crank (2004) note that there is a lot of discussion about how social capital is crucial when thinking about the long-rhetoric sustainability and effective action of communities. The positive effects of access to information and communications on the growth of social capital are a topic of much discussion. While some, such as Loader, Hague, & Eagle (2000), have cast doubt on the efficacy of utilizing access to information and communications to increase "social capital" and revive local communities, they haven't yet presented actual evidence. Sharing information leads to the development of "reciprocity in the context of shared meanings", which Miranda and Saunders (2003) have explored. This could be a sign of exploring a promising relationship between access to information and the level of social capital. Since they believe that "...intersubjective creation of meaning demands reciprocity" (Miranda & Saunders, 2003, p. 89), they conclude from their study that the absence of a "social interact presence" in the communications mechanism process hinders reciprocity and interactivity. Thus, informing and delivering the information may influence the social capital, as the goal is to achieve social interaction in social capital, not only to communicate information. Beriya (2022) emphasizes that there is a relationship between providing information and communication and sustainable livelihoods; however, when information and communications are introduced in an unrestricted fashion, it can be difficult to predict whether or not the intervention will have the desired effect. Such as delivering information and communications through different sources and channels (formal and informal). Thus, they affect the five capitals of DFID's framework, "human, social, physical, natural and financial", in one way or another. Accordingly, their results from a review of the literature on social capital and information and communications highlight the fact that much work has to be done before it can be argued with any validity that access to information and communications may produce community social capital (Pigg & Crank, 2004).

## 2.6 Conceptual framework

From the understanding of resettlement, participation in access to information, livelihood restoration, and multidimensional social capital from the perspective of women, along with the comprehension of the relations, the conceptual framework of this research is illustrated in figure 3 below. The researcher puts access to information as the independent variable that shall influence the resettled women's social capital after resettling as the dependent variable. Furthermore, some factors of multidimensional social capital affect the influence between independent and dependent variables as intermediate variables (bonding, bridging, linking). The interplays of these variables happen in the context of resettlement from the perspective of women.

Figure 3: Conceptual Framework of the research



Source: Author, 2022



## **Chapter 3: Research design, methodology**

### **3.1 Introduction**

The research design is described in this chapter, which covers the research strategy, methodology, data collection procedures, and how the data was analyzed. It will first show the research question and discuss the research strategy. Then, the operationalization table is presented. The research methodology and data collection methods are followed by sample size, selection, and data analysis methodology.

### **3.2 Revised Research Question**

#### **Main research question**

How does access to information influence the women's livelihood in terms of social capital in the resettlement site Perumbakkam in Chennai, India?

#### **The sub-questions:**

1. How were women informed about the resettlement process before their resettlement?
2. How was women's social capital affected after resettlement to Perumbakkam?
3. What factors influenced women's social capital besides access to resettlement information in Perumbakkam?

### **3.3 Research strategy**

The case study is used as a research strategy in this study, with the context being the Perumbakkam resettlement site in Chennai, India. This study examines one case as "the subject of study" "in an everyday, real-life environment" (Van Thiel, 2014, p.88). The context of this research is critical because it aims to provide future recommendations on how planners should deal with the resettlement process, particularly the provision of information prior to resettlement, and how that may influence the improvement of social capital in the resettlement sites. A case study is commonly used when the unit of study is small, but the variables are numerous. As a result, the units of study for this research will be limited to the Perumbakkam resettlement site in this case. Due to the limitation of data regarding the context of access to resettlement information, primary data gathering is required. Furthermore, this research requires further depth to explain how access to resettlement information prior to resettlement can play an important role in increased social capital. Thus, a significant number of variables are essential to draw the causal process of the subject of study. The study probably doesn't cover large units since it only requires one case study to highlight the comparison between the level of access to resettlement information before resettlement and how it affects livelihood in terms of social capital improvement and enhancement.

### 3.4 Operationalization table of variables and indicators

Table 1: The operationalization table

	CONCEPTS	VARIABLES	SUB-VARIABLES	INDICATORS	DESCRIPTIVE	SOURCES	METHOD	
Independent Variable	<p><b>The concept of access to information</b></p> <p>In the Handbook of the United Nations "Basic Principles and Guidelines on Development-based Evictions and Displacements (Kothari, 2009), states that all potentially affected groups and persons, including women, indigenous peoples and persons with disabilities, should be informed before resettlement. Enabling meaningful access to information would reduce the uncertainty experienced by the affected people. It shows respect for their human (Frankovits, 2006). Moreover, access to information considered one of the participation elements (Quy Nghi et al., 2021)</p>	<p><b>Access to resettlement information</b></p>	<p>Resettlement process information</p>	Reason for resettlement	<p>The questions here seek to procure data on to what extent women's access to resettlement process information (<b>Why</b> they are resettled? <b>When</b> they will be resettled? <b>How</b> long was the notice period? <b>Where</b> they will be resettled? <b>How</b> they are resettled? and <b>Who</b> will be resettled?.....)</p>	<p>(Kothari, 2009; Stonier, 2012)</p>	<p>Questionnaire, Interview</p>	
				Resettlement timetable				
				Notice period before evacuation				
				Location of resettlement				
				Resettlement Procedures				
				Who will be resettled				
		<p><b>Access to resettlement information</b></p>	<p>Provision of information about Perumbakkam</p>	<p>Provision of information about Perumbakkam</p>	Features of settlement site	<p>The questions here seek to procure data on to what extent women's access to resettlement site information (where is the location - how access to the location, how it looks like, what is the available services and facilities, what is a type of housing units - how it look like.....)</p>	<p>(Kothari, 2009; Stonier, 2012)</p>	<p>Questionnaire, Interview</p>
					The site of the settlement			
					Provision of Infrastructures			
					Provision of social amenities (service, facilities)			
					The type of housing unit			
					The livelihood opportunities			
<p>Resettlement public hearings information</p>	<p>Resettlement public hearings information</p>	<p>Resettlement public hearings information</p>	Awareness about public hearings	<p>The questions here explore whether the community/the affected women are even aware of the right to access the resettlement public hearings information and how they can do this, how that</p>	<p>(Kothari, 2009; Stonier, 2012)</p>	<p>Questionnaire, Interview</p>		
			Awareness about the right to participate in public hearings					

				Awareness about the rights that provide through participants in public hearings	works and whom to approach for help (receive convocation, comment or objection to the resettlement proposed plan, challenge the eviction decision, present alternative proposals, and articulate their demands and development priorities.....)		
				The benefits of participation in a public hearing			
			Resettlement information and alternatives information	Awareness about the resettlement process	The questions here explore whether, how and to what extent women's access to resettlement information and alternative information (from whom do they get the information, do they receive Compensation, if and who will be obtaining a house title record? if they received any legal, technical and other advice.....)		Questionnaire, Interview
				Sources of information			
				Awareness about alternatives			
				Awareness about resettlement compensation			
				Awareness about rights to legal, technical support and advice			
			Clarity of resettlement information	Channels of information provision	The questions here explore to what extent women understand the informed resettlement information (by looking at the communication language (do the information provided by the local language Tamil), channels and mechanism that published and delivered the resettlement information.....)		Questionnaire, Interview
				Interpretation of information			

	CONCEPTS	VARIABLES	SUB-VARIABLES	INDICATORS	DESCRIPTIVE	SOURCES	METHOD
Dependent Variable	<b>The concept of livelihood</b>  A process of restoring and improving the abilities, livelihood, and activities as a means of living (DfID, 1999) after the deprivation caused by the impoverishment risks of resettlement (Cernea, 2000; Mathur, 2014; Vanclay, 2017)	<b>Measure the social capital to compare before and after resettlement</b>	Groups and Networks	Participation of women in welfare groups and networks	The questions here consider the nature and extent of a women's household member's participation in various types of social organisations and informal networks and the range of contributions that one gives and receives from them.	(Carmen et al., 2022; Dudwick et al., 2006; Grootaert et al., 2004; Grootaert, Christiaan, 2003; Ievdokymov et al., 2020; Jones & Woolcock, 2010; Parkinson & Ramirez, 2006; Serrat, 2017; Woolcock, 2001; Xiao et al., 2018)	Questionnaire, Interview
				Commitment to welfare groups and networks			
				Benefits of participation in welfare groups and networks			
			Trust and Solidarity	Trust in neighbours and neighbourhood	The questions here seek to procure data on trust towards neighbours, key service providers, and strangers, and how these perceptions have changed over time after resettlement.		Questionnaire, Interview
				Trust in local authority			
				Trust in local institutions			
				Level of solidarity in neighbours and neighbourhood			
			Collective Action and Cooperation	Participating in joint community projects	The questions here explore whether and how women's household members have worked with others in their community on joint projects and/or in response to a crisis. It also considers the consequences of violating community expectations regarding participation.		Questionnaire, Interview
				Response to a crisis as a community			
				Consequences of violating community expectations			
			Information and Communication.	Source of providing information	Source by which women receive information regarding market		Questionnaire, Interview

				Access to communication infrastructure	conditions and public services and the extent of their access to communications infrastructure.			
			Social Cohesion and Inclusion	The feeling of togetherness or closeness	<p>“Communities” are not single entities, but rather are characterized by various forms of division and difference that can lead to conflict.</p> <p>Questions in this category seek to identify the nature and extent of these differences, the mechanisms by which they are managed, and which groups are excluded from key public services. Questions pertaining to everyday forms of social interaction are also considered.</p>			Questionnaire, Interview
				Forms of division in the community				
				Frequency of Conflict and Violence				
				Social interaction (Sociability)				
			Empowerment and Political Action	Happiness and personal efficacy in decision making	<p>The questions in this section explore women's household members' sense of happiness, and personal efficacy, furthermore check the capacity to influence and be confident in local authority and institutions.</p>			Questionnaire, Interview
				Capacity to influence				
				Confidence in local authority and institutions				
			Compared the social capital before resettlement	Changes in social capital	<p>The question here explores whether the women's social capital in the present (Improved, stayed about the same, Deteriorated) compares to the social capital before resettlement</p>			Questionnaire, Interview

	CONCEPTS	VARIABLES	INDICATORS	SOURCES	METHOD
Intermediate Variables	<p><b>The concept of multidimensional social capital</b></p> <p>Scholars believe and argue that social capital is multidimensional social capital (Grootaert et al., 2004). Woolcock (2001) defines social capital as collective activity resulting from networks, membership, and trust. These dimensions of social capital include bonding, bridging, and linking. "Bonding" describes how people with similar aims interact regarding their demographic characteristics. "Bridging" accesses outside resources. "Linking" is like bridging with a power differential. It includes institutional rules and politico-cultural aspects (Carmen et al., 2022; Choo &amp; Yoon, 2022; Woolcock, 2001).</p>	<p><b>Bonding social capital</b></p> <p>refers to the connections between people who share similar features (the women's community in the neighbourhood). Thus, bonding is the most powerful type of social capital since it forms a tight relationship between two people. These relationships are typically formed through the establishment of social ties. They do, however, include family members and neighbours. People are willing to help each other and gain social capital' among their peers because of these connections. We are more likely to help someone and go out of our way for someone we have a relationship with than someone with whom we know nothing.</p>	<p>Allocated apartments through the lottery (Uncertainty)</p> <p>Unbonding social capital</p>	<p>(Carmen et al., 2022; Choo &amp; Yoon, 2022; Grootaert et al., 2004; Woolcock, 2001).</p>	Questionnaire, Interview
		Safety and Security			
		Collaborations and Help			
		<p><b>Bridging Social Capital (Community rebuilding)</b></p> <p>The connection is 'bridged' in the fact that one person is introduced to another (the resettled women from different areas) through an intermediary. That intermediary is effective 'the bridge' that brings the two parties together (such as NGOs, community associations, Information and Resource Centre for the Deprived Urban Communities, and Tamil Nadu Urban Habitat Development Board). Bridging brings two or more people together who would otherwise not connect – even though they are from similar groups (the relocated women) and have the same interests. Thereby 'bridging' the social gap. One of the important aspects of bridging is that it is horizontal. In other words, social capital is developed between people from the same socioeconomic group (the relocated women).</p>	<p>Influence of the community groups and associations in the bridging the social gap</p>		Questionnaire, Interview
		Women exclusion and marginalization			
		<p><b>Linking Social Capital</b></p> <p>It is an extension of bridging. For example, bridging occurs horizontally, i.e., between people of a similar socioeconomic power or hierarchy (the resettled women from different areas). By contrast, linking occurs vertically – i.e. between socioeconomic groups. Those in similar socioeconomic groups are often referred to as a 'community' (the resettled women from different areas). It is outside of those communities that linking takes place to empowerment opportunities. For instance, women are introduced to an employee association or skills development program. The two may develop a relationship and hence be able to leverage a far more significant level of resources than previously possible.</p>	<p>Women's accessibility to internal/external empowerment opportunity</p>		Questionnaire, Interview

### **3.5 Research methodology**

The research uses a combination of quantitative and qualitative methodologies. The quantitative data provides a broad overview of all variables within the context (correlation). At the same time, qualitative data provides a far better explanation of the causal relationship (causality) between those variables.

The survey is conducted through written questionnaires. The respondents are the resettled women in Perumbakkam site. The purpose of the questionnaire is to measure the extent of information women had access to prior to resettling and measure their social capital before and after resettling. The first part of the survey measures the extent of access to resettlement information before resettlement. The result defines the respondents into two groups; the first group (above the average) had access, and the second group (under the average), who did not have access. Then the second part of the survey measures the women's social capital before and after resettling by using the Integrated Questionnaire for the Measurement of Social Capital and comparing between before and after resettling. In addition, a part on socio-demographic background information contains interviews (semi-structured) with women community leaders and other bodies involved in the resettlement process, as a part of the causal pathway influencing the outcome and data triangulation is used. In general, triangulation enhances the validity and reliability of survey outcomes; it can also generate new, credible findings about the situation and create new ways of looking at an influence. Also, additional interviews (in-depth interviews) with a community-based organisation, non-governmental organisations, community associations and government officials are included to validate and triangulate the data. Moreover, the discussions enrich the study's narrative to collect more qualitative data and find causality relationships between those variables.

### **3.6 Data collection methods**

For the women of Perumbakkam, data is collected via a closed-ended questionnaire survey and in-depth semi-structured interviews. The close-ended questionnaire is divided into three sections, as shown in appendix 1. The first part includes demographic questions. The second part addresses questions about access to resettlement information before resettling. The final part addresses an integrated questionnaire to measure the social capital after and before resettling.

Semi-structured interviews with women in Perumbakkam are part of the data-gathering method to gain more insight into the quantitative data's relationships. Semi-structured interviews with some key informants are conducted to gain additional insights. As part of the causal pathway influencing the outcome and validating and triangulating the data, essential informants include community-based organizations, non-governmental organizations, community associations, community leaders, and IRCUDUC, as shown in appendixes 2 and 3. A safe cloud storage questionnaire application (Google forms) was used for the questionnaire data collection.

### **3.7 Sample size and selection**

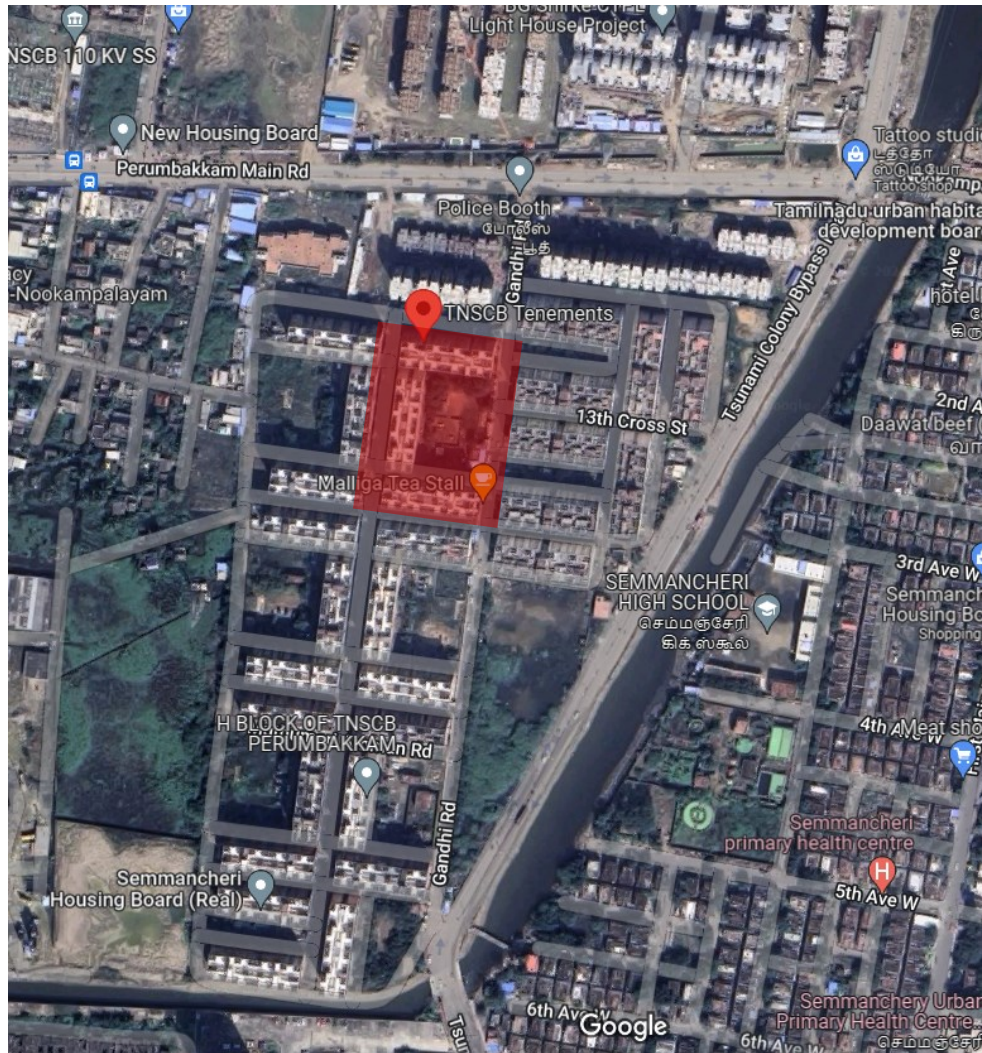
Due to the time limits, a sample selection is required because encompassing the entire population is impracticable. The population used in research is the group from which researchers obtain their data. As defined by Van Thiel (2014), a sample is a selection drawn from a larger population (N) of possible study units. Since there are 15,252 tenements which consist of nearly 50% female population, the challenge is compounded by the extensive size of the study population. This study's population is limited to around 500 women from 93 households in one Perumbakkam housing block, as shown in figure 4 below.

This block is in the second phase of the Perumbakkam resettlement site (see block general photos in figure 5 below), which ensures that residents are relocated recently. In order to

generalize findings to the full population, the researcher used random sampling as a data collection method. Because a sample must include at least 20% of the total number, the total sample is 100 women from the selected block. Furthermore, most statisticians generally consider a sample size of 100 sufficient for statistically significant results. (Fox et al., 2009; Kotrlík & Higgins, 2001).

Purposive sampling was used to choose interviewees based on the survey analysis results. Twenty-three people were interviewed for this study; sixteen women from Perumbakkam, seven from community groups and NGOs, key experts, and academics. A list of interviewees and other sources is found in appendix 2.

Figure 4: The selected area in Perumbakkam



Source: Google satellite map, 2022. With some adjustment.



**Figure 5: block general photos in Perumbakkam**



Source: phantom-urbanism, 2022. With some adjustment.

### **3.8 Data analysis methodology**

The quantitative data from the questionnaire is meant to provide a basic knowledge of the context. Due to the closed-ended nature of the questions, all replies are coded and elaborated in descriptive analysis. A statistical program was used to analyze the data (SPSS "Statistical Package for the Social Sciences"). Regression analysis investigates the relationship between access to resettlement information before resettling and the influence on social capital after resettling. This probably draws a causal relationship between the independent and dependent variables and the factors in the resettlement process as intermediate variables.

The correlation will compare two groups: those with high access to resettlement information used for social capital improvement and those with low access. The test results show how the two differ. The qualitative data from the interview will be transcribed and recorded in text format. According to the operationalization, the researcher will code each interview transcript. The data will be analyzed to provide answers to the study questions.

### **3.9 Validity and reliability**

This study seeks validity and reliability through triangulation by using diverse methodologies and sources to increase the study's wealth. Despite the limited number of units of study, internal validity is addressed because data collection does not rely primarily on the questionnaire but also on interviews. Furthermore, the validity grows when the sources of information include resettled women, community-based organizations, and government institutions. The indicators used in variable operationalizations must be specific enough to reduce ambiguity in questionnaires.

To ensure that the questions are understood and the indicators are relevant in the local context, a pilot survey must be done. All questionnaire questions must be completed by all respondents. To ensure close engagement with the operationalization, the interviews must be semi-structured. Respondents must come from a range of backgrounds in order to contribute to triangulation.

## Chapter 4: Results, analysis and discussion

### 4.1 Introduction

The research findings, which were derived through the analysis of data collected via the survey, interview, and observation are presented in this chapter. First and foremost, this chapter describes the case study location as well as the context of the resettlement of the case. Then reviewing and interpreting the outcome of the data analysis for all variables and sub-variables, after checking the questionnaire data by doing the reliability analysis and normality test. The findings aim to gradually answer the main research question by answering the subsidiary research question. In the end, this chapter presents the analysis as a result of this research.

### 4.2 Description of the case study

Perumbakkam, a suburb of the southern Indian city of Chennai in the Chengalpattu district, is the study area of this research. According to the Housing and Land Rights Network (HLRN) and the Information and Resource Centre for Deprived Urban Communities (IRCDUC) (2017) floods devastated the southern Indian state of Tamil Nadu in November and December 2015. The Chennai District was one of the most badly hit by the catastrophic downpour, according to announcements made by the Chief Minister of Tamil Nadu on 7 December 2015 and 29 December 2015. Following the announcements, the Tamil Nadu government began evicting flood-affected households under the pretence of post-flood rehabilitation. The state leveraged the vulnerability of the urban poor following the flood to clean the river banks. By June 2016, 3,464 of the 9,687 families residing along the Adyar river migrated to the TNSCB resettlement tenements in Perumbakkam. Later, in March 2017, due to the Vardha cyclone, plans were made to relocate another 2,519 families by May 2017. However, due to the change in leadership and the state's unstable political situation, the families were relocated by the end of July 2017. Consequently, the study area of this research focuses on the second phase of Perumbakkam resettlement.

Perumbakkam consists of one hundred sixty-four blocks, each high-rise (ground floor + 7 floors) block has 93 tenements 380 sq. ft. each. The total number of tenements (164x93) is 15,252 tenements, housing 20,000 families (some of the families share the same tenement or apartment). While, the design has been criticized for its lack of safety, recreation, and catastrophic shortage of space for the residents. Each block (building), houses between 100 to 160 women. When the government assigns the house, each family must pay 750 Rs monthly for electricity, lift and water supply.

*“Over 90% of settlements were not consulted prior to relocation, and this had an adverse impact on women as they suffered the worst impact of resettlement, including prolonged loss of employment, lack of mobility because of distance from the work site and lack of safety within sites and limited transportation facilities.”*

(Vanessa Peter, Founder - IRCDUC, 2022)

*“We came here [resettlement site Perumbakkam] blind, that only the trues.”*

(M. Mercy, Association leaders' group, 2022)

### 4.3 Checking the questionnaire data

Before starting with the analysis, a reliability analysis for the questionnaire was conducted, to assess how reproducible the survey instrument's data is (George & Mallery, 2018). Furthermore, a normality test was conducted to verify whether sample data has been drawn from a normally distributed population (Ghasemi & Zahediasl, 2012), as shown in the following tables.

#### 4.3.1 Reliability analysis

Table 2: The questionnaire reliability analysis

Reliability Statistics		N of Items	Cronbach's Alpha	stability coefficient	
All Question		220	<b>0.92</b>	0.96	
Information Question		79	<b>0.93</b>	0.96	
Social Capital Question		141	<b>0.86</b>	0.93	
Cronbach's Alpha Scale					
0 - 0.50	0.50 - 0.60	0.60 - 0.70	0.70 - 0.80	0.80 - 0.90	0.90 - 1.00
<b>Unacceptable</b>	<b>Poor</b>	<b>Questionable</b>	<b>Acceptable</b>	<b>Good</b>	<b>Excellent</b>

As shown in the previous table, the reliability of the questionnaire is 92%, which indicates the excellent credibility of the participants in their answers to the questionnaire questions. At the same time, the stability coefficient is defined as the degree of stability of the results based on the analysis of the questionnaire. Thus, if another sample is taken, measured by the squared root of the Cronbach coefficient alpha, the 96% indicates the strength of the stability of the results of the sample members participating in the questionnaire; it may be changed just by 4% and so on.

#### 4.3.2 Normality test

Table 3: The questionnaire Normality test

The hypothesis			
<i>H<sub>0</sub>: the distribution of data is normal</i>			
<i>H<sub>1</sub>: the distribution of data is not normal</i>			
Normality Test		Access to Resettlement Information	Social Capital
N		100	100
Normal Parameters	Mean	77.3000	157.6000
	Std. Deviation	26.82133	18.93796
Kolmogorov-Smirnov Z		<b>.541</b>	.796
P-value		<b>.931</b>	.551

Table 3 shows that the Kolmogorov-Smirnov P-value is greater than (0.05), so we accept the null hypothesis H<sub>0</sub>. Thus, the data is normally distributed.

#### 4.4 General characteristics of the sample (Socio-demographic)

This section describes the general characteristics of the respondents, which are the women living in the second phase of the Perumbakkam resettlement site; this second phase of the resettlement site was developed in 2017. The characteristics described in this chapter include general information about the respondents, thus providing a general understanding of the study sample (age, the language they spoke, ability to read and write, status, education background, number of years living in Perumbakkam, head of the house, etc).

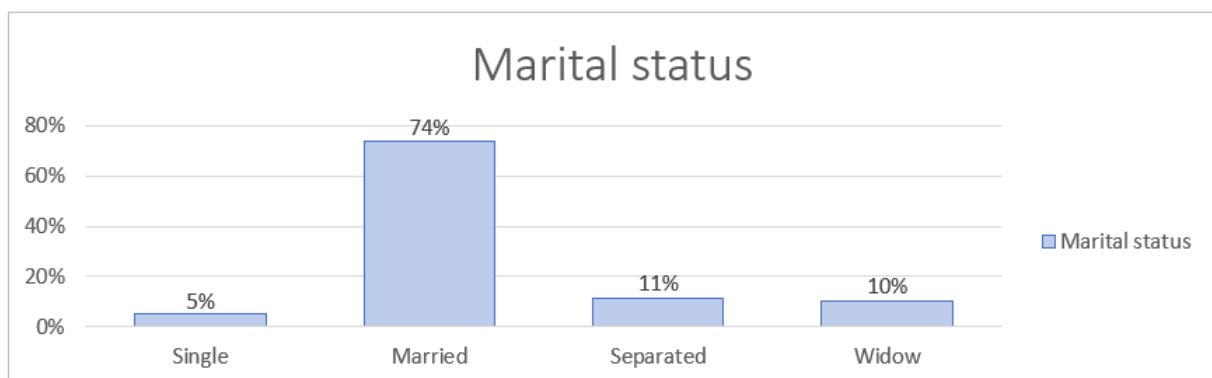
The research finds out through the questionnaire survey that Perumbakkam is a large resettlement site that expanded to be a more settled neighbourhood as families had developed their homes there. Through the resettlement program, the people were resettled in Perumbakkam between 5 to 1 year ago; Most of the respondents (89%) were resettled in Perumbakkam five years ago under a resettlement natural disaster response scheme following the Vardha cyclone that hit Tamil Nadu in December 2016. The flood covered the area next to the eastern coast. The rest came later, within the latest four years. This can be seen in table 4 below.

**Table 4: The number of years living in Perumbakkam**

Number of years living in Perumbakkam	Frequency	Percentage
1 Year	1	1%
3 Years	2	2%
4 Years	8	8%
5 Years	89	89%
<b>Total</b>	<b>100</b>	<b>100%</b>

As seen in graph 1 below, the majority of the respondents are married (74%), which means they have a family responsibility.

**Graph 1: Status of the respondents**



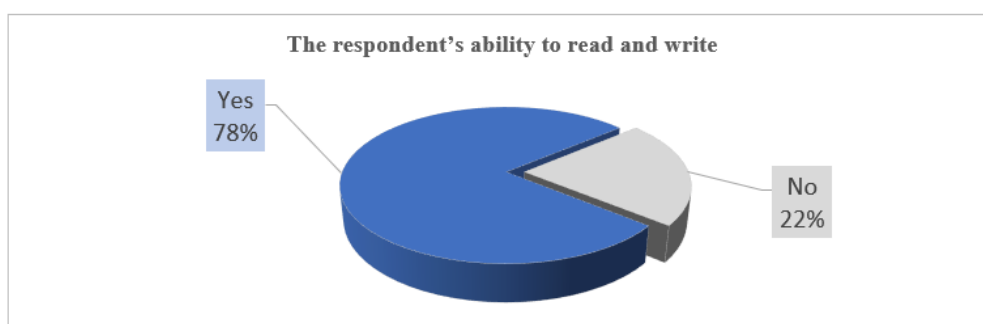
As seen in table 5 below, most respondents are between 26 to 45 years old. In general, this study includes all age groups within the community.

**Table 5: Age of the respondents**

Age Groups	Frequency	Percentage
18-25 years old	7	7%
26-35 years old	39	39%
36-45 years old	31	31%
46-55 years old	16	16%
Above 56 years old	7	7%
<b>Total</b>	<b>100</b>	<b>100%</b>

As seen in chart 1 below, most respondents (78%) are able to read and write. Therefore, it is logically compatible with their education level, as shown in table 6.

**Chart 1 : The respondent's ability to read and write**



According to table 6 below, just 9% of respondents completed higher secondary school and went on to get a higher degree, while 20% were not enrolled in formal education. The majority of responders had only completed secondary school.

**Table 6: Education**

Education	Frequency	Percentage
Primary	19	19%
Secondary	36	36%
Higher secondary	16	16%
Undergraduate Diploma or Degree	8	8%
Post-graduate	1	1%
None	20	20%
<b>Total</b>	<b>100</b>	<b>100%</b>

As seen in table 7 below, all respondents speak Tamil, which may signify a high level of understanding within the community.

**Table 7: The language is spoken by respondents**

The spoken language	Frequency	Percentage
Tamil	100	100%
English	0	0%
<b>Total</b>	<b>100</b>	<b>100%</b>

**Table 8: The house title record**

The house title record under the name of	Frequency	Percentage
Respondent	88	88%
Husband	10	10%
Mother	2	2%
<b>Total</b>	<b>100</b>	<b>100%</b>

According to table 8 above, 90% of the house titles were recorded under the name of women. The reason for this is the decision of the competent authorities to register house title records in women’s names as a part of a women empowerment program to protect families and reduce societal conflicts as mentioned by one of the interviewees:

*“The house title record gives allotment only to women's names. Because mens are drunker, they are sold out for home and then that family stand in the street. They can't do anything. That only Government give allotment for women. The second reason stops the antiviolence.”*

*“Sometimes husband and wife got to fight that time, women's told to get out of here because this is my home. Very brave to tell.”*

## **4.5 Women accessing resettlement information before resettlement**

This subchapter answers the first subsidiary research question: How women were informed about the resettlement process before their resettlement to Perumbakkam. The findings are from the field survey and interview about the accessibility to resettlement process information, resettlement site information, resettlement information and alternative information, the awareness of the right to access the resettlement public hearings information, and the understanding of informed resettlement information.

### **4.5.1 Accessibility to resettlement process information**

#### **4.5.1.1 Reason for resettlement**

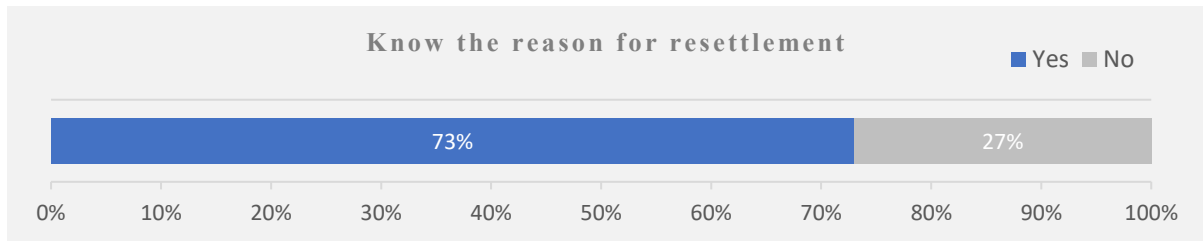
As seen in graph 2 below, most of the respondents (73%) knew why they had to resettle. This was due to a natural disaster as Vardha cyclone hit Tamil Nadu in December 2016, and the flood that covered the area next to the eastern coast. However, as mentioned in the following interviews, the interviewee had a different opinion:

*“We are used to flooding [...] It is a seasonal thing that happens every year [...] Sometimes we move from our homes for some time [as the flood destroys them] to our relatives' homes [...] we return after the season ends and re-build our homes [...] No one [the local government] helped us or asked us to evacuate for our safety before [...] This time it was different because of the hurricane [refer to the Vardha cyclone December 2016], and the seasonal floods [...] They [the Tamil Nadu government and decision-makers] took advantage of the situation to evacuate us from the area under the pretext of protecting us [...] We are impoverished [...] we fell victim to the exploitation of the situation [the hurricane].”*

*“I think [...] we all know [...] there was no reason to evacuate and resettle us [...] It's a normal thing [flooding season] for us that happens every year [...] the water may have been more severe because of the hurricane this time [...], but they [the Tamil Nadu government and decision-makers] could have helped us after the autumn and flood season ended to rebuild our homes.”*

Thus, some of the respondents strongly believe that the Tamil Nadu government used the flooding and cyclone, as well as the Legal framework for DIDR, as justification to evict and relocate them from their houses.

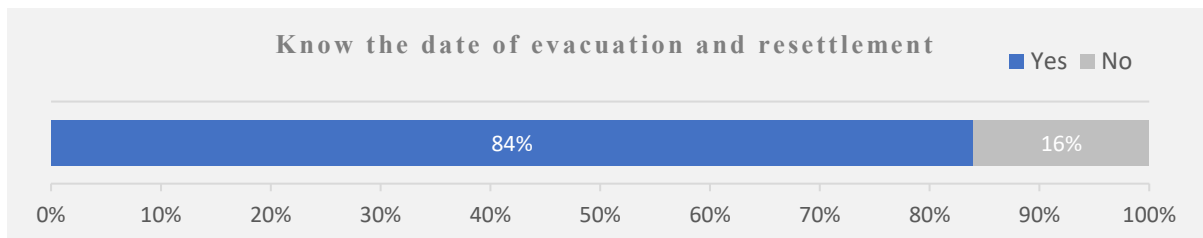
**Graph 2: Knowing the reason for resettlement**



#### 4.5.1.2 Resettlement timetable

As seen in graph 3 below, most of the respondents (84%) knew when the evacuation and resettling would occur, which had to happen in March 2017, according to announcements made by the Chief Minister of Tamil Nadu due to Vardha cyclone.

**Graph 3: Knowing the date of evacuation and resettlement**



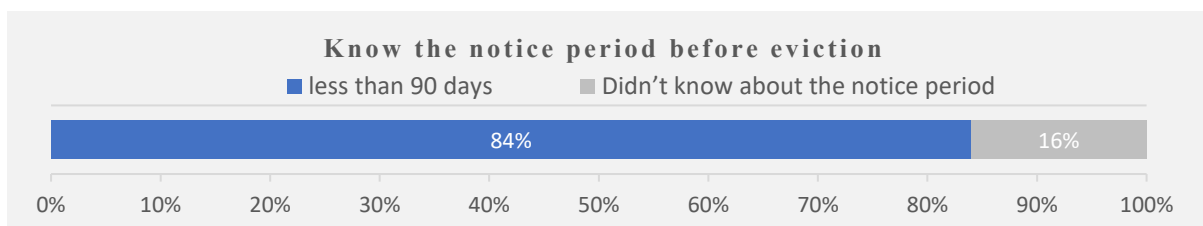
#### 4.5.1.3 Notice period before evacuation

However, due to the change in leadership and the state's unstable political situation, the families were relocated by the end of July 2017. Thus, 84% of those who know when the evacuation and resettling would occur, as seen in graph 3 above, said that the notice period before the date of evacuation and resettlement was less than 90 days, as seen in graph 4 below, which is inconsistent with the human rights that the notice period must not be less than 90 days. It is explained in this interview:

*“It was surprising for me, they [People who supervise the evacuation and resettlement process] are knocking on the door, and there were big trucks outside, [...] we were asked to stand in line to get the apartment number and get ready to leave.”*

*“I knew we were the next, but I don't know exactly when [...] because they started moving people closer to our area one week ago. [...] our evacuation and relocation happened [resettlement] three weeks later.”*

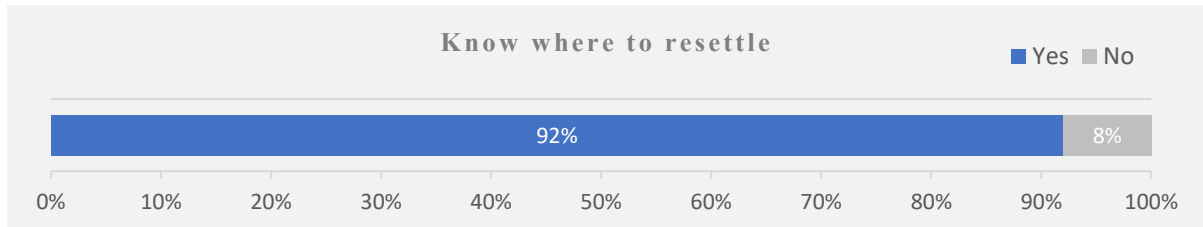
**Graph 4: Knowing the notice period before evacuation**



#### 4.5.1.4 Location of resettlement

The settlement location was well known to most respondents (92%), as shown in graph 5 below because the Chief Minister of Tamil Nadu announced it.

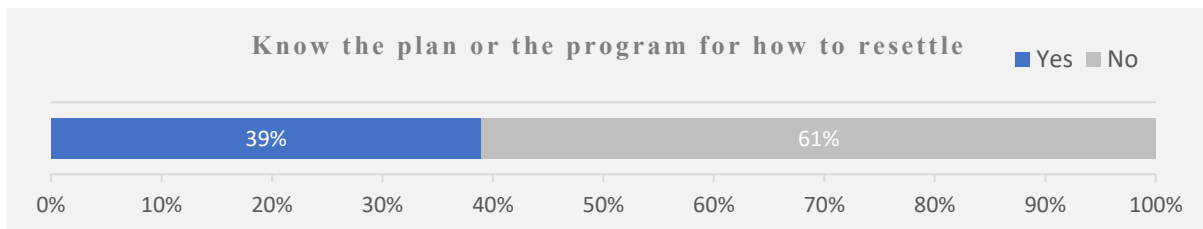
Graph 5: Knowing where to resettle



#### 4.5.1.5 Resettlement Procedures

As shown in graph 6 below, less than half of the respondents (39%) know how they would be resettled, meaning the plan or program for resettlement procedures. While 61% did not know about procedures.

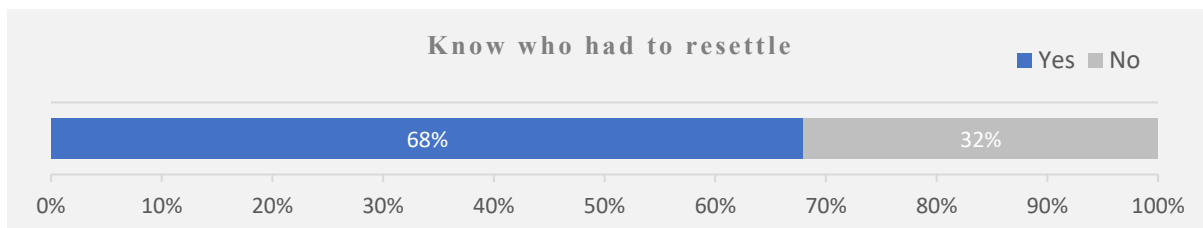
Graph 6: Knowing the plan or the program for how to resettle



#### 4.5.1.6 Resettlement programme access

As shown in graph 7 below, 68% of the respondent knew that the resettlement process would involve all flood-affected households (post-flood rehabilitation); thus, they had to resettle.

Graph 7: Knowing who had to resettle

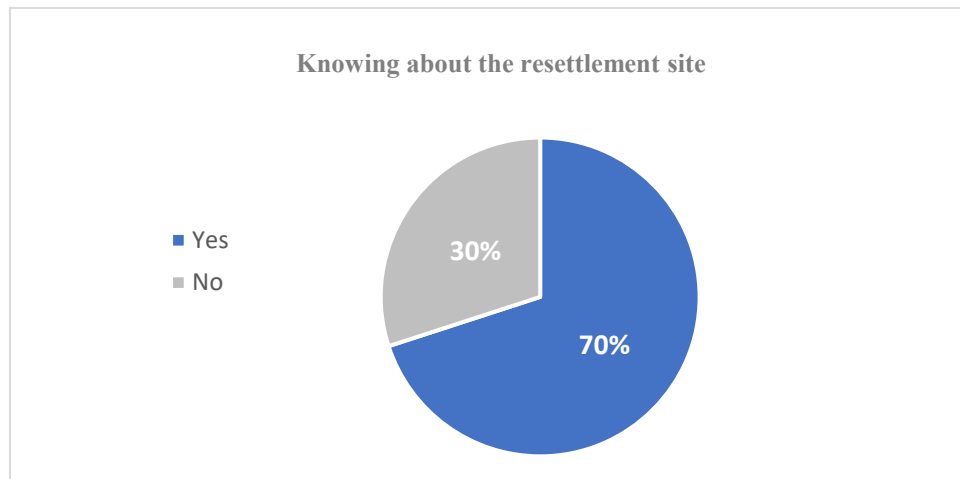




## 4.5.2 Provision of information about Perumbakkam

Regarding the accessibility of resettlement site information, 70% of the respondents had information about the resettlement, the site of the settlement, provision of infrastructure and social amenities, features of settlement site, the type of housing unit, and the livelihood opportunities. While 30% did not have any information, as shown in chart 2 below.

Chart 2: know information about the resettlement site

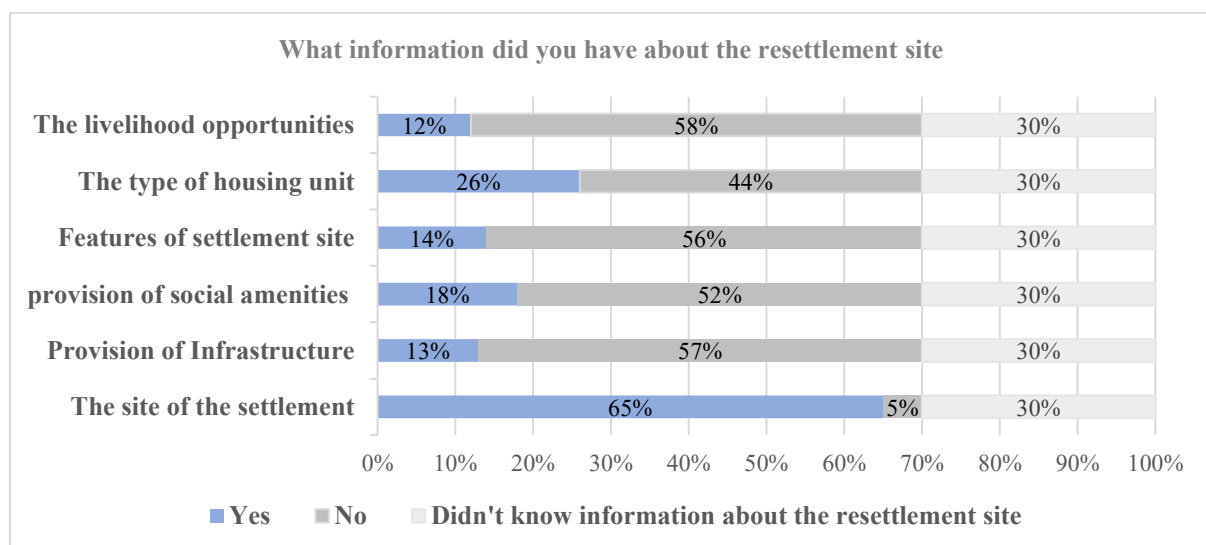


Graph 8 below shows what type of information those 70% of the respondents had about Perumbakkam. Thus, the majority of information the women had about the resettlement was limited to the site of the resettlement (65%). Additionally, the experts highlight that there is a lack of access to information that considers women's concerns, as mentioned in this interview with an expert.

*“The fact that women’s concerns about the location, design, and size of housing are not included and the absence of any consultation process also adversely affects the social capital.”*

(Vanessa Peter, Founder - IRCUDUC, 2022)

Graph 8: Type of information

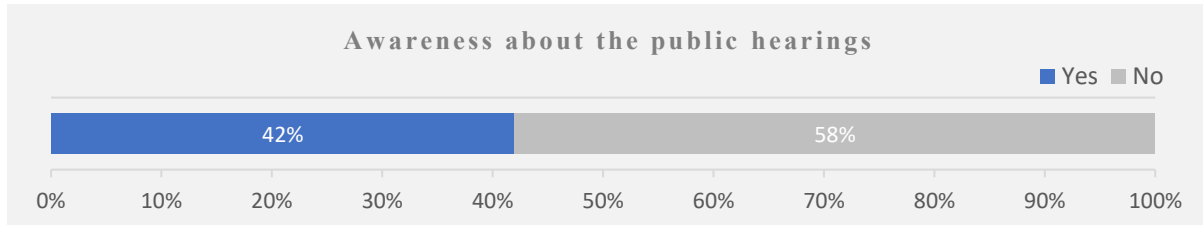


## 4.5.3 Accessibility to resettlement public hearings information

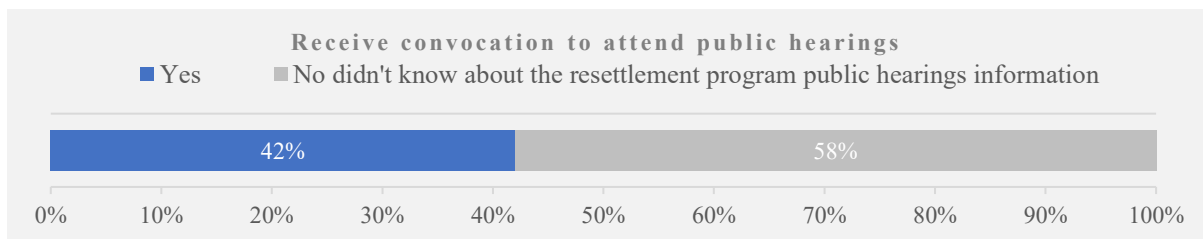
### 4.5.3.1 Awareness about public hearings

Almost half of the resettled affected women were aware of public hearings (42%) that were organized by local community leaders shortly before resettlement several times, as shown in graph 9 and graph 10 below.

Graph 9: Awareness about the public hearings



Graph 10: Receive convocation to attend public hearings



Although, these public hearings sessions were conducted by local community leaders under the guidance of members of the local government and TNUHDB, 30% found that resettlement program public hearings were useful to a high extent, while 40% found these sessions of neither low nor high useful extent, and 25% said it was useful, as shown in graph 12 below. Consequently, as mentioned in the following interviews, the extent of satisfaction with these public hearings, which corresponds to the results of the percentages.

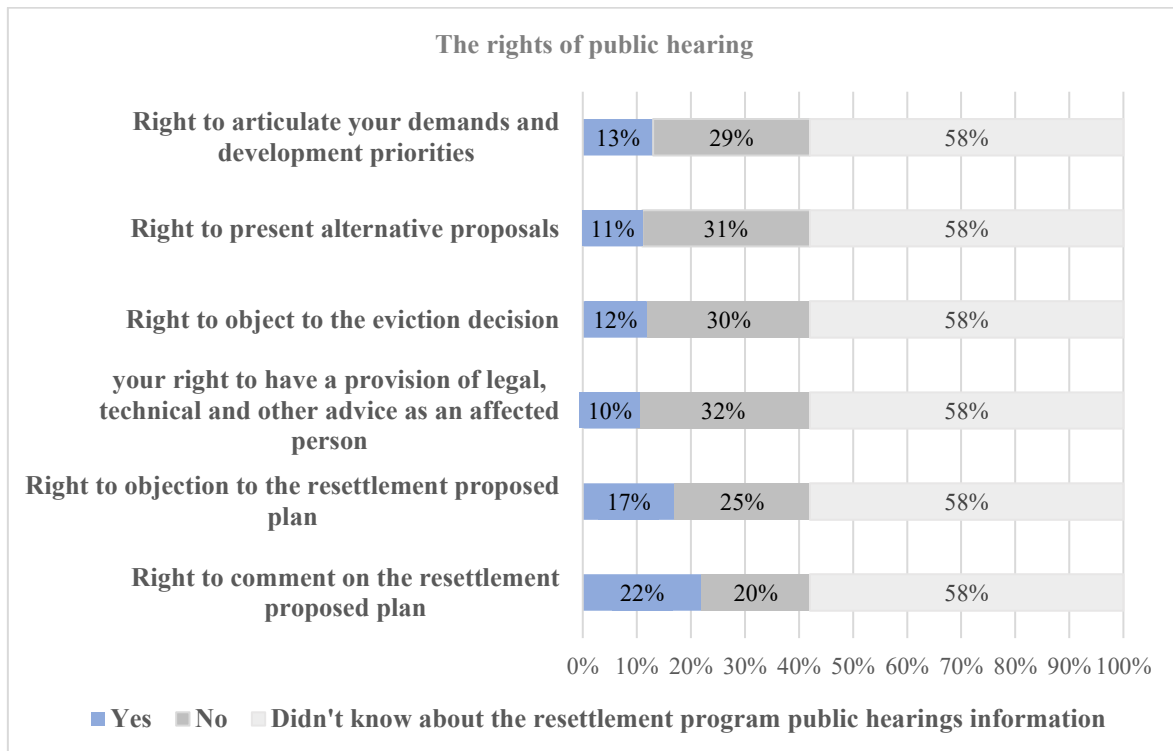
*"Some members of the local authorities have been communicating messages to us [ the community] through local leaders [...] they are male. [...] messages weren't clear"*

*"They said [ the local leaders' messages] that they [ the local authorities] really care about all of us [ resettled community], and resettlement is in our interest [ resettled community] [...] They lied to us, they didn't keep promises."*

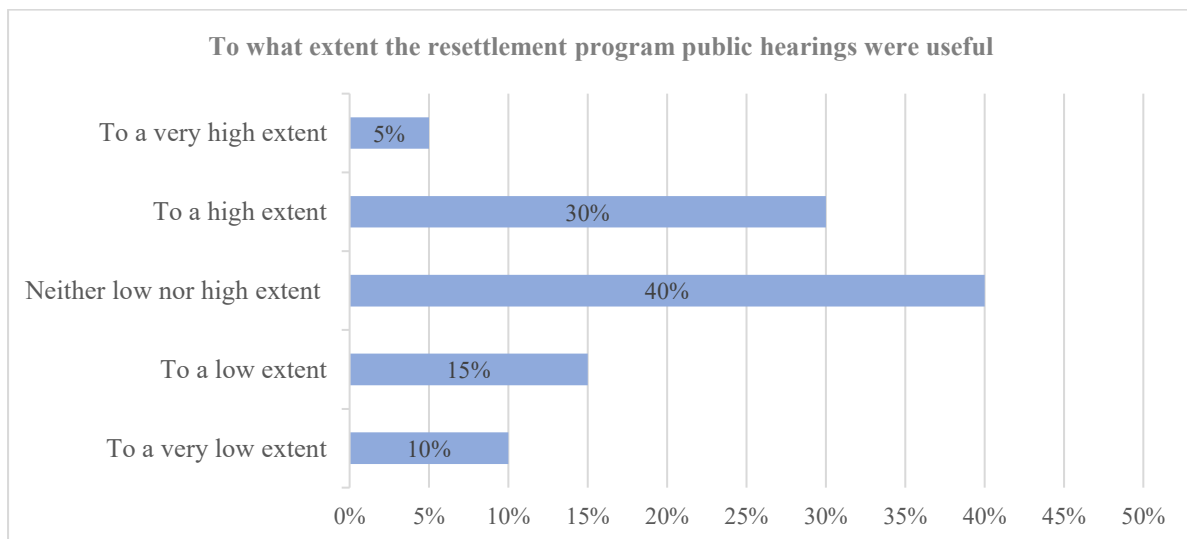
### 4.5.3.2 Public hearings rights awareness

On the other side, 42% of the women who participated in these public hearing sessions knew very little about the rights of attending public hearing, as shown in graph 11 below.

**Graph 11: The rights of public hearing**



**Graph 12: To what extent the resettlement program public hearings were useful**

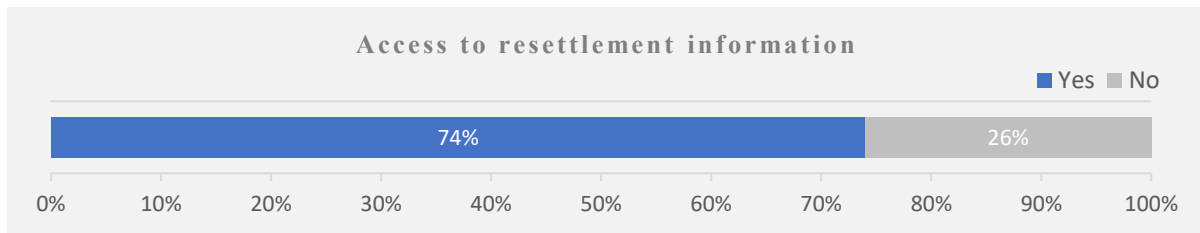


## 4.5.4 Accessibility to resettlement information and alternatives information

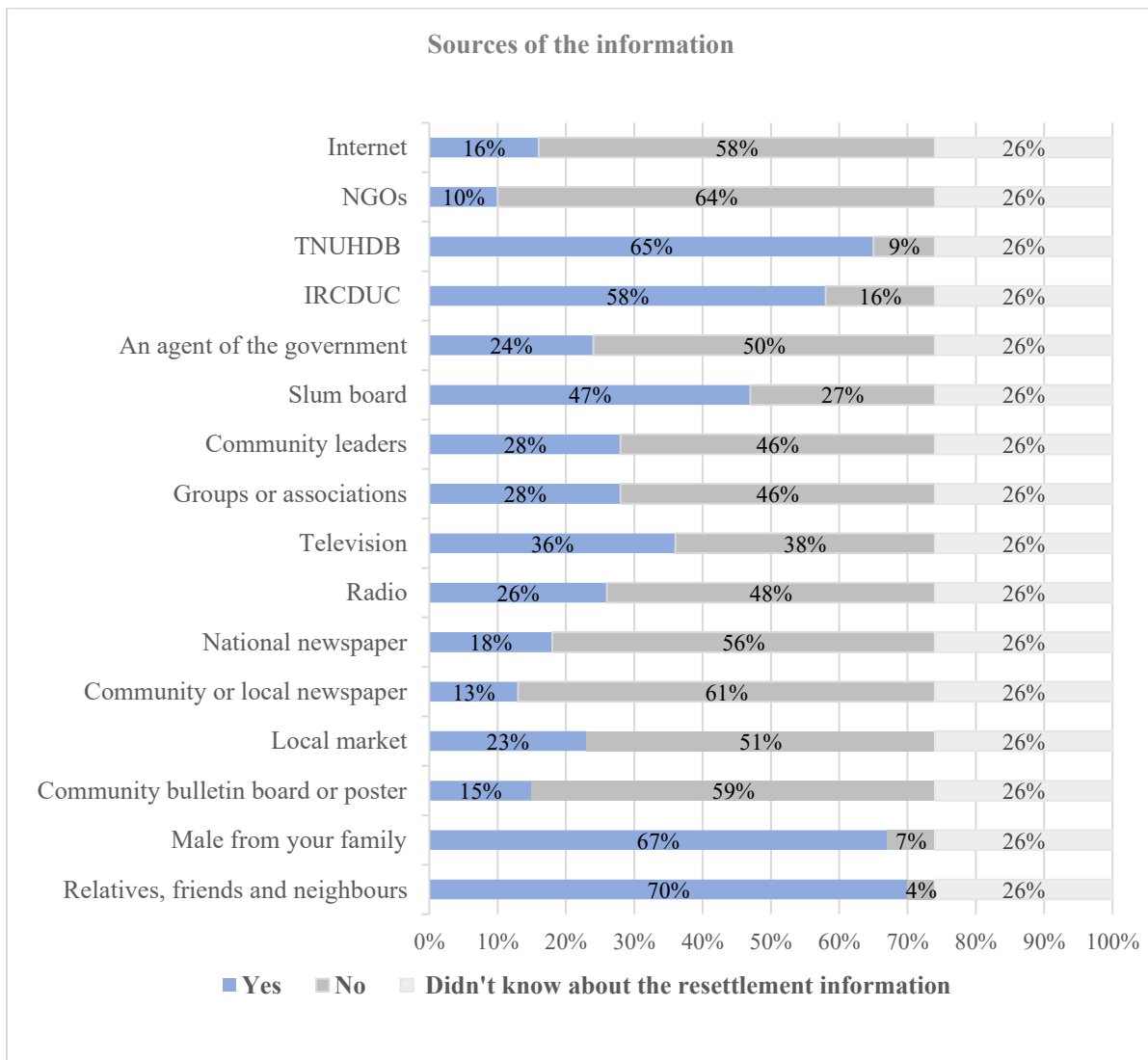
### 4.5.4.1 Access to resettlement information

The majority (74%) of the resettled women were aware of resettlement information, as shown in graph 13 below. Furthermore, there were various sources of getting information - formal and informal. In contrast, top informal sources of information were relatives, friends and neighbours (70%), and male family members (67%).

**Graph 13: Access to resettlement information**



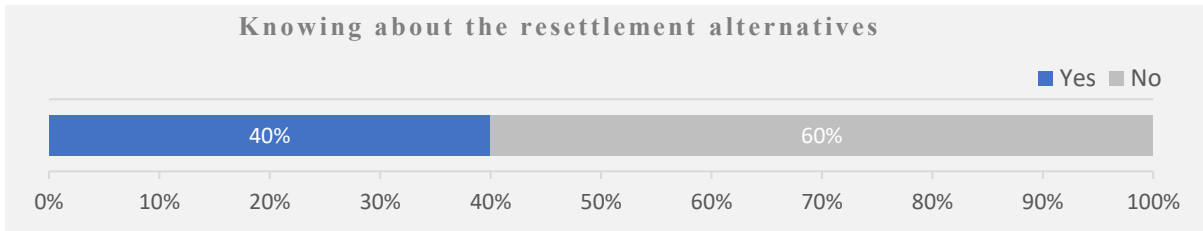
**Graph 14: Formal and informal sources of information**



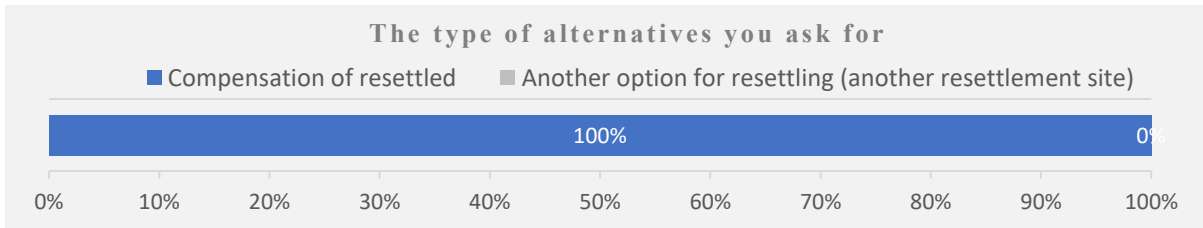
**4.5.4.2 Access to information on resettlement alternatives**

Less than half (40%) of the resettled affected women were aware of alternative information, as shown in graph 15 below, which was described by two options, another option for relocating (another resettlement site) or compensation for resettling. 100% of women who were aware of alternatives asked for compensation for resettling, as shown in graph 16 below.

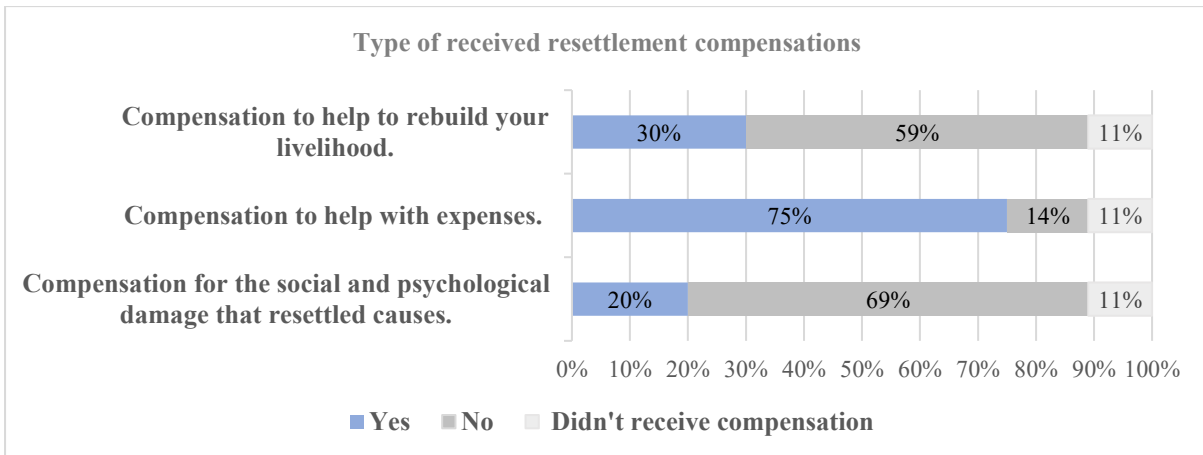
**Graph 15: Knowing about the resettlement alternatives**



**Graph 16: The type of alternatives you ask for**

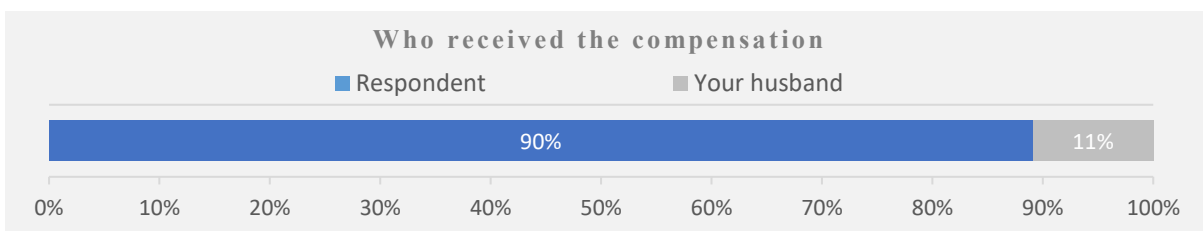


**Graph 17: Type of received resettlement compensations**



As is shown above, the majority (75%) received compensation to help with resettled expenses. 90% of the compensation was received by women, in comparison, 11% was received by men, as shown in graph 18 below.

**Graph 18: Who received the compensation**



As discovered from the interviews, TNUHDB was in charge of providing the compensations and opening bank accounts for the women from each family [who had the apartment title] to receive their compensation. Accordingly, the amount of compensation was Rs. 30,000 [ca.376.62 USD] for all three types of compensations, which were paid in monthly instalments of Rs. 2,500 [ca.31.39 USD] per month for ten months. Consequently, as mentioned in the following interviews, the women comment on the extent of their satisfaction with these compensations.

*“When they informed us [ refer to TNUHDB] of the compensation, they did not mention that it would be in instalments [...] I thought we would get the compensation amount once so that we could invest the money, whether to new home furnishing or buy and sell products [...] that were not useful to my family [...] We spent money on daily expenses.”*

*“Rs. 2,500 [ca.31.39 USD] is not enough for the whole month [...] It is just enough for one week [...] because the living expenses are very high and the grocery is expensive.”*

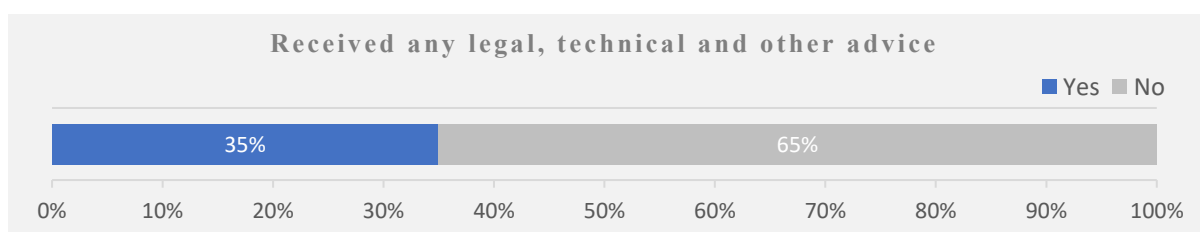
#### 4.5.4.3 Awareness about rights to legal and technical support and advice

Less than half (35%) of the resettled affected women were aware of their rights to legal and technical support and advice, as shown in graph 19 below. However, 25% found that legal, technical support and advice was useful to a high extent, while the majority (31%) found it of neither low nor high use, as shown in graph 20 below.

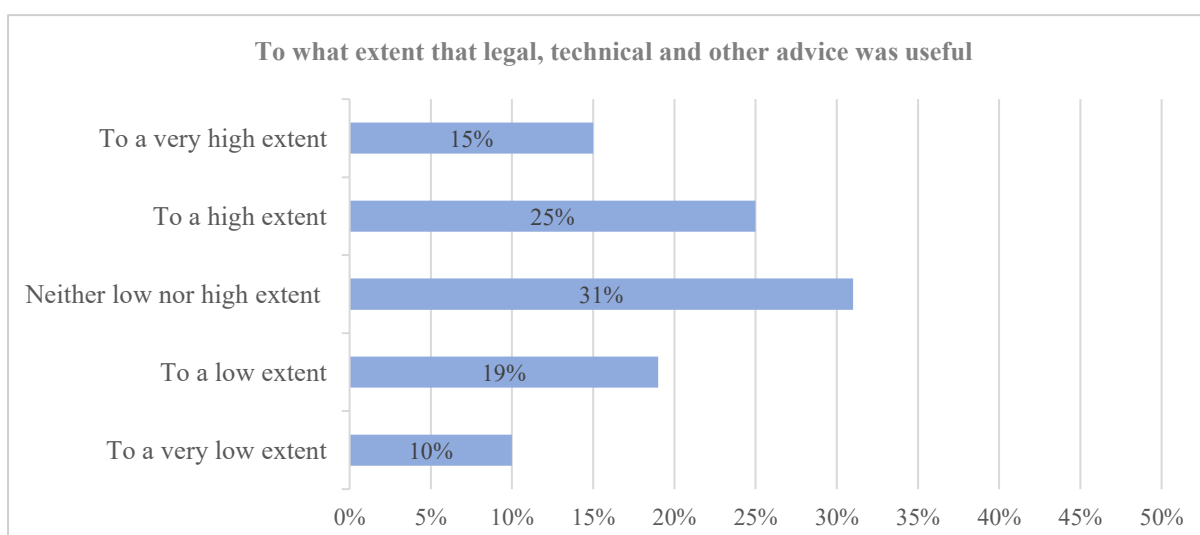
The technical support was provided by local authorities through local leaders to handle issues of extended families asking to live next to each other or families with physically challenged family members who preferred to stay on the ground floor, as explained in this interview below.

*“Because we don't have the powers [ refer to you know someone in power] we don't have the right to get extra help, [...] there are families who received extra help [...] for example one of the families because they have a family relationship with a local chief made it easier for them to get an apartment on the first floor.”*

**Graph 19: Received any legal, technical and other advice**



**Graph 20: To what extent that legal, technical and other advice was useful**



## 4.5.5 Clarity of resettlement information

### 4.5.5.1 Channels of information provision

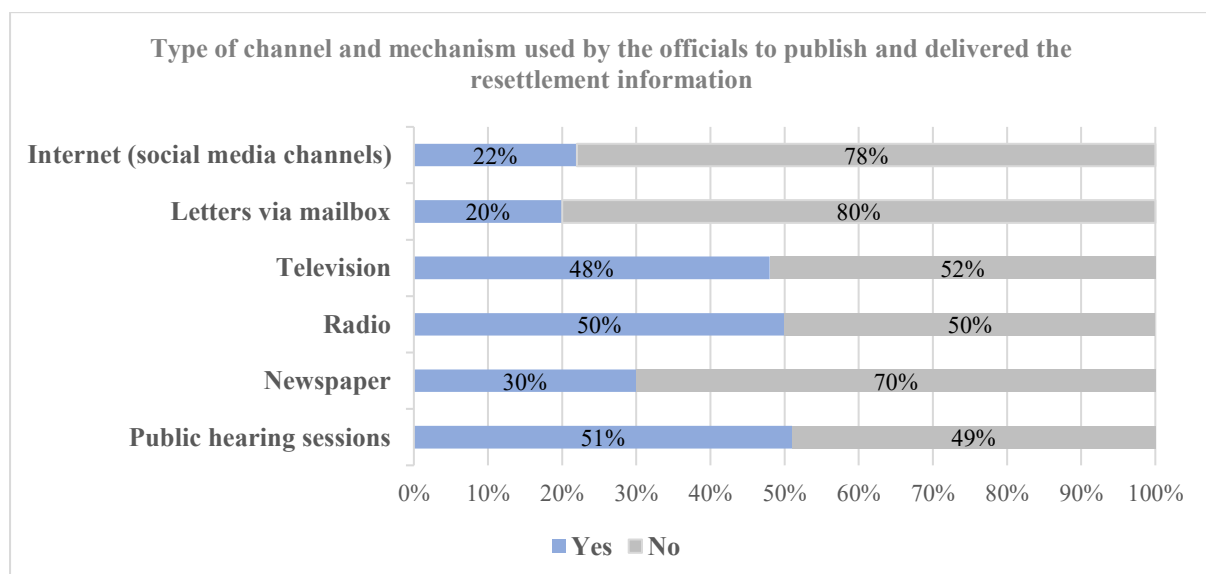
The officials used various channels and mechanisms to publish and deliver the resettlement information; according to the respondents, we found that television (48%), radio (50%), and public hearing sessions (51%) were most frequently used channels by the officials to deliver the resettlement information, as shown in graph 21 below. Nevertheless, relatives, friends and neighbours (49%) and male family members (45%) were women's most important sources of resettlement information, as shown in table 9 below and also explained by one of the respondents:

*“Almost the only source of information for me is my husband, son and brothers. [...] When I was in the vegetable market, I learned from the women there that the resettlement place is very far [...] How can we go to work from there, [...] when I asked my husband about this and my concern [...] he shouted at me and told me this It is none of your business [...] they [ the male in her household and family] decide what I have to know.”*

*“I am a widow, and I have two children. After my husband died, my brother moved to live with me. [...] I am not allowed to go out much because I am a widow and the community does not like that. [...] he is [my brother] my only source of information since my husband passed away.”*

Thus, one of the main reasons that women do not have direct access to information sources is the marginalization and control by the patriarchal society.

**Graph 21: Type of channel and mechanism used by the officials to publish and delivered the resettlement information**



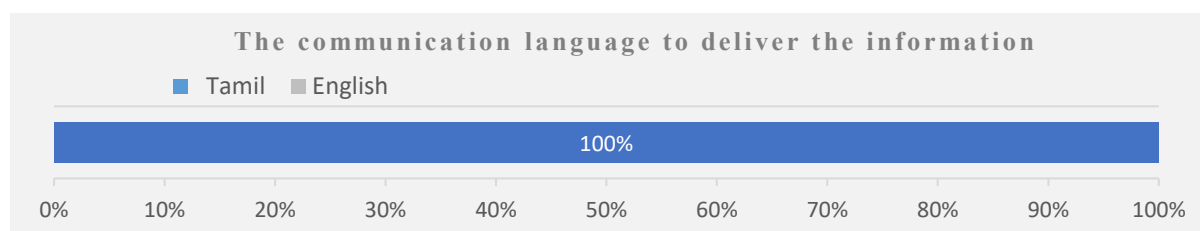
**Table 9:** The ranking of sources of informed resettlement information according to the importance

The sources of informed resettlement information	The importance scale										Total
	Least important		Slightly Important		Fairly Important		Important		Most importance		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
Relatives, friends and neighbours	3	3%	12	12%	6	6%	30	30%	49	49%	100
Male from your family	0	0%	5	5%	20	20%	30	30%	45	45%	100
Community bulletin board or poster	15	15%	13	13%	27	27%	33	33%	12	12%	100
Local market	32	32%	15	15%	13	13%	29	29%	11	11%	100
Community or local newspaper	38	38%	16	16%	14	14%	25	25%	7	7%	100
National newspaper	33	33%	17	17%	17	17%	24	24%	9	9%	100
Radio	14	14%	7	7%	18	18%	33	33%	28	28%	100
Television	27	27%	12	12%	17	17%	32	32%	12	12%	100
Groups or associations	18	18%	13	13%	23	23%	34	34%	12	12%	100
Community leaders	25	25%	10	10%	16	16%	40	40%	9	9%	100
Slum board	15	15%	14	14%	21	21%	36	36%	14	14%	100
An agent of the government	26	26%	17	17%	15	15%	36	36%	6	6%	100
IRCDUC	8	8%	18	18%	19	19%	38	38%	17	17%	100
TNUHDB	12	12%	13	13%	16	16%	42	42%	17	17%	100
NGOs	30	30%	8	8%	16	16%	39	39%	7	7%	100
Internet	39	39%	9	9%	12	12%	37	37%	3	3%	100

#### 4.5.5.2 Interpretation of information

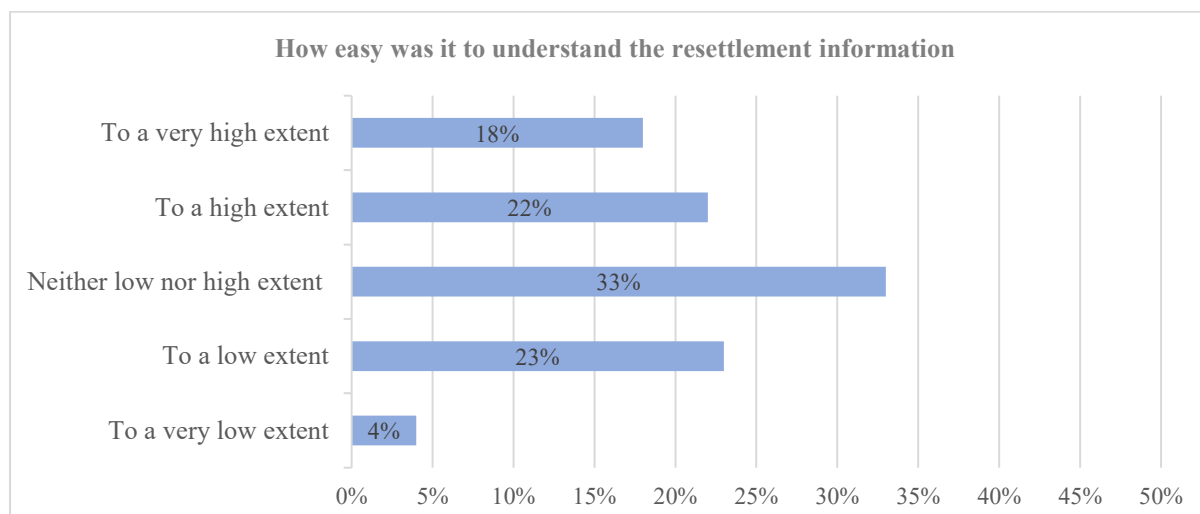
The communication language to deliver the information was Tamil. Thus, using the local language made the information clear and straightforward to interpret, as shown in graph 22 below. However, 40% found that understanding the resettlement information to a high extent was useful. In comparison, 33% found this not to a high useful extent, as shown in graph 23 below.

**Graph 22:** The communication language to deliver the information





**Graph 23: Clarity of information**



### 4.5.6 Access to information before resettlement

After exploring how resettled women received information about the resettlement process before their resettlement to Perumbakkam, we also calculated each respondent's score in the questionnaire to measure the access to resettlement information before resettlement. Accordingly, the respondent were divided into two groups (group one: have low access to resettlement information, group two: have high access to resettlement information) according to the average, which means group one is under the average and group two above the average. The mean (Average) and standard deviation (SD) as shown in table 10 below. The average score for access to information was 77 points (SD = 27). The standard deviation (SD) shows how far each score is from the mean (Van Thiel, 2014). We notice that standard deviation (SD = 27) is considered a high standard deviation in the normal distributions in the sample. Therefore, it indicates that values are generally far from the mean (data is more spread out), which indicates the low reliability of the mean (Bland, 2015; Lee et al., 2015; Livingston, 2004). Thus, we can't divide the sample into groups according to the mean (Average).

**Table 10: Descriptive statistics of Access to resettlement information**

	N	Minimum	Maximum	Mean	Std. Deviation
<b>Access to resettlement information</b>	100	26	145	77	27

Accordingly, the Length ( it is an statistic method to dividing groups according to the difference between the highest and lowest score divided by the number of groups required, as the equation shown in box 1 below) was used instead of the mean (Average) to divide the respondent score into three groups (group one: have low access to resettlement information, group two: have middle access to resettlement information, and group three: have high access to resettlement information) which provided increased reliability for group division, as shown in box 1 and table 11 below.

**Box 1: The equation to find the length**

$$\text{Length} = \frac{\text{Maximum score} - \text{Minimum score}}{\text{Number of a divided group}}$$

$$\text{Length} = \frac{145 - 26}{3} = 40$$

**Table 11: Descriptive statistics for groups division length scale**

	Length	Lengths division	Groups division	Frequency	Percentage
<b>Access to resettlement information before resettlement</b>	40	26 - 66	have low access to resettlement information	48	48%
		67 - 107	have middle access to resettlement information	37	37%
		107 - 145	have high access to resettlement information	15	15%
		<b>Total</b>			<b>100</b>

According to table 11, the respondents was divided into three groups according to the length division scale and their scores. 48% of the respondent have low access to resettlement information, 37% have middle access to resettlement information, while 15% of the respondent have high access to resettlement information.

*“non-access to information and participation of women in the planning and implementation of the resettlement process has increased the vulnerabilities of women disproportionately”*  
(Vanessa Peter, Founder - IRCUDUC, 2022)

For details on Descriptive statistics, refer to appendix 5.

#### **4.5.7 The relation between women accessibility to resettlement information before resettlement and socio-demographic**

This part, looks at the possible association between women’s accessibility to resettlement information before resettlement and the Socio-demographic characteristics of the sample Through the Chi-square test ( $\chi^2$ ). In contrast, The Chi-square test of independence determines if categorical variables have a statistically significant relationship (Connelly, 2019; Sharpe, 2015). As shown in table 12, the Chi-square test is used to test the hypothesis about whether there is an expected association. Therefore, we would see if the null hypothesis is true.

**Table 12: Chi-square test of association between women’s accessibility to resettlement information before resettlement and the Socio-demographic characteristics of the sample**

<b>The hypothesis</b>					
<i>H<sub>0</sub>: There is no association between women’s accessibility to resettlement information before resettlement and Socio-demographic variables</i>					
<i>H<sub>1</sub>: There is an association between women’s accessibility to resettlement information before resettlement and Socio-demographic variables</i>					
General characteristics of the sample (Socio-demographic)		Access to Resettlement Information Scale			Chi-square Test P-value
		have low access	have middle access	have high access	
Age Groups	18-25	6	1	0	0.914
	26-35	16	15	8	
	36-45	15	15	1	
	46-55	6	6	4	
	Above 56 years old	5	0	2	
Ability to read and write	No	17	4	1	0.750
	Yes	31	33	14	
Did you manage to transfer your ration card to Perumbakkam	No	20	15	0	0.004
	Yes	27	21	15	
Marital status	Single	3	2	0	<b>0.049</b>
	Separated	34	26	14	
	Widow	5	5	1	
	Married	6	4	0	
Education	Primary	3	9	7	0.706
	Secondary	16	16	4	
	Higher secondary	9	6	1	
	Undergraduate Diploma or Degree	6	1	1	
	Post-graduate	0	0	1	
	Vocational	0	0	0	
	None	14	5	1	
Number of years living in Perumbakkam	1 Year	0	1	0	<b>0.000</b>
	2 Years	0	0	0	
	3 Years	0	1	1	
	4 Years	2	5	1	
	5 Years	46	30	13	
The house title record under the name of	Respondent	36	36	14	0.869
	Husband	11	1	1	
	Father/in-law	0	0	0	
	Mother/in-law	1	0	0	
	Child/Grandchild	0	0	0	

According to the Chi-square ( $\chi^2$ ) test outcome in table 12 above, the results in red mean there is an association (Chi-Square P-value less than 0.05 or 0.01, so the null hypothesis  $H_0$  is rejected, and  $H_1$  is accepted). Therefore, there’s an association between Access to Resettlement Information before resettlement and managing to transfer your ration card to Perumbakkam and the number of years living in Perumbakkam, with a 99% confidence level, and the marital status with a 95% confidence level.

The Spearman’s correlation coefficient ( $r_s$ ) was conducted to test whether the strength and direction (positive or negative) of the correlation between the variables had an association in the Chi-square test. When the Pearson correlation values is close to -1 and 1, that indicates strong negative and positive values. The closer ( $r_s$ ) is to zero, the weaker the association. Thus, the correlation is significant if the p-value is less than 0.05 or 0.01 as table 13 below shows a moderate negative correlation between marital status and access to resettlement information before resettlement (those who are single, separated, widowed, and married had weak ordinal access to resettlement information before resettlement, which means single women had better access than married women). However, a very low negative correlation between the number of years living in Perumbakkam and the access to resettlement information before resettlement (women who resettled lately gradually had better access to resettlement information before resettlement than those who resettled five years ago), as it’s mentioned in this interviewee.

*“The women's community here is beneficial and kind [...] When I moved here four years ago [...] The women in the building allowed me to join their group [Community group: Floor in charge for blocks] [...]. This helped me to continue my work [...] I felt safe leaving my son with them [ the women in the group have activity for babysitting] when I go to work.”*

**Table 13: The result of the Spearman’s correlation test of association between Access to Resettlement Information and the three significance sub-variables of the Socio-demographic characteristics**

		Marital status	Number of years living in Perumbakkam		
Access to Resettlement Information Scale	Spearman’s correlation	<b>-0.550</b>	<b>-0.184</b>		
	Chi-square Test P-value Sig.	<b>0.049</b>	<b>0.000</b>		
	N	100	100		
Correlation scale					
<b>0</b>	<b>0.01 -0.19</b>	<b>0.20 – 0.39</b>	<b>0.40 – 0.59</b>	<b>0.60 – 0.79</b>	<b>0.80 – 1.00</b>
<b>No correlation</b>	<b>Very Low</b>	<b>Low</b>	<b>Moderate</b>	<b>High</b>	<b>Very High</b>

By referring to the access to resettlement information part (Chapter 4.5.4 Accessibility to resettlement information and alternatives information), we found that 67% of the women’s (80% of them married women) got the information from a male from their family whether her husband or brother, father, son or uncle. Thus, women are blocked from accessing informed resettlement information by males from their families, while men first filter the data in the way they want, which justifies this significant negative correlation as justification from some respondents about the reason why, as mentioned in these interviewees.

*“My husband does not allow me to talk about resettlement. Every time I tried to find out some information and what would happen, he told me that it was not of my business , after we resettled I exchanged conversations with some women who resettled like us and realized that my husband was telling me what he wanted .”*

*“My husband is the only source of what is happening around me [ referring to the information] [...] Whether about resettlement or something else [...] I get used to it, [...] I don't want problems [ referring to family quarrels].”*

*“I was not surprised, we are in a restricted society, but the situation has changed now after 5 years. I feel that I am more empowered in my daily social life; I can decide to go and see my friends and join activities any time I want.”*

Also, experts strongly agree that allowing women to direct participation least in the access to inform process will empower them, as verified by interviews with experts mentioned in this interview.

*“The inclusion of women in a participatory dialogue before resettlement is very important for their empowerment.”*

(Vanessa Peter, Founder - IRCDUC, 2022)

## 4.6 Measuring woman social capital before and after the resettlement

This subchapter answers the second research question: How was women's social capital affected after resettlement to Perumbakkam. The findings are from the field survey and interview about current women’s social capital and prior to resettling by measuring the groups and networks, trust and solidarity, collective action and cooperation, information and communication, social cohesion and inclusion, and empowerment and political action in the community of Perumbakkam.

### 4.6.1 Groups and Networks

#### 4.6.1.1 participation of women in welfare groups and networks

In the community of Perumbakkam, there are five well-known women groups that support women differently, as shown in table 14 below. Almost half of women (45%) participate in a self-help group, 24% in an association leaders' group, and 16% in the working women's group. On the other hand, the Domestic work women's group (housewife) took 11%, and 4% - the floor in charge of blocks had less participants. This is because the self-help group have a remarkable impact on women there. After all, it was formed as a response to women's needs to restore their social capital when they faced challenges after resettlement, as mentioned by this interviewee:

*“I lost my job during the Corona [Covid -19] pandemic [...]. Still, I managed to get over it, and now I got a job [...] thanks to the Self-help group [...] They supported me financially by providing subsidies [...] they saved me from being a victim of money lenders [because money lenders are greedy and usually, they are male] [...] I'm grateful [...] they helped me find the job I am doing now.”*

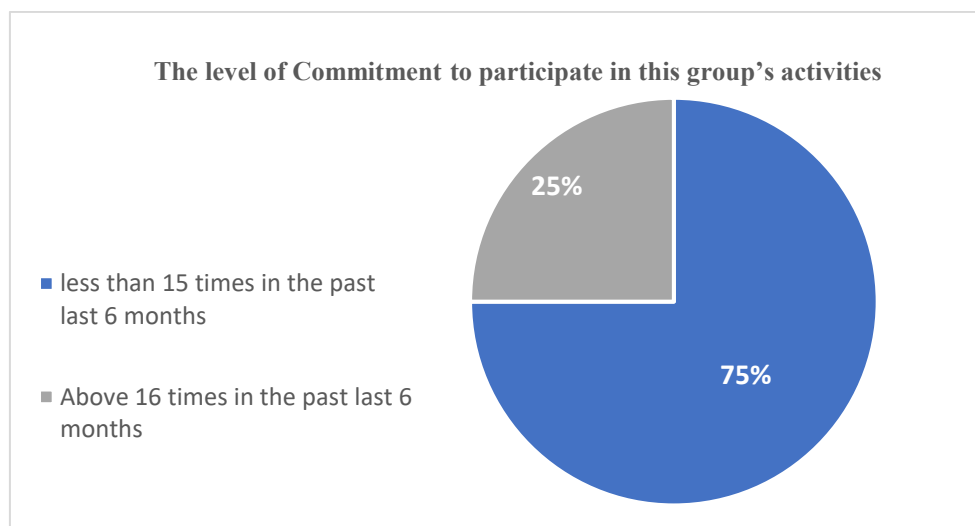
**Table 14: The most influential groups and networks for women to participate**

Groups and Networks	Frequency	Percentage
Association leaders' group	24	24%
Self-help group	45	45%
women's leader group	16	16%
Domestic work women's group -Housewife	11	11%
Community group name is: floor in charge for blocks	4	4%
<b>Total</b>	<b>100</b>	<b>100%</b>

### 4.6.1.2 Commitment to groups and networks

Most women (75%) participated in group activities less than 15 times over the last 6 months, compared to 25% who participate in group activities more often, as shown in chart e below. This, in general, tells that women are committed to participate in activities to a more than acceptable extent.

**Chart 3: The level of Commitment to participate in this group’s activities**



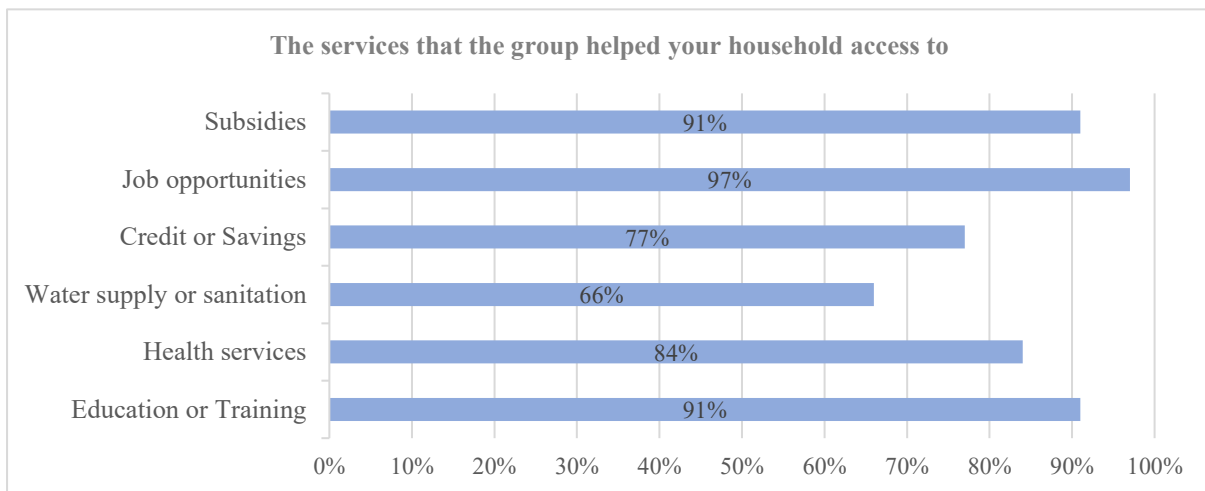
### 4.6.1.3 Benefits of participation in welfare groups and networks

As shown in table 15 below, 62% of the women joined groups due to their importance in times of emergency or in future, 20% joined to improve their household’s current livelihood or access to services, while 18% join to benefit the community. Furthermore, this group provides women with access to many benefits, as shown in graph 24 below. In fact, 97% said that joining the group helped them find job opportunities, while 91% agreed that the group provided them with access to education and training and subsidies. But also, there are other benefits such as accessibility to health care (84%), help to save money (77%), and help to address the issues in lack of water supply or sanitation (66%).

**Table 15: The benefit of joining the groups or networks**

The Benefit	Frequency	Percentage
Benefits the community	18	18%
Important in times of emergency/in future	62	62%
Improves my household’s current livelihood or access to services	20	20%
<b>Total</b>	<b>100</b>	<b>100%</b>

**Graph 24: The services that the group helped your household access to**

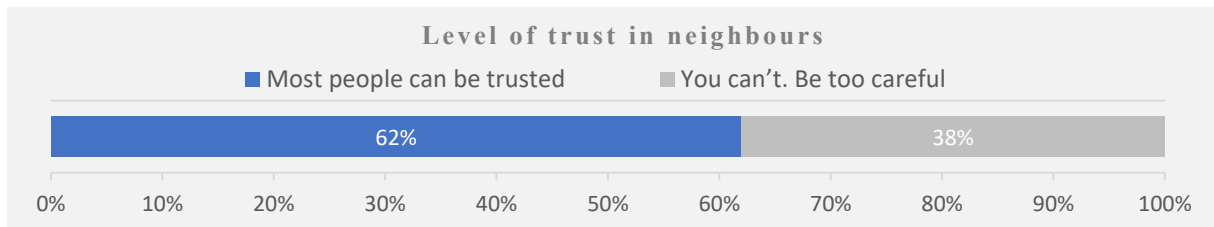


## 4.6.2 Trust and Solidarity

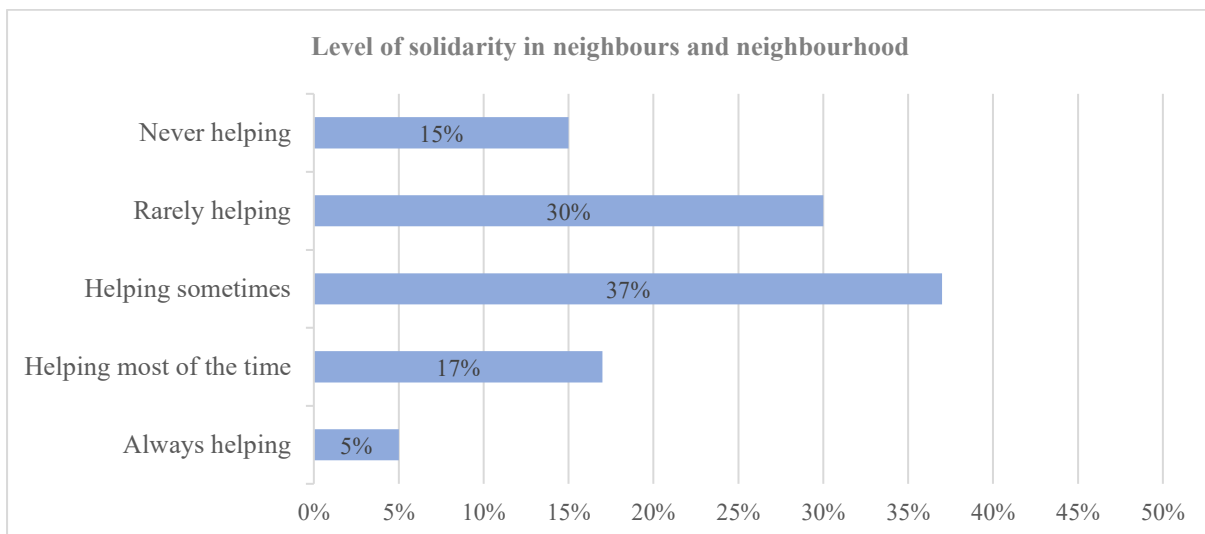
### 4.6.2.1 Level of trust and Solidarity in neighbours and neighbourhood

Regarding the level of trust in neighbours, as shown in graph 25 below, 62% thought that most of the neighbours could be trusted, although 38% felt that you have to be careful and could not trust neighbours. Regarding the level of solidarity, as shown in graph 26 below, 37% see that neighbours in the resettlement neighbourhood help each other sometimes, compared to 30% who see that neighbours rarely help.

**Graph 25: Level of trust in neighbours**



**Graph 26: Level of solidarity in neighbours and neighbourhood**



#### 4.6.2.2 Trust in local authorities and institutions

The level of trust in different bodies of local authorities in the Perumbakkam (local government officials, central government officials, police) is shown in table 16 below. On average, only 20% of respondents trust the local authorities to a great extent, in comparison to 34% (on average) who trust them to a very small extent. While the local institution's bodies (teachers, nurses and doctors, shopkeepers) are trusted to a great extent (by 24 to 25% on average) they trust them to a very small extent. Furthermore, people from same ethnic or linguistic group/race/caste/tribe /gender are trusted to a great extent (43%), compared to 20% of respondents who trusted people from different ethnic or linguistic groups/race/caste/tribe. Furthermore, what is remarkable, is that 57% or interviewees trust strangers to a small extent; this reflects how uncomplicated, peaceful and kind this women's society is, as mentioned by this interviewee:

*“We [the women community in Perumbakkam ] are friendly by character[...] we respect and welcome all people [strangers in their opinion, referred to the people they are not familiar with or they meet for the first time] ... Especially women, children and the elderly [...] We don't call anyone names. Let's call everyone by their relationship or their age, e.g., aunty, uncle, grandpa, sister, grandfather, grandmother, [...] yes, we showing goodwill to strangers [refer to a small extent] [...] So they [ refer to the people they don't know] will interact with us with the same relationship[...] our morals are good [...]”*

**Table 16: Level of trust in local authorities, institutions and communities**

Types		The trust category scale										Total
		To a very small extent		To a small extent		Neither small nor great extent		To a great extent		To a very great extent		
		Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
Popole	People from your ethnic or linguistic group/race/caste/tribe /gender	29	29%	20	20%	8	8%	43	43%	0	0%	100
	People from other ethnic or linguistic groups/race/caste/tribe	30	30%	17	17%	33	33%	20	20%	0	0%	100
	Strangers	57	57%	16	16%	20	20%	7	7%	0	0%	100
Local Authority	Local government officials	39	39%	13	13%	30	30%	18	18%	0	0%	100
	Central government officials	36	36%	15	15%	28	28%	21	21%	0	0%	100
	Police	25	25%	12	12%	42	42%	21	21%	0	0%	100
Local Institutions	Teachers	29	29%	18	18%	31	31%	22	22%	0	0%	100
	Nurses and doctors	23	23%	16	16%	37	37%	24	24%	0	0%	100
	Shopkeepers	22	22%	26	26%	27	27%	25	25%	0	0%	100

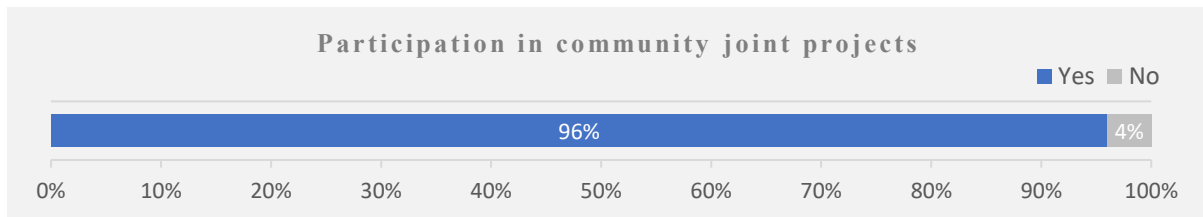


### 4.6.3 Collective Action and Cooperation

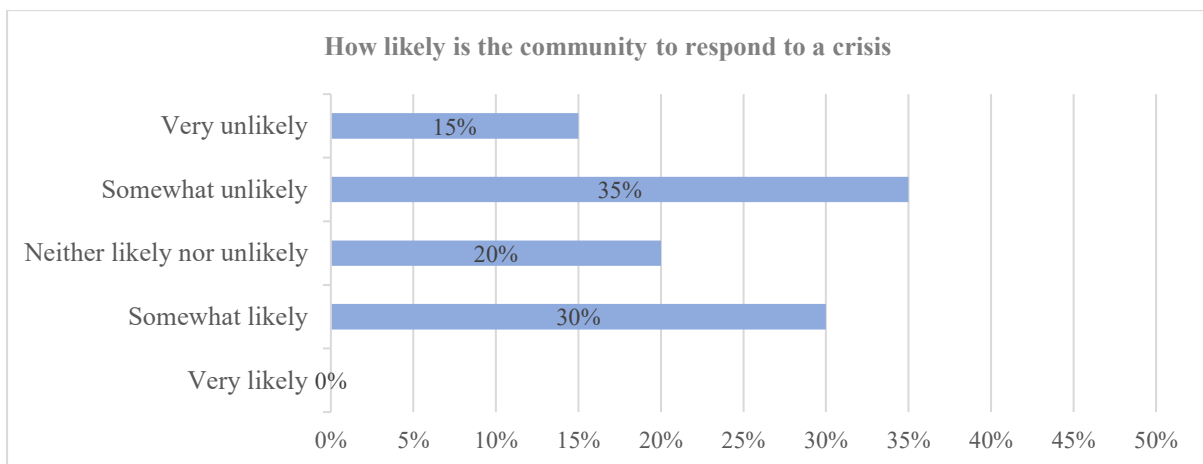
#### 4.6.3.1 Participating in joint community projects and response to a crisis

The collective action and cooperation data reflects the women's high level of participation in joint community projects (96%), as shown in graph 27 below. However, the willingness to respond to a crisis (such as a sad event as severe illness or death) as a community proved to show quite a convergence in the response, as shown in graph 28 below.

Graph 27: Participation in community joint projects



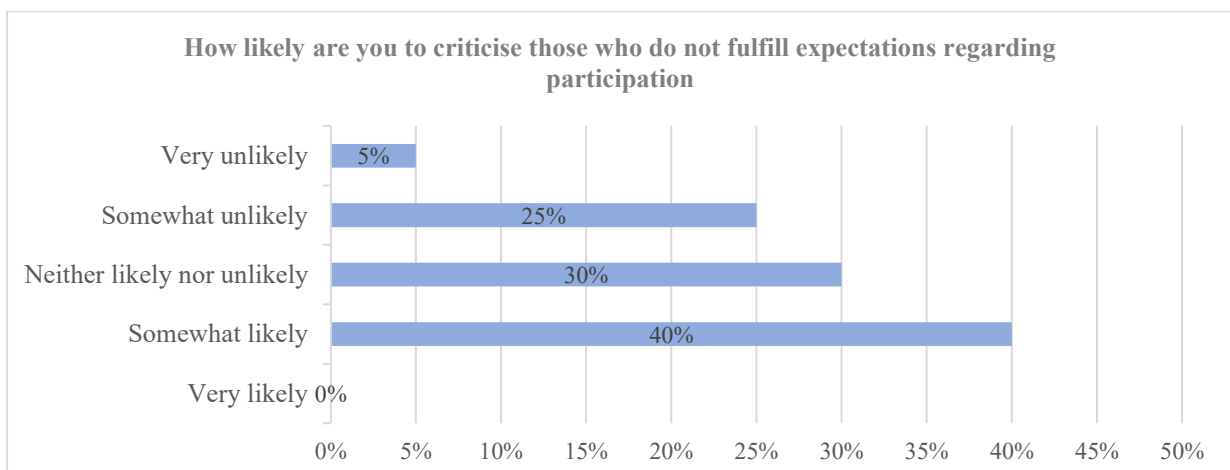
Graph 28: How likely is the community's response to a crisis



#### 4.6.3.2 Community expectations

Those who don't fulfil community's expectations regarding participation are somewhat likely to face criticism by the community, as shown in graph 29 below. Thus, this indicates that society may highly judge certain behaviour of individuals.

Graph 29: How likely are you to criticise those who do not fulfil expectations regarding participation

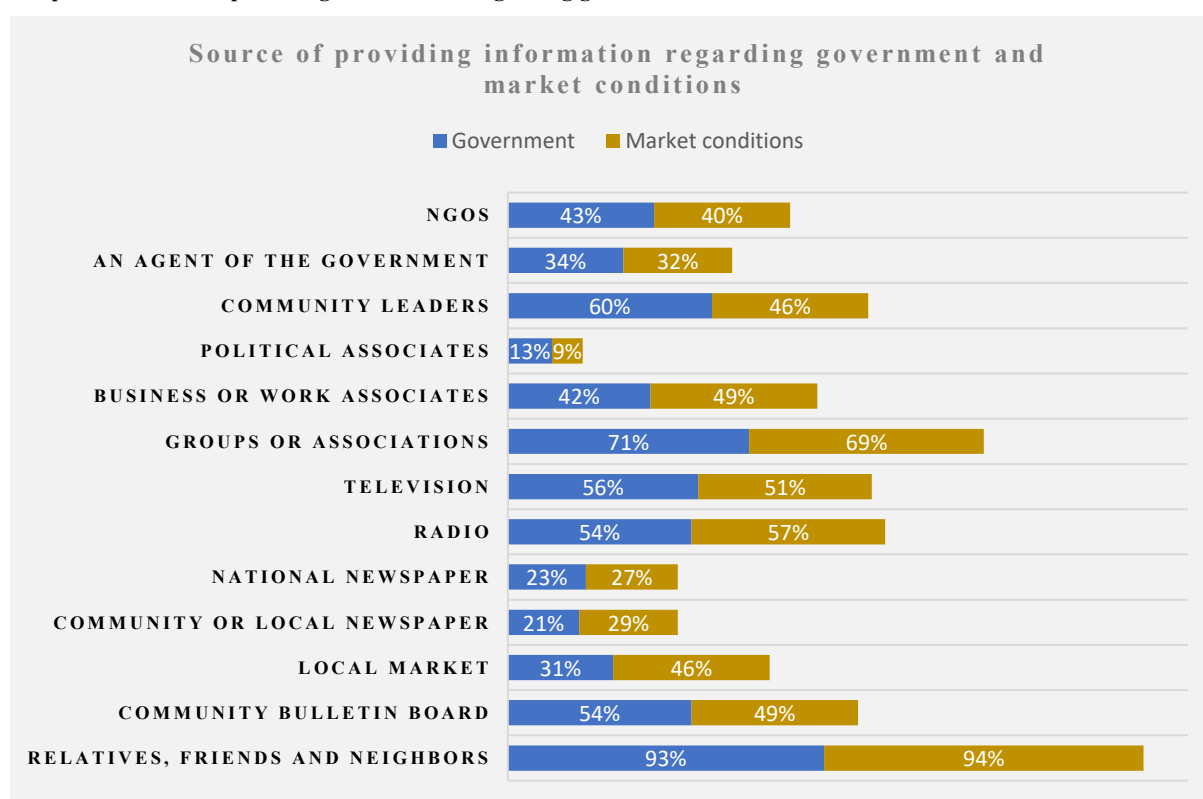


## 4.6.4 Information and Communication

### 4.6.4.1 Source of providing information

There are several sources of information regarding what the government is doing (such as projects, family planning programs, etc.) and market information (such as jobs, prices of goods, etc.), as shown in graph 30 below. The majority (94%) agreed that relatives, friends and neighbours are the most common sources of information for women, which is considered an informal source because its information lacks reliability and may be filtered. Community leaders, groups, work associates, and television and radio are considered formal sources of information (please refer to appendix 6 for more details). This is in line with the results in part 4.5.4.1; the top (70%) informal sources of resettlement information were relatives, friends and neighbours, and 67% were males from the family.

Graph 30: Source of providing information Regarding government and market conditions



### 4.6.4.2 Access to communication infrastructure

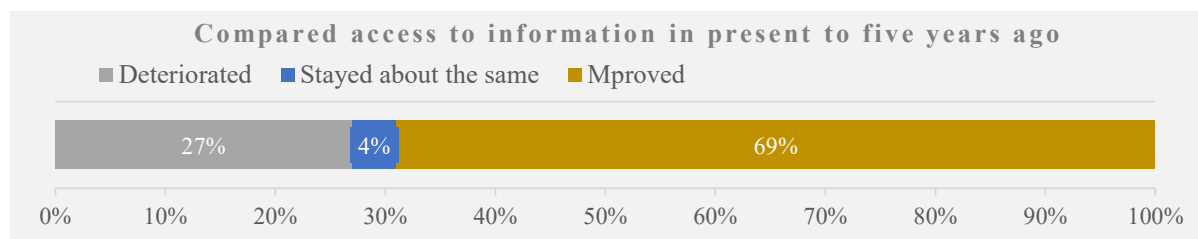
By looking at the accessibility to the communication infrastructure shown in table 17, there are different communication mechanisms. Almost half of the women rarely accessed the communication infrastructure by listening to the radio (46%) or by watching television (45%) as well as by reading a newspaper or magazine (51%). In contrast, 36% said they rarely accessed the communication infrastructure provided through the internet (such as social media platform applications).

**Table 17: The accessibility scale for the communication mechanism**

Communication mechanism	The accessibility scale								Total
	Never		Rarely		Once a week		A few times a week		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
read a newspaper/ magazine or had one read to you	24	24%	51	51%	5	5%	20	20%	100
listen to the news on the radio	29	29%	46	46%	9	9%	16	16%	100
watching the news on television	29	29%	45	45%	10	10%	16	16%	100
internet (such as social media platform applications)	35	35%	36	36%	13	13%	16	16%	100

However, comparing access to information to five years ago, as shown in graph 31 below, showed that 69% feel it is improved in general, and only 4% think it is stayed about the same, while 27% feel that access to information deteriorated more than before.

**Graph 31: Compared access to information in present to five years ago**

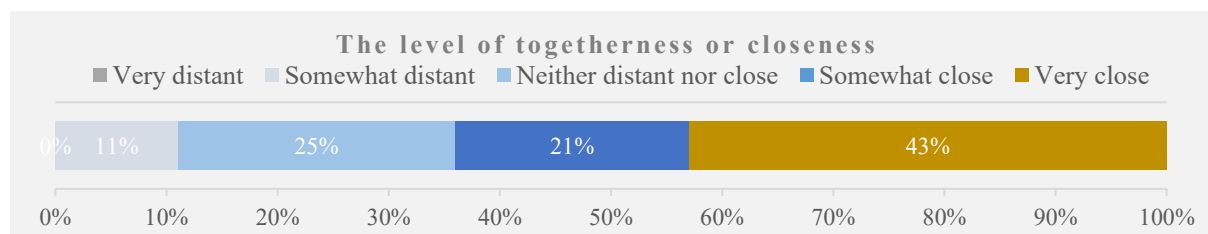


## 4.6.5 Social Cohesion and Inclusion

### 4.6.5.1 The feeling of togetherness or closeness

The feeling of togetherness or closeness is one of the factors to assist the social cohesion and inclusion in the neighbourhood community. As shown in graph 32 below, the majority (43%) feel very close togetherness. While 21% feel somewhat close, 25% feel neither distant nor close togetherness. Still 11% doubt that is feeling of togetherness is very distant in the resettlement neighbourhood.

**Graph 32: The level of togetherness or closeness**

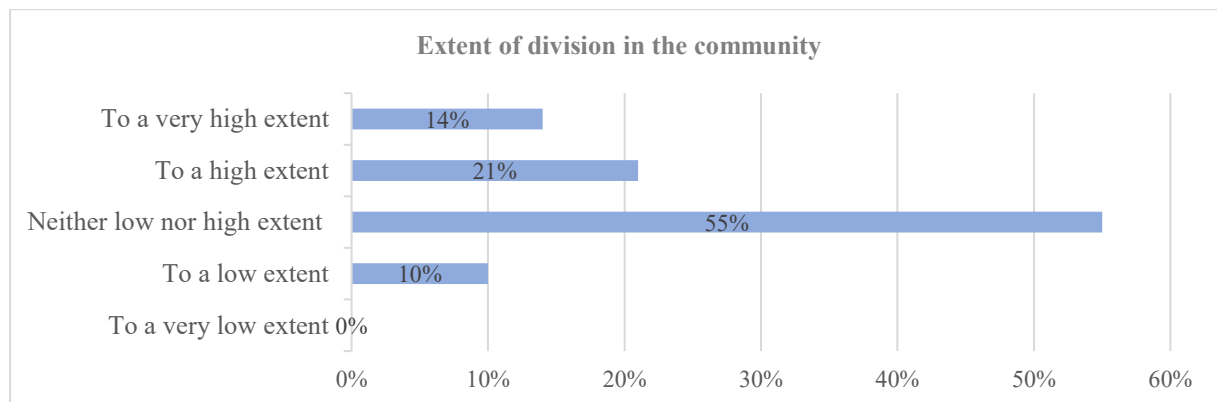


### 4.6.5.2 Forms of division in the community

People in the same resettlement neighbourhood might have vastly different and experiences. Examples include differences in education, employment, finance, social position, race, caste, and tribal affiliation. Differences can also arise from differences in age, gender, religious or political outlook, and other factors, which are shown in graph 30 below. 55% of respondents

saw that the forms of division in the community are neither low nor high extent, while 21% saw that there is too high extent division, and 14% saw that there is to a very high extent division in the resettlement community.

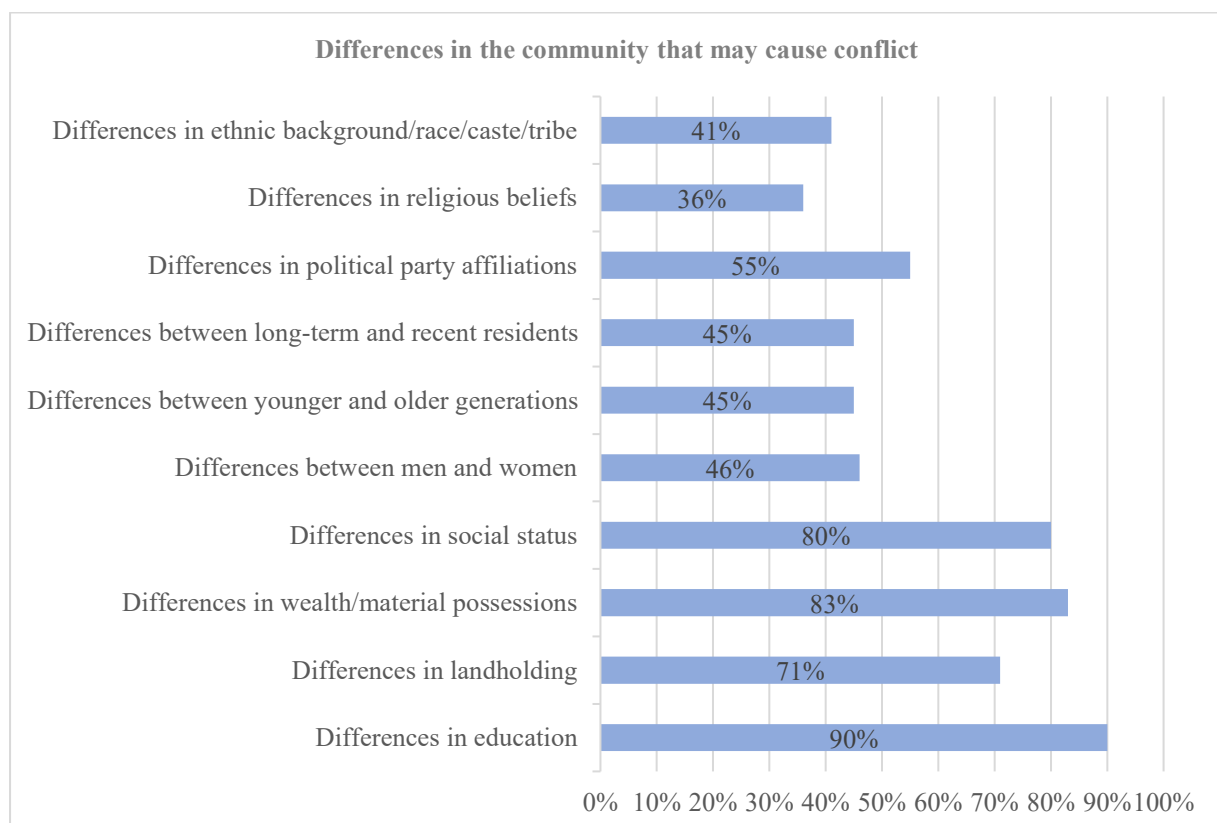
**Graph 30: Extent of division in the community**



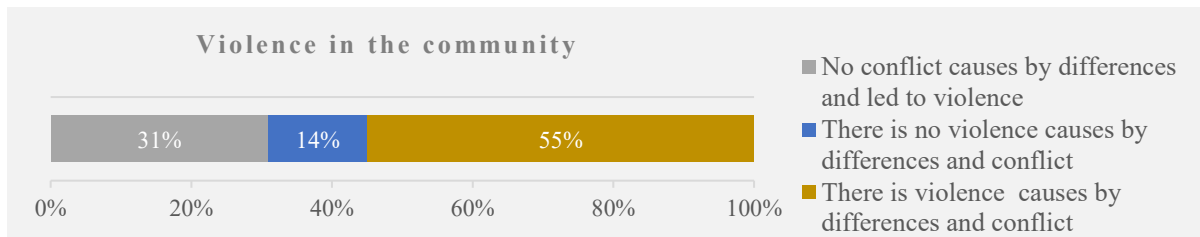
#### 4.6.5.3 Frequency of Conflict and Violence

The conflict between the residents of resettlement neighbourhoods is likely to occur for different reasons, as shown in Graph 31 below. 90% agreed that differences in education cause conflict, while 83% for differences in wealth and 80% for differences in social as shown in Graph 34. Still, to what extent may these conflicts lead to violence? graph 32 below shows the level of violence caused by conflict (due to differences in the community). While 55% agreed that violence was caused by these conflicts, 31% saw that no conflict was caused by differences in the community or led to violence, as shown in graph 33.

**Graph 33: Differences in the community that may cause conflicts**

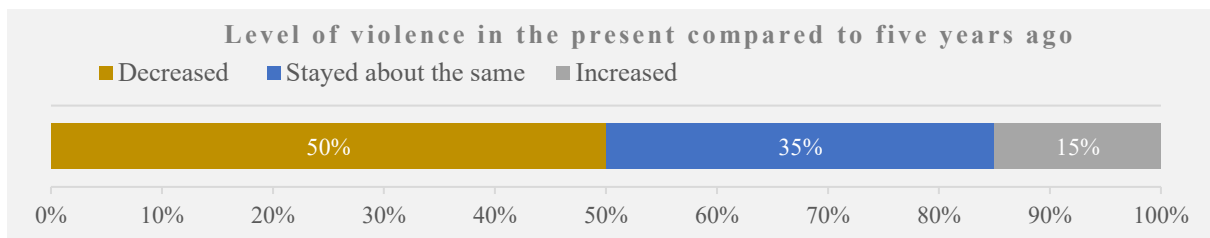


**Graph 34: Level of violence caused by conflicts (due to differences in the community)**



Furthermore, when we compared the level of violence in the present to five years ago, as shown in graph 35 below, half of the women (50%) agree that the level of violence decreased in resettlement neighbourhoods, compared to (35%) feeling that violence stayed about the same.

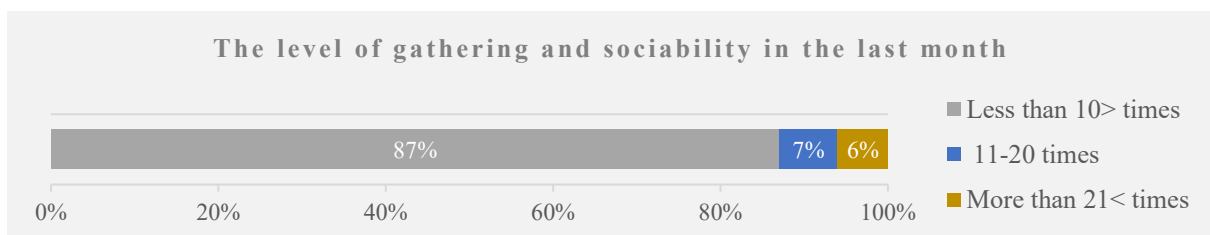
**Graph 35: Level of Violence in the present compared to five years ago**



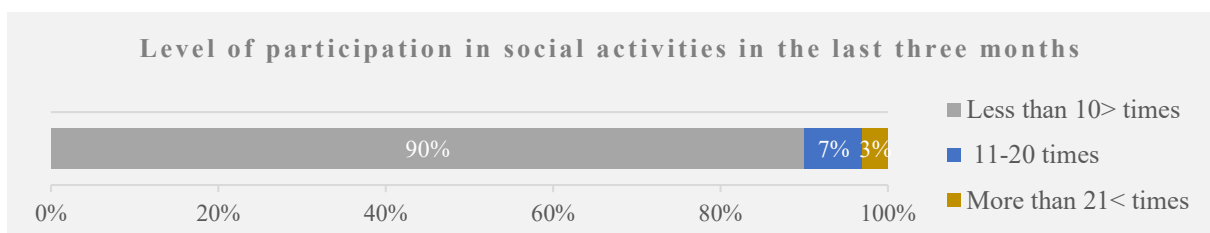
#### 4.6.5.4 Social interaction (Sociability)

Evaluating the social interaction in the resettlement neighbourhood, the level of gathering and sociability in the last month is shown in graph 36 below. The majority of women (87%) gathered less than 10 times per month which is an acceptable level, compared to 6% of women who gathered more than 21 times per month. graph 37 below shows the level of participation in social activities in three months period: most women (90%) participated less than ten times over the previous three months. Furthermore, 77% of women participated less than ten times in a family/neighbourhood festival or ceremony over the last 12 months, as shown in graph 38 below. Note that social interaction in the resettlement neighbourhood is quite acceptable.

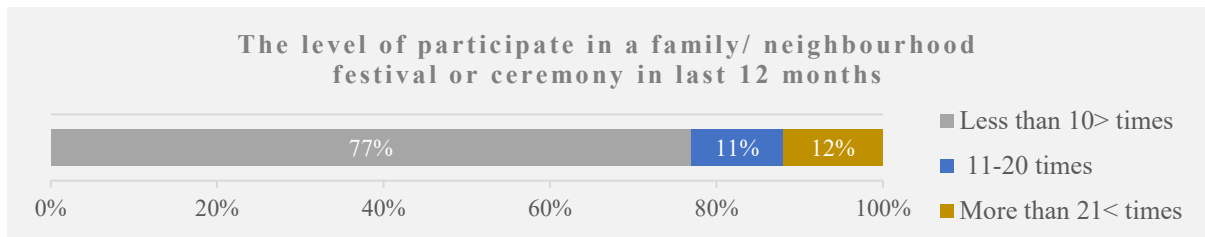
**Graph 36: The level of gathering and sociability in the last month.**



**Graph 37: Level of participation in social activities in the last three months**



**Graph 38: The level of participate in a family/ neighbourhood festival or ceremony in last 12 months**

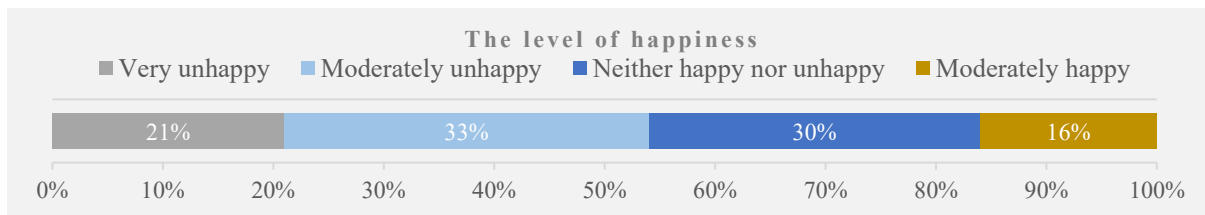


## 4.6.6 Empowerment and Political Action

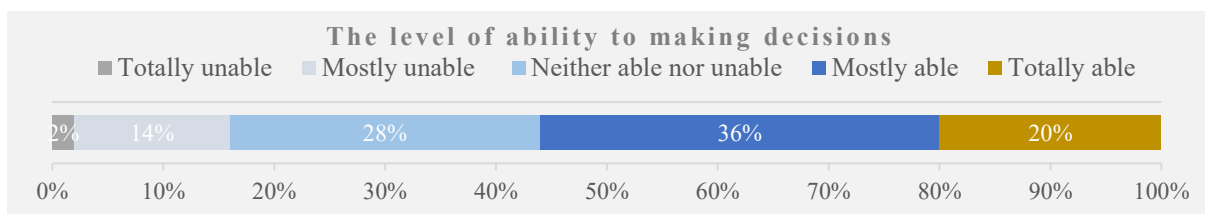
### 4.6.6.1 Happiness and personal efficacy in decision making

Empowerment has been reflected in happiness and personal efficacy in decision-making; in general, as shown in Graph 39 below, 30% of women considered themselves neither happy nor unhappy, and 33% felt moderately unhappy. Comparison to 16% of women considered themselves moderately happy, while 21% felt very unhappy. Furthermore, as shown in Graph 40, 36% feel they were mostly able to make efficacy personal decisions, and 20% were totally able to do it. 28% of respondents were mostly unable to make efficacy personal decisions, and 14% were mostly unable to do it. The level of making efficacy personal decisions seems to be equal between ability and inability.

**Graph 39: The level of happiness**



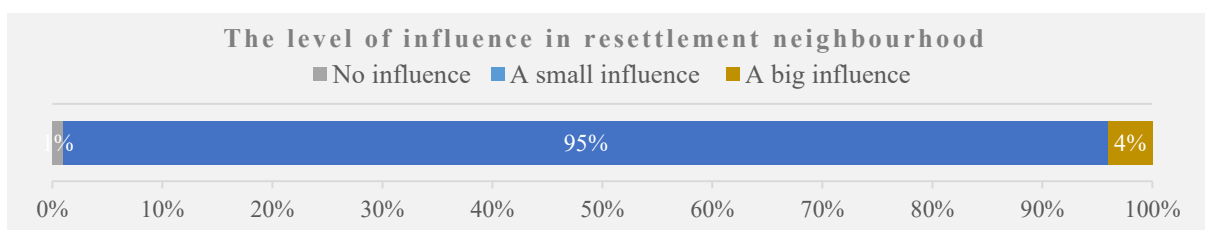
**Graph 40: The level of ability to making decisions**



### 4.6.6.2 Capacity to influence

As shown in graph 41 below, the majority of women reported having a small level of influence in the resettlement neighbourhood, compared to 4% who reported having a big level of influence.

**Graph 41: The level of influence in resettlement neighbourhood**



### 4.6.6.3 Confidence in local authority and institutions

The confidence in local authorities and institutions is a critical first step to accessing empowerment and political action, as shown in Table 18 below. Unfortunately, almost half of the women generally agree that officials and staff from different local authorities and institutions are very dishonest, as shown in table 18 in detail. The rest of the opinions on the officials and staff from different local authorities and institutions range from dishonest to very honest.

**Table 18: The level of confidence in local authority and institutions**

Types of officials and staff	The confidence category scale										Total
	Very dishonest		Mostly dishonest		Neither honest nor dishonest		Mostly honest		Very honest		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
Local government officials	40	40%	5	5%	32	32%	8	8%	15	15%	100
Traditional neighbourhood leaders	39	39%	8	8%	26	26%	19	19%	8	8%	100
Doctors and nurses in health clinic	31	31%	10	10%	26	26%	19	19%	14	14%	100
Teachers and school officials	30	30%	9	9%	25	25%	23	23%	13	13%	100
Staff of post office	34	34%	15	15%	22	22%	15	15%	14	14%	100
Police	30	30%	12	12%	24	24%	22	22%	12	12%	100
Judges and staff of courts	35	35%	18	18%	29	29%	11	11%	7	7%	100
Staff of NGO	43	43%	13	13%	22	22%	18	18%	4	4%	100

### 4.6.7 The score of women's social capital

The mean (Average) score for social capital was 158 points (SD = 19). The standard deviation (SD) indicated that there is a relatively large spread of values away from the mean, as shown in table 19 below.

**Table 19: Descriptive statistics of women's social capital**

	N	Minimum	Maximum	Mean	Std. Deviation
woman's social capital	100	116	200	158	19

After calculating the score of each respondent in the questionnaire measuring social capital, the respondents were divided into three groups (group one: poor social capital, group two: moderate social capital, and group three: good social capital) according to the Length (it is an statistic method to dividing groups according to the difference between the highest and lowest score divided by the number of groups required, as the equation shown in box 2 below) as shown in box 2 and table 20 below.

**Box 2: The equation to find the length**

$$\text{Length} = \frac{\text{Maximum score} - \text{Minimum score}}{\text{Number of a divided group}} \quad \Bigg| \quad \text{Length} = \frac{200 - 116}{3} = 28$$

**Table 20: Descriptive statistics for groups division length scale**

	Length	Lengths division	Groups division	Frequency	Percentage
<b>woman's social capital</b>	28	116 - 144	poor social capital	22	22%
		145 - 173	moderate social capital	56	56%
		174 - 200	good social capital	22	22%
			<b>Total</b>	<b>100</b>	<b>100%</b>

According to table 20, the respondents in the questionnaire on measuring social capital were divided into three groups according to the length division scale and their scores.

Where 22% of the respondent have poor social capital, and the majority (56%) have moderate social capital, 22% of the respondent have good social capital. For details on Descriptive statistics of the group division scale for measuring social capital (the six sub-variables), refer to appendix 5.

#### **4.6.8 The relation between women social capital and Socio-demographic**

In this part, we will look at the possible association between women's social capital and the Socio-demographic characteristics of the sample through the Chi-square test ( $\chi^2$ ). In contrast, the Chi-square test of independence determines if categorical variables have a statistically significant relationship (Connelly, 2019; Sharpe, 2015), as shown in Table 21. The Chi-square test is used to test the hypothesis about whether there is an expected association. Therefore, we would see if the null hypothesis is true.



**Table 21: Chi-square test of association between women's social capital and the Socio-demographic characteristics of the sample**

<b>The hypothesis</b>					
<i>H<sub>0</sub>: There is no association between women's social capital and Socio-demographic variables</i>					
<i>H<sub>1</sub>: There is an association between women's social capital and Socio-demographic variables</i>					
General characteristics of the sample (Socio-demographic)		Social Capital Scale			Chi-square Test P-value
		Poor	Moderate	Good	
Age Groups	18-25	0	7	0	0.217
	26-35	6	24	9	
	36-45	11	13	7	
	46-55	4	8	4	
	Above 56 years old	1	4	2	
Ability to read and write	No	9	11	2	<b>0.032</b>
	Yes	13	45	20	
Did you manage to transfer your ration card to Perumbakkam	No	9	26	0	<b>0.000</b>
	Yes	12	29	22	
Marital status	Single	0	3	2	0.277
	Separated	3	5	3	
	Widow	5	4	1	
	Married	14	44	16	
Education	Primary	3	8	8	0.113
	Secondary	10	22	4	
	Higher secondary	1	11	4	
	Undergraduate Diploma or Degree	1	5	2	
	Post-graduate	0	0	1	
	Vocational	0	0	0	
	None	7	10	3	
Number of years living in Perumbakkam	1 Year	0	1	0	0.375
	2 Years	0	0	0	
	3 Years	0	1	1	
	4 Years	4	2	2	
	5 Years	18	52	19	
The house title record under the name of	Respondent	19	45	22	0.251
	Husband	3	10	0	
	Father/in-law	0	0	0	
	Mother/in-law	0	1	0	
	Child/Grandchild	0	0	0	

According to the Chi-square ( $\chi^2$ ) test outcome in table 21 above, the results in red mean there is an association (Chi-Square P-value less than 0.05 or 0.01, so the null hypothesis  $H_0$  is rejected and  $H_1$  is accept). Therefore, there's an association between women's social capital and managing to transfer their ration card to Perumbakkam, with a 99% confidence level, and their ability to read and write with a 95% confidence level.

The Spearman's correlation coefficient ( $r_s$ ) is conducted to test whether the strength and direction (positive or negative) of the correlation between the variables had an association in the Chi-square test, as shown in the previous paragraph (Artusi et al., 2002; Rebekić et al., 2015). When the Pearson correlation values close to -1 and 1, this indicates strong negative and positive values. The closer ( $r_s$ ) is to zero, the weaker the association. Thus, the correlation is significant: the p-value is less than 0.05 or 0.01, as table 22 below shows, A low positive correlation exists between managing to transfer their ration card to Perumbakkam and the social capital score (those who managed to transfer their card had better social capital than those who could not), as well as a low positive correlation between the ability to read and write and social capital score (those who can read and write had better social capital than those who could not), due to being faster at learning and adapting to new opportunities, as mentioned in this interview:

*“I can read a little, but I can't write [...] This matter constituted an obstacle for me. There was a job opportunity in a production lines factory [...] I could not seize it because they required someone who could write and read [...] Now I am learning and studying within the adult education program [...] I feel grateful [...] to get better opportunities in the future.”*

**Table 22: The result of Spearman's correlation test of association between social capital and the two significant sub-variables of the Socio-demographic characteristics**

		Ability to read and write	Manage to transfer your ration card to Perumbakkam		
Social Capital Scale	Spearman's correlation	0.255	0.302		
	Chi-square Test P-value Sig.	0.032	0.000		
	N	100	100		
Correlation scale					
0	0.01 - 0.19	0.20 - 0.39	0.40 - 0.59	0.60 - 0.79	0.80 - 1.00
No correlation	Very Low	Low	Moderate	High	Very High

Referring to the general characteristics of the sample (Socio-demographic part 4.4), we found that 35% of the women could not manage to transfer their ration card to Perumbakkam. As defined by the Department of Food and Public Distribution (India) “Ration cards are an official document issued by state governments in India to households eligible to purchase subsidised food grain from the Public Distribution System under the National Food Security Act”. Thus, women faced difficulty providing essential food and family needs at reasonable prices. In contrast, other women who managed to transfer their ration card to Perumbakkam had access to subsidised food, which justifies this low positive correlation as mentioned by these interviewees:

*“I suffered a lot from not being able to transfer my ration card, as I could not buy enough food and needed it all the time because of the high prices. Now I am thankful that after four years, I finally got a new ration card, which allows me to get some food and needs at subsidized prices.”*

*“I obtained the new card through the help of a male employee who met my neighbour while she was working with IRCDUC at a work event.”*

*“I'm lucky that I was able to transfer my ration card [...] that helped me keep getting groceries at subsidized prices.”*

## 4.7 The relationship between access to resettlement information before resettlement and the women's livelihood in terms of social capital

This subchapter answers the main research question: How does access to information influence women's livelihood in terms of social capital in Perumbakkam. The findings are from the statistical relationship between access to resettlement information before resettlement and women's social capital through descriptive statistics to test the association between these two variables (Van Thiel, 2014).

According to the Chi-square ( $\chi^2$ ) test outcome in table 23 below, Chi-Square P-value is less than 0.01, so we reject the null hypothesis  $H_0$  and accept  $H_1$ . Therefore, there's an association between access to resettlement information and social capital, with a 99% confidence level. In contrast, the Spearman Correlation coefficient describes the relation direction and strength (Artusi et al., 2002; Rebekić et al., 2015). A moderate positive correlation exists between access to resettlement information before resettlement and social capital. Thus, those with high access to resettlement information before resettlement have better social capital (good social capital score) than those with middle and low access to resettlement information before resettlement. Consequently, this association was also verified by interviews with experts as mentioned in this interview:

*“Access to resettlement information is one component of the right to adequate housing and a fair resettlement process. [...] also adversely affects the social capital.”*

(Vanessa Peter, Founder - IRCUDUC, 2022)

**Table 23: Chi-square test and Spearman's correlation test of association between access to resettlement Information before resettlement and social capital**

<b>The hypothesis</b>							
<i>H<sub>0</sub>: There is no association between Access to Resettlement Information before resettlement and Social Capital</i>							
<i>H<sub>1</sub>: There is an association between Access to Resettlement Information before resettlement and Social Capital</i>							
Access to Resettlement Information & Social Capital		Social Capital Scale			Total	Chi-square Test P-value	Spearman Correlation
		Poor	Moderate	Good			
Access to Resettlement Information Scale	have low access	12	35	1	48	<b>0.000</b>	<b>0.431</b>
	have middle access	10	17	10	37		
	have high access	0	4	11	15		
Total		22	56	22	100		
Correlation scale							
0	0.01 - 0.19	0.20 - 0.39	0.40 - 0.59	0.60 - 0.79	0.80 - 1.00		
No correlation	Very Low	Low	Moderate	High	Very High		

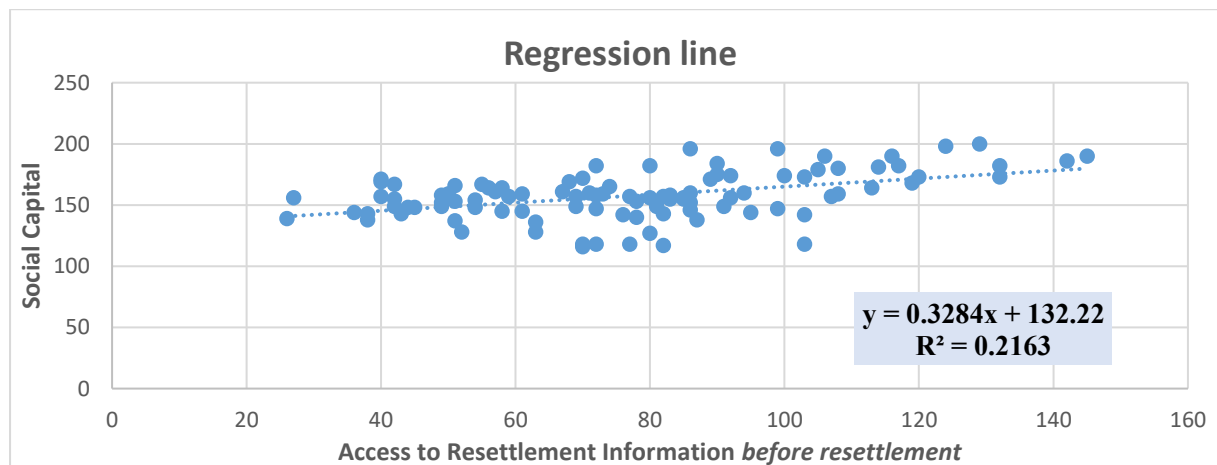
Further analysis will include an inferential statistical analysis, in this case, the independent variable is access to resettlement information before resettling, and the dependent variable is women's social capital.

In addition, Montgomery, Peck, and Vining (2021) explain that a linear regression line has an equation of the form  $Y = a + bX$ , where  $X$  is the independent variable and  $Y$  is the dependent variable. The slope of the line is  $b$  (which places an effect of  $x$  on  $y$ ), and  $a$  is the intercept (the value of  $Y$  when  $X = 0$ ).

**Table 24: Linear Regression test between access to resettlement information before resettlement and social capital**

<b>The hypothesis</b>						
<i>H<sub>0</sub>: There is no linear Regression between Access to Resettlement Information before resettlement and Social Capital</i>						
<i>H<sub>1</sub>: There is a linear Regression between Access to Resettlement Information before resettlement and Social Capital</i>						
Regression (Dependent Variable: Social Capital Degree)	B	t	T-teat P- value	Linear Regression		
				F	F-test P-value	R Square (R <sup>2</sup> )
(Constant)	132.22	25.606	0.000	27.042	<b>0.000</b>	0.216
Access to Resettlement Information Degree	0.3284	5.200	0.000			

**Graph 42: The linear regression line**



From the Regression Analysis, as seen in table 24 above, F-test P-value is less than 0.01, so we reject the null hypothesis  $H_0$  and accept  $H_1$ . Therefore, there is a linear Regression between Access to resettlement information before resettlement and social capital, with a 99% confidence level.

As seen in graph 42 above, if we move to the right on the x-axis (Access to resettlement information before resettlement) by one unit of input, output increases on the y-axis (social capital) by an average of (0.3) units. It can be concluded that the value of R Squared is 0.216, which means that the changes in social capital are influenced by 22% changes in the access to resettlement information before resettlement. Thus, the independent variables are considerably significant in influencing the dependent variable. This result is aligned with Pearson’s correlation test. In addition, experts strongly agree that the lack of consultation and accessibility to information before resettlement influences the women's livelihood, as these influences are emphasized by interviews with experts:

*“There is an apparent resettlement policy gap [...] gaps in resettlement programmatic [...] gaps in understanding what community needs are and what is being planned [...] lack of*

*consultation with the community and considering their needs leads to deterioration of social capital and loss of livelihood after resettled [...] that's what happened in Perumbakkam and keep happening in resettlement programmes.”*

(Vanessa Peter, Founder - IRCUDUC, 2022)

But for further understanding, regression analysis was conducted in more detail. The independent variables are the five sub-variables of access to resettlement information before resettling, and the dependent variable is women's social capital, which provided more understanding of the influence, as shown in table 25 below.

**Table 25: Linear Regression test between sub-variables of access to resettlement information before resettling and social capital**

Regression (Dependent Variable: Social Capital Degree)	B	t	T-test P- value	Linear Regression		
				F	F-test P-value	R Square (R <sup>2</sup> )
(Constant)	148.709	21.032	0.000	9.651	<b>0.000</b>	0.339
Access to resettlement process information	-0.457	-0.425	0.671			
The provision of information about Perumbakkam	0.302	0.182	0.856			
Access to resettlement public hearings information	1.572	2.540	<b>0.013</b>			
Access to resettlement information and alternatives information	1.084	1.903	<b>0.060</b>			
The clarity of resettlement information	0.039	0.330	0.742			

From the regression analysis, as seen in table above, P-value is less than 0.05 for the resettlement public hearings information. Therefore, there is a linear regression between access to resettlement public hearings information before resettlement and social capital, with a 95% confidence level. P-value is less than 0.10 for the access to resettlement information and alternatives information. Therefore, there is a linear regression between access to resettlement information and alternatives information before resettlement and social capital, with a 90% confidence level. The value of R Squared is 0.339, which means that the changes in social capital are influenced by 34% of changes in the sub-variables of access to resettlement information before resettlement.

One more regression analysis was conducted to further study by excluding insignificant variables of the sub-variables of access to resettlement information before resettlement. The independent variables are the two significant sub-variables of access to resettlement information before resettling (access to resettlement public hearings information and access to resettlement information and alternative information), and the dependent variable is women's social capital. Which provided more understanding of the influence, as shown in table 26 below, when the P-value of both variables was checked, it was found that the linear Regression between access to Resettlement public hearings information before resettlement and social capital increased to a 99% confidence level. And linear regression between access to resettlement information and alternative information before resettlement and social capital increased to a 95% confidence level. It was established that the value of R Squared increased to 0.389, meaning that the social capital changes are influenced by 39% of changes in both sub-variables of access to resettlement information before resettlement (access to resettlement

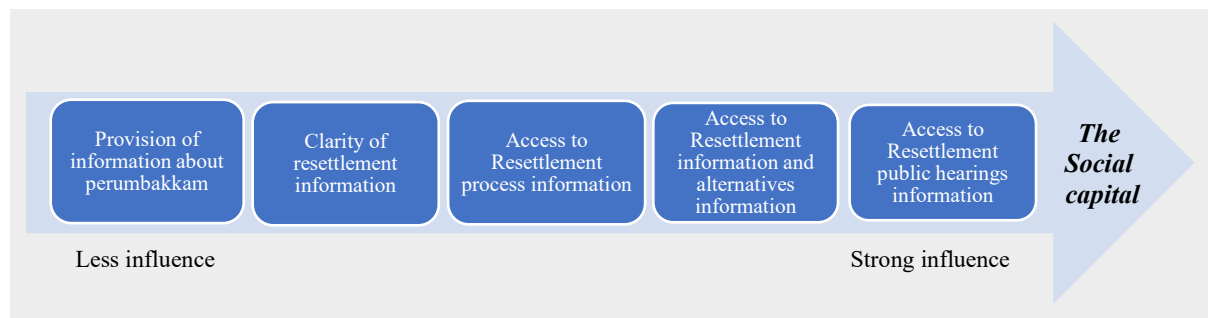
public hearings information and access to resettlement information and alternative information).

**Table 26: Linear Regression test between the two significant sub-variables of access to resettlement information before resettling and social capital**

Regression (Dependent Variable: Social Capital Degree)	B	t	T-test P- value	Linear Regression		
				F	F-test P-value	R Square (R <sup>2</sup> )
(Constant)	149.012	75.223	0.000	24.640	<b>0.000</b>	0.389
Access to resettlement public hearings information	1.558	2.695	<b>0.008</b>			
Access to resettlement information and alternatives information	1.170	2.487	<b>0.015</b>			

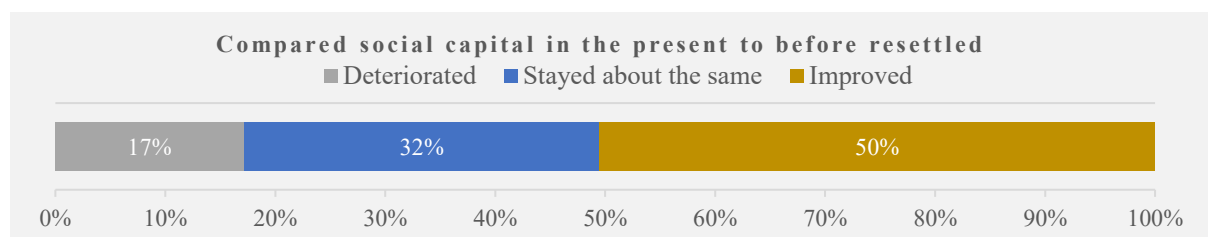
Graph 43 shows the sub-variables of access to resettlement information before resettlement in order according to the significance from less to strong influence on woman social capital.

**Graph 43: The influence of access to resettlement information sub-variables before resettlement on woman's social capital**



As a result, the independent sub-variables access to resettlement information before resettlement (34%), influence the dependent variable social capital. This result is consistent with Pearson's correlation test (refer to appendix 8 and 9 for more details). Thus, it can be concluded that other factors influence women's social capital besides access to resettlement information almost by 45% when excluding the additional random factors percentage (error); the time factor is one of the influences because at the time of the research five years have passed since the resettlement. As shown in Graph 44 below, the last part of the questionnaire asked the women how their social capital was compared to five years before; accordingly, half of the women (50%) felt that their social capital improved by the time, compared to 32% who thought it stayed about the same, and 17% felt it deteriorated. Also, other factors in the resettlement process may have influenced women's social capital besides access to resettlement information. Consequently, these factors were analysed through three multidimensional social capital, as shown in the next part.

**Graph 44: Compared social capital in the present to before resettled (five years ago)**



## 4.8 The multidimensional social capital

This subchapter answers the third research question: What factors influenced women's social capital besides access to resettlement information? The findings are from the social capital literature, similar studies, field survey and interview about defining the factors influencing women's social capital through multidimensional social capital (Bonding, Bridging, and Linking).

### 4.8.1 Bonding in social capital

In line with the recommendations of Leonard and Onyx (2003), the impact of tight and loose ties among community organization members was investigated to determine the external and internal factors that influence social capital. Bonding social capital is typically linked to close family and community ties and localized trust (Leonard & Onyx, 2003). Accordingly, bonding social capital refers to the connections between people who share similar features (the women's community in the neighbourhood). As Barrett (2011) and others describe these characteristics as "bonding social capital" and "strong ties" for interpersonal relationships. These relationships are typically created through the establishment of social ties. In Perumbakkam resettlement phase two, during the processes of resettlement and after resettling, as concluded from the questionnaire analysis, women and specialists interviews, three factors highly influenced the bonding in women's social capital.

#### 4.8.1.1 Allocated of apartments

During resettlement processes, the allocation of apartments did not consider any social ties or factors. Thus, the distribution of apartments was a process full of uncertainty, violation of human rights and loss of social assets, which led to a rupture of the social bonding of the resettled community. Interviews make that clear, as mentioned in the women's responses.

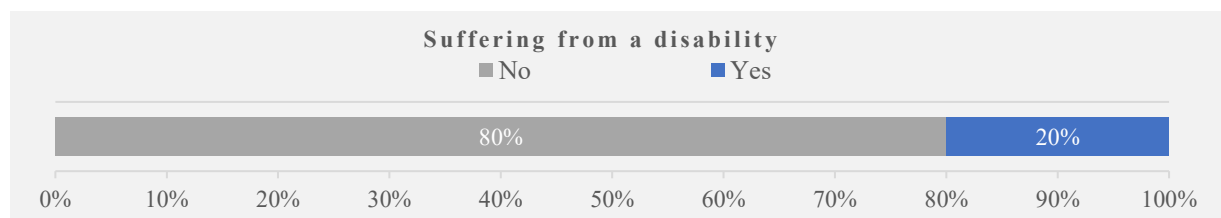
*“The allocation of apartments for us, first, they gave us a token, and then they came in a truck and made us stand in a queue and gave us a home token.”*

*“No lottery and no choice. Stand by the queue one behind one, and then the officer will give the allotment token number we go to find our apartment. [...] No one guides us.”*

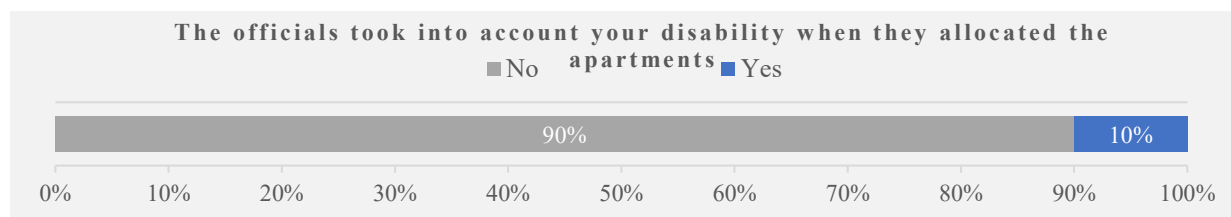
*“They first went door to door and gave us tokens, then brought us in a truck and gave us a home token while standing in line.”*

*“No one says anything about considerations because no social factors were considered during the allocation of tenements.”*

Graph 45: Suffering from a disability



**Graph 46: Was your disability considered when allocating the apartments (tenements)**



The influence of allocation of apartments on women's social capital. As shown in graphs 45 and 46 above 20% of households suffered from a disability. However, 10% think that the official took their disability into account when allocated tenements, while 90% think there didn't, as seen in the interviews below.

*“My mother is in a wheelchair, and we were given a tenement on the seventh floor; [...] there is no separate way for disabled people, no ramp, and the lift usually does not work correctly; my mother faces a lack of socializing with neighbours or going outside, which affects her mental and physical health. [...] In emergencies, like going to the doctor, I have to ask for help to carry her up the stairs. [...] So, we are suffering a lot, and we can't change this.”*

*“I was given a house on the third floor; my son has a disability; [...] one day lift suddenly stopped for electricity issues; that time, we were arrested inside the lift; we panicked until the neighbours could ask for help; no recovery generator. Since that, my son has become afraid to leave the house. [...] Also, in the rainy season, usually, there is an electrical problem it's cut, no lift, no water supply.”*

*“I am a simple woman, and I have a simple family. We used to live in a ground house that sufficed our needs. When we moved here, I was given an apartment on the fifth floor. I am not accustomed to climbing the stairs or using the elevator, or living in what call an apartment [...] we do not use the elevator at all [...]; these scare me and make me anxious; after my daughter fell on a stair while they were playing in the corridor, she hit her hand, [...] this is not safe, even after five years been there, I do not allow my children to use the stair without me.”*

What can be concluded from the interviews and analysis is that the absence of humanity and rights to participation in choice in the process of allocated apartments has had a negative influence on women's social capital and the whole community. Consequently, it isn't easy to overcome, even with the time factor.

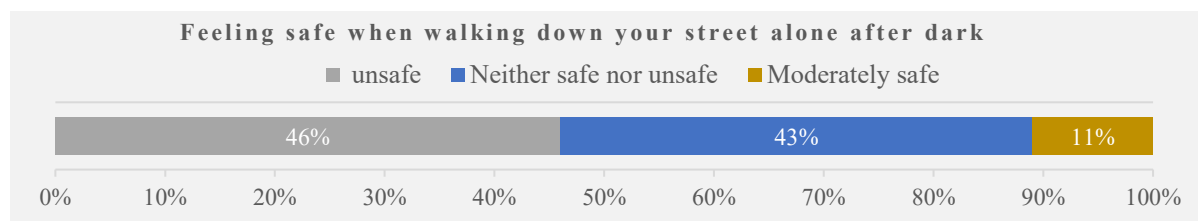
#### **4.8.1.2 Safety and Security**

The absence of safety and security considerations in the resettlement neighbourhood, in sequence with unemployment, crime, alcohol and drug addiction in combination with the lack of safety and security measurement was full of tension and violation of the human rights to safety and security, especially for the vulnerable groups such as women, children, and the elderly. This led to a rupture of the social bonding of the resettled community. Interviews make that clear:

*“A police station has been set up with night patrolling operation and CCTV cameras installed. [...] Only in a few blocks the CCTV was installed by paying the subscription fee from the people, [...] and that is our protection.”*



**Graph 47: Feeling safe when walking down your street alone after dark**



As shown in graph 47 above 46% of respondents felt unsafe, and 43% felt neither safe nor unsafe. However, 11% felt moderately safe when walking down their street alone after dark, as mentioned in the women's responses below:

*“No security and safety are here. Because I am a widow. I have three kids, two boys and one girl child, all got married now I am alone, so I went to earn money [going to work] only to survive my life. I go to work in the early morning at 4 am return come at 7 pm that time, [...] I have always been afraid to come home because of lots of crime here, chain of robberies, harassing women, and abuse. [...] I always expect to find my house stolen.”*

*“Very very bad social security and safety measures have been applied to our current resettlement site. [...] Women's very afraid to walk and go alone.no street lights, lots of men are drunk and standing here, [...] that's the only I'm afraid of.”*

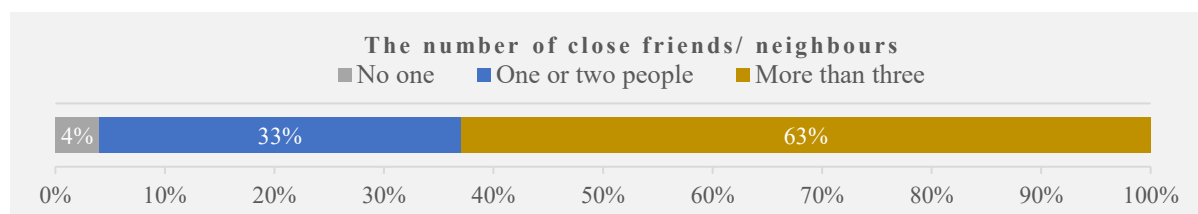
*“A lot of kids go down the wrong path [Drug abuse and moral offences], [...] Many children between 13 and 14 years of age become addicted to cannabis.”*

The absence of safety and security in the resettlement neighbourhood has negatively influenced women's social capital and the whole community, especially children and teenagers. Hence, it could be overcome with community bonding rebuilding, as we see in the CCTV cameras initiative.

#### 4.8.1.3 Collaborations and Help

The resettlement generally caused a lack of bonding in women's social capital. Thus, the women found themselves alone in the face of the new changes and challenges at the resettlement site. Women were driven to find a way to re-bond the social capital through collaborations and help. Strengthening and re-bonding social capital with your neighbours might be beneficial. The neighbours may watch the kids in emergencies, or lend things. In contrast, it is considered economically beneficial, saves time and money, as well as the cost of child care. Accordingly, it is in line with the principle of cooperation and reciprocity.

**Graph 48: The number of close friends/ neighbours**



To look at the level of collaboration and help between women in the communities, women were asked how many close friends/ neighbours can they talk to about private matters or call for help (e.g., borrow a small amount of money or take care of their children), as shown in graph 48, the majority of the women (63%) have more than three neighbours, 33% have one or two

neighbours. In general, women had high collaboration bonding built in society during these five years. Interviews make that clear, as mentioned in the women's responses below:

*“When we came here, we realized that the way to have a better life, by Cooperation and sociability with neighbours [...] was good, but I feel a bit hesitant and fearful when a new person arrives.”*

*“During these five years [...], we become [...] treat neighbours and strangers with brotherly affection and help each other in times of emergency.”*

*“Yes, I am a working woman, so I went to work at 9 am. the neighboures took care of my children, they are all very faithful.”*

*“I have three kids, one boy, two girl child baby my husband is an auto driver, I am a domestic worker we both are go to work at the same time our children stay alone, my neighbours taking care of the children's.”*

*“Yes, we are lucky to have this kind of neighbour because they are very supportive, helping-minded, and shares food and groceri together, [...] do school homework with a group of children.”*

*“It is a covid pandemic, I can't go to work and have no money in my hand. At that time my neighbours treat me as one of the family members. Daily provide food, [...] I am not alone. [...] I feel happy to live here.”*

*“Everyone here lives together like a family the neighbours have good manners, but due to caste, there are some problems and competition, and we tolerate them.”*

From interviews and survey, it can be concluded that the respondents realized that reciprocity was an essential element of intense bonding, with many turning to their solid ties for financial and emotional help in times of need. The sharing of values and backgrounds was a necessary component in the formation of strong ties. Thus, the collaborations and help in the resettlement neighbourhood have positively influenced women's social capital and the whole community.

#### **4.8.2 Bridging in Social Capital**

In contrast, (Pigg & Crank, 2004b) report that "weak links" and "thin impersonal trust with strangers" is related to bridging capital. Islam and Walkerden (2014) called that "bridging social capital" or "weak ties" between various social groupings. In distinction, Pare (2018) and others emphasise that "bridging social capital" is a link across formal hierarchies (e.g. between community and government actors). According to Leonard and Onyx (2003), social capital bridges would need a large, less dense network with fewer "multiplex" links. They state that social capital is created when people work together in groups and that networks are the affiliations between individuals and groups. When one person does something nice for another with the prospect of future favours in return, this is known as "reciprocity". Every community member has unique emotional and (personal) material needs, and they all perform consciously to amass bonding capital to meet those demands through an intermediary. That intermediary is "the bridge" that brings the parties together (such as IRCDUC, NGO and CBO). Bridging brings people, who would otherwise not connect, together – even though they are from similar groups and have the same interests, thereby 'bridging' the social gap. One of the important aspects of bridging is that it is horizontal. In other words, social capital is developed between people from the same socioeconomic group. As concluded from the questionnaire analysis, women interviews, and specialists that two factors highly influenced the bridging in women's social capital.

#### **4.8.2.1 The influence of the community groups and association**

Group and Network influence as sub-variables in part of social capital has been analysed. Therefore, this part looks closely at the importance of these groups, what these five groups deliver to the women's resettled community and the influence of these groups on 'bridging' the social gap in women's social capital. Thus, the interviews with a representative from each group made that clear, as shown in the influence of the community groups and associations table in appendix 4. (Further details can be found in appendix 4).

Consequently, this helps to understand how the groups influenced women's social capital differently during these five years since they resettled. Where the positive influence prevails, thus, for more understanding, it is important to see how women perceived these groups' role in helping them improve their social capital through their responses in interviews:

*“I am a member of three groups [Self-help group, Domestic work women's group, and community group]; this is very useful to me. They provide many support programs for me. [...] these groups helped me to keep a small business for me. [...] provide me financial support also.”*

*“IRCDUC and Domestic work women's group, these groups are turning point in our life, [...] they working for the community. Without them, it is difficult to survive.”*

*“My family livelihood became better off because of the Self-help group [ they helped her to find a job].”*

*“Groups support for our social capital through supports our business, children's education, and ready to give the loan amounts.”*

From group leaders' interviews, it can be concluded that groups play a fundamental role in supporting women through community building various programs and activities. However, most of the groups share the goal of helping women by encouraging those to break out of silence, participate, and build resilience and empowerment. While women's interviews also emphasized that. Thus, the community groups' interventions and initiatives in the resettlement neighbourhood have positively influenced women's social capital and their social capital levels today.

#### **4.8.2.2 The woman's exclusion and marginalisation.**

As group leaders' interviews emphasise in the previous paragraph, exclusion and marginalisation are considered a factor that stands against the bridging of social capital. Thus, it is an obstacle to restoring women's social capital due to various forms of exclusions. Interviews make that clear, as mentioned in the women's responses, shown in table 27 below.

**Table 27: The women reflection on exclusion and marginalisation**

The women reflection on exclusion and marginalisation
<i>“We face exclusion and 'marginalisation' because of race and education, and living conditions today some are assigned by male authority.”</i>
<i>“A woman is deprived of her talents and opportunities [...] because she stands aside and is ignored by the surrounding society and the authorities.”</i>
<i>“When we work and get paid, they [males in the household and the community] will talk very rudely about us to everyone.”</i>
<i>“If they [males in the household] know that we are penniless, they will ignore us.”</i>
<i>“Day-to-day life is why we [ women 's] took money from the moneylenders but can't repay, [...] that time the moneylender [ usually male] is scolding us very much. Seeing that moment very badly to us.”</i>
<i>“Yes, we are marginalized by moneylenders because we are daily wage people, and we have family responsibilities; we need money that time, [...] we approach a money lender they give us money for interest. [...] And then one or two days I delayed paying back [...] they scolded us. At that time, I felt very insulted.”</i>
<i>“Whatever we [ women] ask for help in community issues. [...] No response from the officers; [...] we are vulnerable and uneducated, [...] we don't know anything, and they [males in power] call us disgusting people.”</i>
<i>“Water issues, travel issues, no employment, the perfect home we have, but we need money for living. [...] Perumbakkam is a nice place. All facilities are here, but we don't have money to enjoy them. [...] Every rainy season we are afraid that a flood will come. [...] Except for this, living here is okay.”</i>

The women of Perumbakkam have many stories of exclusion and marginalisation they want to tell because they feel emasculated. Unfortunately, not all of them could break the barrier by standing up and confronting the exclusion. This has negatively influenced re-bounding women's social capital. On the bright side, some women feel proud now that during these five years of suffering with community solidarity and community groups' support, they were able to make some change today, which is reflected in restoring their social capital, as mentioned in the response below:

*“I am an ordinary woman but have now become a president and coordinator in the association leaders' group. This makes a brave lady to me. Seeing all ladies come forward around me.”*

(M. Mercy, 2022)

### 4.8.3 Linking in Social Capital

Oteng-Ababio et al. (2015) highlight that linking social capital is ideas and practices inside associations, which is critical for shaping cooperative action. Furthermore, Blackman et al. (2017) add that recognising and driving community changes build and enhance resilience. Parés et al. (2018) argue that "linking social capital" identifies community power imbalances as more obvious. It also connects people across formal hierarchies (e.g., between community and opportunities actors) (Carmen et al., 2022). Thompson and Barrera (2019) indicate how social capital is a living resource that, when well used (coordination, interactions), enables the community to become more resilient over time by enhancing the quality of social capital. Lastly, LaLone (2012) emphasises that a lack of linking in social capital leads to a lack of unity between the communities and local associations, which causes missed opportunities. Accordingly, it can be concluded from the women's leaders' interviews from different community groups that there is one organisation that influenced the social capital linking in the Perumbakkam resettlement community. Thus, we interviewed the founder of the Information and Resource Centre for the Deprived Urban Communities (IRCDUC) to better understand this influence, shown in table 28 below.

**Table 28: The influence of IRCDUC**

<b>IRCDUC "Information and Resource Centre for the Deprived Urban Communities"</b>
<p><i>"The organisation works on issues related to land and housing in Tamil Nadu. We address issues related to forced evictions and inadequate resettlement by engaging in policy and advocacy to safeguard the rights of communities. We enhance the capacities of leaders in settlements facing eviction threats to demand adequate housing and have established community resource hubs in Resettlement sites facilitated by women leaders [Perumbakkam one of these sites] for availing basic services in the sites."</i></p> <p style="text-align: center;">(Vanessa Peter, Founder - IRCDUC, 2022)</p> <p><b>Main organisation activities:</b></p> <ul style="list-style-type: none"> <li>• Establishing community resource hub in Perumbakkam <i>"The objective of the community resource hub in Perumbakkam is to enhance the capacities of women leaders to access basic infrastructure facilities and entitlements and to address issues related to women and children in the settlement."</i></li> <li>• Providing opportunities <i>"Facilitating employment [women] linkage and livelihood programmes by referring to other stakeholders"</i></li> <li>• Empowerment of women <i>"From our experience, the empowerment of women in the communities is a sustainable activity in the communities. [...] They are able to identify issues and address them by engaging with different stakeholders."</i> <i>"Empowerment of communities also means reduced dependency on NGOs and that people can address their own issues without having to depend on others."</i></li> <li>• Pro-capacity-building initiatives <i>"[...] Because of pro-capacity-building initiatives, many women leaders in Perumbakkam are elected as leaders in the Residents Welfare Association of their blocks. [...] The Tamil Nadu Urban Habitat Development Board recognised the women leaders for their work."</i></li> <li>• Providing support for women community groups <i>"We have facilitated the formation of a Women's group for persons with Disability that is functioning independently and addressing issues of women with disabilities, [...] who are one of the most vulnerable groups in the settlement."</i></li> </ul>

- Facilitating the linking between different community groups and TNUHDB by providing accessibility to opportunities such as the education scholarship for vulnerable students, subsidies, and women build capacity programmes.

**Obstacles that face the group while providing support:**

*“Acceptance of leadership of women is a challenge. Society is patriarchal and works against the empowerment process, [...]but it is possible [Acceptance women leadership] with constant support and engagement.”*

**Received support from other institutions**

*“We receiving support from Housing and Land Rights Network, New Delhi. [...] The support is to enhance the capacities of women leaders in the settlement.”*

**Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam**

- Increase the mobility of women by addressing infrastructure issues (such as street lights, roads and transportation).
- Against the violence against women and children by social awareness.  
*“Accessibility to social entitlements and capacity-building initiatives are activities launched [refer to IRCDUC] to address marginalisation.”*

This shows that institutions such as IRCDUC assist build social capital links to make communities more resilient and empowered. However, the effectiveness of such interventions depends on how different types of social capital are linked. Thus, in Perumbakkam, the linking of social capital between IRCDUC and community groups formatted the program's results, which positively influenced social capital during the time, such as making it easier for people to get financial support and indirectly linking communities to build their own social capital.

## Chapter 5: Conclusions and recommendations

This last chapter draws conclusions based on the literature review and research findings. Furthermore, it delivers the recommendation concerning the influence of access to resettlement information on women's social capital. As the resettlement site is still expanding in Perumbakkam, Chennai, India, and access to resettlement information is still a significant issue influencing livelihood, it is achievable that these findings may lead to more solutions in this context.

### 5.1 Conclusion

This study seeks the association between access to resettlement information and social capital in the resettlement site Perumbakkam in Chennai. The data was collected using a combination of quantitative (closed-ended questionnaire survey) and qualitative (interview) methodologies, it is analysed, along with calculating the score of women's access to resettlement information before resettlement, the score of women's social capital, and factors that influence women's social capital. Thus, association analysis is done between access to information "low, middle, high" and level of social capital "poor, moderate, good" to explain how access to resettlement information before resettlement influences the women's livelihood in terms of social capital in the resettlement site. as well as analysis the other factors "external, internal" that influence the association between access to resettlement information and social capital. Consequently, founded on the outcomes of the case study in the resettlement site Perumbakkam in Chennai, India, the research's main question and sub-questions are answered in the following. Further, an updated conceptual framework is derived from the influences of the independent variable "access to resettlement information" on the dependent variable "social capital" and the influence of the intermediate "Multidimensional social capital" variable on the relationship between the independent "access to resettlement information" and the dependent variable "social capital" in resettlement, specifically for women in Perumbakkam, are drawn. The study concludes with a list of Recommendations and suggestions for further study topics.

### 5.2 Answering the Research Questions

In order to understand the influence of access to information on the women's social capital in the resettlement site Perumbakkam in Chennai, India, the following research question were raised:

**How does access to information influence the women's livelihood in terms of social capital in the resettlement site Perumbakkam in Chennai, India?**

The sub-questions:

1. How were women informed about the resettlement process before their resettlement?
2. How was women's social capital after resettlement in Perumbakkam?
3. What factors influenced women's social capital besides access to resettlement information in Perumbakkam?

#### 5.2.1 How were women informed about the resettlement process before their resettlement?

The first sub-question in this study aimed to comprehend how women were informed about the resettlement process before their resettlement. This was done by conducting a questionnaire to measure the level of access to information through measuring five variables:

- 1) The resettlement process information
- 2) The provision of information about Perumbakkam
- 3) The resettlement public hearings information

- 4) The resettlement information and alternatives information
- 5) The clarity of resettlement information

Measuring these variables provided an understanding of how women were informed; in addition, according to the scores of each respondent, the respondents were divided into three groups according to the degree of access to information "low, middle, high" before resettling. Thus, it was concluded from the descriptive statistics which divided the respondents into three groups according to the length division scale and their scores, that most of the women (48%) had low access to resettlement information, and (37%) had middle access to resettlement information. In contrast (15%) of the women had high access to resettlement information. Furthermore, there was an association with a moderate negative correlation with a 95% confidence level between access to resettlement information before resettlement and marital status. Thus, single, separated, widowed, and married women had weak ordinal access to resettlement information before resettlement, meaning single women had better access than married women. In contrast, the number of years living in Perumbakkam had a very low negative correlation, with a 99% confidence level. Thus, women who resettled lately gradually had better access to resettlement information before resettlement than those who resettled five years ago.

This is in line with what has been emphasized in the literature review, where women face the challenge of gender marginalization in enabling access to resettlement information in the (DIDR). "Gender Analysis also points out how these development projects are endured differently by women and men" (Asthana, V. 2012, P. 97). Cornish & Ramsay (2018) emphasize that access to information is an early barrier affecting women. Therefore, participation and access to information are key difficulties that need to be addressed in order to encourage community development (Cornwall, 2008).

### **5.2.2 How was women's social capital affected after resettlement to Perumbakkam?**

The second sub-question in this study aimed to measure the women's social capital after resettlement in Perumbakkam. We measured the social capital score (for women) through the Integrated Question to Measuring Social Capital within their six dimensions:

- 1) The groups and networks
- 2) The trust and solidarity
- 3) The collective action and cooperation
- 4) The information and communication
- 5) The social cohesion and inclusion
- 6) The empowerment and political action

Measuring these dimensions provided an understanding of women's social capital after resettlement in Perumbakkam; in addition, according to each respondent's scores, the respondents were divided into three groups according to their social capital scores "poor, moderate, good " in the present after resettling. Thus, it was concluded from the descriptive statistics in which the respondents were divided into three groups according to the length division scale and their scores that most women (56%) had moderate social capital. In contrast, there was an equal percentage (22%) of the women who had poor social capital to women who had good social capital after five years of resettlement. Accordingly, these results assure that the social capital of women has been influenced during these five years by the time factor and others, as we will see in the following when answering the third sub-question. Furthermore, the association between women's social capital and being able to transfer their ration card to Perumbakkam had a low positive correlation, with a 99% confidence level. Thus, women who managed to transfer their cards had better social capital than those who could not. Likewise,



their ability to read and write had a low positive correlation, with a 95% confidence level. Accordingly, women who could read and write had better social capital than those who couldn't, due to being faster at learning and adapting to new opportunities.

This is in line with the literature review, which has emphasized that despite the tremendous repercussions' women experience after resettling, they may also serve as change agents; as Ghani (2014) emphasises, some women are battling to obtain adequate infrastructure to rebuild their livelihood with time, especially in terms of social capital which is usually built by time. Nevertheless, social, cultural, and vocational dislocation is more intense for women in the DIDR (Bajpai & Gautam, 2018). Due to exclusion from establishing a daily routine, women typically have fewer opportunities to earn a living (Bisht, 2009; Sikka and Mathur, 2018; Smyth, Steyn, et al., 2015). From a social standpoint, resettlement weakens social networks and disrupts familial bonds, reducing a woman's space (Bajpai & Gautam, 2018). Due to the social disarticulation following resettlement, women and children frequently lose their safe space and lack a buffer against family disputes (Mehta, 2011).

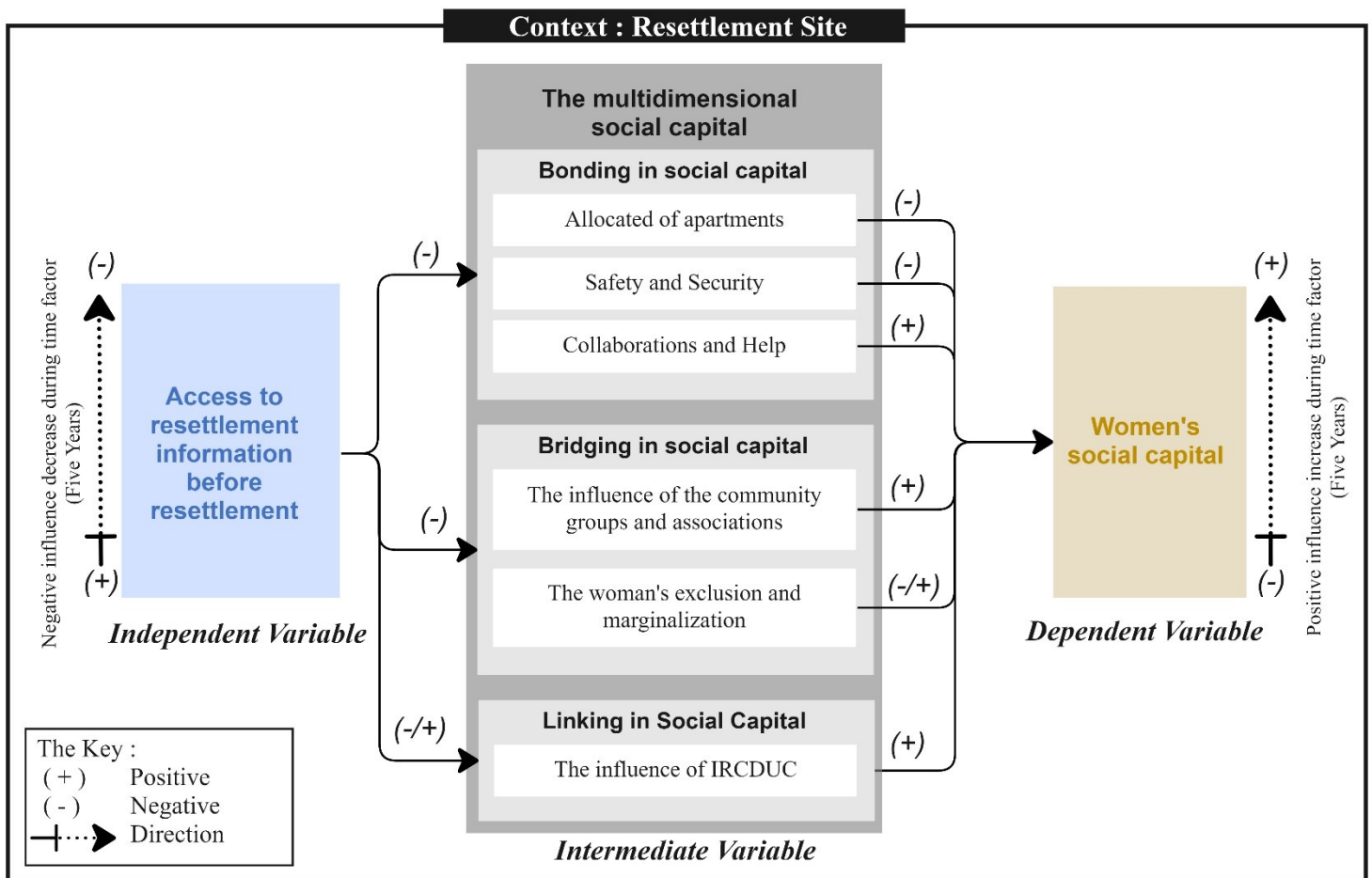
### **5.2.3 What factors influenced women's social capital besides access to resettlement information in Perumbakkam?**

The third sub-question in this study aimed to understand the factors that influenced women's social capital besides access to resettlement information in Perumbakkam. We defined these factors influencing women's social capital through multidimensional social capital (Bonding, Bridging, and Linking) from literature, similar studies, field survey and interview, as follows:

- Time factor
- The allocation of apartments
- The safety and security
- The collaborations and help
- Influence of the community groups and associations
- The women's exclusion and marginalisation
- The influence of IRCUDC

Accordingly, Figure 6 below will provide a cumulative explanation of the influence of the intermediate variable on the relationship between the independent and the dependent variable of the study. Thus, the time factor influenced access to resettlement information positively shifted to negatively during the time, compared to negatively influencing shifted during the time positively on women's social capital. While the other intermediate factors had a combination of positive and negative influences on both independent and dependent variables, as shown in figure 6 below.

Figure 6: Summary of the influence of the intermediate variable on the relationship between the independent and the dependent variable



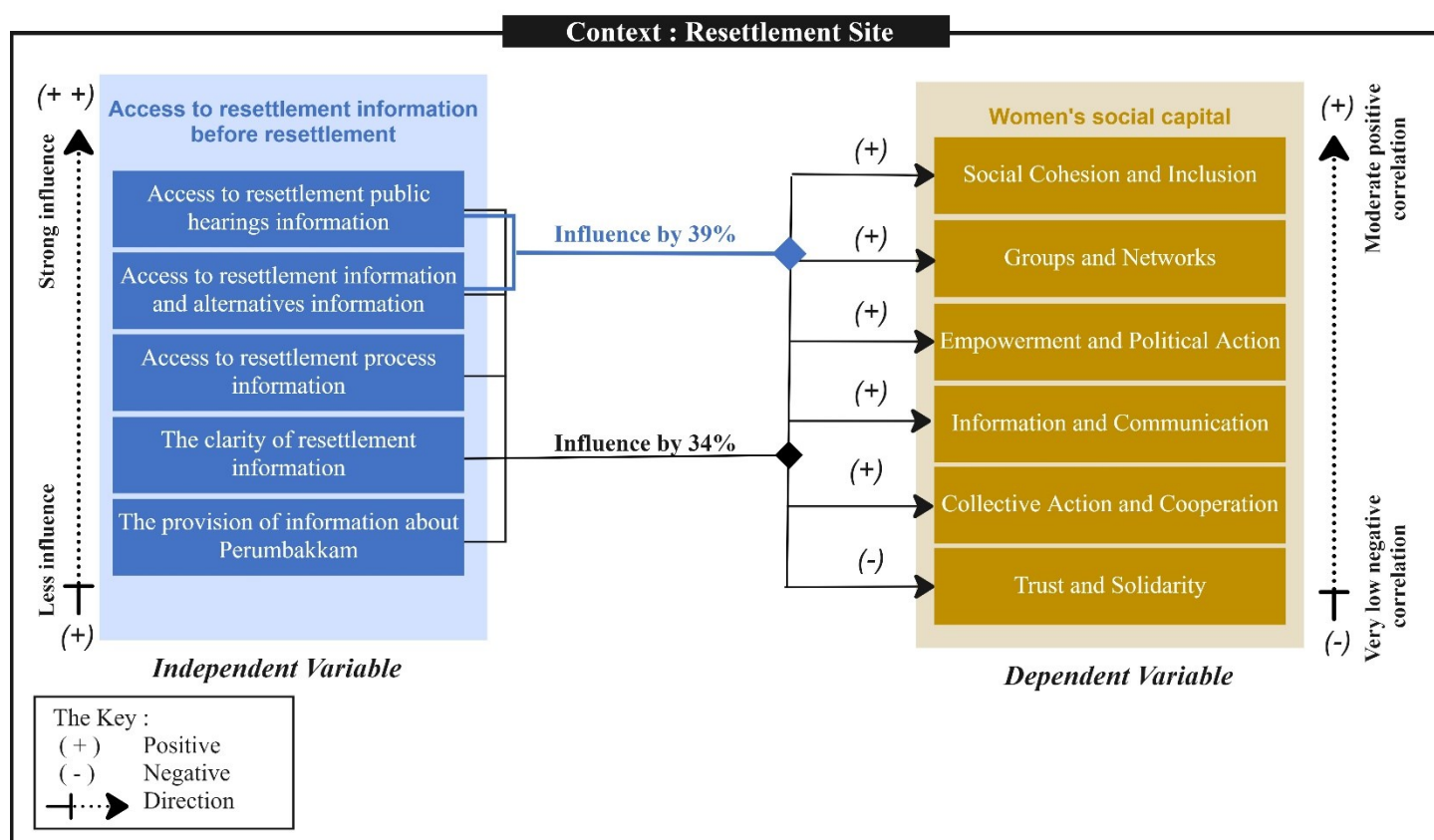
Source: Author, 2022

### 5.2.4 The Main Research Question: How does access to information influence the women's livelihood in terms of social capital in the resettlement site Perumbakkam in Chennai, India?

Out of the responses to the three sub-questions, we answered the main research question which aimed to explain, how access to resettlement information before resettlement influences the women's livelihood in terms of social capital in the resettlement site Perumbakkam in Chennai, India. Figure 7 below contains a cumulative explanation of the influence of the independent variable on the dependent variable of the study. The sub-variables of access to resettlement information before resettlement rearranged in order according to the influence on the social capital from less in bottom to strong in top. As well as the sub-variables of women social capital rearranged in order according to the correlation direction and strength to the access to resettlement information before resettlement from negative very low correlation in bottom to the positive moderator correlation in the top.

It can be concluded from the linear regression that independent sub-variables of access to resettlement information before resettlement influenced the dependent variable women's social capital (34%). In addition, both sub-variables access to resettlement public hearings information and access to resettlement information and alternative information have significantly influenced women's social capital (39%). This result is consistent with Pearson's correlation test, as shown in figure 7 below.

Figure 7: Summary of the influence of the independent variable on the dependent variable



Source: Author, 2022

### 5.3 The reflection of the study outcome on the international principles and guidelines on development-based evictions and displacement

How long will the suffering of vulnerable groups and the poor, especially women, from urban development and resettlement policies, continue? A new approach must be found to implement resettlement programs, ensuring that the general guidelines for eviction and resettlement procedures are implemented at all stages of the process and preserve human rights and stop violations. It can be concluded from studying the extent of access to resettlement information that the vast majority obtained information from unofficial sources (informal), namely the husband, males from your family, relatives, friends and neighbours, which exposes information to filtering and distorted content. Women were not involved or consulted at any stage of the resettlement process, the evictions and resettlement were inevitable, as mentioned in this interview:

*“There is no space for discussion, they have a plan, and we have to implement it even if that does not suit us.”*

Furthermore, the notice period for eviction was less than 90 days and the distribution of apartments. No requirements or advice were taken into account, the simplest of which is taking into account that the neighbours from the same place have apartments in the same building, which helps to maintain social ties or to take into account the provision for special needs people (disabilities) apartments on the ground floors, as mentioned in this interview:

*“When they [refer to resettlement implementers] resettled us [...] me, my relatives and my neighbours ended up each of us in an apartment on a different block.”*

*“I have a mobility disability, and I got an apartment on the sixth floor [...] the last time the elevator is broken, or there is no electricity [...] all the time I am stuck in the apartment [while she spoke, her voice was filled with sadness].”*

All these procedures that were followed constitute a violation of human rights, which is inconsistent with the "Basic Principles and Guidelines on Development-based Evictions and Displacement", the Handbook of the United Nations, which states that Communities must be provided with access to information and informed before the resettlement process of the notice period must not be less than 90 days (Kothari, 2009).

#### **5.4 The reflection of the study outcome on the influence of women's social capital**

Now, after five years, the majority of resettled women believe that the resettlement was unnecessary, (as explored in 4.5.1.1, Reason for resettlement). People are used to flooding. Still, the government took advantage of the occurrence of the cyclone and the situation to evacuate the people from their homes and resettle them in this outgoing order to protect them. Consequently, the Tamil Nadu government and decision-makers believe that they know what the community needs, but the truth is that it is not, as stated in this interview with the expert:

*“Testament to what research finding [ there were other factors influenced women social capital besides access to resettlement information in Perumbakkam ] [thus] had been gaps in the resettlement programme [...] The local government didn't collaborate on the resettlement programme [...] after five years, and things [ Resettled livelihoods] didn't improve much they [local government] know the gaps. Still, they [local government] didn't take the initiative or intervene to fill the gap with the resettled community.[...] Instead, vulnerable communities get the support of civil society organizations like IRCDUC [...] which achieve better results in their livelihood, especially the social capital [...] what happened last two years due to corona [Covid -19] pandemic, the community totally cut off [...] It emphasises that civil society organizations [refer to IRCDUC ]have helped reduce the gap between the community and the local government by supporting various community groups during these difficult times.”*

(Vanessa Peter, Founder - IRCDUC, 2022)

In the case of Perumbakkam, the study of women's social capital after five years of resettlement showed us that the community is capable and knows what is best for them. Decision makers should listen to the community and allow the opportunity to participate. During these five years, the resettled women established community groups from the heart of suffering and found programs that would rebuild bonding, bridging, and linking of their social capital. From the IRCDUC experience with women's groups in the Perumbakkam community, Vanessa Peter, the IRCDUC founder, commented on the study outcome by emphasising that resettled women in Perumbakkam became resilient and empowered with time.

We can conclude that after these five years, access to resettlement information has become a lower influence on their current social capital, as the Linear Regression proves. Still, we explored that other factors influence the women's social capital today, represented in the time factor, allocated apartments, safety and security, collaborations and help, the community groups and associations, women's exclusion and marginalization, and the influence of IRCDUC, which had the most decisive influence, both positively and negatively, on the social capital of women during these five years.

## **5.5 Recommendation**

### **5.5.1 Recommendation for providing access to the resettlement information before resettlement for social capital restoration enhancement in the resettlement site**

Providing access to resettlement information and participation in consultations before resettling must be the focus of any resettlement scheme due to the significant importance of psychological and practice preparation and enhancing the community to improve livelihoods in terms of social capital after relocation. This study's findings recommend that the various stakeholders, including decisions makers, policymakers, planners, community-based organizations, and nongovernmental organizations, acknowledge the importance and right to provide access to resettlement information before resettling because of its influential impact on restoring and enhancing the livelihoods of resettled communities in terms of social capital, particularly for the women in Perumbakkam. Some specific recommendations for the resettlement process or scheme, specifically for women before they resettled, are emanating from the findings:

- When designing and implementing resettlement plans:
  - Is essential that consulting and sharing information with the people who will be resettled, especially for vulnerable groups, women, the elderly and people with disabilities, be among the priorities of guidelines for the design and implementation program of resettlement sites.
  - It is necessary to adhere to the application of international confrontations related to the fact that the notice period should not be less than 90 days.
  - Consideration must be given to keeping the social ties of these people to be resettled as much as possible by considering their access to homes next to each other.
- More infrastructure mechanisms approach to provide access to information, such as public hearing sessions and information and communication technology, are needed so that women can have better access to information in general.
- Governments and decision-makers should consider that other factors accompany the resettlement process, whether before or after resettling and have a different and extending influence on the livelihoods of resettled people, specifically for vulnerable groups, women, children, the elderly and people with disabilities.

### **5.5.2 Potentials for further study**

This study is considered the first of its kind in academic literature and resettlement context that highlights understanding and explaining the associations between the right of access to resettlement information before resettling and its influence on the social capital of women in resettlement projects. Consequently, this research will be the starting point and the basis of reference for future research series. To reach even more generalisability, measuring women's social capital before resettling would be interesting and directly comparing it to after resettlement. Thus, measuring the direct influence of resettlement on women's social capital while holding the effects of other factors. Furthermore, additional research should be conducted in different resettlement contexts to see if the findings of this study can be replicated in other resettlement sites. Conducting a study that monitors the stages of the resettlement process from the beginning of planning for resettlement until implementation. Accordingly, monitoring how

and the mechanism of the procedures followed, including access to information and participation in the consultation. Other than that, more in-depth studies regarding the different factors that influence access to resettlement information before being resettled and social capital after resettled are recommended to provide more comprehension of the connections, so that more understanding can be achieved about this subject.

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# Appendix 1: Questionnaire

## Perumbakkam women's survey questionnaire

Purpose of the survey: The purpose of this survey is to gather data on how resettled women received the information about the resettlement process before their resettlement and measure the women's social capital before and after resettling to explain how access to resettlement information influences the women's livelihood in terms of social capital in Perumbakkam which will aid the student in the analysis of their respective research works for their master thesis. The result of this survey shall be used solely for academic purposes.

- Interviewer shall confirm about confidentiality and anonymity
- Interviewer shall ask for permission to record the conversation.

---

\*Required

### Part 1 Respondent's profile

#### 1.1 Socio-demographic

1. 1.1.1 Age \*

---

2. 1.1.2 Language spoken \*

*Mark only one oval.*

English

Tamil

Others

3. 1.1.3 Able to read and write (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

0

1

4. 1.1.4 Do you have ID card (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

0

1

5. 1.1.5 Do you have a ration card?(choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

0

1

If your answer to question 1.5 is No skip question 1.1.6

6. 1.1.6 Did you manage to transfer it to Perumbakkam (choose 1 if Yes and 0 if No)

*Mark only one oval.*

0

1

7. 1.1.7 Marital status \*

*Mark only one oval.*

Single

Married

Separated/ Divorced

Widow

Living-in

Other: \_\_\_\_\_

8. 1.1.8 Education \*

*Mark only one oval.*

Primary

Secondary

Higher secondary

Undergraduate Diploma or Degree

Post-graduate

Vocational

None

9. 1.1.9 Are you suffering from a disability? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

0

1

10. 1.1.9a. If yes, What is it?

*Mark only one oval.*

Blindness/sight difficulty

Deafness/hearing difficulty

Limited walking ability

Difficulty typing

Multiple disabilities

11. 1.1.9b. Did the officials take into account your disability when they allocate the tenements? (choose 1 if Yes and 0 if No)

*Mark only one oval.*

0

1

12. 1.1.10 Number of years living in Perumbakkam (answering this question by interring just number) \*

---

13. 1.1.11 Number of people living in the house (tenements) (including house-helpers, and extended family) (answering this question by interring just number) \*

---

14. 1.1.12 Number of "direct family members mean small family member" living in the house (tenements):(Including the respondent) (answering this question by interring just number) \*

---

15. 1.1.13 Head of the house (tenements): \*

*Mark only one oval.*

- Respondent
- Husband
- Father/in-law
- Mother/in-law
- Child/Grandchild
- Other: \_\_\_\_\_

Part 2 Measuring Access to Resettlement Information

2.1 Resettlement process information

16. 2.1.1 Did you know the reason why you had to resettle?(choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0
- 1

17. 2.1.2 Did you know who had to resettle? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0
- 1

18. 2.1.3 Did you know the plan or program for how to resettle? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0
- 1

19. 2.1.4 Did you know when the evacuation and resettled would take place? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0
- 1

20. 2.1.5 How long was the notice period before the date of evacuation and resettlement? (if your answer to question 2.1.4 is No→ skip this question)

*Mark only one oval.*

- 90 days  
 More than 90 days  
 Less than 90 days

21. 2.1.6 Did you know where to resettle? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0  
 1

## Part 2 Measuring Access to Resettlement Information

### 2.2 Resettlement site information

22. 2.2.1 Did you know information about the resettlement site? (choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0  
 1

23. 2.2.2 what did you know about the resettlement site? (if your answer to question 2.2.1 is No→ skip this question)  
(to answer this question choose 1 if Yes and 0 if No)

*Mark only one oval per row.*

	0	1
<b>A. the location</b>	<input type="radio"/>	<input type="radio"/>
<b>B. the type of housing unities</b>	<input type="radio"/>	<input type="radio"/>
<b>C. the available services and facilities (such as schools, health care, public space ....)</b>	<input type="radio"/>	<input type="radio"/>
<b>D. the available infrastructure (such as transportation, water, electricity....)</b>	<input type="radio"/>	<input type="radio"/>
<b>E. the livelihood opportunities (such as types of available jobs...)</b>	<input type="radio"/>	<input type="radio"/>
<b>F. General features (how resettlement site look like)</b>	<input type="radio"/>	<input type="radio"/>

Part 2 Measuring Access to Resettlement Information

2.3 Resettlement public hearings information

24. 2.3.1 Did you know about the resettlement program public hearings information? (to answer this question choose \*  
1 if Yes and 0 if No)

*Mark only one oval.*

- 0  
 1

25. 2.3.2 Did you receive convocation (Invitation) to attend resettlement program public hearings? (to answer this \*  
question choose 1 if Yes and 0 if No)

*Mark only one oval.*

- 0  
 1

If your answer to question 2.3.2 is No do NOT continue answering the rest of this part and skip to question 2.4.1

26. 2.3.3 Did these public hearing sessions provide any of these rights? (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
<b>A. Right to comment on the resettlement proposed plan.</b>	<input type="radio"/>	<input type="radio"/>
<b>B. Right to objection to the resettlement proposed plan.</b>	<input type="radio"/>	<input type="radio"/>
<b>C. your right to have a provision of legal, technical and other advice as an affected person.</b>	<input type="radio"/>	<input type="radio"/>
<b>A. Right to object to the eviction decision.</b>	<input type="radio"/>	<input type="radio"/>
<b>E. Right to present alternative proposals.</b>	<input type="radio"/>	<input type="radio"/>
<b>F. Right to articulate your demands and development priorities.</b>	<input type="radio"/>	<input type="radio"/>

27. 2.3.4 To what extent did you find that the resettlement program public hearings were useful? (Please choose score from 1 to 5 where 1 indicates very low extent and 5 indicates very high extent)

Mark only one oval.

	1	2	3	4	5	
To a very low extent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	To a very high extent

Part 2 Measuring Access to Resettlement Information  
2.4 Resettlement information and alternatives information

28. 2.4.1 Did you know about the resettlement information? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

0  
 1



29. 2.4.2 From whom did you get the informed resettlement information? (if your answer to question 2.4.1 is No→ skip this question) (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
A. Relatives, friends and neighbours	<input type="radio"/>	<input type="radio"/>
B. Male from your family (husband, brother, father, Son, uncle)	<input type="radio"/>	<input type="radio"/>
C. Community bulletin board or poster	<input type="radio"/>	<input type="radio"/>
D. Local market	<input type="radio"/>	<input type="radio"/>
E. Community or local newspaper	<input type="radio"/>	<input type="radio"/>
F. National newspaper	<input type="radio"/>	<input type="radio"/>
G. Radio	<input type="radio"/>	<input type="radio"/>
H. Television	<input type="radio"/>	<input type="radio"/>
I. Groups or associations	<input type="radio"/>	<input type="radio"/>
J. Community leaders [they pass this information on to the rest of the community]	<input type="radio"/>	<input type="radio"/>
K. Slum board	<input type="radio"/>	<input type="radio"/>
L. An agent of the government	<input type="radio"/>	<input type="radio"/>
M. IRCDUC [Information and Resource Centre for the Deprived Urban Communities]	<input type="radio"/>	<input type="radio"/>
N. TNUHDB [Tamil Nadu Urban Habitat Development Board]	<input type="radio"/>	<input type="radio"/>
O. NGOs	<input type="radio"/>	<input type="radio"/>
P. Internet	<input type="radio"/>	<input type="radio"/>

30. 2.4.3 Did you know about the resettlement alternatives information? [such as comprehensive resettlement plans and alternatives, and objections to the resettlement proposed plan] (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

- 0  
 1

31. 2.4.4 Which of these resettlement alternatives information did you ask for? (if your answer to question 2.4.3 is No→ skip this question) (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
<b>A. Another option for resettling (another resettlement site)</b>	<input type="radio"/>	<input type="radio"/>
<b>B. Compensation instead of resettled</b>	<input type="radio"/>	<input type="radio"/>

32. 2.4.5 Did your household receive resettlement compensation? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

- 0  
 1

33. 2.4.6 Which of these resettlement compensations did you receive? (if your answer to question 2.4.5 is No→ skip this question) (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
<b>A. Compensation for the social and psychological damage that resettled causes.</b>	<input type="radio"/>	<input type="radio"/>
<b>B. Compensation to help with resettled expenses.</b>	<input type="radio"/>	<input type="radio"/>
<b>C. Compensation to help to rebuild your livelihood.</b>	<input type="radio"/>	<input type="radio"/>

34. 2.4.7 Who received the compensation? (if your answer to question 2.4.5 is No→ skip this question)

*Mark only one oval.*

- You  
 Your husband  
 Your brother  
 Your father  
 Other: \_\_\_\_\_

35. 2.4.8 Did your household obtain a house title record? (to answer this question choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0  
 1

36. 2.4.9 The house title record under the name of? (if your answer to question 2.4.8 is No→ skip this question)

*Mark only one oval.*

- You  
 Your husband  
 Your brother  
 Your father  
 Other: \_\_\_\_\_

37. 2.4.10 Did you receive any legal, technical and other advice? (to answer this question choose 1 if Yes and 0 if No) \*

*Mark only one oval.*

- 0  
 1

If your answer to question 2.4.10 is No do NOT continue answering the rest of this part and skip to question 2.5.1

38. 2.4.11 From whom did you received the legal, technical and other advice? (if your answer to question 2.4.10 is No→ skip this question) (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
A. Relatives, friends and neighbors	<input type="radio"/>	<input type="radio"/>
B. Groups or associations	<input type="radio"/>	<input type="radio"/>
C. Community leaders	<input type="radio"/>	<input type="radio"/>
D. Slum board	<input type="radio"/>	<input type="radio"/>
E. An agent of the government	<input type="radio"/>	<input type="radio"/>
F. NGOs	<input type="radio"/>	<input type="radio"/>
G. IRCDUC [Information and Resource Centre for the Deprived Urban Communities]	<input type="radio"/>	<input type="radio"/>
H. TNUHDB [Tamil Nadu Urban Habitat Development Board]	<input type="radio"/>	<input type="radio"/>

39. 2.4.12 To what extent did you find that legal, technical and other advice was useful? (Please choose score from 1 to 5 where 1 indicates very low extent and 5 indicates very high extent) (if your answer to question 2.4.10 is No→ skip this question)

Mark only one oval.

	1	2	3	4	5	
To a very low extent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	To a very high extent

Part 2 Measuring Access to Resettlement Information

2.5 Understand the informed resettlement information

40. 2.5.1 what was the communication language that was used to deliver the information? \*

Mark only one oval.

English

Tamil

Other: \_\_\_\_\_

41. 2.5.2 what was the channel and mechanism used by the officials to publish and delivered the resettlement information? (to answer this question choose 1 if Yes and 0 if No) \*

*Mark only one oval per row.*

	0	1
<b>Public hearing sessions</b>	<input type="radio"/>	<input type="radio"/>
<b>Newspaper</b>	<input type="radio"/>	<input type="radio"/>
<b>Radio</b>	<input type="radio"/>	<input type="radio"/>
<b>Television</b>	<input type="radio"/>	<input type="radio"/>
<b>Letters via mailbox</b>	<input type="radio"/>	<input type="radio"/>
<b>Internet (social media channels)</b>	<input type="radio"/>	<input type="radio"/>

42. 2.5.3 Please provide score from 1 to 5 to each of the following sources of informed resettlement information based on their importance (Please choose score from 1 to 5 where 1 indicates least importance and 5 indicates most importance) \*

Mark only one oval per row.

	1	2	3	4	5
A. Relatives, friends and neighbors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Male from your family (husband, brother, father, Son, uncle)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Community bulletin board or poster	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. Local market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Community or local newspaper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
F. National newspaper	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
G. Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
H. Television	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I. Groups or associations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
J. Community leaders [they pass this information on to the rest of the community]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
K. Slum board	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
L. An agent of the government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
M. IRC DUC [Information and Resource Centre for the Deprived Urban Communities]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A. TNUHDB [Tamil Nadu Urban Habitat Development Board]	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
O. NGOs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
P. Internet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

43. 2.5.4 To what extent do you understand the informed resettlement information? (Please choose score from 1 to 5 \* where 1 indicates very low extent and 5 indicates very high extent)

Mark only one oval.

	1	2	3	4	5	
To a very low extent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	To a very high extent

Questionnaire Part 3: Measuring Social Capital

3.1 Groups and Networks

44. 3.1.1 As you read the following list of groups, Are you participate on any one of the following groups? (to answer \* this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
<b>Association leaders group</b>	<input type="radio"/>	<input type="radio"/>
<b>Self help group</b>	<input type="radio"/>	<input type="radio"/>
<b>Working women's group</b>	<input type="radio"/>	<input type="radio"/>
<b>Housewife group</b>	<input type="radio"/>	<input type="radio"/>
<b>Community group</b>	<input type="radio"/>	<input type="radio"/>
<b>NGO group</b>	<input type="radio"/>	<input type="radio"/>

If your answer to question 3.1.1 is all No skip to Network part question 3.1.15

45. 3.1.2 If your answer to question 3.1.1 was Yes how actively do you participate in the group member decision making?

*Mark only one oval per row.*

	Leader	Very Active	Somewhat Active	Does not participate in decision making
<b>Association leaders group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Self help group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Working women's group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Housewife group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Community group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>NGO group</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

46. 3.1.3 Of all the groups to which you belong, which one are the most important to your household?

*Mark only one oval.*

- Association leaders group
- Self help group
- Working women's group
- Housewife group
- Community group
- NGO group

47. 3.1.4 How many times in the past 12 months did you participate in this group's activities, e.g. by attending meetings or doing group work? (answering this question by entering just number)

\_\_\_\_\_

48. 3.1.5 How does one become a member of this group?

*Mark only one oval.*

- Born into the group
- Required to join
- Invited
- Voluntary choice
- Other: \_\_\_\_\_



49. 3.1.6 How much money or goods did you contribute to this group in the past 12 months? (answering this question by entering just number)

\_\_\_\_\_

50. 3.1.7 How many days of work did you give to this group in the past 12 months? (answering this question by entering just number)

\_\_\_\_\_

51. 3.1.8 What is the main benefit of joining this group?

*Mark only one oval.*

- Improves my household's current livelihood or access to services
- Important in times of emergency/in future
- Benefits the community
- Enjoyment/Recreation
- Spiritual, social status, self-esteem
- Other: \_\_\_\_\_

52. 3.1.9 Does the group help your household get access to any of the following services? (to answer this question choose 1 if Yes and 0 if No)

*Mark only one oval per row.*

	0	1
<b>A. Education or Training</b>	<input type="radio"/>	<input type="radio"/>
<b>B. Health services</b>	<input type="radio"/>	<input type="radio"/>
<b>C. Water supply or sanitation</b>	<input type="radio"/>	<input type="radio"/>
<b>D. Credit or Savings</b>	<input type="radio"/>	<input type="radio"/>
<b>E. Job opportunities</b>	<input type="radio"/>	<input type="radio"/>
<b>F. Subsidies</b>	<input type="radio"/>	<input type="radio"/>

53. 3.1.10 Thinking about the members of this group, are most of them of the same of the following: (to answer this question choose 1 if Yes and 0 if No)

*Mark only one oval per row.*

	0	1
A. Neighborhood/Village	<input type="radio"/>	<input type="radio"/>
B. Family or Kin group	<input type="radio"/>	<input type="radio"/>
C. Religion	<input type="radio"/>	<input type="radio"/>
D. Gender	<input type="radio"/>	<input type="radio"/>
E. Age	<input type="radio"/>	<input type="radio"/>
F. Ethnic or linguistic group/race/ caste/tribe	<input type="radio"/>	<input type="radio"/>

54. 3.1.11 Does this group work or interact with other groups with similar goals in their settlement neighborhood?

*Mark only one oval.*

- No  
 Yes, occasionally  
 Yes, frequently

55. 3.1.12 Does this group work or interact with other groups with similar goals outside their settlement neighborhood?

*Mark only one oval.*

- No  
 Yes, occasionally  
 Yes, frequently

56. 3.1.13 What is the most important source of expertise or advice that this group receives?

*Mark only one oval.*

- From within the membership  
 From other sources within the community  
 From sources outside the community

57. 3.1.14 Who originally founded the group?

*Mark only one oval.*

- Central government
- Local government
- Local leader
- Community members

#### Networks

58. 3.1.15 About how many close friends do you have these days? These are people you feel at ease with, can talk to about private matters, or call on for help. (answering this question by entering just number) \*

---

59. 3.1.16 If you suddenly needed a small amount of money, how many people beyond your immediate household could you turn to who would be willing to provide this money? \*

*Mark only one oval.*

- No one
- One or two people
- Three or four people
- Five or more people

60. 3.1.17 If you suddenly had to go away for a day or two, could you count on your neighbors to take care of your children? \*

*Mark only one oval.*

- Definitely
- Probably
- Probably not
- Definitely not

61. 3.1.18 If you suddenly faced a long-term emergency such as the death of a breadwinner, how many people beyond your immediate household could you turn to who would be willing to assist you? \*

*Mark only one oval.*

- No one
- One or two people
- Three or four people
- Five or more people

62. 3.1.19 In the past 12 months, how many people with a personal problems have turned to you for assistance? \*  
(answering this question by interring just number)

---

Questionnaire Part 3: Measuring Social Capital

3.2.Trust and Solidarity:

In every community, some people get along with others and trust each other, while other people do not. Now, I would like to talk to you about trust and solidarity in your community.

63. 3.2.1 Generally speaking, would you say that most people can be trusted, or that you can't be too careful in your dealings with other people? \*

Mark only one oval.

- Most people can be trusted  
 You can't be too careful

64. 3.2.2 In general, do you agree with the following statements? (answer this question by choosing: 1 if strongly disagree, 2 if disagree, 3 if neither agree nor disagree, 4 if agree or 5 if strongly agree) \*

Mark only one oval per row.

	1	2	3	4	5
<b>A. Most people who live in this resettlement neighborhood can be trusted.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>B. In this resettlement neighborhood, one has to be alert or someone is likely to take advantage of you.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C. Most people in this resettlement neighborhood are willing to help if you need it.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>D. In this resettlement neighborhood, people generally do not trust each other in matters of lending and borrowing money.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

65. 3.2.3 How much you trust different types of people in the following category's? (answer this question by choosing: 1 if to a very small extent, 2 if to small extent, 3 if neither small nor great extent, 4 if to a great extent or 5 if to a very great extent) \*

Mark only one oval per row.

	1	2	3	4	5
<b>A. People from your ethnic or linguistic group/race/caste/tribe /gender</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>B. People from other ethnic or linguistic groups/race/caste/tribe</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>C. Shopkeepers</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>D. Local government officials</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>E. Central government officials</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>F. Police</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>G. Teachers</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>H. Nurses and doctors</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>I. Strangers</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

66. 3.2.4 Do you think that over the last five years, the level of trust in this resettlement neighborhood has gotten better, worse, or stayed about the same? \*

Mark only one oval.

- Gotten better  
 Gotten worse  
 Stayed about the same

67. 3.2.5 How well do people in your resettlement neighborhood help each other out these days? (answer this question by choosing: 1 if never helping, 2 if rarely helping, 3 if sometimes helping, 4 if most of the times helping or 5 if always helping) \*

Mark only one oval.

	1	2	3	4	5
Never helping <input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always helping <input type="radio"/>

Questionnaire Part 3: Measuring Social Capital  
3.3 Collective Action and Cooperation

68. 3.1.3 In the past 12 months, have you worked with others in your resettlement neighborhood to do something for the benefit of the community? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

- 0  
 1

69. 3.2.3 How likely is it that people who do not participate in community activities will be criticized or sanctioned? (answer this question by choosing: 1 if very unlikely, 2 if somewhat unlikely, 3 if neither likely nor unlikely, 4 if somewhat likely or 5 if very likely) \*

Mark only one oval.

- 1 2 3 4 5  
very unlikely      very likely

70. 3.3.3 From your background what proportion of people in this resettlement neighborhood contribute time or money toward common development goals, such as (repairing a road or maintaining a community center)? (answer this question by choosing: 1 if No one, 2 if less than half, 3 if about half, 4 if more than half or 5 if everyone) \*

Mark only one oval.

- 1 2 3 4 5  
No one      Everyone

71. 3.4.3 If there was a water supply problem in this community, how likely is it that people will cooperate to try to solve the problem? (answer this question by choosing: 1 if very unlikely, 2 if somewhat unlikely, 3 if neither likely nor unlikely, 4 if somewhat likely or 5 if very likely) \*

Mark only one oval.

- 1 2 3 4 5  
very unlikely      very likely

72. 3.5.3 Suppose something unfortunate happened to someone in the resettlement neighborhood, such as a serious illness, or the death of a parent. How likely is it that some people in the community would get together to help them? (answer this question by choosing: 1 if very unlikely, 2 if somewhat unlikely, 3 if neither likely nor unlikely, 4 if somewhat likely or 5 if very likely) \*

Mark only one oval.

1	2	3	4	5	
very unlikely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	very likely

Questionnaire Part 3: Measuring Social Capital

3.4. Information and Communication

73. 3.4.1 How long does it take you to reach the nearest working post office (service desk)? \*

Mark only one oval.

- Less than 15 minutes
- 15-30 minutes
- 31-60 minutes
- More than one hour

74. 3.4.2 How often do you access the information by read a newspaper/ magazine or had one read to you (whether it's a digital/ hard copy )? (answer this question by choosing: 1 if never, 2 if rarely, 3 if sometimes, 4 if often or 5 if always) \*

Mark only one oval.

1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

75. 3.4.3 How often do you access the information by you listen to the news on the radio? (answer this question by choosing: 1 if never, 2 if rarely, 3 if sometimes, 4 if often or 5 if always) \*

Mark only one oval.

1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

76. 3.4.4 How often do you access the information by watching the news on television? (answer this question by choosing: 1 if never, 2 if rarely, 3 if sometimes, 4 if often or 5 if always) \*

Mark only one oval.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

77. 3.4.5 How often do you access to internet (such as social media platform applications)? (answer this question by choosing: 1 if never, 2 if rarely, 3 if sometimes, 4 if often or 5 if always) \*

Mark only one oval.

	1	2	3	4	5	
Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Always

78. 3.4.6 How long does it take you to get to the nearest working telephone? (answer this question by choosing: 1 if no time, 2 if less than 15 minutes, 3 if 15-30 minutes, 4 if 31-60 minutes or 5 if more than one hour) \*

Mark only one oval.

	1	2	3	4	5	
No time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	More than one hour

79. 3.4.7 In the past month, how many times have you made or received a phone call? (answering this question by interring just number) \*

---



80. 3.4.8 What are the three most important sources of information about what the government is doing (such as workfare, family planning, etc.)? (to answer this question choose 1 if yes and 0 if No) \*

Mark only one oval per row.

	0	1
Relatives, friends and neighbors	<input type="radio"/>	<input type="radio"/>
Community bulletin board	<input type="radio"/>	<input type="radio"/>
Local market	<input type="radio"/>	<input type="radio"/>
Community or local newspaper	<input type="radio"/>	<input type="radio"/>
National newspaper	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>
Television	<input type="radio"/>	<input type="radio"/>
Groups or associations	<input type="radio"/>	<input type="radio"/>
Business or work associates	<input type="radio"/>	<input type="radio"/>
Political associates	<input type="radio"/>	<input type="radio"/>
Community leaders	<input type="radio"/>	<input type="radio"/>
An agent of the government	<input type="radio"/>	<input type="radio"/>
NGOs	<input type="radio"/>	<input type="radio"/>
Internet	<input type="radio"/>	<input type="radio"/>

81. 3.4.9 What are the three most important sources of market information (such as jobs, prices of goods )? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval per row.

	0	1
Relatives, friends and neighbors	<input type="radio"/>	<input type="radio"/>
Community bulletin board	<input type="radio"/>	<input type="radio"/>
Local market	<input type="radio"/>	<input type="radio"/>
Community or local newspaper	<input type="radio"/>	<input type="radio"/>
National newspaper	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>
Television	<input type="radio"/>	<input type="radio"/>
Groups or associations	<input type="radio"/>	<input type="radio"/>
Business or work associates	<input type="radio"/>	<input type="radio"/>
Political associates	<input type="radio"/>	<input type="radio"/>
Community leaders	<input type="radio"/>	<input type="radio"/>
An agent of the government	<input type="radio"/>	<input type="radio"/>
NGOs	<input type="radio"/>	<input type="radio"/>
Internet	<input type="radio"/>	<input type="radio"/>

82. 3.4.10 In general, compared to five years ago, has access to information improved, deteriorated, or stayed about the same? \*

Mark only one oval.

- Improved  
 Deteriorated  
 Stayed about the same

83. 3.4.11 What part of the year is your house easily accessible by road? \*

Mark only one oval.

- All year long  
 Only during certain seasons  
 Never easily accessible

84. 3.4.12 How many times have you traveled to [RURAL: a neighboring village or town; URBAN: another part of the city] in the past 12 months? (answering this question by entering just number) \*

\_\_\_\_\_

Questionnaire Part 3: Measuring Social Capital

3.5. Social Cohesion and Inclusion

85. 3.5.1 How strong is the feeling of togetherness or closeness in your resettlement neighborhood? (answer this question by choosing: 1 if Very distant, 2 if Somewhat distant, 3 if Neither distant nor close, 4 if Somewhat close or 5 if Very close) \*

Mark only one oval.

- 1      2      3      4      5
- 
- Very distant      Very close

86. 3.5.2 There are often differences in characteristics between people living in the same resettlement neighborhood. \* For example, differences in wealth, income, social status, ethnic background, race, caste, or tribe. There can also be differences in religious or political beliefs, or there can be differences due to age or sex. To what extent do any such differences characterize your resettlement neighborhood? (answer this question by choosing: 1 if To a very low extent, 2 if To a low extent, 3 if Neither low nor high extent, 4 if To a high extent or 5 if To a very high extent)

Mark only one oval.

- 1      2      3      4      5
- 
- To a very low extent      To a very high extent

87. 3.5.3 Do any of these differences cause problems? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

- 0  
 1

If your answer to question 3.5.3 is No do NOT continue answering the rest of this part and skip to question 3.5.6

88. 3.5.4 Which two differences most often cause problems? (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval per row.

	0	1
Differences in education	<input type="radio"/>	<input type="radio"/>
Differences in landholding	<input type="radio"/>	<input type="radio"/>
Differences in wealth/material possessions	<input type="radio"/>	<input type="radio"/>
Differences in social status	<input type="radio"/>	<input type="radio"/>
Differences between men and women	<input type="radio"/>	<input type="radio"/>
Differences between younger and older generations	<input type="radio"/>	<input type="radio"/>
Differences between long-term and recent residents	<input type="radio"/>	<input type="radio"/>
Differences in political party affiliations	<input type="radio"/>	<input type="radio"/>
Differences in religious beliefs	<input type="radio"/>	<input type="radio"/>
Differences in ethnic background/race/caste/tribe	<input type="radio"/>	<input type="radio"/>
Other differences	<input type="radio"/>	<input type="radio"/>

89. 3.5.5 Have these problems ever led to violence? (to answer this question choose 1 if Yes and 0 if No)

Mark only one oval.

0  
 1

90. 3.5.6a From your background are there groups of people in the resettlement neighborhood who are prevented from or do not have access to any of the following? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval per row.

	0	1
A. Education/schools	<input type="radio"/>	<input type="radio"/>
B. Health services/clinics	<input type="radio"/>	<input type="radio"/>
C. Water	<input type="radio"/>	<input type="radio"/>
D. Justice	<input type="radio"/>	<input type="radio"/>
E. Transportation	<input type="radio"/>	<input type="radio"/>

91. 3.5.6b From your background are there groups of people in the resettlement neighborhood who are prevented from or do not have access to any of the following? \*

Mark only one oval per row.

	Only a few people	Many people, but less than half of the settlement neighborhood	More than half the resettlement neighborhood
A. Education/schools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
B. Health services/clinics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
C. Water	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D. Justice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E. Transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

92. 3.5.7 Are there any community activities in which you are not allowed to participate? (to answer this question choose 1 if Yes and 0 if No) \*

Mark only one oval.

0  
 1

If your answer to question 3.5.7 is No do NOT continue answering the rest of this part and skip to question 3.5.10

93. 3.5.8 In which activities are you not allowed to participate? Don't list more than three activities

\_\_\_\_\_

## Appendix 2: List of interviewees and key informants

### List of interviewees – interview 1

Respondent	Age	States	Education	When did your resettlement to Perumbakkam
Respondent 1	38	Married	Secondary	2016
Respondent 2	55	Widow	None	2017
Respondent 3	38	Widow	Primary	2016
Respondent 4	36	Married	Primary	2019
Respondent 5	37	Married	Secondary	2017
Respondent 6	26	Married	Primary	2016
Respondent 7	50	Married	Higher secondary	2017
Respondent 8	30	Married	Higher secondary	2016
Respondent 9	35	Married	Primary	2017
Respondent 10	55	Married	Secondary	2017

## List of interviewees – interview 2 / 3

No	Name	Position	Institution	Type of informant	Played a role in the resettlement process stages before resettlement in Perumbakkam
1	Respondent 11	Member	Domestic work women's group- Housewife	Community-based organization (CBO)	Yes
2	Respondent 12	Member	Self-help group	Community-based organization (CBO)	No
3	Respondent 13	Member	Self-help group	Community-based organization (CBO)	No
4	Respondent 14	Secretary	Self-help group	Community-based organization (CBO)	No
5	Respondent 15	The floor in charge of Block D	floor in charge of blocks	Community-based organization (CBO)	No
6	Respondent 16	Tuition teacher	IRCDUC	None	Yes
7	M. Mercy	President of the first Block	Association leaders' group	Community-based organization (CBO)	Yes
8	M.Sandhya	Leader	Self-help group	Community-based organization (CBO)	No
9	M. Mahalakshmi	Leader	women's Leader Group	Community-based organization (CBO)	No
10	A.Rukkumani	Leader	Domestic work women's group- Housewife	A non-governmental organization (NGO)	Yes
11	M. Vasanthi	The floor in charge of Block E	floor in charge of blocks	Community-based organization (CBO)	No
12	Vanessa Peter	Researcher	Information and Resource Centre for the Deprived Urban Communities	Key expert	Yes
13	Lalitha M	PhD candidate (student)	Indian Institute of Technology Madras	Key expert	

## Appendix 3: Interview Guides

### Interview 1

#### Interview 1:

Institute for Housing and Urban Development Studies (IHS)  
Erasmus University Rotterdam, the Netherlands

**Interviews:** women from the community

**Researcher:** Fatima Eltohami

**Research Topic:** The influence of access to Information on the women's social capital in the resettlement site Perumbakkam in Chennai, India

*\* All information will be used solely for academic purposes*

---

\*Required

1. Name: \*

---

2. Age: \*

---

3. States: \*

*Mark only one oval.*

- Single  
 Married  
 Separated  
 Widow

4. Education: \*

*Mark only one oval.*

- Primary  
 Secondary  
 Higher secondary  
 Undergraduate Diploma or Degree  
 Post-graduate  
 Vocational  
 None

5. Date \*

---

*Example: 7 January 2019*



6. Time \*

Example: 8.30 a.m.

7. 1. Could you tell me when did you come to Perumbakkam? \*

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**Allocated of your apartments:**

8. 2. How did you get Allocated to your apartments? (By lottery or choice) \*

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9. 3. What were social factors considered during the allocation of apartments? \*

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10. 4. How does the Allocated of your apartments through the lottery affect your social capital (சமூக முதலீடு - \*  
Samooga Mudhaleedu)?

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**Security and safety:**

12. 6. Do these taken measurements give you a sense of security and safety? \*

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**Social Cohesion and Inclusion (Collaborations and Help):**

13. 7. Do you have Collaborations with your neighbours? (Like Look after your children during emergencies or during your go to work, do school homework together, or perhaps you run out of milk or sugar, do your neighbours may be willing to give you some) \*

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14. 8. Could you tell me a story about your Collaboration with your neighbours? \*

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**Women exclusion and marginalization:**

15. 9. What kind of exclusion and 'marginalization' do you and women face in Perumbakkam? (for example can be because of ethnic group, livelihood enterprise, broker, money lender, or male community leader) \*

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16. 10. Could you tell me a story about the exclusion that you face in Perumbakkam? \*

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**Groups and Networks:**

17. 11. Did joining the group help you to get better social capital (சமூக முதலீடு - Samooga Mudhaleedu ) in Perumbakkam after resettlement? I mean, for example, providing a community rebuilding program (Social Cohesion). \*

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18. 12. Did the group provide you with access to any of the following? \*

Mark only one oval per row.

	Yes	No
Education	<input type="radio"/>	<input type="radio"/>
Infrastructure	<input type="radio"/>	<input type="radio"/>
Opportunities (like jobs, training)	<input type="radio"/>	<input type="radio"/>
Daycare for children	<input type="radio"/>	<input type="radio"/>
Community rebuilding program	<input type="radio"/>	<input type="radio"/>
Social awareness (family planning, women health care, women empowerment program ...)	<input type="radio"/>	<input type="radio"/>

19. 13. Could you tell me a story about the group's support for your social capital (சமூக முதலீடு - Samooga Mudhaleedu )? \*

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**Others factors:**

20. 14. What factors around you helped to improve your social capital (சமூக முதலீடு - Samooga Mudhaleedu ) after resettling since you came here to Perumbakkam? \*

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21. 15. What factors around your lead to a decrease in your social capital (சமூக முதலீடு - Samooga Mudhaleedu ) \* after resettling since you came here to Perumbakkam?

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22. 16. Do you have any additional comments you would like to add or story you would like to share?

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## Interview 2

### Interview 2:

**Institute for Housing and Urban Development Studies (IHS)  
Erasmus University Rotterdam, the Netherlands**

**Interviews:** women leaders from community and associations groups

**Researcher:** Fatima Eltohami

**Research Topic:** The influence of access to Information on the women's social capital in the resettlement site Perumbakkam in Chennai, India

*\* All information will be used solely for academic purposes*

**\*Required**

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1. **Institution or groups name ( select from list ) \***

*Mark only one oval.*

- Association leaders' group
- Self-help group
- women's Leader group
- Housewife group
- Community group name is: floor in charge for blocks
- NGO group name is: Domestic work women's group
- IRCDUC : Information and Resource Centre for the Deprived Urban Communities

2. **Interviewee Name \***

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3. **Position: \***

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4. **Date: \***

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*Example: 7 January 2019*

5. **Time \***

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*Example: 8.30 a.m.*

6. 1. What is the group's (group or organization or association) field of expertise? What kind of activities, programmes, and services do you work in? \*

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7. 2. Did your group played role in any of resettlement process stage before resettlement in Perumbakkam? in any of these stages : \*

Mark only one oval per row.

	Yes	No
<b>Resettlement process information</b>	<input type="radio"/>	<input type="radio"/>
<b>Resettlement site information</b>	<input type="radio"/>	<input type="radio"/>
<b>Resettlement public hearings information</b>	<input type="radio"/>	<input type="radio"/>
<b>Resettlement information and alternatives information</b>	<input type="radio"/>	<input type="radio"/>
<b>Understand the informed resettlement information.</b>	<input type="radio"/>	<input type="radio"/>

8. 3. Has your group supported women in Perumbakkam to get better social capital (சமூக முத்தலீடு - Samooga Mudhaleedu) after resettlement? For example, providing a community rebuilding program (Social Cohesion). \*

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9. 4. In what form is that supported? \*

Mark only one oval per row.

	Yes	No
Education	<input type="radio"/>	<input type="radio"/>
Infrastructure	<input type="radio"/>	<input type="radio"/>
Opportunities (like the new work opportunities over there in Perumbakkam, training)	<input type="radio"/>	<input type="radio"/>
Daycare for children	<input type="radio"/>	<input type="radio"/>
Community rebuilding program	<input type="radio"/>	<input type="radio"/>
Social awareness (family planning, women health care, women empowerment program ...)	<input type="radio"/>	<input type="radio"/>

10. 5. how was that supported? give an examples \*

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11. 6. From your experience, what is the impact of that support on women's social capital (சமூக முதலீடு - Samooga Mudhaleedu )? \*

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12. 7. What are the obstacles in the process of delivering that kind of support? Like women exclusion and marginalization. \*

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13. 8. Do you receive support from other institutions? What is the name of it? And can you explain what kind of support you received? \*

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14. 9. What kind of steps did you take to minimize exclusion and 'marginalization' for the women in Perumbakkam? \*

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15. 10. Do you have any additional comments you would like to add or story you would like to share?

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## Interview 3

### Interview 3

Institute for Housing and Urban Development Studies (IHS)  
Erasmus University Rotterdam, the Netherlands

**Interview:** Ms. Vanessa Peter Form IRCDUC

**Researcher:** Fatima Eltohami

**Research Topic:** The influence of access to Information on the women's social capital in the resettlement site Perumbakkam in Chennai, India

*\* All information will be used solely for academic purposes*

\*Required

#### Institution or groups name

IRCDUC : Information and Resource Centre for the Deprived Urban Communities

1. Interviewee Name \*

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2. Position: \*

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3. Date: \*

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*Example: 7 January 2019*

4. Time \*

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*Example: 8.30 a.m.*

5. 1. What is the group's (group or organization or association) field of expertise? What kind of activities, programmes, and services do you work in? \*

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6. 2. Did your group played role in any of resettlement process stage befor resettlement in Perumbakkam? in any of these stages :

Mark only one oval per row.

	Yes	No
Resettlement process information	<input type="radio"/>	<input type="radio"/>
Resettlement site information	<input type="radio"/>	<input type="radio"/>
Resettlement public hearings information	<input type="radio"/>	<input type="radio"/>
Resettlement information and alternatives information	<input type="radio"/>	<input type="radio"/>
Understand the informed resettlement information.	<input type="radio"/>	<input type="radio"/>

7. 3. Has your group supported women in Perumbakkam to get better social capital (சமூக முதலீடு - Samooga Mudhaleedu) after resettlement? For example, providing a community rebuilding program (Social Cohesion).

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8. 4. In what form is that supported? \*

Mark only one oval per row.

	Yes	No
Education	<input type="radio"/>	<input type="radio"/>
Infrastructure	<input type="radio"/>	<input type="radio"/>
Opportunities (like the new work opportunities over there in Perumbakkam, training)	<input type="radio"/>	<input type="radio"/>
Daycare for children	<input type="radio"/>	<input type="radio"/>
Community rebuilding program	<input type="radio"/>	<input type="radio"/>
Social awareness (family planning, women health care, women empowerment program ...)	<input type="radio"/>	<input type="radio"/>

9. 5. how was that supported? give an examples \*

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10. 6. From your experience, what is the impact of that support on women's social capital (சமூக முதலீடு - Samooga Mudhaleedu )? \*

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11. 7. What are the obstacles in the process of delivering that kind of support? Like women exclusion and marginalization. \*

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12. 8. Do you receive support from other institutions? What is the name of it? And can you explain what kind of support you received? \*

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13. 9. What kind of steps did you take to minimize exclusion and 'marginalization' for the women in Perumbakkam? \*

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14. 10. Do you have any additional comments you would like to add or story you would like to share?

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**The research finding**

15. In the analysis outcome, I found that access to resettlement information before resettling influenced the women's social capital by 34%; **what do you think about the result, and how do you interpret the result?** \*

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16. **Do you agree/disagree and why with the interpretation that** ( the influence of access to resettlement information before resettlement is just 34% because we have to considering that other external factors influence women's social capital during these five years, such as time factors, groups and networks, and others)? \*

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17. **Do you agree/disagree and why with the conclusion that** ( if we measure the social capital after the resettlement directly, we may find that the influence of access to resettlement information before resettlement may increase )? \*

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Thank you for taking the time to complete this interview. I really appreciate your time and looking forward to having a quick call that will be arranged by Ms Mercy.

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## Appendix 4: The influence of the community groups and association

### The influence of the community groups and association

#### Association leaders' group

*"After resettlement, we need one group to asking our rights. That time we created an Association group."*

(M. Mercy, Association leaders' group, the president of the first Black, 2022)

#### Main group activities:

- service for tenements people
- organise meetings
- write and give the petition to certain officers
- address the family issues
- support the groceries
- educational support the vulnerable students by providing access to TNUHDB scholarships through IRCDUC.

#### Obstacles that face the group while providing support:

*"We face many obstacles. for instance, because so many women depend on their husbands, suddenly women after resentment find that they need to work to support the family's basic needs [...] husband cannot accept it. [...]we play part by going to that home to convince her family members."*

#### Received support from other institutions

*"We receiving support from the domestic work women's group and IRCDUC, and TNUHDB[...] the support we received for groceries"*

#### Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam

*"By given women opportunities to become women's leaders in association and we support for all kinds of problems, skill training, how to face negative thoughts peoples."*

#### Self-help group

*"When we moved here, we were suffering from a lack of sources of livelihood because most of us lost our jobs and found ourselves in a new society with different challenges and interests, [...] the most important of these challenges is getting money to meet the basic needs of the family. [...] Here came the idea of the group to help ourselves by looking for alternative sources of livelihood and support, collecting money and saving it to help each other because money lenders are greedy, and most of them are males who refuse to deal with us."*

(M. Sandhya, Leader in self-help group, 2022)

#### Main group activities:

- providing solidarity loan
- providing marriage loans
- support self-employment opportunities

#### Obstacles that face the group while providing support:

*"Even if the person [males] in our house trusts us, [...] the fear of changing their [males in household] mind outside is a barrier."*

*"There is a lot of competitive jealousy here which prevents many women from progressing today."*

*"The exclusion, the people [males in household] at home who tell women what they should know."*

#### Received support from other institutions

*"We are receiving support from the domestic work women's group [...] received groceries and vegetables through IRCDUC."*

#### Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam

*"We volunteered and participated in important matters so we were able to reduce our marginalization"*

*"Women's mission is to tell everyone about the priority of women and how to support them."*

### Women's leader group

*"We organize every twenty women into a group and provide employment opportunities to them, [...] through that group we have developed a nature conservation program in association with IRCDUC."*

(M. Mahalakshmi, Leader in women's leader group, 2022)

#### Main group activities:

- Teaching women helpful methods to start small businesses
- Teaching women the methods of organic farming (having their vegetables and how to market them)

*"Through this, women know how to grow natural vegetables for their family and give a healthy diet to children, [...] also benefiting many women in livelihood."*

#### Obstacles that face the group while providing support:

*"We are greatly affected by the male dominance here It hinders us [...] because many men criticize what many women can do"*

#### Received support from other institutions

*"We receiving support from IRCDUC."*

#### Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam

*"By instilling in others, the idea that women can do it [ small businesses], we are building confidence to encourage other women to do the same."*

### Domestic work women's group - Housewife

*"We are a group of start-ups to help and empower women, especially women domestic workers"*

(A. Rukkumani, Leader in women's leader group, 2022)

#### Main group activities:

- Encouraging and teaching women to be helpful and kind to others,"this gave us job opportunities."
- Supporting women by listening to their problems and trying to find solutions.
- Providing women with a certificate of good conduct from the police, "which helped us to get job opportunities in the new area."

#### Obstacles that face the group while providing support:

*"We have a lot of women who work daily wage, we spend Rs.200 [ca. 2.51 USD] to reach our workplace [ become too far from the resettlement location], [...] our daily income is Rs. 500 - Rs. 600 [ca. 6.28 -7.53 USD] so we lose our jobs."*

#### Received support from other institutions

*"We receiving support from IRCTC [Indian Railway Catering and Tourism Corporation] during corona pandemic"*

#### Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam

*"If all women go to work [ empowering women to work], no one will exclude them."*

### Community groups: Floor in charge for blocks

*"We are a group that extends to all residential blocks, divided into subgroups for each floor of the apartment buildings per block; our tasks are to keep the building safe and clean, check the availability / handle any issues of water and electricity supplies, and generally make sure everything related to the building is working as possible"*

(M. Vasanthi, Community groups floor in charge block E, 2022)

#### Main group activities:

- Ensuring that different women from the group are present in the building's public spaces, the corridors and balconies, and stairs during the day, making these spaces active, provides a sense of safety when using these spaces and reduces exposure of women and children to harassment and theft.

*"When we resettled [...] I was afraid for my children [...] I did not allow them to go out of the house to play with the neighbour's children; the situation was unsafe and dangerous [...]. Now the building has become lively, and children can play in the corridors [...], and we feel safe now."*

- Finding solutions to any problem related to the floor or building
- Ensuring that waste is collected properly
- Maintaining cleanliness of corridors and common facilities

- Motivating women to participate in finding solutions related to their daily lives
- Motivating women and empowering them to know that they can help themselves without relying on anyone
- Activities for children: babysitting and group study sessions

**Obstacles that face the group while providing support:**

*“There are many barriers to women going to work. A woman is the one who takes care of her family. [...] Today this society and her family members considers her as such.”*

*“Even if women volunteer for a job, there are many obstacles to it; for example, the power of males is the reason for this.”*

*“Many women are excluded not only because of lack of education but also because of their family status [widow or divorce women].”*

**Received support from other institutions**

*“We receiving support from IRCTC and TNHUB”*

**Steps taken to minimize exclusion and 'marginalisation' for the women in Perumbakkam**

*“If the family members and the people in the neighbourhood understand and Cooperation with them, the marginalization will decrease.”*

## Appendix 5: The scoring

### The scoring 1: The score of Access to resettlement information

Descriptive statistics for groups division according to the sub variables

Access to resettlement information sub-variables	have low access to resettlement information		have middle access to resettlement information		have high access to resettlement information	
	Count	Row N %	Count	Row N %	Count	Row N %
Resettlement process information	14	14%	18	18%	68	68%
Provision of information about Perumbakkam	67	67%	22	22%	11	11%
Resettlement public hearings information	67	67%	18	18%	15	15%
Resettlement information and alternatives information	60	60%	23	23%	17	17%
Clarity of resettlement information	33	33%	35	35%	32	32%
<b>Total</b>	<b>48</b>	<b>48%</b>	<b>37</b>	<b>37%</b>	<b>15</b>	<b>15%</b>

### The scoring 2: The score of women social capital

Descriptive statistics for groups division according to the sub variables

Social Capital sub-variables	Poor social capital		Moderate social capital		Good social capital	
	Count	Row N %	Count	Row N %	Count	Row N %
Groups and Networks	25	25%	25	25%	35	35%
Trust and Solidarity	22	22%	22	22%	30	30%
Collective Action and Cooperation	18	18%	18	18%	38	38%
Information and Communication	62	62%	62	62%	6	6%
Social Cohesion and Inclusion	32	32%	32	32%	16	16%
Empowerment and Political Action	34	34%	34	34%	28	28%
<b>Total</b>	<b>22</b>	<b>22%</b>	<b>56</b>	<b>56%</b>	<b>22</b>	<b>22%</b>



## Appendix 6: Source of providing information Regarding government and market conditions

Source of providing information	Regarding what the government is doing				Regarding market conditions				Total
	Yes		No		Yes		No		
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	
Relatives, friends and neighbors	93	93%	7	7%	94	94%	6	6%	100
Community bulletin board	54	54%	46	46%	49	49%	51	51%	100
Local market	31	31%	69	69%	46	46%	54	54%	100
Community or local newspaper	21	21%	79	79%	29	29%	71	71%	100
National newspaper	23	23%	77	77%	27	27%	73	73%	100
Radio	54	54%	46	46%	57	57%	43	43%	100
Television	56	56%	44	44%	51	51%	49	49%	100
Groups or associations	71	71%	29	29%	69	69%	31	31%	100
Business or work associates	42	42%	58	58%	49	49%	51	51%	100
Political associates	13	13%	87	87%	9	9%	91	91%	100
Community leaders	60	60%	40	40%	46	46%	54	54%	100
An agent of the government	34	34%	57	57%	32	32%	68	68%	100
NGOs	43	43%	57	57%	40	40%	60	60%	100

**Appendix 7: The frequency cross-tabulation between the score of Access to resettlement information and the score of women's social capital**

		2.1 Resettlement process information			2.2 Provision of information about Perumbakkam			2.3 Resettlement public hearings information		
		Have low access to information	Have middle access to information	Have high access to information	Have low access to information	Have middle access to information	Have high access to information	Have low access to information	Have middle access to information	Have high access to information
<b>3.1 Groups and Networks</b>	Poor	4	8	13	19	5	1	19	3	3
	Moderate	10	8	22	32	7	1	31	7	2
	Good	0	2	33	16	10	9	17	8	10
<b>3.2. Trust and Solidarity</b>	Poor	2	4	16	14	5	3	16	3	3
	Moderate	7	7	34	32	8	8	30	10	8
	Good	5	7	18	21	9	0	21	5	4
<b>3.3 Collective Action and Cooperation</b>	Poor	3	9	6	12	4	2	13	3	2
	Moderate	10	8	26	25	14	5	29	7	8
	Good	1	1	36	30	4	4	25	8	5
<b>3.4 Information and Communication</b>	Poor	5	12	45	48	13	1	48	8	6
	Moderate	9	6	17	19	7	6	19	8	5
	Good	0	0	6	0	2	4	0	2	4
<b>3.5 Social Cohesion and Inclusion</b>	Poor	12	15	5	26	5	1	27	4	1
	Moderate	2	2	48	36	11	5	34	7	11
	Good	0	1	15	5	6	5	6	7	3
<b>3.6 Empowerment and Political Action</b>	Poor	1	1	32	34	0	0	31	3	0
	Moderate	11	11	16	25	10	3	25	9	4
	Good	2	6	20	8	12	8	11	6	11

		2.4 Resettlement information and alternatives information			2.5 Clarity of resettlement information		
		Have low access to information	Have middle access to information	Have high access to information	Have low access to information	Have middle access to information	Have high access to information
<b>3.1 Groups and Networks</b>	Poor	16	8	1	10	8	7
	Moderate	31	7	2	15	14	11
	Good	13	8	14	8	13	14
<b>3.2. Trust and Solidarity</b>	Poor	13	7	2	7	8	7
	Moderate	28	8	12	17	15	16
	Good	19	8	3	9	12	9
<b>3.3 Collective Action and Cooperation</b>	Poor	10	5	3	8	4	6
	Moderate	22	12	10	13	18	13
	Good	28	6	4	12	13	13
<b>3.4 Information and Communication</b>	Poor	44	15	3	24	20	18
	Moderate	16	7	9	9	14	9
	Good	0	1	5	0	1	5
<b>3.5 Social Cohesion and Inclusion</b>	Poor	24	7	1	14	10	8
	Moderate	32	12	8	16	21	15
	Good	4	4	8	3	4	9
<b>3.6 Empowerment and Political Action</b>	Poor	31	3	0	13	13	8
	Moderate	22	9	7	15	11	12
	Good	7	11	10	5	11	12

## Appendix 8: Pearson Chi-Square Tests and Correlations Tests

### Test 1: Pearson Chi-Square Tests between the five sub-variables of access to resettlement information before resettlement and the six sub-variables of social capital

Pearson Chi-Square Tests						
		2.1 Resettlement process information	2.2 Provision of information about Perumbakkam	2.3 Resettlement public hearings information	2.4 Resettlement information and alternatives information	2.5 Clarity of resettlement information
3.1 Groups and Networks	Chi-square	19.666	15.409	10.813	23.327	2.896
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	<b>0.001</b>	<b>0.004</b>	<b>0.029</b>	<b>0.000</b>	0.575
3.2 <u>Trust</u> and Solidarity	Chi-square	1.740	6.417	0.941	5.318	0.659
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	0.783	0.170	0.919	0.256	0.956
3.3 Collective Action and Cooperation	Chi-square	28.910	5.706	0.975	5.152	2.333
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	<b>0.000</b>	0.222	0.914	<b>0.272</b>	0.675
3.4 Information and Communication	Chi-square	10.250	29.299	19.709	28.790	9.494
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	<b>0.036</b>	<b>0.000</b>	<b>0.001</b>	<b>0.000</b>	<b>0.050</b>
3.5 <u>Social</u> Cohesion and Inclusion	Chi-square	59.517	14.275	15.038	18.486	6.792
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	<b>0.000</b>	<b>0.006</b>	<b>0.005</b>	<b>0.001</b>	0.147
3.6 Empowerment and Political Action	Chi-square	24.177	36.977	25.256	29.054	5.153
	df	4.000	4.000	4.000	4.000	4.000
	Sig.	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	0.272

### Test 2: Correlations tests between the five sub-variables of access to resettlement information before resettlement and the six sub-variables of social capital

Correlations					
Spearman's rho	2.1 Resettlement process information	2.2 Provision of information about Perumbakkam	2.3 Resettlement public hearings information	2.4 Resettlement information and alternatives information	2.5 Clarity of resettlement information
3.1 Groups and Networks	<b>0.368</b>	<b>0.306</b>	<b>0.258</b>	<b>0.321</b>	0.150
3.2 <u>Trust</u> and Solidarity	-0.106	-0.081	0.004	-0.035	0.002
3.3 Collective Action and Cooperation	<b>0.462</b>	-0.133	0.030	-0.176	0.053
3.4 Information and Communication	<b>-0.114</b>	<b>0.381</b>	<b>0.333</b>	<b>0.397</b>	<b>0.176</b>
3.5 <u>Social</u> Cohesion and Inclusion	<b>0.684</b>	<b>0.331</b>	<b>0.314</b>	<b>0.356</b>	0.212
3.6 Empowerment and Political Action	<b>-0.210</b>	<b>0.595</b>	<b>0.464</b>	<b>0.537</b>	0.186

**Test 3: Pearson Chi-Square Tests and Correlations tests between access to resettlement information before resettlement and the six sub-variables of social capital**

		woman social capital sub-variables					
		3.1 Groups and Networks	3.2. Trust and Solidarity	3.3 Collective Action and Cooperation	3.4 Information and Communication	3.5 Social Cohesion and Inclusion	3.6 Empowerment and Political Action
Access to Resettlement Information	Chi-square P-value	0.000	0.217	0.161	0.000	0.000	0.001
	Spearman Correlations	0.402	-0.123	0.088	0.332	0.446	0.336

**Appendix 9: Regression Analysis**

**Regression analysis 1: Linear Regression test between access to resettlement information before resettlement and social capital**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.465 <sup>a</sup>	0.216	0.208	16.85092

a. Predictors: (Constant), Access to Resettlement Information

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7678.544	1	7678.544	27.042	.000 <sup>b</sup>
	Residual	27827.456	98	283.954		
	Total	35506.000	99			

a. Dependent Variable: Social Capital

b. Predictors: (Constant), Access to Resettlement Information

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	132.218	5.164		25.606	0.000

## Regression analysis 2: Linear Regression test between the five sub-variables of access to resettlement information before resettling and social capital

### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.582 <sup>a</sup>	0.339	0.304	15.79846

a. Predictors: (Constant), 2.5 Clarity of resettlement information, 2.1 Resettlement process information, 2.4 Resettlement information and alternatives information, 2.3 Resettlement public hearings information, 2.2 Provision of information about Perumbakkam

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12044.426	5	2408.885	9.651	.000 <sup>b</sup>
	Residual	23461.574	94	249.591		
	Total	35506.000	99			

a. Dependent Variable: Social Capital

a. Predictors: (Constant), 2.5 Clarity of resettlement information, 2.1 Resettlement process information, 2.4 Resettlement information and alternatives information, 2.3 Resettlement public hearings information, 2.2 Provision of information about Perumbakkam

### Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	148.709	7.071		21.032	0.000
	2.1 Resettlement process information	-0.457	1.073	-0.047	-0.425	0.671
	2.2 Provision of information about Perumbakkam	0.302	1.659	0.031	0.182	0.856
	2.3 Resettlement public hearings information	1.572	0.619	0.328	2.540	0.013
	2.4 Resettlement information and alternatives information	1.084	0.570	0.278	1.903	0.060
	2.5 Clarity of resettlement information	0.039	0.117	0.032	0.330	0.742

a. Dependent Variable: Social Capital

**Regression analysis 3: Linear Regression test between the two significant sub-variables of access to resettlement information before resettling and social capital**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.580 <sup>a</sup>	0.389	0.323	15.57966

a. Predictors: (Constant), 2.4 Resettlement information and alternatives information, 2.3 Resettlement public hearings information

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression		2	5980.796	24.640	.000 <sup>b</sup>
	Residual	23544.407	97	242.726		
	Total	35506.000	99			

a. Dependent Variable: Social Capital

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error			
1	(Constant)	149.012	1.981		75.223	0.000
	2.3 Resettlement public hearings information	1.558	0.578	0.325	2.695	0.008
	2.4 Resettlement information and alternatives information	1.170	0.470	0.300	2.487	0.015

**Appendix 10: The photos album taken during conducting the questionnaire and interviews**

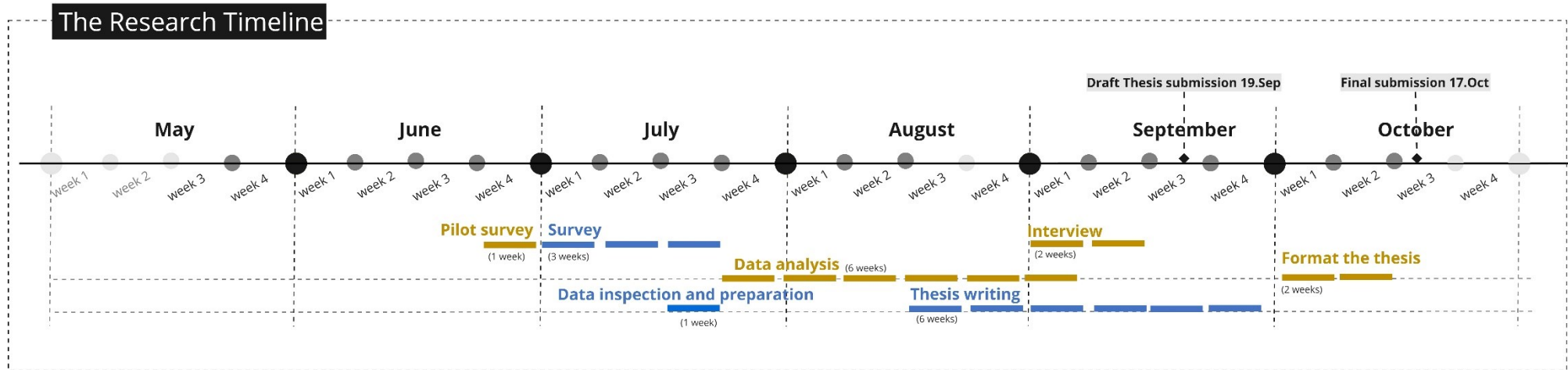






The influence of access to information on the women's social capital in the resettlement site Perumbakkam in Chennai, India

## Appendix 11: Research time schedule



## Appendix 12: IHS copyright form

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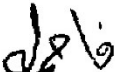
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