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**Thesis**

Title: The Development of Social Cohesion in Public Housing. A Study in A Flat Housing Project in Sukaramai, Medan

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UMD 6

## Summary

The Indonesian government through PERUMNAS (Indonesian National Housing Corporation) has launched walk up apartment or flat housing as an alternative means of providing houses for low middle-income. Unfortunately, many of them have been losing their quality of environment including as happening in the public flat housing, RUSUN Sukaramai Medan. The decreasing physical environment in flat housing is worsened by social problems that exist in the neighbourhood. The limited private space and more usage of common facilities tend to stimulate conflicts among tenants. This condition is more complicated since tenants of the flat housing come from various backgrounds. Problems commonly occurred between those differences which potentially disrupt the neighbourhood harmony and eventually could loosen community bonds.

The concept of social cohesion emerges to deal with the rapid and radical changes which have been eroding the mechanisms that have usually assured the maintenance of community bonds. Social cohesion in this respect has helped to create a sense of belonging, trust, and security and has given a situation to support willingness to enhance living conditions which are needed to promote a stable, co-operative, and sustainable community.

Identification of various factors influencing social cohesion in the social flat housing is necessary to enrich the concept itself as well as better formulating public housing policy. By putting social cohesion into considerations, it will develop more comprehensive understanding about how investment in neighbourhoods and communities will create integration and cohesion especially when resources are limited.

It is evident from the study that level of social cohesion within each neighbourhood of the flat housing estate, RUSUN Sukaramai is significantly different. It gives an early indication that various social and physical characteristics in each neighbourhood tend to influence social cohesion. Place attachment, functional social support, and civic activities are the social cohesion domains that are significantly different among neighbourhoods in the estate, while tolerance of diversity is likely to be indifferent among neighbourhoods.

Aspects of physical environment in the housing estate give more fairly influence to place attachment than to any other social cohesion domains. Several aspects such as like dwelling type, general housing condition, neighbourhood infrastructure, home component, room size, quality of rooms are significantly positively associated with place attachment. It is also positively related with the neighbourhood condition in terms of peacefulness and safety. High level of those two aspects is associated with high level of place attachment. Condition of inequality reflected by job satisfaction and having financial difficulty is also considered influencing social cohesion in relation with place attachment. People who are more satisfied with their job and who are not having financial difficulties tend to have high level of place attachment.

In terms of social support, only dwelling type and job satisfaction that are significantly related with it. It turns out that residents in row flat housing tend to have more social support than in mushroom type of flats.

Involvement tenants in housing management apparently could increase social cohesion in relation with civic activities and tolerance of diversity. High level of tolerance of diversity could also be achieved by minimizing the rate of victimization in the neighbourhood, and also by improving tenants' occupation by more engaging them in formal sector.

Aspects of physical environment in the housing estate as well as neighbourhood condition are not the only factors influencing social cohesion. It is quite significant that social condition of the residents may have effect to those kinds of relationship. It is found in the study result that education level has quite significant effect to the relationship between place attachment and various aspects of housing condition. Household type apparently has fair effect on the relationship between tolerance of diversity and involvement in housing management.

**Key words:** *social cohesion, place attachment, social support, civic activities, tolerance of diversity, inequality*

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## **Foreword**

The main reason I raised this topic to become my research was particularly backed to my deep concern about the provision of urban housing mainly for the low middle-income people. The principle of housing provision in the early period of social housing development was mainly to achieve shelter outcomes such as affordability, adequacy, and appropriateness. Consequently, standard technical design was applied to most social housing in Indonesia including flat housing. The later was supposedly to be an alternative solution of housing provision in big cities with dense population regarding the shortcoming of land in urban areas either due to high price or the availability of the land itself to be utilized for housing development.

Over time, many of those flat housings turned to decrease their quality of environment. Dirtiness, muddle, and dilapidated buildings are common sights that are mostly found in those housings. The situation is exacerbated by the negative perception of people outside the estates labelling the areas as places with high criminality and youth delinquency, although it has never been really proved or objectively measured. All in all, flat housings become the least favour of citizen to occupy apart of the difficulty of adaptation and adjustment living in this type of housing by Indonesian society. Hence, housing policy should unforgettably take into consideration housing management in order to make the housing as a better place to live in harmony and peacefulness, and eventually make it sustainable.

Therefore, I use social cohesion concept to identify problems happened in the locality by exploring factors that might be considered having influence either in strengthening or weakening social cohesion. Social cohesion is useful to bring back community bonds that have been eroded by rapid and radical changes in urban life especially in an area whose resources are limited.

I hope the result study which is found in this research will much benefit to enrich academic literature, although I realize that this work is still far from sophisticated quality of academic work. Moreover, I also expect that it could also reinforce housing policy in Indonesia especially in my region where I am working on now. Finally, any suggestion and critique are very appreciated to make this study getting better understanding.

## **Abbreviations**

PERUMNAS	<i>Perusahaan Perumahan Nasional</i> (Indonesian national Housing Corporation)
PPRS	<i>Perhimpunan Penghuni Rumah Susun</i> (Housing Tenant Association)
RUSUN	<i>Rumah Susun</i> (Public Flat Housing)
PKK	<i>Pendidikan Kesejahteraan Keluarga</i> (Programme for family welfare education)

## **Table of Contents**

<b>Summary .....</b>	<b>ii</b>
<b>Acknowledgements .....</b>	<b>iv</b>
<b>Foreword.....</b>	<b>v</b>
<b>Abbreviations .....</b>	<b>vi</b>
<b>Table of Contents .....</b>	<b>vii</b>
<b>List of Tables .....</b>	<b>ix</b>
<b>List of Charts.....</b>	<b>x</b>
<b>List of Figures .....</b>	<b>xi</b>
<b>Chapter 1 : Introduction.....</b>	<b>1</b>
1.1 Background .....	1
1.2 Problem Statement .....	2
1.3 Research Questions .....	3
1.4 Research Objectives.....	4
1.5 Research Benefits.....	4
1.6 Research Scope .....	4
<b>Chapter 2 : Literature review.....</b>	<b>5</b>
2.1 Social Cohesion .....	5
2.1.1 Concept of Social Cohesion.....	5
2.1.2 The Importance of Social Cohesion.....	9
2.1.3 Factors Influencing Social Cohesion .....	10
2.4 Flat Housing in Indonesia .....	16
2.4.1 Flat Housing Policy.....	16
2.4.2 The Role of Flat Housing Actors .....	17
2.5 Conclusion and Theoretical Framework .....	17
<b>Chapter 3 : Research methodology.....</b>	<b>20</b>
3.1 Research Type and Strategy.....	20
3.2 Sampling Method.....	20
3.2.1 Unit of Analysis .....	20
3.2.2 Population .....	20
3.2.3 Sample Size.....	20
3.3 Variables and Indicators .....	21
3.4 Data Collection Method.....	22
3.5 Method of Analysis.....	22
3.5.1 Statistical techniques.....	22
3.5.2 Measurement of scale .....	23

3.5.3 Reliability of scale .....	23
3.5.4 Analyzing Procedure.....	23
3.6 Research Stages .....	25
<b>Chapter 4 : Data Analysis .....</b>	<b>26</b>
4.1 Description about Location of the Research Area .....	26
4.2. Physical Condition .....	27
4.2.1 Housing Design.....	27
4.3 Social demographic condition of the estate .....	28
4.4 Community Activities of Housing Tenants .....	29
4.5 Results.....	29
4.5.1 Social condition of respondents .....	29
4.5.2 Economic condition of respondents.....	32
4.5.3 Scale assessment .....	35
4.5.4 Social cohesion within each type of flats.....	36
4.5.5 Housing and neighbourhood condition within the public housing .....	43
4.5.6 Relationship housing, neighbourhood, and inequality condition with social cohesion .....	48
4.5.7 Influence of social condition toward the relationship between social cohesion and housing, neighbourhood, and inequality condition.....	52
<b>Chapter 5 : Conclusion and Recommendation .....</b>	<b>55</b>
5.1 Conclusion .....	55
5.2 Recommendation .....	57
<b>Bibliography .....</b>	<b>60</b>
<b>Annex 1: List of questionnaire.....</b>	<b>62</b>
<b>Annex 2: Reliability of scale analysis.....</b>	<b>69</b>
<b>Annex 3: Partial correlation analysis.....</b>	<b>74</b>



## List of Tables

Table 4-1: Respondents' level of education .....	31
Table 4-2: Distribution of respondent's job .....	34
Table 4-3: Job satisfaction .....	35
Table 4-4: Scale of place attachment within each type of flat .....	37
Table 4-5: Mean score of place attachment .....	37
Table 4-6: Mean difference of place attachment among neighbourhoods .....	37
Table 4-7: Number of neighbours known .....	38
Table 4-8: Mean difference of number of neighbours among neighbourhoods .....	38
Table 4-9: Neighbourhood interaction .....	39
Table 4-10: Mean difference of neighbourhood interaction among neighbourhoods .....	39
Table 4-11: Mean score of frequency following social activities .....	40
Table 4-12: Mean difference of level of social activities followed by the respondents .....	40
Table 4-13: Mean score of social support .....	41
Table 4-14: Mean difference of social support .....	41
Table 4-15: level of civic activities .....	42
Table 4-16: Mean difference of level of civic activities .....	42
Table 4-17: Mean score of tolerance of diversity .....	43
Table 4-18: Mean difference of tolerance of diversity .....	43
Table 4-19: General condition of housing in last five years .....	45
Table 4-20: physical housing condition based on respondent's satisfaction .....	46
Table 4-21: Mean difference of aspects of housing condition among flats .....	47
Table 4-22: Neighbourhood priorities .....	47
Table 4-23: Neighbourhood condition .....	48

## **List of Charts**

<b>Chart 4-1</b> Respondents' ethnics .....	<b>30</b>
<b>Chart 4-2</b> Respondents' religion .....	<b>30</b>
<b>Chart 4-3</b> Composition of respondents' age.....	<b>32</b>
<b>Chart 4-4: Financial hardships</b> .....	<b>33</b>
<b>Chart 4-5: Formal/ informal sector of job</b> .....	<b>34</b>
<b>Chart 4-6: Having neighbours based on their location</b> .....	<b>38</b>
<b>Chart 4-7: Length of stay</b> .....	<b>44</b>
<b>Chart 4-8: Home ownership</b> .....	<b>45</b>

## List of Figures

Figure 2-1: Dimensions of social cohesion, showing social, economic and cultural context.....	7
Figure 2-2: Modified human ecologist or determinist theory diagram.....	12
Figure 2-3: The cycle of labelling and exclusion in public housing .....	15
Figure 2-4: Conceptual framework. The development of social cohesion within public housing.....	18
Figure 3-1: Research framework .....	25
Figure 4-1: Aerial view of location of RUSUN Sukaramai Medan .....	26
Figure 4-2: Building types of living unit in RUSUN Sukaramai Medan .....	27
Figure 4-3: Physical condition of the estate .....	43



## **Chapter 1 : Introduction**

### **1.1 Background**

In the early period of social flat housing (vertical multi-family housing) development in Indonesia, its objectives are mainly to provide housing for the low middle income in the big cities considered having dense population such as Jakarta, Surabaya, Palembang, and Medan. The housing is regarded as the efficient and instant way to provide houses in a dense urban area that frequently has a problem with the shortage of land and the soaring-up land price to build houses. Obviously, Indonesian housing policy much emphasized on the principles of affordability, adequacy, and appropriateness which are popularly known as the shelter outcome, and slightly neglected the non shelter outcomes such as emotional wellbeing, family functioning, community life and so on.

Over time, some flat housing estates are having social and environmental problems after they have been occupied for a certain period of time. Problems like noise, juvenile delinquency, rubbish, litter, and victimization have become common problems in the neighbourhood. People outside the estate mostly consider as a bad neighbourhood. Either the tenants or tenant association failed to maintain the building and its environment making it deteriorated. However, this situation can not be apart of the responsibility of PERUMNAS (Indonesian National Housing Corporation) and local government.

Problems in flat housing are quite unique. Starting with the community formation that is not every tenant knows others and added up by social, economical, and cultural differences among dwellers make those condition, if not handled well, possible to create social tension between the new and existing residents, the majority and minority ethnic, the young generation and elderly, disadvantaged and advantaged, and others. It will create disharmony within the neighbourhood and weaken the community bonds. In the worst scenario it will not only be costly to maintain but could threaten community welfare.

The similar situation also happens in one of the social flat housing in Medan, named RUSUN Sukaramai Medan. The development of this housing, beside to provide housing for the low middle income, has a function to minimize the spatial segregation in Medan. The residential development in Medan is still dominantly shaped based on the ethnic, and level of income. There are some areas dominantly inhabited by several particular ethnics and also there are some areas populated by the high or low income people. Issue of ethnic difference especially between Indonesian indigenous ethnics and non Indonesian ethnic, in this case Tiongkok (Chinese descendents) living in Medan is quite obvious in real community life. For several times, massive social conflicts occurred, even tough they were triggered by the political situation, eventually they came up with this issue, for instance the riots happened in 1998 after the resignation of President Soeharto which resulted many casualties and materials experienced by the Tiongkok. Until now, it can not be said that the RUSUN Sukaramai that is occupied by various ethnics including Tiongkok, and other local ethnics has shaped a comfort and harmony living for its residents even tough it has been occupied for quite long time, 24 years. It is indicated with the various neighbourhood problems happened in the area such as

rubbish and litter lying around, deteriorated physical building, noise from the stalls selling food and drink at noon and VCD sellers, and hanged clothes wash. It also has failed to give secure feeling for the residents since social disturbance such as juvenile delinquency, burglary and theft, vandalism and property damaging. This situation potentially weakens the social cohesion in that community.

The indication of low social cohesion in the flat of Sukaramai is described by Hardy (1996) that shown with the low participation of the residents in maintaining their environment, only 28,1% of respondents considered highly participated. The study also shows that only 35,7% of the environment regarded good. Another research is conducted by Nuralamsyah (1993) that investigated the communication among residents and neighbourhood harmony. The research suggests that most of the residents still use their local language instead of the national one. It is one thing why the social mix in the flats is difficult to achieve. The communication occurred more intensively with their side neighbors, whilst communication with different floor neighbors only occurred for some particular needs. She also suggested that conflict did not much happen because the difficulty of tenants to adjust with their environment (Nuralamsyah, 1993). Even though the frequency of conflict is relatively rare, that situation can not be assumed as a good parameter, because for some people they prefer to avoid the conflict rather than solve the problems which is usually called palliative behavior. If this situation kept happened, it will potentially create bigger conflicts.

## **1.2 Problem Statement**

Housing plays a significant role for individuals or households' well being. It is just not only giving people's roof for their head. How and where people are housed is a part of their social economic life. Housing also gives opportunity in accessing financial or other resources. Related studies revealed that housing was one of the indicators in social exclusion (DeVellis, 2003 in Stone and Hulse, 2007, Pallant, 2007). Housings located in areas characterized with deprivation, they are indicating the high level of social exclusion.

In the other hand, urbanization and globalization have dramatically changed social-economic life especially in big cities. They apparently erode the traditional values that used to become bondage for residents actively involving in their community. Urban life, nowadays, is more characterized with anonymity and heterogeneity. Urbanites have many choices to build social relationships outside their neighbourhood based on common interests, political ideas, hobbies, and so on (Fischer, 1984). It turns out that urbanization has caused losing community bond and reducing social cohesion.

Due to high level of urbanization and population growth, the number of housing demand is likewise increasing. To solve the problem of housing shortage, Indonesia government through PERUMNAS in 1960s – 1970 started to develop massive public housing especially in big cities such as Jakarta, Surabaya, Medan, and Bandung. The program was aimed to give affordable housing for low middle income people. Those public housings were built horizontally within large areas. During the year 1970s, the Indonesia government established a new approach of providing public housing by developing flat-type housings or four floors-walk up apartments. It aimed to address land shortage in terms of availability and high

price in cities. Building housing vertically also helped cities in utilizing the land efficiently and to close the low income people with job opportunities.

Over time, the latter of public housing turned the areas into declining environment or neighbourhood as evident in many cities in Indonesia. They were much characterized with deteriorated buildings, social disorders, criminality, devalued public infrastructures, and uncleanness. This situation stimulated stereotypes from the outsiders. Taylor in his research (1998) explained that stereotypes from people outside the neighbourhood exacerbate the conditions and lose self-worth and confidence of the tenants. Apparently the similar situation happened in many American cities where public housing became a symbol of failure in consumer society (Taylor, 1998).

The reduced role of government in providing public services, as the paradigm shift of government and also the limitation of local budget, has given chance to review the concept of social cohesion that has been sundered in modern life. It helps to strengthen local capacity based on common values, sense of belonging, trust and norms in order to collectively solve local problems.

Several aspects of housing are manifestly or latently related with the development of social cohesion within a community. Factors such as the location of the housing are related with the ability of people to move in relation with accessibility to other resources. Housing management plays an important role in behavioural change (Manzi, 2010). The diverse nature of public housing like flat types, housing tenures, facilities, also contributes to social interaction and integration which finally can promote social cohesion. Involvement of the tenants in the management as well helps to empower them and brings sense of belonging to their area.

Besides influenced by the condition of physical environment and neighbourhood, social and cultural environment within the community could also have impact on social cohesion.

### **1.3 Research Questions**

As we know that, the social cohesion is needed to make a better living in a community by strengthening the social capital and reducing the differences, cleavage and inequality. It mainly aims to shape the sustainability in the community that can indirectly affect to the resident welfare. Housing plays an important role to improve the social cohesion in terms of provision, allocation, and maintenance.

This research would like to derive empirical situation about the social cohesion in flat housing of Sukarmai based on neighbourhood level that is referred by dwelling type and how the housing condition including its neighbourhood contributes to the development social cohesion in that area by looking their degree of correlation. In order to do that, the following questions will be addressed, as:

1. How is social cohesion within each type of flats in the public housing estate?
2. How do aspects of housing and neighbourhood as well as inequality condition significantly relate with social cohesion? Into what extent does the relationship take place?

3. How does social condition influence the relationship between social cohesion and aspects of housing and neighbourhood?

## **1.4 Research Objectives**

Complying with the research questions above, this research would like to:

1. To briefly compare the difference of social cohesion level within each neighbourhood in the housing estate. These findings could lead to the assumption that different physical and social environment in each neighbourhood may influence social cohesion.;
2. To identify aspects of housing and neighbourhood as well as the inequality conditions which are significantly related with social cohesion and to identify their strength of relationship;
3. To investigate whether the relationship between social cohesion and aspects of housing and neighbourhood condition is mediated or intervened by social condition or the relationship is independently influenced by social condition;

## **1.5 Research Benefits**

Since there is not much literature about social cohesion in Indonesian context, especially within a community, this research is expected to be the starting point for the practitioners and academics to take into account the social cohesion approach seeing from the housing aspect in solving the social economic problems. This study also enriches the concept of social cohesion within developing countries while the available resources much occurred in developed countries. This study only focuses on the social housing provided for the low middle income people, because the group in that community is reluctant to be segregated than other housing types occupied by better income people. Even though the result of this research can not be generalized to all social housing in Indonesia, at least it can be a base in understanding the local issues with similar characteristics.

By doing this research, it is expected to know the level of each social cohesion domain within the research location, and to identify housing aspects that either positively or negatively contributes to social cohesion. Aspects of housing related with social cohesion are needed to be identified so that there will be some changes that can be done to improve the quality of housing.

For the local government, the research recommendations can be used for enriching the approaches used in devising the housing policies especially for the low middle income. For the housing providers/ manager along with the residents, this research is beneficial for them to increase their housing management

## **1.6 Research Scope**

This study will focus on the social cohesion in the flat community by exploring the domains of social cohesion after they have been living together for a particular time, during which they must handle with the differences of social, economical, and cultural background of the dwellers that is possible to dwindle it. Since they live in same areas, housing aspects and neighbourhood condition will be examined in this research to know its contribution to the creating of social cohesion.



## **Chapter 2 : Literature review**

### **2.1 Social Cohesion**

The persistently increasing number of migrations has become a strategic issue to be dealt with in the urban development of developing countries unremarkably Indonesian cities especially in the metropolitan area like Jakarta, Surabaya, and Medan that are populated by people with various different social backgrounds. This condition is coupled with the modernization and globalization that seem unavoidable to date. Those situations sharpen conflicts and disparity in urban areas while the urbanization problems themselves still have many challenges to be solved. The Council of Europe (2005) said that globalization is still perceived as a factor of insecurity given that, through its excessive support of neo-liberal values, it destabilizes the reference points and institutions which guarantee social cohesion. It also promotes poverty and social divisions. All matters have significantly contributed to the transformation of social and economic as well as the demographic structure in urban society.

In the urban planning agenda, the strengthening of local capacity has become an alternative solution and is urgently required to reduce the increasing conflicts and disparity between the advantaged and disadvantaged, the indigenous and migrant, and the majority and minority. Enhancing the social cohesion seems a proper way to achieve it, which considers on the strengthening of social connectedness, often referred to in the terms of “social capital”, reducing the differences, cleavages, and inequalities between groups of people and people living in different geographical areas, often referred to as the social exclusion (Stone and Hulse, 2007).

#### **2.1.1 Concept of Social Cohesion**

To fully understand about the concept of social cohesion, this section will elaborate the definition of social cohesion from various sources of literature, and the dimensions of social cohesion that are used to measure the social cohesion in a society.

##### **2.1.1.1 Definition**

There have been many different conceptual approaches to social cohesion, although it has been much and long discussed by academicians, practitioners as well as governments in much of European countries, They vary according to period, culture and differ from one another in terms of the areas of life or groups concerned and the methods used to develop concepts of social cohesion.

Cohesion based on its etymological sense means as the inherence of a group, all of whose components are closely connected. Like in biology where a living organism's cohesion comes from the integration of its elementary parts, social cohesion derives from the connection between individuals and bodies (Europe, 2005). Bollen and Hoyle (1990) suggested a theoretical definition of cohesion that a situation where individual group members feel “stuck” to or a part of, particular social group (Bruhn, 2009). In a simple way, cohesion means the opposite of disintegration or division. Therefore, links and unity are two basic criteria in this matter (Europe, 2005).

Social cohesion is something that can be seen in daily activities in groups of community (Forrest and Kearns, 2001) indicated by intimate, face-to-face communication, exhibit cooperation and conflict, and have members spending great deal of time together and know well each other (Cooley, 1909 in Bruhn, 2009). However, the Council of Europe (2005) argued that cohesive communities can only be achieved as long as they can function and grow in harmony together rather than in conflict. That can be worked out, if the community as whole is able to acknowledge that individuals have a right to equality and respect and appreciate diversity within it. Deutch (1949) also found that group members who were rewarded on a cooperative basis were more cohesive than members rewarded on a competitive basis (Bruhn, 2009). The degree of social cohesion can also be described as the ability of members of community to cooperate and respond collectively to achieve their common goals and to deal with economic, social, political, or environmental stress that affect them (Europe, 2005).

Regarding the diverse nature of a community is something quite challenging in addressing social cohesion especially in an urban context where society, now, is more characterized by various social backgrounds such as economical status and ethnics. It has proved that people with common background tend to group rather than with different one (Sim et al., 2003).

Social cohesion, in this respect, is not something created from a homogeneous community based on ethnic, religion or any other social status, since it is more possible to create conflict among others and tends to be isolated. LGA et al. (2002) suggested there should be a common vision and sense of belonging in a cohesive community process (Robinson, 2003, Stone and Hulse, 2007) based on sense of hope, trust, and reciprocity (Europe, 2005). In order to achieve shared values, it is important to reduce disparities in wealth and income and enable people to have a sense that they are involved in common initiatives, dealing with shared challenges so that they feel they come from the same members of community. Briefly, a cohesive community will involve people in participation and governance within a framework of accepted values and institutions (Europe, 2005).

In conclusion, based on that literature, social cohesion can be defined as a feeling of integration, attachment to the area and cooperation rather than conflict among group members in a particular level of community developed through intense interaction in daily life as well as harmony life by reducing inequality and respecting to the nature of diversity existed in that group or community.

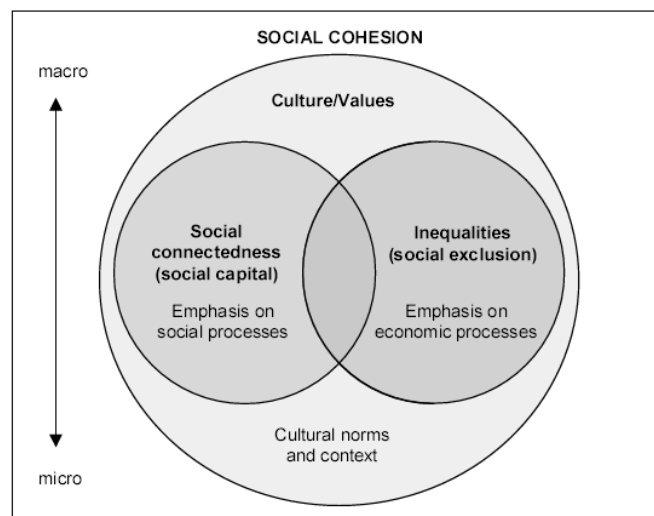
### **2.1.1.2 Related Aspects Embedded in Social Cohesion**

Social cohesion is a broad concept, and still having difficulty whenever it comes to the operationalization. It is a multi-dimensional concept that is inter-related each other. There is no specific agreement about its definition, measurement and application. Leaving it with a specified discipline will lead to ignorance of other aspects which have either strong or weak relation that contributes to social cohesion.

However, some researchers come out with several aspects used to look at and measure social cohesion. Forrest and Kerns (2001) describe social cohesion into five domains. Those five domains are common values and a civic culture; social order and social control; social solidarity and reductions in wealth disparities;

social networks and social capital; and place attachment and identity. Stone and Hulse (2007) suggest that social cohesion consists of three dimensions. They suggested that social cohesion is an overlapping and dynamic interaction between social connectedness, under the notion of social capital, and inequalities under the concept of social exclusion. They also add cultural environment as the third dimension of social cohesion which is evident in some works, even though sometimes contested under dimension of social capital. Cultural environment is the situation where social interactions take place and encompasses ideas about shared values, common purposes, and place attachment/ belonging and shared identity.

**Figure 2-1: Dimensions of social cohesion, showing social, economic and cultural context**



*Source: Stone and Hulse (2007)*

Furthermore, for the necessity of this research, it will more focus on five main aspects of social cohesion which are most essential in describing social cohesion, - that is, place attachment, social support, civic culture, inequality, and tolerance of diversity. Other aspects like social order and social control as Forrest and Kerns (2001) suggested as mentioned above are separately explained in the neighbourhood section., since this research tries to explain the degree of social cohesion in a neighbourhood and how it is influenced by housing and neighbourhood condition. Below will be briefly outlined those aspects.

### **a. Place attachment**

The concept of place attachment or sense of place simply defined as the connection between people and location has been evolved for over years in various fields of research (Payton, 2003). Williams and Stewart (1998) defined place attachment as the collection of meanings, beliefs, symbols, values, and feelings that people or groups relate with a particular locality.

Brown (1987) developed two models of place attachment, -that is, functional place attachment and emotional place attachment based on the prevalent literatures.

Functional place attachment, or place dependence, relates to functionality or the ability of the resources available in the locality to meet the needs or goals of individuals (Payton, 2003). Functional place attachment in terms of the quality of the place is influenced by two factors: 1) the extent to which the place satisfies

user needs and 2) the comparison to other available places (Shumaker and Taylor, 1983).

Emotional place attachment, or place identity, relates to the emotional aspects of a individual-place relationship and how that place influences to an individual's self-identity (Schreyer, et al., 1981; Williams & Roggenbuck, 1989 in Payton, 2003). This feeling of connectedness to place can lead to sense of belonging or purpose that helps give meaning to life (Tuan, 1980 in Payton, 2003).

## **b. Social support**

Social support is defined as the network of family, friends, neighbours, and community members which is present in time of need to provide psychological, physical, financial, or other kinds of help (Bruhn, 2009).

There are two ways of measuring social support based on Sherbourne and Stewart (1991). First is by looking at functional support which refers to the degree of interpersonal relationship that may serve particular functions. Those functions includes (1) emotional support which involves caring, love and empathy, (2) instrumental support described as tangible or physical support, (3) information, guidance, suggestion, or feedback that is helpful to provide solution to a problem, (4) appraisal support which refers to information relevant to self-assessment, and (5) social companionship, which means engaging leisure and recreational activities with other. The second approach of measuring social support emphasizes on structure of interpersonal relationships. Structure regards to the presence and quantity of social relationships (e.g. marital status, household type, group membership, and the number of friends or neighbour one has) and interconnectedness of someone's social relationships or social networks for instance the degree to which someone's friends know each other.

## **c. Civic culture**

Civic culture is the perception of individuals in a community through which they are willing to voluntarily participate in some actions and activities as response to locally social problem. They regard the responsibility of caring social problems is placed within community itself rather than resting the problem on the government (Haddad, 2006).

Civic action itself takes various forms. It could be defined as individuals who donate their time, money or other resources to something they regard valuable to their community (Payton, 2003). Many benefits can be derived through that kind of participation. Arai & Pedlar (1997) in Payton (2003) suggest that it can strengthen friendship and connectedness in the community while Prestby, Wandersman, Florin, Rich, & Chavis (1990) suggest that it can enhance community empowerment through improvements in interpersonal relationships and social fabric (Payton, 2003) and furthermore it will strengthen social cohesion (Forrest and Kearns, 2001).

## **d. Tolerance of diversity**

As Stone and Hulse (2007) argued that cultural aspect becomes one of the important aspects that is need to be taken into account when investigating social

cohesion. The cultural aspect is one of the diversities besides income level, age, and any other differences that can be commonly found in an urban community. In a community with various and overlapping identities, tolerance of diversity becomes a key tool of success to reach harmonious living and cooperation among those groups. It helps them integrated but also maintains racial harmony as well as stimulates community bonding (Sim et al., 2003). However Chan et al. (2006: 292) contrarily argued that social cohesion does not really require values such as tolerance or appreciate for diversity (Stone and Hulse, 2007).

### **e. Inequality**

Inequality becomes the main concern when discussing about social exclusion. It refers to deprivations experienced by the poor or who are at risk of poverty due to social disparities in life chances. Inequality becomes one of social exclusion indicators, which is willing to asses individuals who find themselves excluded from the opportunities accessible to the majority of the population in a particular area in which they live (Avramov, 2006).

Although not specifically mentioned by Forrest and Kearns (2001), they suggest that inequality in terms of wealth disparity must be reduced in order to develop social cohesion. They include reduction in wealth disparity as one of social cohesion domains by giving equal opportunities and access to welfare benefits. This argument, then, is strengthened by Stone and Hulse (2007) who mention inequality is a factor that can weaken social cohesion.

#### **2.1.1.3 Social Cohesion Perspectives**

It is debatable whether social cohesion is regarded as a cause or consequence of social and economic outcomes. Those two variables are correlated and influence each other. When social cohesion is considered as an independent variable, it means that high level of social cohesion can contribute to the achievement of positive social and economical outcomes. This implies that policies and programs that will be undertaken are to enhance levels of social cohesion or to reverse its perceived weakening. Examples for this such as urban or community renewal for older public housing estates in order to build social relationships and social capital as a means of achieving some particular outcomes like reconnecting residents with jobs or education and training, reducing turnover and increasing residential stability, and reducing stigma as well as increasing pride in the neighbourhood. Another example is a residential participation programme which focuses on building trust, cooperation and mutual support (Stone and Hulse, 2007).

In the other hand, if it is indicated as a dependent variable then it means that the achievement of levels of social cohesion is relied on social, economical, and political factors. The policy implication of this perspective may involve support for strategic interference by governments to improve facilities and services related with the strengthening of social cohesion (Stone and Hulse, 2007).

#### **2.1.2 The Importance of Social Cohesion**

Within the context of urban life where globalization and modernization has been much overwhelmed byr daily social dynamics, society is likely to be characterized with heterogeneity and anonymity as well as individualism. Social cohesion is

important in a modern society focusing on the rights of individuals and having to deal with rapid and radical changes that are eroding the mechanisms that have usually assured the maintenance of community bonds. It has an even more significant role in achieving equilibrium, which deals with both individual development and sense of belonging and combines together individual freedom and social justice, economic efficiency and fair distribution of resources, diversity and agreed rules for resolving all disputes peacefully (Europe, 2005).

Social cohesion in this respect has helped to create a sense of belonging, trust, and security and has given a situation to support willingness to enhance living conditions which are needed to improve economic situation. The aspect of sense of belonging not only creates wealth, but also helps access to the fairest distribution of its outcomes.

This sense of belonging, however, deals with confronting issues given that strongly cohesive communities or neighbourhoods are possible to have conflicts with one another and contribute to divided and fragmented city. It is because citizens that have strong attachment and loyalty to their place could be in conflicts with any sense of common national purposes or macro-cohesion (Forrest and Kearns, 2001).

Regardless the possible conflicting intentions with macro-cohesion, social cohesion is also an important determinant of the quality of life, where a community with a high level of cohesion is characterized by voluntary, high in intimacy, and reciprocal services tends to be health-promoting. It also can generate social capital through number of mechanisms and can easily get support from community members (Bruhn, 2009).

It is expected that social cohesion is increasingly taken into account in a decision making of investment either by local authorities or other stakeholders. By putting social cohesion into considerations, it will develop more comprehensive understanding about how investment in neighbourhoods and communities will create integration and cohesion especially when resources are limited. Furthermore, social cohesion is an instrument to promote a stable, co-operative, and sustainable community (Europe, 2005).

### **2.1.3 Factors Influencing Social Cohesion**

Social cohesion is a community development process that requires its members to actively participate in community groups and activities based on shared trust (Forrest and Kearns, 2001, Sim et al., 2003). It is an on going process that can be modified through time by social change (Bruhn, 2009).

It seems right that people that live longer in an area will have more local friends (Forrest and Kearns, 2001), but there is a complex process that makes people want to interact each other and eventually produce a stable community. Community characterized with by population profile is likely to develop cooperation to resolve their common problems since they know well each other.

There are many factors that are indicated to influence development of social cohesion. Europe (2005) focused on two approaches of social cohesion development. First is by looking at positive approach that contributes to social cohesion. It emphasizes how community members can have access and

opportunities to have a reasonable and good quality of life. The second is from negative approach focusing on the weakening of social cohesion. The latter one is much more related with inequality that can create social exclusion. There are also some evidences that high crime rate and feeling of insecurity contribute to the weakening of social cohesion.

It has been shown that in many English towns housing significantly contributed to the disturbance happened in 2001 triggered by high levels of spatial segregation, which were assumed to lead to different population's living, working, and socializing separately (Robinson, 2005). The Singapore national government also had recognized that housing can be an effective tool to promote social integration through mixed residence housing policy (Sim et al., 2003).

The aim of this research is to investigate to what extent does the public housing mainly the walk up apartment type of housing estate with its multiple dimension of life influence social cohesion within the neighbourhood. Social cohesion as the object of this study is part of the several objectives that want to be achieved through development of public housing towards sustainability.

Some issues that are relevant with the weakening of social cohesion are poor and deprived condition; the increasing of economic migration; rapid globalization and the instant reporting of world affairs that can give impact to local area within hours; tensions due to current economic difficulties; increased terrorist threat and radical potential from disaffected and isolated individuals; issues between intergenerational groups, income groups and between temporary and permanent residents; demographic changes; conflicting priorities of public services (Government, 2008).

### **2.1.3.1 The Influence of Physical Environment and Neighbourhood to Social Cohesion**

#### ***Human Ecologist or Determinist and Effective Environment Theory***

This section will elaborate related theories that explain how spatial structure within a neighbourhood can influence social behaviour and related with this research, that social behaviour will be transformed into social interaction that develops social cohesion. These theories will be used later as the theoretical framework of the research.

A popular theory that describes models of urban life is human ecological theory. Human ecologists believe that there is one way relationship between the structure of the environment and the behaviour of individual. They argued that the mode of individual behaviour is determined by the environment, and that person either adapt or fails to survive (Krupat, 1985).

One of the proponents of human ecologist or determinist theory is Louis Wirth through his significantly influential essay entitled "Urbanism as a way of Life" (1938). He argued that the city by its characteristics - which he defined as size, density and heterogeneity - has significantly changed the social life. With cities inhabited by large number of people, there will be a wide range of differentiation among them in terms of a variety on racial, ethnic, economic, and class lines. Those variations tend to weaken community bonds. It will be difficult to have consensus in the absence of community, and eventually it will destroy the moral

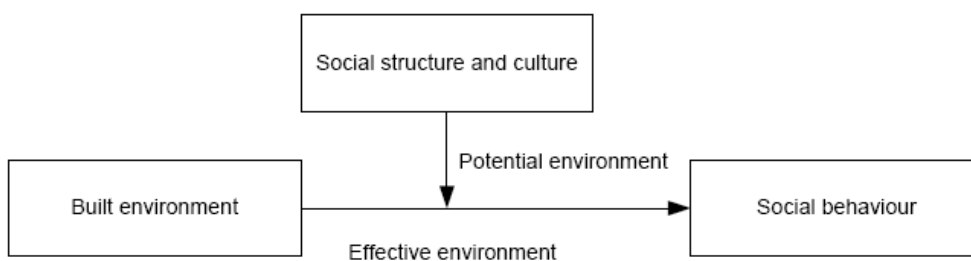
order. He then claimed that density even makes it more difficult, since unengaged people are likely to constantly compete with each other. With close physical proximity coupled with great social distance, it will generate a sense of loneliness, nervous, tension, and mutual irritation. The fact that heterogeneity comes along with size makes the problem more complicated. He argued that heterogeneity tends to breakdown the family unit and segment the individual even further.

What Wirth (1938) said in his work seemed strongly anti urban. His argument about how city dictates the way of life of its citizen came to criticize opinions even from the human ecologist perspective itself such as Amos Hawley (1979, 1981) (Krupat, 1985). Environmental psychologists have a different perspective from what determinist theory had proposed. They argued that the relationship between individual and environment is more likely a dynamic and mutual influence process. To some condition that people must live where and as they are, they will adapt in the first time, but later on they are constantly changing and influencing the environment according to their demand to the environment. If it is not flexible enough, they may just decide to leave (Krupat, 1985). In other word as Michelson (1971) stated in Krupat (1985), humans have the ability to choose moving in or out of environments depending on their preferences. Jonathan Freedman (1975) also suggested that the city has a positive and negative effect to individuals depending on their characteristics or the requirements to the situation (Krupat, 1985).

Another thing from Wirth's point of view that is contested is about proximity. Different from rural areas where proximity has plays a significant role in getting friends and building social networks, in urban area, proximity is less significant, because common interests have more to do as the factor for people build relationships (Krupat, 1985).

Human ecologists influence much for urban planners. They believe that with good quality of design and technology, the physical environment can give impact to social behaviour. They assume the values and benefits for society that want to be achieved can directly result from the physical environment. In the other hand, social scientists tend to deny the direct influence of environment, arguing that culture and social structure are the key determinant (Gans, 1972).

**Figure 2-2: Modified human ecologist or determinist theory diagram**



*Source: (Gans, 1972)*

The social scientists argue that the physical environment is only considered as potential environment. The social system and culture of the people who will use it determine to what extent the environment becomes an effective environment. The effective environment is the version of potential environment that is apparently or latently adopted by users (Gans, 1972). He took an example about the preference



of people to live in a single-unit house or in a walk up-apartment regarding of healthy child-rearing. He said that from the perspective of urban planners, it is better if children are raised in single-family housing than in apartment, but social scientists said it more relates to social, economic, and cultural condition within those families. He as well emphasizes that technologically better housing must be seen in the context of user's available choices. If single-family housing is located in the area far from job places, it will not be advantage for people vulnerable with job security. For those kinds of people, the modernity offered in urban centre can be offset by deprivations resulted from budget constraints.

Still in housing design, the necessity of recognizing culture condition is evident like for some cultures that regard overcrowding perceive differently from others. For some cultures, overcrowding is not regarded something that disrupts social system and results in depression and conflict. In contrast, they regard such high value on sociability and living in social proximity (Gans, 1972).

### ***Neighbourhood and Social Cohesion***

Neighbourhood by its definition simply means that a set of people living nearby. It is a natural social group which just like the family requires early-on the intense loyalties of its residents and their active involvement with one another (Keller, 1968). Forrest and Kearns (2001) divided neighbourhood into three typologies. First is the neighbourhood referring to community, that is the local domain of friendships and casual acquaintance which seems remaining important in our daily lives. Second is the neighbourhood as context, particularly in the negative sense of stigmatization, ill health, and the development of antisocial behaviour as a result of social exclusion. Third is neighbourhood as commodity that functions as a domain of safety and security as well as compatible lifestyle packaged and sold as called enclave.

Over time, neighbourhood in modern cities inevitably has been loosening its significance due to urbanism (Keller, 1968). Many urbanites have lost their ties to neighbourhood as opposed to rural people that are still much been relied on their neighbourhood for livelihood development. Networks used to be based on locality, now, may be replaced with common interests, hobbies, alliances, occupations, and so on that all those networks can found outside of neighbourhood. This is exacerbated with the rapid development of information and communication technology that make urbanites easier to have acquaintances and build relationships. However, the absence of local ties does not mean reducing urbanite's personal bonds. Several studies showed that local relationships are still important but more specialist roles in individuals' lives (Forrest and Kearns, 2001) and alternatives to extra-local ones (Keller, 1968).

Neighbourhood has different meanings to nature of area. For disadvantaged areas, quality of neighbouring is an important element for inhabitants' ability to deal with a decaying and unattractive physical environment, while in more affluent areas, quality of physical environment in the neighbourhood is more important rather than having engaged within a great degree of social interaction (Forrest and Kearns, 2001).

In the study done by Ellen and Turner (1997), there is a significant correlation between various neighbourhood conditions and individual outcomes, at every stage

in a person's life and across social and economic dimensions. For example, elderly people and those out of labour force are likely to be more dependent on local ties (Forrest and Kearns, 2001).

The way the neighbourhood plays an important role in socialization, not only by its internal composition and dynamics, but also by the external perceptions of residents in other neighbourhood and of institutions and agencies which play a key role in opportunity structures (Forrest and Kearns, 2001). The external perceptions of areas affect behavior and attitude of residents which may either reinforce or weaken social cohesion (Forrest and Kearns, 2001).

There is a short of agreement what distinguishes between successful and unsuccessful neighbourhood is the degree of social cohesion. The basic assumption is the disadvantaged neighbourhoods lack of necessary ingredients to foster social cohesion. They also in general lack the necessary qualities of self-help, mutuality and trust which could help in their regeneration (Forrest and Kearns, 2001).

However, despite the macro process of disorder, dislocation and social and economic transformation which may change social life within a community or neighbourhood, the residents still do their daily routine activities as usual. This may help normalize social relations. It is the residentially based networks which carry an important role in the routines of mundane life and these routines are possibly be the foundation of social cohesion – through them we learn tolerance, co-operation and acquire a sense of social order and belonging (Forrest and Kearns, 2001).

### **2.1.3.2 The Stereotypes of Public Housing**

Social or public housing program was initially launched as the solution of housing shortage especially for the low middle income people living in cities. Rapid population growth coupled with urbanization turn into such high demand in houses. Meanwhile, from the supply side, the production of houses was still unable to accommodate all levels of social class due to soaring land price which make the low income people excluded from housing market in city centre area.

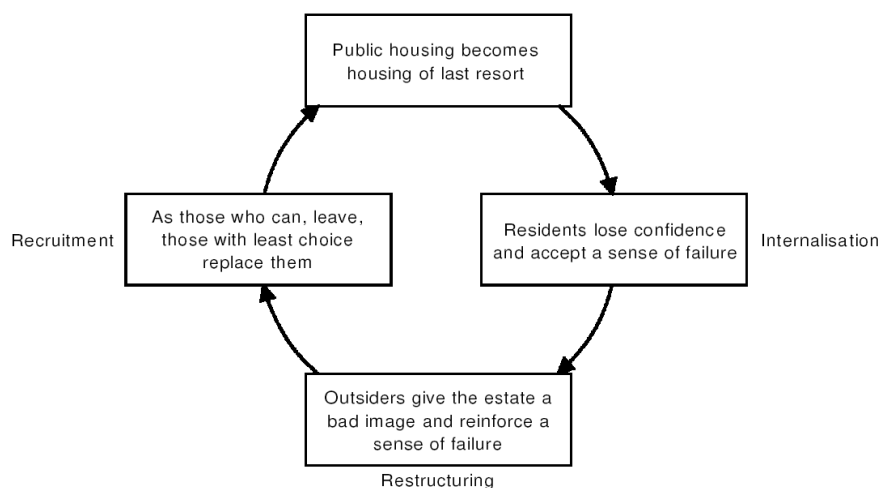
Over time, many public housings become deteriorated and make unattractive place to live in. They become a symbol of failure in consumer society. They become the last living place option. People with no other option usually tend to concentrate living where few people want, characterized with poor design and quality and bad environment (Taylor, 1998). Whereas, housing is supposed to play an important role for individual's life. It does not only give individuals physical shelter, "a roof over one's head", but how and where they are housed are part of many aspects of individual wellbeing and social economic life (Stone and Hulse, 2007). Access to housing is the key determinant for household's ability to move. Household's housing condition and housing market location are much related with financial and other resources (Sim et al., 2003).

Many public housings even in American cities are characterized by deprivation, poverty and unemployment (Taylor, 1998, Sim et al., 2003). People saw them as double marginality, since they are considered as having least positive identity. Locations selected for public housing are likely to solidify racial spatial concentration (Sim et al., 2003). Public housing residents usually do not have overlapping communities that others have. Strong social and political networks

built upon working-class community were relied on work ties. Abrams and others have argued that survival and integration nowadays depends on ties that go outside the immediate neighbourhood or kinship networks. In that case, residents in these areas are more excluded, with neither the strong ties within the neighbourhood of the past nor the sparser, overlapping networks required today (Taylor, 1998).

There are some common situations that help to survive, but poverty tends to create conflict and suspicion, as stereotypes from outside are deflected onto neighbours. Cole & Smith's research (1996) found that stereotypes about the public housing estates make it difficult to differentiate between real and imaginary problems that the estate deals with. The portrayal from the media always puts the estate in the crime section of local paper describing that taxis, buses and delivery vans avoid the most notorious areas. Residents bear with post-code discrimination: employers lose interest once they know the address; financial institutions are unwilling to lend. There is little reason for outsiders to visit the estate or test the popular image against reality (Taylor, 1998).

**Figure 2-3: The cycle of labelling and exclusion in public housing**



*Source: Taylor (1988)*

Some policy tools have been tried to improve living condition in terms of eliminating social exclusion. Some countries like Netherlands, American, and Singapore (Sim et al., 2003) use the concept of racial and economic mixing of housing in order to prevent spatial segregation.

Arguments for mixed-community, still debatable, are they contribute to choice and equality, avoiding concentration of deprivation, and help to address social exclusion and social cohesion. Camina and Wood (2009) also suggested that mixed communities can increase social interaction, encouraging the spread of mainstream social norms and values, building social capital, opening job opportunities through more various social contacts, overcoming place-based stigma, drawing additional services to the neighbourhood (Manzi, 2010).

Housing management of mixed communities rely on two specific and linked discourses. The first is a “cultural discourse” based on the notions that housing management can lead to behavioural change and enhanced self-worth. The other one relates to “social control” arguing that peer-group pressure will lead to social norms (Manzi, 2010).

The mixing of different income groups and the interspersing of private housing developments within public housing estates have also help to reduce the social stratification within the society, therefore achieving ethnic and social integration (Sim et al., 2003). Moreover, the estate should also be integrated with commercial, recreational, institutional and other facilities to accommodate the daily needs of population with various social backgrounds.

Taylor believed that to eliminate social exclusion within public housing estates, it has to be done by reversing social exclusion cycle (as shown in fig. 3) He believed that it can help to build confidence and capacity on the estate itself. Some suggestions he proposed to reverse the social exclusion such as diversification of tenure; make the tenants as “the landlord”; community-based management; tenant involvement, and viable economy.

## **2.4 Flat Housing in Indonesia**

This section would like to give briefly description about the flat housing polices to derive the illustration how the Indonesian flat housing policies will contribute to the shaping of social cohesion in flat communities. As we know that, the limitation of dwelling space in the flats enforces the tenants to adapt the situation and have to be tolerant to the diversity of the nature of the flats to achieve the sustainable communities.

### **2.4.1 Flat Housing Policy**

Development of flat housing in Indonesia has begun massively since 1980 in some cities considered have high population density like Jakarta, Surabaya, Medan, Palembang, and Bandung. On that day, the flat housing is aimed to revitalize the urban housing environment whose condition had been deteriorated forming the slums. The flat development is also regarded to tackle the housing provision problem for the low middle income considering their low capability to access the housing market in urban centre, since the land price on that area tend to highly increase due to the shortage of land for housing.

Through the process, flat housings are more needed since the migration like in other big cities unable to avoid making the housing demand increased and the landed social housing type is hardly to implement especially in the urban centre area. In fact, I argue in the future, the existence of flat housing type will replace the latter type.

Indonesian government has issued Flat Housing Act 1985 to regulate the flat housing development. The flat housing development in this respect is the public housing which takes form as a four floor walk up apartment provided for low middle income people. The development of flat housing relies on the principle of public welfare, justice and equality, and stability and harmony in living. It aims to fulfil the housing need proper for society mainly the low middle income, ensuring the law assurance in its usage and to improve the capacity and benefit of land in the urban area by paying attention to the natural resource sustainability and creating housing environment completed, harmonious, and balanced.

## **2.4.2 The Role of Flat Housing Actors**

Indonesian regulations about the flat housing have regulated also the role of the key players in the flat housings in the context of development, management, and monitoring aspects. The following sections will describe each of their role including the government and local authorities, and dweller groups and management institution.

### **2.4.2.1 Tenants, Tenant Association, and Management Institution**

The tenants are considered the most important key players in the maintaining the environment and neighborhood to create conducive condition in communities. In order to regulate and take care of the common interest in terms of ownership, dwelling, and management within a flat housing estate, the tenants must establish a tenant association. The association functions to develop a healthy, secured, and balanced environment, to regulate and develop tenants' concerns, and to manage the housing and its environment. Its main duty is to pursue tenants so that they can live together within their housing and environment in sense of harmony, coherence and stability, to appoint or form and supervise the management institution in terms of the flat and environment management, determine the sanction to the offence of the community principle established.

In case of the tenant association appointing or forming the management institution, it will run duties such as conducting the inspection and maintaining the cleanliness and repairing the flats and its environment upon the shared parts, properties, and land. It also controls the order and security of the dwellers as well as the usage of the shared parts, properties, and land accordance to their function, and reports periodically to the tenant group including the problems and the alternative solutions for them. All cost will be proportionally borne to the tenants or owner through the association.

### **2.4.2.2 Government and Local Authorities**

The development of social flat housing is fully under responsibility and supervision of central government. The role of government is establishing the policy in regulating and fostering the flats including the technical and administrative conditions of flat development, decent dwelling permit, the tenure, dwelling, management and monitoring regulation.

The local authority function to formulate the short and long run regulation of flat development based on the national government policies given. The regulation accommodates local context such as urban and regional plan.

## **2.5 Conclusion and Theoretical Framework**

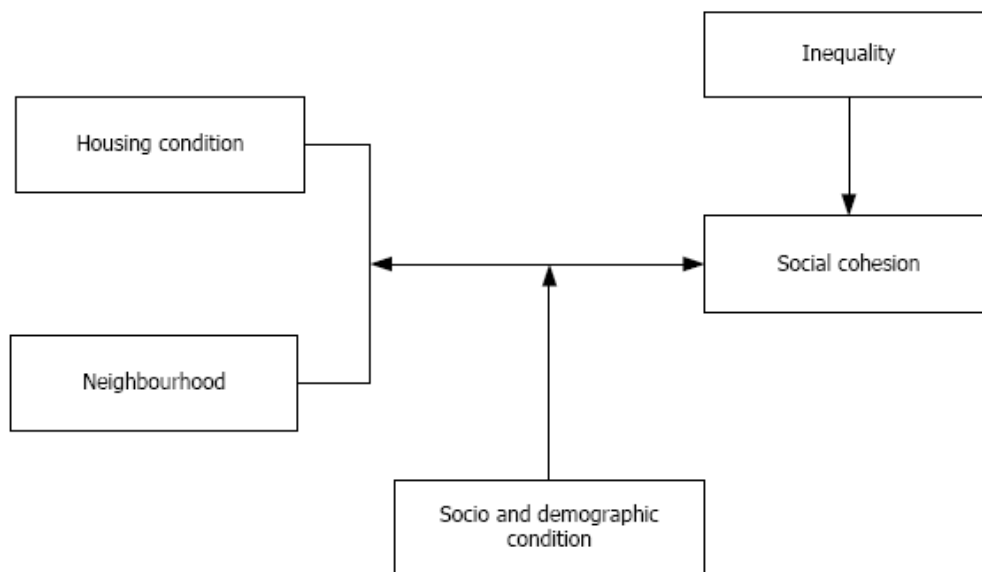
As urbanism is justified losing social relationships within local communities, the declining role of government in providing public services has turned to reflect the concept of social cohesion. This concept is emerged basically on the common values and a sense of belonging to locality (LGA et al., 2002). It, then, is developed to have tolerance of diversity as opposed to increasing urbanization characterized with the variety of social backgrounds (Stone and Hulse, 2007). Through this concept, it is expected to create social order and social control which is necessary to the foundation of collective pursuits and by that can be a tool to

solve the neighbourhood problems (Forrest and Kearns, 2001). In order to achieve social cohesion, it is necessary to reduce wealth disparity and any other indicators of social exclusion (Europe, 2005). It is difficult to foster social cohesion within a situation indicated with high level of social exclusion. Instead, it weakens social cohesion.

As human ecologist or determinist proponents argues that physical environment where human live can affect the social behaviour. It may influence people's mind and perception and directs them into some kinds of particular activities. In the other hand social scientists believe that social and cultural condition of the people that are going to use the built environment are much determinant to their behaviour, and later on create effective environment.

Using the same approach with determinist and effective environment theory, it can be assumed that housing and its neighbourhood play a significant role in shaping social cohesion. In the other hand, several aspects of housing, in a particular degree of condition, can lead to the presence of sense of inequality both for residents as general and among themselves. This condition could affect social cohesion, since the inequality could lead to social exclusion (Stone and Hulse, 2007).

**Figure 2-4: Conceptual framework. The development of social cohesion within public housing**



For instance, the location where public housing is located strategically contributes to opening livelihood opportunities. Good housing quality also can enhance the social cohesion, where the residents have pride to their housing that can effect to their sense of belonging to the environment. Similar will be happened for good housing management especially if it includes the involvement of the residents in determining the priorities for their area that will lead to cohesion and integration since they are encouraged to have sense of belonging to the area. It improves the effectiveness with which housing and neighbourhood services are delivered, and can also give residents new skills and confidence. It can help to make neighbourhood desirable places, in which to live and is a key component of building social capital. In terms of housing design and layout, it is possible to influence the social cohesion, since the typical dwelling types in flat housing

regarded to the limitation of dwelling space enforce the dwellers to more interact to other dwellers and together use the common space. The residents must have good adaptation and tolerance to others in order to build a harmony living and avoid reduce tension.

Good neighbourhood condition is essential to encourage the community cohesion through creating a safety, peaceful, and healthy environment so that every resident can live in harmony and diminish the negative perception or stigma which is usually attached to many walk-up public housing estates including in Indonesia.

## **Chapter 3 : Research methodology**

### **3.1 Research Type and Strategy**

The type of this research is basically a descriptive study which aims to describe strength of relationship between social cohesion and housing and neighbourhood condition as well as the inequality by using statistic as the tool for analysis.

A descriptive study is designed to provide further insight into the research problem by describing the variables of interest. It can be used for examining associative relationships. A survey will be conducted as the strategy of this research using questionnaire based on Likert scale of measurement consisting of five levels and categorical questions.

This study is using deductive approach which tries to explain the basic theory of human ecologist or determinist theory coupled with potential and effective environment concept that describe the influence of physical environment and social economic condition towards human behaviour. Using that analytical research framework, this research argues that housing condition with its complexity and its neighbourhood are indicated to influence either positively or negatively social cohesion.

### **3.2 Sampling Method**

#### **3.2.1 Unit of Analysis**

This research is about developing study cohesion within a community. It is one of the requirements needed to achieve broader context, - that is, empowerment. By enhancing social cohesion, it is expected the community can build their own confidence and furthermore develop their capacity that will be helpful to solve immediate problems.

Based on Friedman (1992) in Putera (2006), it is said that concept of empowerment focuses on household level that must be empowered first so that individual in household could create and at the end achieve optimum result. Related with that, the population of this research will be taken within household level.

#### **3.2.2 Population**

The population of this research are households in the public housing of Sukaramai, Medan. There are 400 households based on the number of dwelling unit in the housing estate or about 2.000 inhabitants with the assumption the number of household size is 5 people. The later figure can be higher since some households have multi family type.

#### **3.2.3 Sample Size**

The determination of number of sample is based on the research objectives. For this purpose, this research uses basic assumption as:

- Confidence level is 95%
- Population size is 2.500 people



- Sampling error is 10% with 80/20 split which means that the population in the research area is quite varied in terms of socioeconomic condition that can be justified as controlled variables, which in this research could be age, sex, ethnics, and religion

Based on the table of sample size suggested by Salant and Dalman (1994) and using those above assumptions the minimum sample size needed for this research will be 93 households. To simplify collecting data, the sample sized used in this research will be 120 households which will be equally divided into 40 households, since there are three neighbourhood in the estate based.

### 3.3 Variables and Indicators

Variables and indicators derived from the related literature sources are then operationalized to answer each research question as can be seen on the table below.

#### 1. *How is social cohesion within each type of flats in the public housing estate?*

Main concept	Variables	Indicators	Questions	Data source
Social Cohesion	Place Attachment	Functional place attachment	13	Questionnaire
		Emotional place attachment	13	Questionnaire
	Social Support	Functional support	26	Questionnaire
		Structure of interpersonal relationship	18, 19, 20, 21, 22, 23	Questionnaire
	Tolerance of diversity	Respecting differences	31	Questionnaire
		Identification of problems due to differences	29	Questionnaire
	Civic activities	Voluntarily neighbourhood activities	27	Questionnaire

#### 2. *How do aspects of housing and neighbourhood as well as inequality condition significantly relate with social cohesion? Into what extent does the relationship take place?*

Main concept	Variables	Indicators	Questions	Data source
Housing condition	Dwelling unit	Dwelling type	14	Questionnaire
		Place living on	15	Questionnaire
	Status of tenants	Home ownership	16	Questionnaire
		Length of stay	17	Questionnaire
	Physical environment	Housing infrastructure	37	Questionnaire
		Housing services	38	Questionnaire
		General housing condition	39	Questionnaire
		Home components	40	Questionnaire
		Size of rooms	41	Questionnaire
		Quality of rooms	42	Questionnaire
		Room number	43	Questionnaire
	Housing management	Involvement in housing management	44	Questionnaire
Neighbourhood	Neighbourhood condition	Peacefulness	32, 33	Questionnaire
		Safety	34, 35	Questionnaire
		Neighbourhood problems	28	Questionnaire
		Victimization	36	Questionnaire

Main concept	Variables	Indicators	Questions	Data source
Inequality	Financial condition	Labour force status	8	Questionnaire
		Satisfaction with current job	9	Questionnaire
		Expected job	10	Questionnaire
		Access to job opportunities	11	Questionnaire
		Financial hardship	12	Questionnaire

3. *How does social condition influence the relationship between social cohesion and aspects of housing and neighbourhood?*

Main concept	Variables	Indicators	Questions	Data source
Social and economic condition	Demographic condition	Age	1	Questionnaire
		Sex	2	Questionnaire
		Ethnics	3	Questionnaire
		Religion	4	Questionnaire
		Household type	5	Questionnaire
	Educational condition	Education level	6	Questionnaire

### 3.4 Data Collection Method

a. Primary data

Primary data will be collected through questionnaire randomly distributed to households in the estate. The selection of households that would become respondents is based on quota sample technique ensuring the equal number of respondents for each flats type (F21, F36, and F54). Each flats type is considered as a single neighbourhood which then can be compared into what extent the level of social cohesion exists. Since the sample size based on the calculation above is 120 households, every flats type will be distributed into 40 households accordingly.

b. Secondary data

Secondary data will be collected from previous related researches in this area of study, the latest district in figure produced by statistic agency, any information from the sub district authority related with socioeconomic condition of the estate, and the written fundamental principle of tenant association. Internet is also used to get the secondary data like map, pictures and other related information.

### 3.5 Method of Analysis

#### 3.5.1 Statistical techniques

The process of development of social cohesion in a community is taken place for a particular of time in a complex way. As has been discussed in chapter 2 that social cohesion can be considered either as dependent variable or independent one, which means that it can be regarded as the outcome of several factors or the cause of a particular outcome respectively. For instance, bad quality of housing management in terms of low maintaining the physical environment will directly weaken social cohesion. It is also regarded as the consequence of low social cohesion that is failed to build cooperative and communal action in keeping the environment in such a level of decent quality of neighbourhood environment.

Therefore, the relationship between social cohesion and factors indicated affecting it like housing, neighbourhood and inequality condition will be analyzed in two ways of directional relationship or in statistical terms called 2-tailed tests of significance. Correlation and measure of association will be employed to find out the strength of relationship between two variables. The difference in using between those two analyses is only located on the data level of measurement. The former one will be used to describe the degree of relationship between two interval variables or it also can be used when one variable is dichotomous (Pallant, 2007). While the former one can be used whenever two variables that are going to be analyzed are both nominal variables (Liebetrau, 1983).

### **3.5.2 Measurement of scale**

In this research, several scales of variables will be used. Using scale in social research is very important, since most of the variables would likely to describe perception and attitude, both of which are qualitative type of data. Using scale will transform qualitative data into quantitative order.

Ordering the score in the scale from the lowest to highest one will show the gradation of respondents' perception or favour. The likert scale will be used for the scale of this research. The likert scale in this research will use a scale of score from one as the lowest level of perception to five as the highest one.

There are some variables in this research using sub scales. Sub scales are used based on the literature where there are some particular variables consisting of several indicators that later on will be combined into a score. In this research, variables that will use sub scales are place attachment, neighbourhood interaction, social activities, functional social support, satisfaction with the neighbourhood infrastructure and service, home components, size of rooms, and quality of rooms in the dwelling unit.

### **3.5.3 Reliability of scale**

Since this research is using scales, then it is important to find the reliability of the scales themselves especially when they are not using the available scales derived from literature which is considered having been proven their reliability. There are many reasons to find the reliability of scale. One of the main issues regards to its internal consistency. It is about how the items that comprise the scale "hang together" (Pallant, 2007). One of the most common forms of internal consistency reliability is Cronbach's alpha coefficient. The value of alpha is ranging from zero to one. It will equal to zero if the true score is not measured at all and there is only an error component. Conversely, when all items measure only the true score and there is no error component, it will be 1.0 (Garson, 2010). Normally, the Cronbach's alpha coefficient of scale should be above 0.7 (DeVellis, 2003 in Pallant, 2007). However, the alpha values are quite susceptible to the number of items in the scale. Scales with short items for instance scales with fewer than ten items are frequently found having low Cronbach's alpha (e.g. 0.5) (Pallant, 2007).

### **3.5.4 Analyzing Procedure**

Before going through the analysis, Cronbach's alpha coefficient will be run beforehand to find the internal consistency of the scales used. Scales that have alpha's value more than 0.5 can be forwarded to the next step, while the scales that

have alpha's value less than 0.5 will be modified by dropping out the items within the related scale that can significantly increase the value of Cronbach's alpha. The value of 0.5 is taken as the referring point because scales that are used in this research consist of fewer than ten items. However, as aforementioned above, dropping out the items must consider the number of items in the scales. For the purpose of this research, the dropped items in a scale will still be analysed separately.

After deriving the reliability of scales, the next step to be done is to answer the first research question, "*How is social cohesion within each type of flats in the public housing estate*". Since there is still no specific model to quantify social cohesion due to its complexity, the measurement of level of social cohesion will be undertaken by looking at the five domains of social cohesion; place attachment, social support, social support, civic activities, and condition of inequality within each neighbourhood as aforementioned. Mean scores, and summing up of same responds will be used to analyze this question. By doing this it can be known whether a particular neighbourhood with its own characteristic has different level of social cohesion among others.

Correlation technique of analysis will be used to answer the second research question, "*How do aspects of housing and neighbourhood as well as inequality condition significantly relate with social cohesion? Into what extent does the relationship take place?*". The analysis will use Pearson product moment correlation to find the relationship between two continuous (interval) variables. It could be also used if one of the two variables is a dichotomous variable.

The value of the correlation coefficient will be defined into three categories as suggested by Cohen (1988), that is, small, medium, and large relationship. The value range for those categories would be 0.10 to 0.29, 0.30 to 0.49, and 0.50 to 1.0 respectively (Pallant, 2007).

Significance test will also be automatically shown in this analysis describing the significance of relationship of both variables whether the relationship is not randomly occurred.

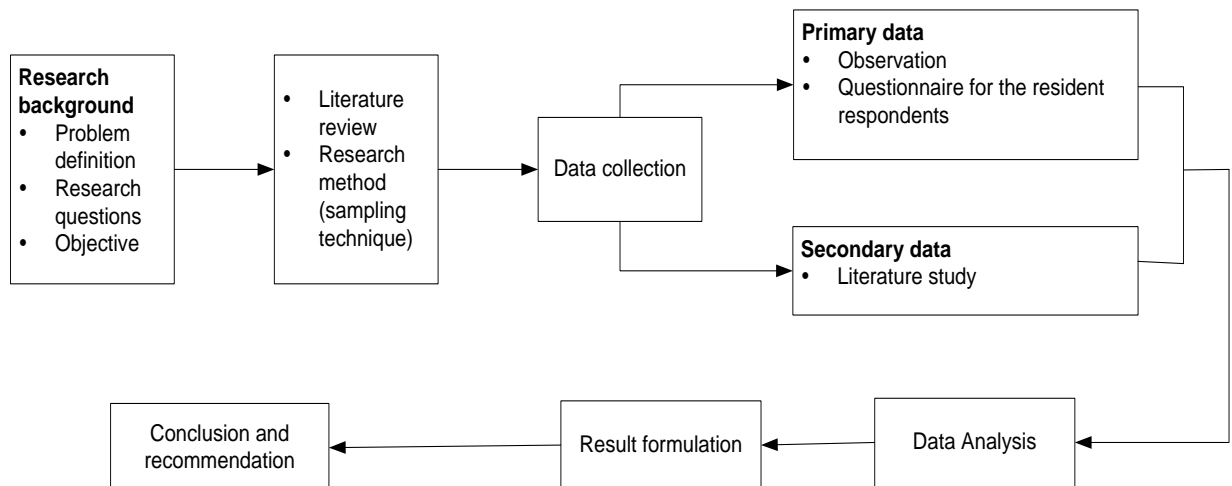
For the third research question, "*How does social condition influence the relationship between social cohesion and aspects of housing and neighbourhood?*", partial correlation will be applied. Partial correlation is actually using Pearson moment correlation, but with additional variable as called control variable. It is usually a variable that is suspected influencing the relationship between two observed variable (original variable). In this research, social condition will be control variable.

The extent to which the control variable may influence the relationship will be identified by comparing the controlled correlation with the original correlation. If there is no difference between those two correlation values, then the interference is that the control variables have no effect. But, if the partial correlation approach 0, the interference is that the original correlation is spurious meaning that there is no direct causal relationship between the two observed (original) variables because the control variables are either common antecedent causes, or intervening variables (Garson, 2010).

### 3.6 Research Stages

1. Research background (research proposal writing)
  - Formulation of the research background, problem definition, research questions, objective, and hypothesis
  - Conducting the literature review, mainly on theoretical discussion on social capital, social exclusion, social housing policy, the importance of housing in strengthening the social cohesion
  - Determining the research method, including sampling technique.
2. Data collection
  - Data compilation is conducted by: (1) descriptive observation aimed to picture general situation of the communities and environment related with the research problems (2) giving the questionnaire to the respondents formulated from related literature sources, and; (3) Secondary data collection from housing providers, sub district authority, and related institutions.
  - The fieldwork for this research will be conducted on August-September 2009 and June 2010.
3. Data Analysis
4. Result formulation
5. Conclusions and recommendations
  - Conclusions
  - Recommendations

Figure 3-1: Research framework



## Chapter 4 : Data Analysis

### 4.1 Description about Location of the Research Area

Flat Housing (RUSUN) Sukaramai is the first social housing built vertically in Medan. It was built in 1984 by the National Housing Corporation (*PERUMNAS*) on the 14.442 m<sup>2</sup> of an area owned by the government, and starting to be occupied since 1988. The project was started as a result of incident of fire that burned many houses nearby the location of public housing in 1985. The victims were given a priority to occupy the public housing. It is located on a street named Jalan Arief Rachman Hakim in district of Sukaramai II, City of Medan, North Sumatera, Indonesia. The area surrounding the public housing estate are characterized with a high density of population, 350 inhabitants per hectare, and mixed economic activities, dominantly commercial ones. The majority of population in this district is inhabited by Chinese ethnic, around 60%, and followed by Javanese and Bataknese (source: Medan Area District 2008).

Figure 4-1: Aerial view of location of RUSUN Sukaramai Medan



Source: Google map (2010)

The housing tenure of the public housing is based on a home purchase system meaning that the tenants can finish the installment repayment until a maximum period of 20 years. It can be assumed that all tenants have managed their installment since the public housing has already been inhabited for 22 years up to now. But, not all of the owners still live in the housing. According to the Head of tenant association, PPRS (*Perhimpunan Penghuni Rumah Susun*) RUSUN Sukaramai, many owners have left and sold or rented their units to other people.

## 4.2. Physical Condition

The housing is typically a complex of building blocks consisting of 14 housing blocks with three different types of housing, -that is, F21, F36, and F52. The classification of housing is based on the size of area of each housing types. F21 means that the dwelling unit has an occupied area that is 21 m<sup>2</sup>, and so equivalently are the others. For F21 type, there are 208 dwelling unit within two blocks. The F36 type has 112 dwelling units within 7 blocks, and the F54 has 80 dwelling units within two blocks. F21 type as the dominant part of estates has different numbers of dwelling unit per floor from other types. While others have four dwelling units each floor, F21 type has 28 units of living place each floor.

Each dwelling units has their own utilities such as water and electricity. Every one of them has one bathroom including toilet within it. Besides those individual household facilities, the housing is also facilitated with common usages such as garbage chimney, staircase, alley, and parking area. Social facilities are also provided in the estate such as mosque, basketball yard, and open space that can be used for gathering point and recreational activities.

### 4.2.1 Housing Design

The cluster of building blocks in RUSUN Sukaramai is based on the dwelling type meaning that buildings of the same dwelling type are located in a cluster. Thus, there are three clusters of dwelling types. This makes the estate dispersed into three different types of housing especially in terms of economic situation, since it could be assumed that the dwelling types represent their tenants' economic level. For instance, F21 type as the smallest size of dwelling unit is mostly inhabited by people with lower economic level than other two types of housing. From the social point of view, this scheme will minimize the low income people interacting with people that have better economical level and economical opportunities that might be created from their social network. It would be better if the clusters in the estate are built based on mixed economic situation and connected with common facilities.

**Figure 4-2: Building types of living unit in RUSUN Sukaramai Medan**



*Source: photos taken during fieldwork (2010)*

The design of F21 type is different from other two types. As can be seen in picture 4-2 above, The F21 type is kind of vertical row housing where the staircase is located in both sides of the building, and there is one metre terrace in front of all

dwelling units. Between two dwelling units is separated by a wall. The design of other two dwelling types, F36 and F54, is about similar. The difference is mainly on the size.

In flats F21, tenants living in the middle of the buildings are indicated to have less mobility since the staircase as the housing facility is located at both sides of the building. Tenants living nearby the staircase are less comfortable since their living unit will be passed by other tenants willing to use the staircase and reducing their privacy. In flats F36 and F54, the tenants have equal access to the staircase as their main facility toward their mobility, and they have much more privacy than F21 type.

The air circulation in the living unit using ventilation is primarily designed to make the air in the room able to circulate naturally so that no air conditioner would be required. However, the limited space in the living unit requires the number of people living in each of dwelling types should be limited as well to maintain the comfort (DR. Ir. Firman Tambun et al., 1992).

The design of rooms in the living unit of RUSUN Sukaramai is likely to be similar to other prevailing vertical public housings in Indonesia. RUSUN Sukaramai as many other vertical public housings in Indonesia is a massive housing production that is part of the Indonesian government using the technical standard applied to all of them. Meanwhile, the spatial design for the rooms is much related with the resident's behaviour which is different from one ethnic to other one since each of them has their own characteristics and habits.

The mobility of tenants in a dwelling unit is also constrained by the number of people living in the same roof. Thus, there should be limitation in terms of number of people that can live in a dwelling unit. However, for some ethnics, living with extended family apart of nucleus family has been accustomed.

### **4.3 Social demographic condition of the estate**

Since the housing was initially provided for housing the victims of fire, which happened in 1983 nearby the location where now the public housing of Sukaramai stands, the composition of the tenants is dominated by Chinese ethnic which was the largest portion of people whose house were burned on that time. The Chinese ethnic composes 80 percent of total residents in this estate, followed by Javanese 8 percent, and the rest of percentage is occupied by other ethnics such as Batak, Padang, Malay, Aceh and Nias (Source: Sub district office of Sukaramai II).

The majority of the tenants are Buddha followers composed of around 80%, and followed by Muslim around 16.7%. Other religions are also there such as Protestant Christian 2%, and Catholic and Hind composing 0.5% respectively (Source: Sub district office of Sukaramai II).

According to sub district authority, most of the tenants are unemployed. Over 50% of inhabitants do not have a job, 10% have their own business, and 8% of the tenants are engaged as workers. Others are more likely working in informal sectors such as driver, house maid, electricity repairmen, painter, and so on.



## **4.4 Community Activities of Housing Tenants**

To build solidarity and harmony of living among the residents, there are several social activities that have been conducted in the neighbourhood such as integrated health service or Posyandu (Pos Pelayanan Terpadu) for baby health monitoring, and pregnant women which is taken place at sub district office, Thai Chi gymnastics performed at the open space, Programme for Family Welfare Education / PKK (*Pemberdayaan Kesejahteraan Keluarga*) for the housewives, Quran Recitation, National Ceremonies by having sport competitions.

Other forms of social activities recorded in the flats are wedding ceremonies, funerals, rotating saving groups (*arisan*) that are undertaken incidentally and involving only few people (source: Head of Neighbourhood Unit).

## **4.5 Results**

This section will firstly elaborate about the research finding obtained from the questionnaire distributed during the fieldwork. Descriptive statistic will be applied like frequency, percentage, and mean score. This step is useful to get description about respondents in terms of socio-demographic condition and to obtain the preliminary analysis about the social dynamic and possible relationship which might occur due to different social condition among the tenants.

Secondly, scale assessment will be explained through significant consistency of reliability test using Cronbach's alpha indicator. This part is to identify the reliability of scales that had been used during the fieldwork. Items within the scales that has the least "corrected item – total correlation" and the highest value of "Cronbach's alpha if item deleted" will be prioritized to be dropped out, and new scale will be applied to further analysis.

The last part of this section will focus on the analysis of relationship between variables of social cohesion and factors influencing it within the estate including the housing and neighbourhood condition together with the situation of inequality in terms of economic condition. Next, the correlation between those two aspects will be examined in the level of various social conditions to find out the significant difference of correlation among dichotomous variables of social condition.

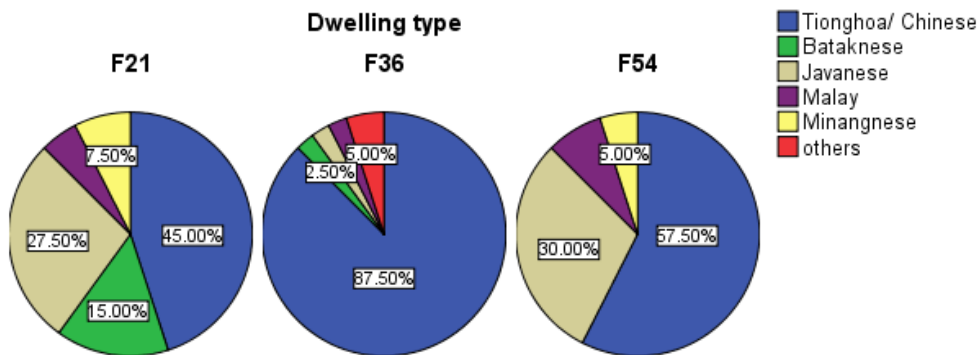
### **4.5.1 Social condition of respondents**

#### **4.5.1.1 Ethnic**

The majority of the respondents in RUSUN Sukaramai are Tionghoa/ Chinese ethnic people. More than 50 percent of the respondents, 63.3%, are people with Tionghoa ethnic. The second major ethnic of respondents living in the estate is Javanese people which consist of 20%. Those figures are predictable since at the early operation of this public housing was mainly to provide shelter for the fire casualties happened nearby where now RUSUN Sukaramai is located. The casualties were mostly Chinese. Based on the research done by DR. Ir. Firman Tambun et al. (1992), this situation is also caused by the reality that Chinese people are more easily to live in the vertically multi family houses, since they had been used to live in shop houses. For them, it was not so difficult to adapt living in the flats compared to Indonesian ethnics living also in the estate that still regard the land as an entity of their housing property.

Moreover, compared to other dwelling types, in flats F21 the Chinese is not so dominant although they are still the major ethnic in the neighbourhood. 45% of the respondents living in F21 are Chinese. It is lower than F36 and F54 type, - that is, 87.50% and 57.50% respectively.

**Chart 4-1 Respondents' ethnics**



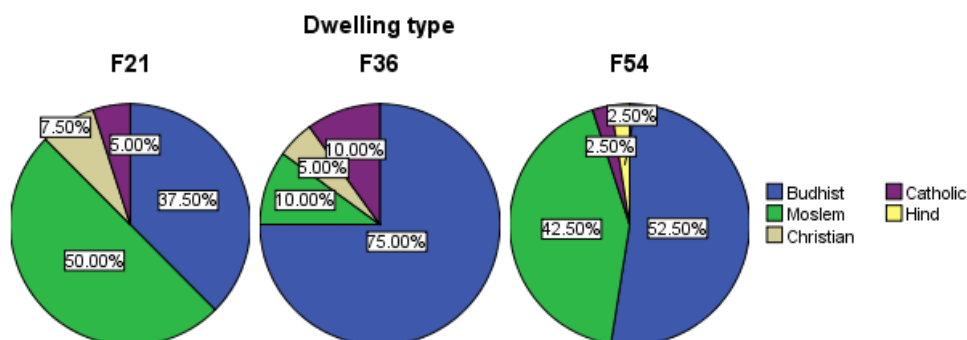
However, the composition of respondents is more varied in F21 with Chinese, Javanese, and Bataknese compose the big three of ethnic composition while in flats F36 and F54, the composition is more likely homogenous with Chinese as the single majority of ethnic composition.

#### 4.5.1.2 Religion

As the Chinese people dominate the respondents' composition, so does Buddha becomes the major religion in the estate since usually Chinese people are Buddha followers. It is indicated by description of respondents' religion. 55% of total respondents of the estate embrace Buddha as their religion, followed by Moslem 34.2%, Catholic 5.8%, Christian 4.2%, and Hind 0.8%.

The composition of religion within each dwelling type can be seen at chapter 4-2 below. The composition of religion in each dwelling types is not much different from that of ethnic. The most mixed composition in terms of religion can be found in flats F21 with Muslim as the highest percentage of composition, 50%, while in flats F36 and F54, Buddha becomes the major religion with 75% and 52.50% respectively.

**Chart 4-2 Respondents' religion**



#### 4.5.1.3 Education level

Almost 47% of the respondents achieve their highest education level in junior high school and only 25.8% of them have senior high school as their highest education

level and 0.8% graduated from university/ diploma. 20.8%, in fact, are failed to finish their elementary school and 5.8% of them do not go to school at all. These numbers reflect that most of the residents in the estate are a low educated community.

**Table 4-1: Respondents' level of education**

			Education level			
Dwelling type			Frequency	Percent	Valid Percent	Cumulative Percent
F21	Valid	Not enrolling school	5	12.5	12.5	12.5
		Unfinished elementary school	9	22.5	22.5	35.0
		Junior high school	10	25.0	25.0	60.0
		Senior high school	15	37.5	37.5	97.5
		University/ diploma	1	2.5	2.5	100.0
		Total	40	100.0	100.0	
F36	Valid	Not enrolling school	2	5.0	5.0	5.0
		Unfinished elementary school	9	22.5	22.5	27.5
		Junior high school	20	50.0	50.0	77.5
		Senior high school	9	22.5	22.5	100.0
		Total	40	100.0	100.0	
F54	Valid	Unfinished elementary school	7	17.5	17.5	17.5
		Junior high school	26	65.0	65.0	82.5
		Senior high school	7	17.5	17.5	100.0
		Total	40	100.0	100.0	

What an interesting figure is that the high concentration of low level of education is located in flats F54 which is considered as the flats that is occupied by people with a better economy referred to the selling price. As can be seen on the table 4-1 below that 65% of the respondents in flats F54 only had junior high school and 17.5% of them dropped out their elementary school. In fact, in flats F21 as the "cheapest" residence has the highest percentage of respondents having senior high school which is about 37.5%, and 2.5% of them graduated from the university/ diploma. This condition might be related by other factors such as the composition of age group and length of stay which will be described later on different section. Briefly, the highest young age group is found in flats F21 which is about 50% of the respondents living in that flats are less than 39 years old<sup>1</sup>. This figure is much higher than other two types of flats. In terms of length of stay, it is also found that tenants who are living less than 5 years are mostly found in flat F21 which is about 52,5% of the F21 respondents.

In conclusion, the newly occupying residents in F21 are mostly young generation which had different situation in terms of better education opportunities from other two types of flats who mostly have been living in those places for longer time.

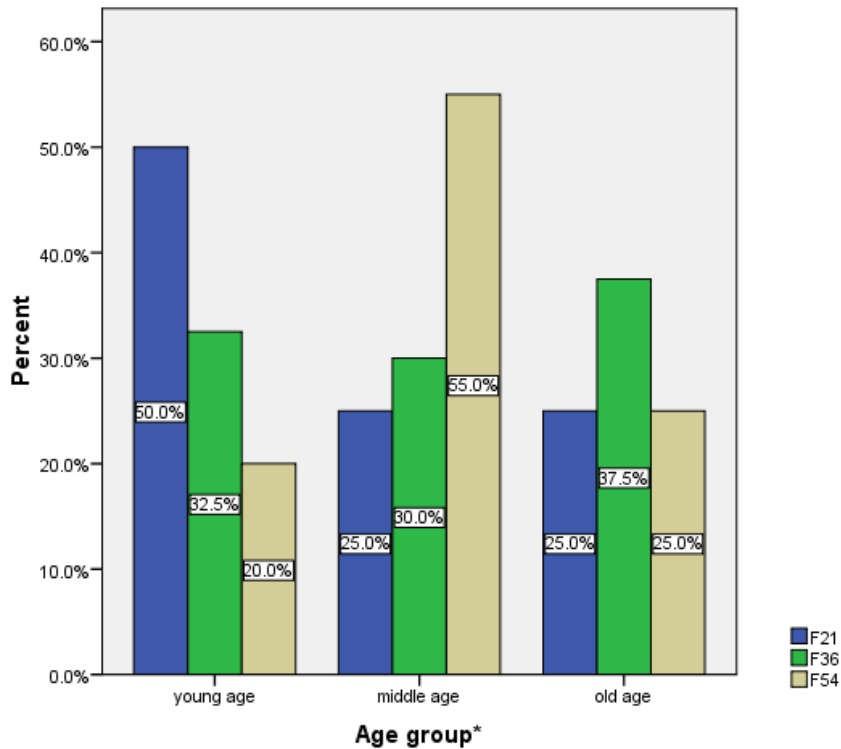
#### 4.5.1.4 Age

The age of respondents varies from 23 to 73. The young age group is mostly found at flats F21. Around 50% of F21 respondents ages less than or equal to 39 years

<sup>1</sup> Age group division is based on the quartile derived from respondent's age

old. In the other hand, the old age group, over or equal to 50 years old mostly inhabits flats F36. The middle age group from 40 to 49 years old is mostly found in flats F54. The more mature group of age, above 39 years old, mostly lives in F54 and F36. There are 80% and 67.5% of each respondent respectively.

**Chart 4-3**Composition of respondents' age



\* young age is less than including 39 years old, middle age between 40 - 49, and old age more than including 50 years old

#### 4.5.1.4 Household type

In general, most of the households of respondents in the estate are couple households. 92.5% of the respondents live together with their spouse, children, or relatives. The majority of the couple household is families with dependent children which is about 65.8% of the total respondents of the estate, and followed by household without children about 13.3%. The typical of household type within each type of flats is not very much different. Within all types, above 60% of each typical respondent are couples with dependant children in their home with highest percentage, 72.5%, is found at flats F54 followed by flats F36 about 65%. Single household is mostly found at flats F21 and F54, which is about 10% of both of them, while at flats F36 has only 2.5%.

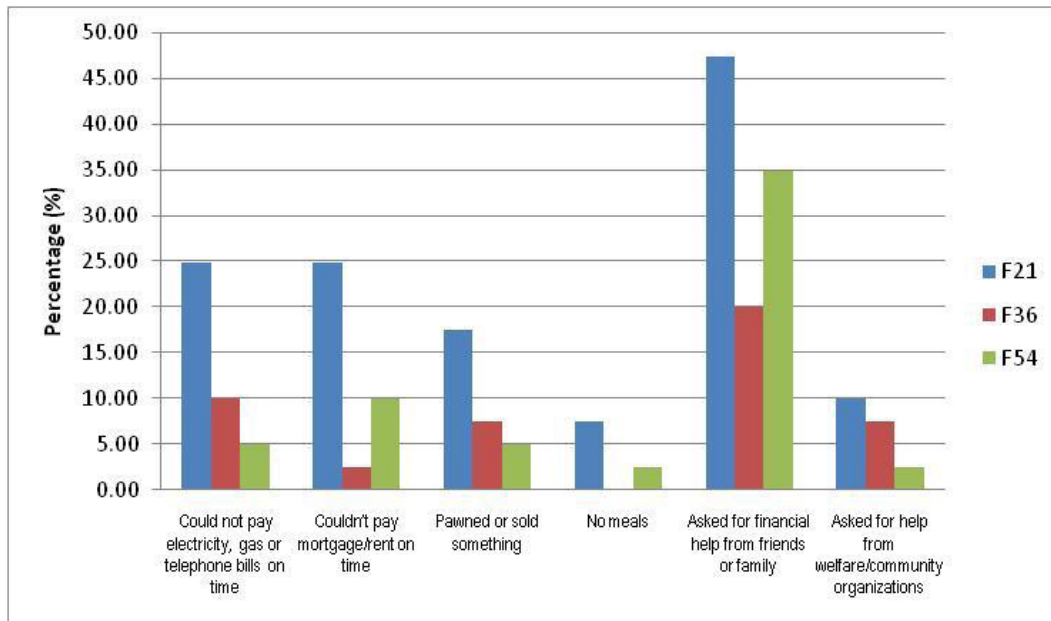
#### 4.5.2 Economic condition of respondents

As illustrated in Chapter 2 (Literature Review) that inequality is one of the aspects that can weaken social cohesion. This inequality is usually described in the economic condition of a community. Several indicators of economic condition such as financial hardships, job sector, and satisfaction with the current job are outlined in this section.

### Financial hardships

Financial hardships are measured by giving the respondents conditions about several financial difficulties that might have been experienced by them. The presence of having one of those difficulties is considered as a financial hardship. Summing up of the financial hardship within a neighbourhood shows to what extent a neighbourhood is overwhelmed by financial difficulties.

Chart 4-4: Financial hardships



From the chart 4-4, it can be seen that respondents in flats F21 are having the most financial hardships for all conditions compared to other flats. The highest percentage of financial difficulty they experienced is asking financial help from friends or family. This condition is similarly experienced by the respondents in flats F36 and flats F54, which is about 20% and 35% accordingly of each type of flats respondent. The second most financial difficulty experienced by the respondents is “couldn’t pay electricity, gas, or telephone bills on time”. About 25% of respondents in flats F21 are having condition where they couldn’t pay the bills, while 2.5% and 10% of respondents in flats F36 and F54 are having the same situation.

### Condition of current job

Around 32.5% of respondents of flats F21 answer “others” as their job. This high figure is because in reality many tenants in this flats do not have regular job. They might work for a short period of time, or longer. Their wage is usually low and without insurance.

Respondents that have business helped by family member or hiring irregular employee are quite high in these three neighbourhoods. Around 20%, 37.5%, and 32.5% of respondents living in F21, F36, and F54 respectively are engaged in this type of business.

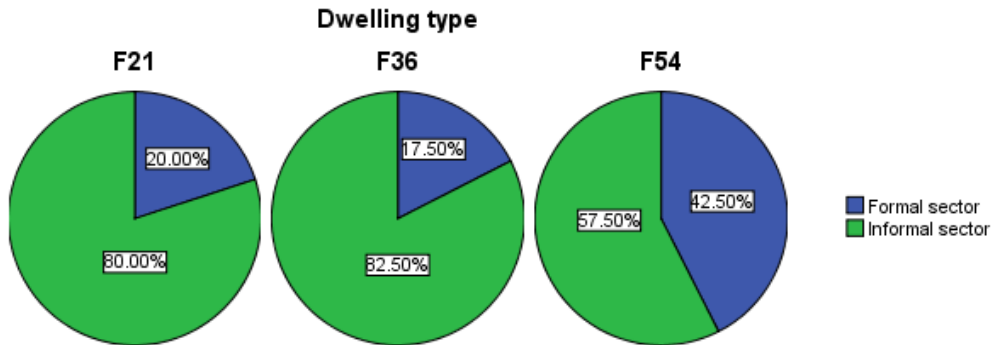
**Table 4-2: Distribution of respondent's job**

Respondent's job	F21	F36	F54
Teachers	-	2,5	-
Private company employee	12,5	12,5	27,5
Business owner with regular employee	7,5	2,5	15
Business owner helped by family members or irregular employee	20	37,5	32,5
Domestic servant	2,5	-	-
Self employed	25	37,5	22,5
Others	32,5	7,5	2,5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Another type of job that is significant in terms of percentage is self employed. This kind of job is done by 25%, 37.5%, and 22.5% of respondents living in flats F21, F36, and F54 accordingly.

By observing figures in the table 4-2 given above, it can be calculated the distribution of formal/ informal sector of job within each flats. Based on the list of jobs in table 4-4 above, formal sector involve teachers, private company employee, and business owner with regular employee, while the rest of list is categorized engaging in informal sector. Chart 4-5 gives the distribution of formal/ informal sector of job. High percentage of informal sector is found in flats F36 and F21 as high as 82.5% and 80% respectively. In flats F54, there are only 57.5% of respondents engaging in informal sector.

**Chart 4-5: Formal/ informal sector of job**



In terms of job satisfaction, respondents in flats F54 have the highest mean score of satisfaction with their current job within the estate. From the mean score, 3.45, it could be concluded that F54 respondents are quiet satisfied. About 85% of the F54 respondents are expecting the same job in the next 12 months. Respondents in flats F21 have the lowest mean score of satisfaction with their current job as high as 3.0. This value is considered neither satisfied nor dissatisfied meaning that they are not sure about the satisfaction with current job. About 60% of them are still expecting the same job in the next 12 months. Respondents in flats F36 have less expecting the same job in the next 12 months than respondents in flats 21. About 57.5% of them feel that way.

**Table 4-3: Job satisfaction**

**Descriptive Statistics**

14) Dwelling type	N	Minimum	Maximum	Mean	Std. Deviation
F21 9) Job satisfaction	37	1.00	5.00	3.0000	.91287
Valid N (listwise)	37				
F36 9) Job satisfaction	39	2.00	5.00	3.2051	.86388
Valid N (listwise)	39				
F54 9) Job satisfaction	40	2.00	4.00	3.4500	.74936
Valid N (listwise)	40				

### 4.5.3 Scale assessment

There are several variables in this research using scale. Items within the scale should be tested its reliability to make sure that they measure based on the same underlying construct. Variables that are using scale are: place attachment, neighbourhood interaction, neighbourhood activities, social support, civic activities, satisfaction with neighbourhood infrastructure, satisfaction with neighbourhood service, satisfaction with home/ building component, satisfaction with the size of rooms in living unit, and satisfaction with the quality of rooms in living unit.

Based on the reliability test, there are seven variables whose value Cronbach's alpha is over 0.7. Those variables are neighbourhood activities, social support, satisfaction with neighbourhood infrastructure, satisfaction with neighbourhood service, satisfaction with home/ building component, satisfaction with the size of rooms in living unit, and satisfaction with the quality of rooms in living unit<sup>2</sup>.

The value of Cronbach's alpha of housing variables are significantly reliable. Almost all variables of housing condition are above 0.9. Only scale of satisfaction with neighbourhood infrastructure has relatively lower value of Cronbach's alpha than other variables of housing condition. Its value is 0.746.

Thus, all the variables that have Cronbach's alpha value more than 0.7 are considered reliable and can be furthermore used to analyze. The alpha value of 0.7 is normally taken as the referring point of the reliability test. However, as had been mentioned in the last chapter, that point 0.5 could be takes as the referring point if the scale has fewer than ten items (Pallant, 2007).

In that case, the variable like neighbourhood interaction whose value of Cronbach's alpha is only 0.686 (<0.7 or >0.5) can be still used.

For the variables that have Cronbach's alpha value below than 0.5 like place attachment and civic activities, then items that has the least "corrected item – total correlation" and the highest value of "Cronbach's alpha if item deleted" within the related scale will be prioritized to dropped out. In this case, for scale of "place attachment", item "advantage of living in the area" will be dropped out. This item,

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<sup>2</sup> See Appendix 1: Reliability of scale analysis

then, will be analyzed individually and regards it as one of housing condition variables. Although the Cronbach's alpha value, after the item "advantage of living in the area" is dropped out, is not significantly increasing the alpha value and still lower than 0.5, the scale of place attachment, without item "advantage of living in the area", is still kept, considering that its alpha value, 0.491, has been much closed to 0.5.

Another scale whose alpha value is below 0.5 is civic activities. Its value is only 0.443. The highest Cronbach's alpha value that can be increased by deleting items is 0.493. It can be achieved by deleting item "Civic activity (election)". The value, 0.493, is still considered acceptable due to its closeness with the value, 0.5.

#### **4.5.4 Social cohesion within each type of flats**

This section describes the level of social cohesion domains within each type of flats in the estate. The main objective of this description is to preliminarily identify whether the different physical environment influence level of social cohesion, although it also must be looked at from the social condition perspective.

##### **4.5.4.1 Place Attachment**

This variable is measured by a scale using five items asking to the respondents how they agree with the following items:

It is a good place to raise my children

I am willing to invest time or effort to make this an even better place

I sometimes feel like I don't belong in this place\*

What happens to this place is important to me

Moving out from this area will be the best option for my future\*

The third and fifth items are reverse order question which means that in the analysis the order will be reversed.

Items are developed based on the definition of place attachment used by Payton (2003). He suggested place attachment into two categories. The first is functional place attachment which means the functionality of one place to the users, how it benefit to them. In this respect, the users feel attached to their area because it gives them several functions. The second is emotional place attachment. In the later one, the attachment to place is more like psychological relationship to the people (users). The place could be meaningful due to the length of time people engage with the place in terms of such as living. It could be also because the place gives much impressive memory to them.

In the table 4-4 given below, it can be seen that almost items of place attachment have the highest mean score in flats F54 besides the item "I sometimes feel like I don't belong in this place" which has the highest mean score in flats F36. It is slightly higher than F54. F21 type has the lowest mean score of place attachment excluding the item "It is a good place to raise my children". Regardless its lack of attractiveness of physical environment in terms of housing condition, the respondents in flats F21 still better perceive their neighbourhood as a good place to raise their children compared to flats F36 that has lower mean score than F21, which is about 2.90 for F36 and 3.08 for F21. However these values actually is



nearly categorized as fair statement meaning they do not have clear statement whether the neighbourhood is a good place or bad place to raise their children.

**Table 4-4 Scale of place attachment within each type of flat**

Items	F21	F36	F54
It is a good place to raise my children	3.08	2.90	3.10
I am willing to invest time or effort to make this an even better place	3.38	3.53	3.85
I sometimes feel like I don't belong in this place*	3.43	3.98	3.90
What happens to this place is important to me	3.33	3.45	3.55
Moving out from this area will be the best option for my future*	2.55	2.65	3.50

In general it can be seen that there is significantly difference of social cohesion among those three neighbourhoods within the public housing estate. Table 4-4 shows that F21 has the lowest mean score of place attachment, while F54 has the highest mean score of overall place attachment.

**Table 4-5: Mean score of place attachment**

**Descriptive Statistics**

14) Dwelling type	N	Minimum	Maximum	Mean	Std. Deviation
F21 Total place attachment	40	2.40	4.40	3.1500	.52963
Valid N (listwise)	40				
F36 Total place attachment	40	2.40	4.00	3.3000	.38163
Valid N (listwise)	40				
F54 Total place attachment	40	2.60	4.00	3.5800	.40205
Valid N (listwise)	40				

To analyse the significance of difference of place attachment among neighbourhoods reflected by type of flats, ANOVA procedure has been conducted. From the table 4-4, the significant value is 0.00. This value is lower than value ( $=0.05$ ). Thus, it can be concluded that the level of place attachment among those three neighbourhoods is significantly different.

**Table 4-6: Mean difference of place attachment among neighbourhoods**

**ANOVA**

Total place attachment

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.811	2	1.905	9.724	.000
Within Groups	22.924	117	.196		
Total	26.735	119			

#### 4.5.4.2 Social Support

There are two main aspects of social support that will be analyzed in this section. Firstly is by looking at the structure of interpersonal relationship among neighbor. This aspect includes number of neighbours known and the living place where the people (respondents) know their neighbours. Secondly is by measuring the functional social support which refers to the degree of interpersonal relationship that may serve particular functions (Sherbourne and Stewart, 1991).

### a. Structure of interpersonal relationship

It is necessary to find out the number of neighbours known to identify how high their network with the other tenants in the housing estate. This network could indicate how much social support they will get from the neighbourhood. From the table 4-5 given below, the mean score of number of neighbours known for both flats F21 and F54 is 3.85 and 3.95 respectively. The values are almost 4, categorized as 30 up to 40 neighbours in the estate that he/she knows.

**Table 4-7: Number of neighbours known**

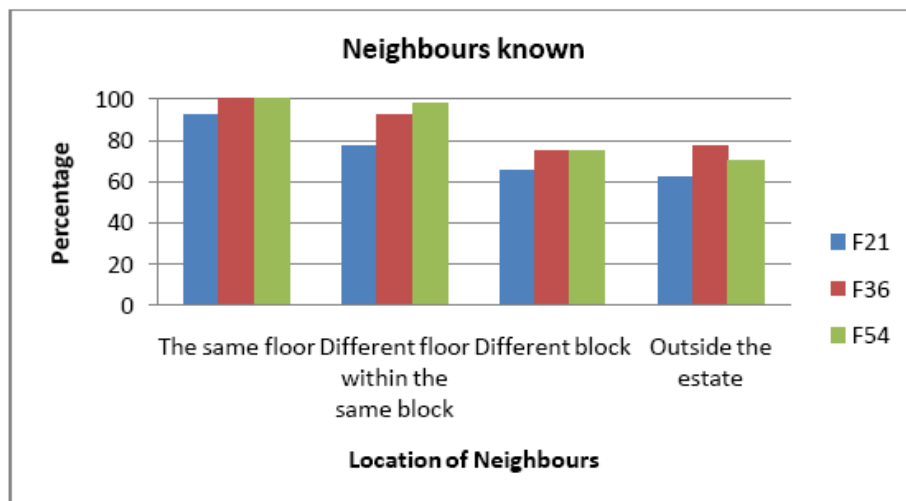
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	18) Number of neighbours known	40	1.00	5.00	3.8500	1.65715
	Valid N (listwise)	40				
F36	18) Number of neighbours known	40	1.00	5.00	3.3500	1.36907
	Valid N (listwise)	40				
F54	18) Number of neighbours known	40	1.00	5.00	3.9500	1.10824
	Valid N (listwise)	40				

However the difference of mean score among three neighbourhoods is not significant. From the table 4-6 given below, it is indicated by the significant value, 0.125, derived from ANOVA test which is higher than  $\rho$  value ( $=0.05$ ).

**Table 4-8: Mean difference of number of neighbours among neighbourhoods**

ANOVA					
18) Number of neighbours known					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.267	2	4.133	2.120	.125
Within Groups	228.100	117	1.950		
Total	236.367	119			

**Chart 4-6: Having neighbours based on their location**



Besides identifying the number of neighbours, the location where the neighbours live is necessary to find out the social interaction pattern they develop during their

stay in the estate. Respondents of flats F36 and F54 meet their neighbours wider than F21. It can be seen from the chart 4-4 that percentage of respondents that know other tenants besides those living in the same floor is more found in flats F36 and F54. This figure gives indication that respondents in flats F21 are less knowing neighbours living not with the same floor with them than other two types of flats. It might be caused due to the design of the building. Since F21 is designed with a type of vertical row housing with 28 dwelling units in each floor, then a tenant in this flats must have more “same floor” neighbours than other two type flats designed with a type of mushroom that only has 4 dwelling unit in each floor. Respondent in the later one are likely to have a willingness to also know other tenants apart those living in the same floor with them. Level of interaction within each neighbourhood itself can be seen from the table 4-9 below. The highest level of interaction is taken place in flats F21 whose mean score is 2.79. This score is closed to the point 3 which means the frequency of neighbourhood interaction only sometimes occurs. Furthermore, in general these three neighbourhoods do not have high level of neighbourhood interaction. After flat F21, flats F54 has the second highest level of neighbourhood interaction.

**Table 4-9: Neighbourhood interaction**

		Descriptive Statistics				
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	Total neighbourhood interaction	40	1.00	4.67	2.7917	.95687
	Valid N (listwise)	40				
F36	Total neighbourhood interaction	40	1.33	4.00	2.5583	.70967
	Valid N (listwise)	40				
F54	Total neighbourhood interaction	40	1.67	4.00	2.6917	.61504
	Valid N (listwise)	40				

However the mean score of neighbourhood interaction is not significantly different among three neighbourhoods. In the table 4-10 given below, the significant value is 0.403, higher than  $\rho$  value ( $=0.05$ ) which means there is no difference of neighbourhood interaction among neighbourhoods.

**Table 4-10: Mean difference of neighbourhood interaction among neighbourhoods**

ANOVA					
Total neighbourhood interaction					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.096	2	.548	.915	.403
Within Groups	70.103	117	.599		
Total	71.199	119			

As has been illustrated in the previous section on this chapter, according to local Head of Neighbourhood unit, several neighbourhood activities are taken place within the estate. These activities are intended to enhance solidarity and harmony among the tenants both within the neighbourhood and outside their neighbourhood.

Level of social activities that are followed by the respondents is shown on the table 4-11 below. It is measured by the frequency of social activities that have been followed by the respondents.

**Table 4-11 Mean score of frequency following social activities**

Descriptive Statistics						
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	Total social activities	40	1.00	3.67	2.4000	.69220
	Valid N (listwise)	40				
F36	Total social activities	40	1.67	3.44	2.4278	.46502
	Valid N (listwise)	40				
F54	Total social activities	40	1.00	3.89	2.2917	.65211
	Valid N (listwise)	40				

Flats F36 has the highest mean score of level of frequency of social activities followed by the respondents, followed by flats F21. It turns out that level of social frequency of social activities is not so high. Only 2.42 and 2.40 point that F36 and F21 can have for the mean score. These values are lower than 3 as the indication of medium level of frequency.

The difference among neighbourhoods in terms of type flats is not so significant. The significant value obtained from ANOVA test shows the value is 0.576, much higher than  $\rho$  value ( $=0.05$ ).

**Table 4-12: Mean difference of level of social activities followed by the respondents**

ANOVA					
Total social activities					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.414	2	.207	.554	.576
Within Groups	43.705	117	.374		
Total	44.118	119			

## **b. Functional social support**

This variable is using scale consisting of seven items. Respondents are asked about how often the following items of support in their neighbourhood available in case they need it. They are given options that were ranging from none of the time to all of the time as the highest score. The following items are:

Someone you can count on to listen to you when you need to talk

Someone to take you to the doctor if you needed it

Someone that can watch my children while they are playing around

Someone to help with daily chores if you were sick

Someone to turn to for suggestions about how to deal with a personal problem

Someone to give you information to help you understand a situation

Someone to do something enjoyable with like play games, sport, or other recreational activities

From the table 4-11 below, it can be seen that flats F21 has the highest mean score of social support, although the value is not so high since it is lower than 3.0 as the median score referring that the social support is only available at some of the time.

The value is much higher than flats F36 and F54. The typical neighbourhood in F21 characterized with low income area tends to induce the tenant relying much on their neighbours and its design ease them to get help.

**Table 4-13: Mean score of social support**

		Descriptive Statistics				
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	Social support	40	1.00	5.00	2.7321	1.42314
	Valid N (listwise)	40				
F36	Social support	40	1.00	4.00	2.0857	.71451
	Valid N (listwise)	40				
F54	Social support	40	1.00	3.86	2.0726	.67335
	Valid N (listwise)	40				

The difference of mean score among neighbourhoods is also significant as can be seen on table 4-12 below. The significant value of this difference is 0.004, much lower than  $\rho$  value ( $=0.05$ ).

**Table 4-14: Mean difference of social support**

ANOVA					
Total social activities					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.374	2	5.687	5.707	.004
Within Groups	116.580	117	.996		
Total	127.953	119			

#### 4.5.4.3 Civic activities

Civic activities are measured by the “yes” or “no” questions towards a list of civic activities that have been done by the respondents. Those civic activities are activities that are undertaken to improve their neighbourhood condition as a response to locally social problem. The participation of respondents in civic activities could take form in terms of donation of time, money, or other resources to something they regard valuable to their community (Payton, 2003).

Number of civic activities followed by the respondents from the list given is computed and defined as the level of civic activities compared among neighbourhoods.

**Table 4-15: level of civic activities**

		Descriptive Statistics				
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	level of civic acti	40	.00	4.00	1.3000	1.11401
	Valid N (listwise)	40				
F36	level of civic acti	40	.00	5.00	1.2000	.85335
	Valid N (listwise)	40				
F54	level of civic acti	40	.00	3.00	.8000	.85335
	Valid N (listwise)	40				

The highest level of civic activities indicated by its mean score from the table 4-14 above is found in flats F21 as high as 1.3, followed by F36 and F54. This value is defined as the number of civic activities that have been followed by the respondents. The maximum value that is possible that can be achieved is 6 (considering the number of civic activities given in the list). Thus, as we can see that within those three neighbourhood, the level of civic activities is no so high. If it might be categorized into three groups from low, middle, and high level of civic activities, then it can be considered as low civic activities.

The difference of level of civic activities among three neighbourhoods is actually significant. It is indicated by the result of ANOVA test as seen on the table 4-14 above, where the significant value of this difference is 0.048, lower than  $\rho$  value ( $=0.05$ ).

**Table 4-16: Mean difference of level of civic activities**

ANOVA					
level of civic acti					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.600	2	2.800	3.114	.048
Within Groups	105.200	117	.899		
Total	110.800	119			

#### 4.5.4.4 Tolerance of Diversity

Variable “tolerance of diversity” is measured by the statement about how they agree the diversity in terms of different ethnics and cultural background which exists in their neighbourhood could make a better place. The graduation of agreement is given as the option for the answer ranging from 1 to 5 point, where 5 shows strongly agree with the statement. Generally, the mean scores for the three neighbourhoods are quite high. The mean score of three neighbourhoods are higher 3.0 for F21 and F36, and almost closed to 4.0. It means that the two neighbourhoods quite agree that the diversity within their neighbourhood will make a better place. F54 is the neighbourhood that has the highest mean score of tolerance of diversity. Its mean score is as high as 4.47 higher than 4.0 which means that respondents in this neighbourhood agree that the diversity within their neighbourhood will make a better place. However the difference of mean score of

tolerance of diversity among neighbourhood within the public housing is not significant. It might be happened that the difference occurs randomly.

**Table 4-17: Mean score of tolerance of diversity**

Descriptive Statistics					
14) Dwelling type	N	Minimum	Maximum	Mean	Std. Deviation
F21 31) Perception of diversity	40	2.00	5.00	3.7500	.77625
Valid N (listwise)	40				
F36 31) Perception of diversity	40	3.00	5.00	3.8250	.44650
Valid N (listwise)	40				
F54 31) Perception of diversity	40	3.00	21.00	4.4750	2.69841
Valid N (listwise)	40				

**Table 4-18: Mean difference of tolerance of diversity**

ANOVA					
31) Perception of diversity					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.717	2	6.358	2.360	.099
Within Groups	315.250	117	2.694		
Total	327.967	119			

#### 4.5.5 Housing and neighbourhood condition within the public housing

After more than 20 years operating, the public housing RUSUN Sukaramai has been dramatically changed. Both social composition of dwellers and physical environment and have been extremely different from the beginning of the estate firstly occupied in 1988. The failure to maintain the physical building and also the environment has made the physical appearance less attractive as can be seen in the figure 4-3 given below. It also includes bad performance of housing management where PERUMNAS as the housing developer has gradually reduced their responsibility managing the housing since it is expected that after more than 20 years the housing built, most of the dwellers have finished their installment and become full owner of their property, and furthermore through tenant association, PPRS, it replaces PERUMNAS's responsibility in managing and maintaining the building as well as the environment. Unfortunately, the condition does not improve and remain the same. It is difficult in this estate to create a stable community, one thing that is necessary to build cooperation among neighbourhood. Instead, turn over level in the estate is quite high.

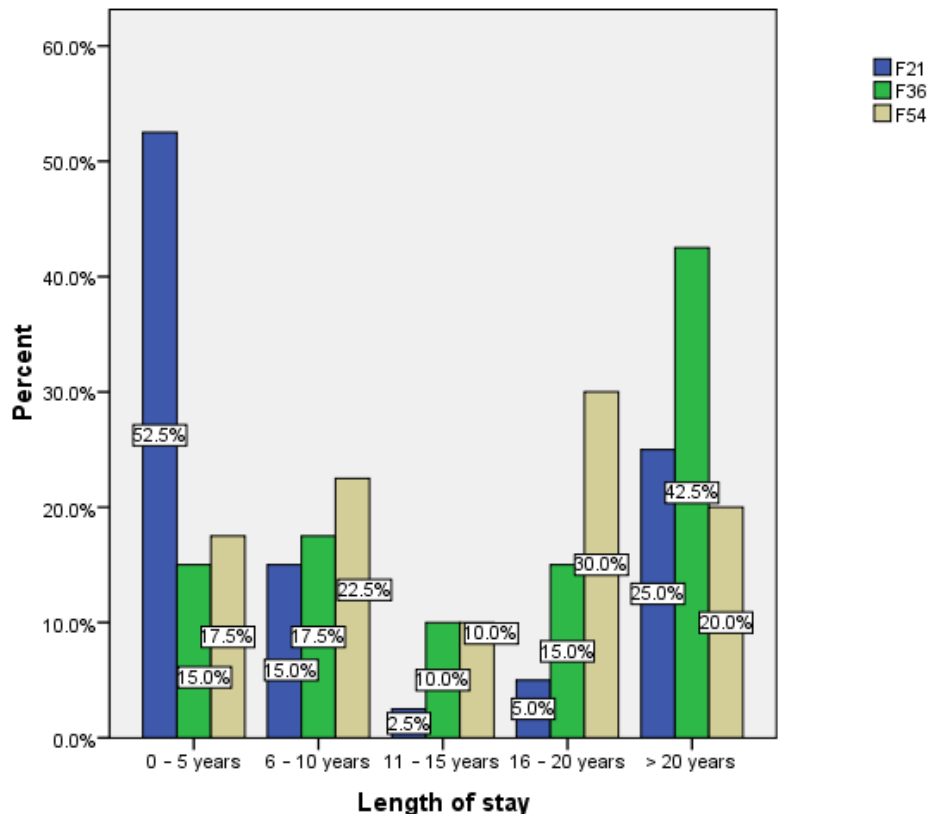
**Figure 4-3: Physical condition of the estate**



from left to the right: (a) physical condition of flats F21; (b) pathway view to flats F36; (c) internal condition of living unit in flats F21

From the chart 4-7 given below, respondents in flats F36 (57.5%) and F54 (50%) have been living in the neighbourhood for more than 16 years, while in F21, this number is much lower, only 42.5% of respondents have been quiet long living in the neighbourhood. The extreme condition is found in flats F21, where the majority of the respondents (52.5%) have been just living in the neighbourhood for less than five years.

**Chart 4-7: Length of stay**

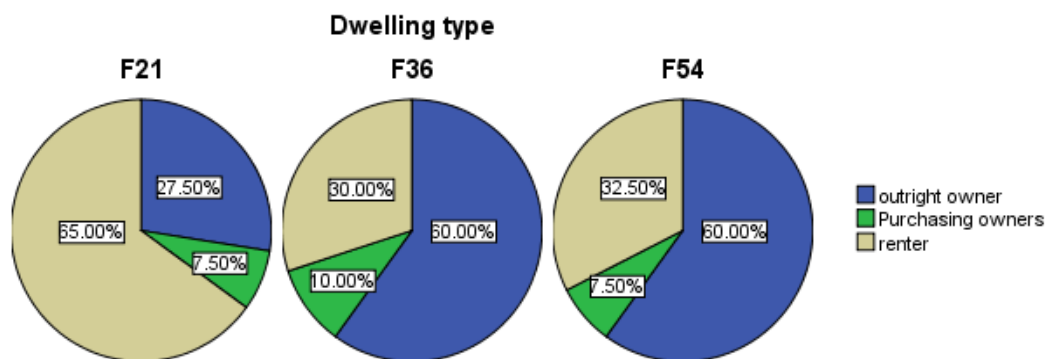


There is an indication that some people used to live in the public housing leave to other places and rent or sell their property to other people especially in flats F21. It is not surprising finding out that there are many respondents which are renter. From the chart 4-8, about 65% of respondents living in F21 are renter. This figure is the highest percentage of renter among other two flats, which are still dominated by outright owner.

Taylor (1998) explained this situation as process of labeling and exclusion in public housing. People that have chance will leave, and people with least choice will replace them. Subsequently, the public housing becomes the last resort to be chosen. This situation actually has been happening in flats F21. Although the stage of labeling and exclusion in this flats has never been studied or measured, people outside the neighbourhood have given a stigma to the neighbourhood including respondents in other flats. Stigmatization in flats F21 include such as the presence of drug users, high crime rate, high unemployment, and dirtiness.



**Chart 4-8: Home ownership**



Compared to other two flats, based on the visual observation physical environment in flat F21 is indeed worse. General view, when entering this neighbourhood is dilapidated building, litter lying around and hanging laundry (see figure 4-3a).

Table 4-19 shows about the trend of general condition of housing during last five years. It is evident that in three flats, there is no neighbourhood showing that the general condition of housing in five years is improving. In those three flats, respondents consider their housing condition as a condition between worsened and remain the same. Flats 21 has the lowest mean score (2.7), followed by flats F36 and F54.

**Table 4-19: General condition of housing in last five years**

		Descriptive Statistics				
14) Dwelling type		N	Minimum	Maximum	Mean	Std. Deviation
F21	39) General housing condition in five years	40	1.00	5.00	2.7000	.85335
	Valid N (listwise)	40				
F36	39) General housing condition in five years	40	2.00	3.00	2.7500	.43853
	Valid N (listwise)	40				
F54	39) General housing condition in five years	40	1.00	4.00	2.9250	.52563
	Valid N (listwise)	40				

The aforementioned condition surely affects tenants' perception about their environment and neighbourhood. It, then, influences their mind to the locally social life, for instance their togetherness.

#### 4.5.5.1 Housing condition

As has been described above about the general condition of physical environment, this section elaborates in detail physical aspects of housing condition that might influence social cohesion. Those aspects include neighbourhood infrastructure, neighbourhood service, home component, size of rooms in the living unit, quality of the rooms, and number of rooms.

The first five main aspects of housing condition is measures using a scale consisting of several items. They are measured by the respondent's satisfaction about each of item within the respective scale. The first aspect, neighbourhood infrastructure, is asked about satisfaction about several kinds of public

infrastructure provided in the neighbourhood. Those are water supply, electricity, telephone line, and sanitation. The second, neighbourhood service, is measured by the satisfaction of given neighbourhood services such as garbage carrying, outdoor lighting, public safety, the maintenance of the building and neighbourhood facilities, drainage and road maintenance. The third, home component is measured by the satisfaction of building component of the living unit such as the wall, floor, window, door, ventilation, and ceiling. The third and fourth aspect of housing condition, room size and quality of rooms, are measured by the satisfaction of each rooms in the living unit toward their size and quality.

The last aspect of housing condition is measured by the satisfaction of number of rooms available in the living unit.

Table 4-20 shows the result of mean score of each aspect of housing condition. It can be seen that flats F21 has the lowest means score for all six aspects of housing condition but neighbourhood service. Flat F36 has the lowest mean score in the later one. Contrast with flats F21, flats F54 has the highest mean score for all aspects of housing condition, and their value are also quite high. Their level of satisfaction, except neighbourhood service, is between neutral and satisfied.

**Table 4-20: physical housing condition based on respondent's satisfaction**

Respondent's satisfaction with housing condition	F21	F36	F54
neighbourhood infrastructure	3,40	3,58	3,63
neighbourhood service	2,69	2,52	2,82
home component	2,91	3,21	3,52
room size	2,64	2,80	3,26
quality of rooms	2,61	2,85	3,35
room number	2,58	2,75	3,25

Based on the ANOVA test, the difference of mean score among three flats is significant except the aspect of neighbourhood infrastructure and neighbourhood service. It could happen because all flats are provided with the equal access to the infrastructure and service by local government and PERUMNAS. The difference is started to be present in relation with the unique facilities given to each flats like home component, room size, quality of rooms and number of rooms.

Among aspects of housing condition, neighbourhood service has relatively lower mean score. Its mean score is below 3 for all flats. It means respondents are not really satisfied with the neighbourhood service. The dissatisfaction of respondents with the neighbourhood service is mainly due to their dissatisfaction with garbage carrying and building maintenance. These two services give low mean score to the value of overall neighbourhood service.

This situation is reflected in the neighbourhood priorities by which the respondents are asked about the priorities that are needed to improve their neighbourhood. From the table 4-21, it can be seen that environment cleanness and repairing building and its facilities become the first two priorities of each neighbourhood.

**Table 4-21: Mean difference of aspects of housing condition among flats**

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Satisfaction with neighbourhood infrastructure	Between Groups	1.161	2	.581	2.085	.129
	Within Groups	32.586	117	.279		
	Total	33.747	119			
Satisfaction with neighbourhood service	Between Groups	1.903	2	.952	2.704	.071
	Within Groups	41.177	117	.352		
	Total	43.080	119			
Satisfaction with home component	Between Groups	7.341	2	3.671	7.329	.001
	Within Groups	58.600	117	.501		
	Total	65.942	119			
Satisfaction with room size	Between Groups	8.345	2	4.172	7.949	.001
	Within Groups	61.412	117	.525		
	Total	69.756	119			
Satisfaction with quality of housing rooms	Between Groups	11.541	2	5.770	10.863	.000
	Within Groups	62.150	117	.531		
	Total	73.691	119			
Satisfaction of room number	Between Groups	9.817	2	4.908	6.190	.003
	Within Groups	92.775	117	.793		
	Total	102.592	119			

**Table 4-22: Neighbourhood priorities**

No	Neighbourhood priorities	F21	F36	F54
3.1	Repairing of building and its facilities	72,50	65,00	72,50
3.2	Road and passageway improvement	27,50	45,00	5,00
3.3	Environment cleanness	82,50	90,00	97,50
3.4	Meeting and multi function hall	0,00	0,00	0,00
3.5	Parking and open space	2,50	5,00	5,00
3.6	Sport facilities	2,50	0,00	0,00
3.7	Playgroup facility	15,00	7,50	2,50
3.8	Health services	12,50	7,50	2,50
3.9	Area provision for business development	7,50	10,00	20,00
3.10	Street lighting	5,00	10,00	5,00
3.11	Security guard post	35,00	27,50	62,50
3.12	Positive activities for young generations	20,00	20,00	22,50
3.13	others	7,50	0,00	2,50
3.14	not know	10,00	12,50	2,50

#### 4.5.5.2 Neighbourhood condition

As housing condition may influence social cohesion, so does neighbourhood condition (Forrest and Kearns, 2001) contributing to the social cohesion. An unsafe, violent and disorder neighbourhood might weaken social cohesion. Neighbourhood will be indicated by the residents getting suspicious to others and it will be difficult to build common vision and cooperation among them that is needed to solve locally social problems.

This section gives description of respondent's perception about neighbourhood condition where they have been living for a particular time in the area. Aspects such as safety, peacefulness, trend of violence, and victimization become the prime concern of the housing estate, and indicate the neighbourhood condition.

**Table 4-23: Neighbourhood condition**

Neighbourhood condition	F21	F36	F54
Neighbourhood safety	3,59	3,84	3,79
Peacefulness	2,93	3,58	3,73
Trend of violence	2,98	2,88	2,80

As seen in table 4-23, the safety in three neighbourhoods is considered quiet safe, although their values of mean score are not so high, still below point 4 which refers the neighbourhood is safe. Flat F21 has the lowest mean score (3.59), while F36 has the highest one.

Referring to aspect of peacefulness, flats F21 has much different mean score from other flats. The value is much lower than others, and it is the lowest mean score among three neighbourhoods which is about 2.93. It means that flats 21 strongly tends to be indicated by neither marked by peacefulness nor violence. Contrast to flats F21, in flats F36 and F54 the neighbourhoods strongly tends to be indicated by peacefulness, especially in flat F54 that has the highest mean score (3.73).

However, from the trend of violence in five years there is more positive trend in flats F21 that the violence is decreasing than other two flats than in other flats. Although the trend is not so significant, since from the mean score (2.98), it shows that the condition is likely to remain the same. Respondents in flats F21 are more being victim of the violence. There are about four people or 10 percent of F21 respondents who ever been assault or mugging. This number is the highest percentage among three neighbourhoods. Next is in flats F54 which occurs three cases.

#### **4.5.6 Relationship housing, neighbourhood, and inequality condition with social cohesion**

Based on the descriptive situation about housing and neighbourhood condition above, this section is describing the relationship between social cohesion and factors that might influence it such as housing, neighbourhood, and inequality condition. The relationship is measured by using correlation analysis.

In order to fulfil for running the procedure of analysis, there are several variables that are transformed into categorical/ dichotomous variable since correlation analysis only handle with both interval data, or one of them is categorical data (Pallant, 2007).

Variables that are transformed into categorical data are such as dwelling type (F21 and non F21); home ownership (renter and owner); length of stay (less than 10 years and 11 years or above); job sector (informal and formal sector); financial difficulty (having financial difficulties and not having financial difficulty).

The correlation analysis result two outputs, -that is, coefficient of correlation and significant value. The former one shows the strength of relationship which ranges from -1.0 to +1.0, while the former describe the significance of relationship whether the relationship between two variables is significantly related.

This study focuses more on the relationship that is significant, although coefficient of correlation is not so high, instead a case of relationship that has a high coefficient of correlation but is not significant.

The following analysis of relationships is outlined in relation with social cohesion domains, which are place attachment, social support, civic activities, and tolerance of diversity.

#### **4.5.6.1 Place attachment**

In relation with housing condition, there are seven aspects that significantly relate with place attachment of social cohesion domains. Those include dwelling type, neighbourhood infrastructure, home components, room size, the quality of rooms, general housing condition, and number of rooms available in the living unit (see Annex 2).

Although they are significantly related with place attachment, their relationship is considered small according to Cohen (1988) in Pallant (2007), referring to their coefficients which are below 0.29.

Satisfaction with the number of rooms within living unit mostly influence place attachment among aspects of housing condition (0.291). The positive relationship between both of them shows that the increasing value of satisfaction with number of rooms will increase place attachment, and so does the other way around.

Following the number of rooms is dwelling type (0.290) and neighbourhood infrastructure (0.283). Respondents living in non F21 type, which is in flats F36 and F54, have more positively influence to their place attachment, and the better quality of neighbourhood infrastructure will positively build place attachment. The other aspects of housing condition that are significantly related such as home components, room size, quality of rooms, general housing condition home show positively small relationship with place attachment. From this description, it can be concluded that condition of physical environment within the housing estate is, in a particular level, related with tenants' attitude to their locality.

Condition of neighbourhood through peacefulness aspect gives more degree of relationship with place attachment than those of physical environment in the housing estate. It has the highest coefficient of relationship among all factors (0.326), and regarded as medium relationship. The other aspect within the neighbourhood that affects place attachment is safety. It is true that in many literature sources suggesting that safety is one of aspects in neighbourhood that can develop social cohesion (Forrest and Kearns, 2001).

Besides housing and neighbourhood condition, it is evident that condition of inequality also relates to place attachment. Both job satisfaction and experience of having financial difficulty are significantly related with place attachment. Their relationship is considered small since their coefficients are only 0.245 and 0.259. The former implies that people that are more satisfied with their job have more sense to their locality. Due to two ways of relationship, the coefficient also means that the increasing of place attachment affect somehow job satisfaction. The later one, since the order puts those having financial difficulty is higher in terms of number of coding than those who's not, implies that the movement from having financial difficulty to absence of having financial difficulty enhances place attachment. It is also evident respondents that are working in informal or formal sector are not significantly related with place attachment.

#### 4.5.6.2 Social Support

In order to analyze the functional social support within the neighbourhood, it is good to identify beforehand how many of neighbours respondents know, how often they interact with their neighbours, and what level of social activities. Result of correlation analysis below shows how those variables are influenced by the physical characteristics of respondents' dwelling place and their perception toward their neighbourhood.

As can be seen in appendix 2 in part of neighbours known at the back of this thesis report, number of neighbours known is significantly related with aspects of housing condition, and not significantly related with neighbourhood condition and inequality. Four aspects of housing condition significantly related with number of neighbours known are home ownership, length of stay, neighbourhood service, and involvement in housing management. The length of stay becomes the aspect that is mostly related with the number of neighbours known. It is logic that people living in the neighbourhood longer than others will have more neighbours. The relationship between both of them is also quite high (0.478), considered as medium relationship. The next highest coefficient of relationship with the number of neighbours known would be home ownership. "Owner" tenants tend to have more neighbours than "renters". It happens because most of the owners have been living in the neighbourhood for quite a long time compared to renters, and most of the tenants are still owners except in flats F21<sup>3</sup>

Negative relationship is found between neighbourhood service and number of neighbours known (-0.245). It might be indicating that people who are more satisfied with neighbourhood service tend to have fewer neighbours than who are not. This situation happens, possibly, because people that have been satisfied with neighbourhood service will not rely much on the community to maintain their environment. Moreover, they are reluctant to have many neighbours. It could also be explained from relationship between "involvement in housing management" and "number of neighbours known" that is obviously related with the coefficient up to 0.293. People that are more involved in the management of housing are likely to have more neighbours, since they must know their both physical and social environment to do that.

However, it is found that there is no aspect of housing and neighbourhood as well as inequality that are significantly related with "neighbourhood interaction". It seems that the process of interaction within the neighbourhood happens randomly. The difference of level of neighbourhood interaction among three neighbourhoods as shown in table 4-9 above is considered not significant. In that table, respondents in flats F21 have the highest level of interaction. Regardless its significant value, the coefficient of correlation between dwelling type, referred to a neighbourhood, shows negative value (-0.102). The negative value implies that the direction of relationship occurs in the other way around, meaning that an increasing value of a variable would decrease the other variable, which is in this case, the "dwelling type" of non flats F21 as the higher order rank would have less interaction than that of flats F21.

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<sup>3</sup> see Chart 4-8

Complying with the “number of neighbours known”, the level of participation of “social activities” has almost similar significance of relationship with the ‘factor’ variables. “Home ownership” and “length of stay” are also significantly related with “social activities”, although they are not so related with “social activities” as number of “neighbours known”. Their coefficients of correlation, both, are 0.260 and 0.217 respectively. The same explanation might be still relevant. Tenants that live longer mostly are owner, and since they have known the neighbourhood quiet well, it is not difficult for them to participate in social activities, especially the social activities have been undertaken for long time<sup>4</sup>. Satisfaction with “neighbourhood infrastructure” also positively develops social cohesion in terms of social activities (0.182), and so does “financial difficulty” (0.210) which implies people with having financial difficulty are reluctant to participate in social activities as opposed to people without having financial difficulty.

In terms of functional social support, it is only housing condition that influences social support. Aspect of housing condition that is significantly related with social support is “dwelling unit”. The coefficient of correlation between both of them is -0.298. The negative value of correlation shows the reverse way of relationship. Since “dwelling type” is categorized into two groups, -that is, flats 21 and non flats 21, Respondents living in flats 21 are having more “social support” than respondents living in non flats. Factor of inequality indicated by job satisfaction also influences social cohesion. Its small relationship (0.26) with social support implies that respondents that are slightly satisfied job will have less social support than people are much satisfied with their job, or in the other word dissatisfaction of job tends to weaken social cohesion in terms of social support.

#### **4.5.6.3 Civic activities**

Civic activities as a manifestation of the presence of civic culture in a community have several factors that can reinforce or weaken the process. In the context of this study, based on the correlation analysis, it has significant relationship with “place living on” and “involvement in housing management”. Both are aspects of housing condition. The former has small relationship (-0.236) and the later has medium relationship (0.358) with “civic activity”. It is found that there was a small negative relationship between place living on and civic activity. Respondents living in lower floor of the building tend to do more civic activities than in upper floor. In relation with “involvement in housing management”, once again, it is very important in respect to the development of social cohesion. Involving tenants in housing management will increase their sense of belonging and confidence to together with others improving the neighbourhood by participating in come civic activities. It is also evident that condition of neighbourhood and inequality is not significantly related with the level of “civic activities”.

#### **4.5.6.4 Tolerance of Diversity**

Within context of urban life which is much characterized by heterogeneity in terms of religions, ethnics, age, income level, and so on there should be tolerance of diversity in a community to promote a harmony social life. Tolerance of diversity depends on the respect of differences and appreciates them existed in the

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<sup>4</sup> see Chapter 4.4

community. First thing to do to have that based on the correlation analysis is by minimizing the “victimization” since this variable is significantly related with “tolerance of diversity” with the coefficient of correlation as high as 0.497. This value is quite high and regarded as medium relationship, almost having large relationship ( $\geq 0.50$ ). A tenant that have been ever being victimized or people being around someone having been ever being victimized are difficult to have tolerance to other people, since they are likely to be distrust to them. Involving tenants in housing management also plays an important role to develop tolerance of diversity. It has significant relationship with the later one with the coefficient of correlation as high as 0.195.

Another factor that is related with “tolerance of diversity” is job sector (formal/informal sector). Its relationship is 0.188, considered having small relationship with job sector. The result also shows that respondents working in formal sector are more tolerated than in informal sector based on its positive value of direct of relationship (informal sector coded as 1, and formal sector coded as 2).

#### **4.5.7 Influence of social condition toward the relationship between social cohesion and housing, neighbourhood, and inequality condition**

As had been discussed above, it is evident that housing and neighbourhood condition influence social cohesion in some its particular domains. Inequality also has a significant role in relation with social cohesion. However, those relationships should be further analyzed in order to find out whether they are purely related each other, or their relationships are just because other factors embedded in respondents’ characteristics like social condition which are more relevant when they perceive their neighbourhood. This argument is came up from the concept of social scientists arguing human ecologist (determinist) theory explaining that physical environment indirectly influences human behaviour, instead they argued that social condition also plays an important role determining human behaviour (Gans, 1972).

In order to identify whether social condition has effect on the strength of relationship between two observed variables, partial correlation is used in this study. Partial correlation was used to explore relationship between two variables, while controlling for other variable (Pallant, 2007). For the purpose of this research, only the relationships which are considered significant are described in this section. Those are the relationships that have been analyzed in Pearson correlation beforehand<sup>5</sup>.

The interference of control variable can be known by comparing the controlled correlation and the original correlation. The margin values between two those kinds of correlation shows the extent to which control variables intervene the original correlation.

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<sup>5</sup> Detail of partial correlation analysis can be seen in Appendix 2.



### ***Controlling variables of social condition with the various relationships toward place attachment***

Regarding place attachment, as one of social cohesion domains, it is found that it is not only housing and neighbourhood condition that influence social cohesion. In some extent, several relationships between several aspects of housing and place attachment are partly due to the influence of social condition, which is in this study only education level considered having significant influence. For instance, there was small, positive correlation between “home component” and “place attachment”, controlling for “education level”,  $r = 0.191$ , with high level of satisfaction with home component being associated with high level of place attachment. An inspection to zero order correlation (original correlation),  $r = 0.253$ , suggesting that controlling for education level had very much effect on the strength of the relationship between these two variables, since there was quiet high decrease in the strength of correlation (from 0.253 to 0.191). Other variables of housing condition regarding their relationship with place attachment that are much influenced by the impact of education level are quality of rooms (from 0.229 to 0.142), room size (from 0.237 to 0.148), dwelling type (from 0.290 to 0.254), neighbourhood infrastructure (0.282 to 0.227), general housing condition (from 0.207 to 0.166) and number of rooms (from 0.291 to 0.248). In shortly all relationships between aspects of housing condition and place attachment are much influenced by education level. The other social conditions, such as sex, age, ethnic, religion and household type have only little effect on the strength of relationship between variables of housing condition and place attachment. In terms of relationship between variables of neighbourhood condition and place attachment, only the relationship between “safety” and “place attachment” is considered having much influenced by education level (0.226 to 0.177).

### ***Controlling variables of social condition with the various relationships toward social support***

In some relationships between the number of neighbours known and variables of housing considered significant, it is evident that social condition may influence their correlation. In fact, the relationship between “length of stay” and “number of neighbours known” is considered spurious meaning there is no direct causal link between these two variables. It can be found from the values of partial correlation, by controlling all social condition variables (sex; age; ethnic; religion; household type; and education level), which are almost to zero (0.0). In shortly, the longer people live in the area is not associated with the number of neighbours, instead their relationship is merely due to social condition of the people.

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Toward level of social activity, there is no single variable of housing condition considered fully associated with it. Its relationship with home ownership is partly due to age, while its relationship with neighbourhood infrastructure is slightly influenced by age, religion, and education. In terms of social support, it is found that social condition does not influence the relationship between social support and dwelling type, and between social support and job satisfaction. The small, negative correlation between dwelling type and social support (-0.298) is not merely influenced by social condition. People living in Flats 21 neighbourhood are not influenced by their social condition in getting high level of social support. This happens also with the high level of job satisfaction being associated with high level of social support is not related with social condition.

***Controlling variables of social condition with the various relationships toward civic activity***

Factors influencing people to do civic activities, apparently, are not only due to “place living on” and “involvement in housing management”. It is found that the relationship between “places living on” and “civic activity” is mediated or anteceded by all social condition (sex, age, ethnic, religion, household type and education level), while the relationship between involvement in housing management and civic activity is not merely influenced by social condition.

***Controlling variables of social condition with the various relationships toward tolerance of diversity***

It is found that people that have high level of tolerance of diversity is not fully related with the high level of their involvement in housing management, the absence of victimization, or working in formal sector. In the relationship between involvement in housing management and tolerance of diversity, it is much influenced by household type whether the respondent is a single family or couple one, and slightly influenced by ethnic. Household type also slightly influences the relationship between experience of being victimized and tolerance of diversity (from 0.497 to 0.447), while in the relationship between working sector (formal/informal sector) and tolerance of diversity, it is determinant key (from 0.188 to 0.134) influencing the relationship. Other social conditions such as sex, ethnic and religion only have little effect to the later relationship.

## **Chapter 5 : Conclusion and Recommendation**

As the number of population in urban areas keep increasing especially in big cities, the housing demand inevitably also increases while the amount of land that can be used to build houses is decreasing mainly in city centre. The scarcity of land is exacerbated with the soaring up land price which is unreachable for low middle income people.

Government through PERUMNAS has launched walk up apartment or flat housing as an alternative means of providing houses for low middle income especially in big cities like Jakarta, Palembang, Bandung, Medan, and so on. Unfortunately most of flat housings have been losing their quality of environment with the indications such as dilapidated building and unclean environment. The decreasing physical environment in flat housing is worsened by social problems that exist in the neighbourhood. The limited private space and more usage of common facilities are likely to stimulate conflicts among tenants. In fact, stigmatization about flat housing from people outside the estate makes the situation getting worse.

For Indonesian people, living in a relatively dense place and unusual habits to dwell in the vertical housing makes the process of adjustment and adaptation of living in flat housing more difficult. For them, living in flats maybe is not the best option. Those who have least choice will stay, and those who have chance will leave the estate and be replaced with others. Finally, the estate will be occupied mostly with people who have less capacity. This situation will threaten the viability of the housing.

The gradually reducing responsibility of local government and housing operator in maintaining the building and its environment requires the tenants to have more control over their own neighbourhood. This could be happened only if the tenants could build same understanding and cooperation in order to solve locally social problems. A cohesive community can only be achieved as long as harmony and social order are put in place.

### **5.1 Conclusion**

This study emphasizes on development social cohesion within a housing estate called RUSUN Sukaramai. This housing is a flat public housing located in Medan, North Sumatera. The main objective of this study is to explore factors that might positively or negatively influence social cohesion. The framework of this study is basically taken from human ecologist theory suggesting that physical environment could influence human behaviour. This theory, then, was argued by social scientists suggesting that social and cultural condition is more determinant influencing human behaviour. They considered physical environment as a potential environment. To transform it into an effective environment where people in a particular physical setting could do several activities as expected by the planners, they must regard to the social and cultural condition of people that are going to use the potential environment. Hence, using the same approach, this research comes up with the hypothesis that housing condition within a neighbourhood could influence social cohesion. The concept of social cohesion itself is outlined with its domains, - that is, place attachment, social support, civic activity, and tolerance of diversity.

The first research question, —*How is social cohesion within each type of flats in the public housing estate?*” is aimed to get the first impression whether three neighbourhoods in RUSUN Sukaramai referred by its dwelling (flat) type are significantly different in term of level of social cohesion. The variety in physical and social condition arguably gives different outputs of social cohesion. The different output of social cohesion among neighbourhoods will be a leading way to explore factors influencing social cohesion through correlation analysis.

It is found that level of some social cohesion domains among neighbourhoods is significantly different. Place attachment, functional social support, and civic activity are the social cohesion domains that are significantly different among neighbourhood, while structure of interpersonal relationship indicated by number of neighbours known, neighbourhood interaction, and social activity is not significantly different among neighbourhoods. The level of place attachment and functional social support within each neighbourhood can be considered having moderate level, while civic activity within each neighbourhood is considered having modest level. The difference output of structure of interpersonal relationship might happen randomly, without any relationship with neighbourhood. It is also evident that among neighbourhoods, there is no significant difference in terms of tolerance of diversity. It seems that people in the housing estate have the same perception in respect to diversity. They moderately regard diversity or difference as something that can make their neighbourhood place to live.

Furthermore, based on the descriptive findings about different output of social cohesion in the housing estate given in the first research question, correlation analysis is applied to answer the second research question, “*How do aspects of housing and neighbourhood as well as inequality condition significantly relate with social cohesion? Into what extent does the relationship take place?*”. This step is necessary to identify factors related with housing and neighbourhood condition as well as the inequality that influence social cohesion by identifying the strength of relationship between two variables.

Result study shows that several aspects of housing condition significantly relate with place attachment. Those aspects include dwelling type, neighbourhood infrastructure, home component, room size, quality of rooms, general housing condition, and number of rooms. It can be seen that most of aspects of physical environment in living unit and the neighbourhood are significantly related with place attachment. All those aspect have a small and positive relationship with place attachment. It implies that high level of quality in terms of physical environment measured by the satisfaction is slightly associated with place attachment.

Besides housing condition, some aspects of neighbourhood condition also significantly relate to place attachment. A neighbourhood characterized by high level of peacefulness and safety is related with place attachment. Satisfied with the job and the absence of having financial difficulty, as well, have small, positive, and significant relationship with place attachment.

In relation with the social support, dwelling type has a small, negative, and significant relationship. It can be concluded that people living in flats F21 have more social support than they who live in flats F36 and flats F54. It might be related with the flat design, where flats F21 which takes form as a vertically row

housing with more dwelling units laid in one floor than other flats encourage people to help each other. Job satisfaction also has small, positive, and significant relationship with social support. High level of satisfaction with the current job is associated with high level of social support.

Civic activity is positively, slightly and significantly related with involvement in housing management. The more the tenants are involved in housing management is associated with their willingness to participate in civic activities.

As had been mentioned above that there is no significant difference of tolerance of diversity taken place within the estate. Apparently, it is significantly related with involvement in housing management, experience of being victimized, and job sector. The first and the later one have small, positive relationship with tolerance of diversity, while the second one has medium and positive relationship with tolerance of diversity. Hence, minimizing victimization incidents in the neighbourhood would increase tolerance of diversity among tenants.

However, all the aforementioned factors that influence social cohesion are not mainly due to physical aspect of housing condition, neighbourhood situation or inequality. All those significant relationship, some, are influenced by social condition. Partial correlation that had been undertaken to answer the third research question, —*How does social condition influence the relationship between social cohesion and aspects of housing and neighbourhood?*” , found that several aspects of social condition such as sex, age, ethnic, religion, household type, and education level has significant effect to those relationship. In fact, there are used to be some relationships that are significant, but they are actually spurious, since the relationships happen due to interference of social condition as called control variable.

It is found in study result that education level has quiet significant effect to the relationship between place attachment and various aspects of housing condition such as home component, room size, and quality of rooms. It also has significant interference to the relationship between place attachment and neighbourhood safety. The spurious relationship is found in the relationship between civic activity and place living on. All aspects of social condition may intervene the relationship, hence it could be concluded that civic activity is not related with place living on, instead social condition of the tenants influence it.

The relationship between tolerance of diversity and involvement in housing management apparently occur due to fair effect of household type. It also happens in the relationship between tolerance of diversity and job sector that household type influences the relationship.

## **5.2 Recommendation**

The development of public flat housings in Indonesia can not be totally considered unsuccessful. Regardless the tendency that many of them have been losing their quality of environment, the writer argues that this type of public housing should be persistently promoted, since this type of housing more efficiently utilizes urban land than the landed public housing consuming extensive land.

The housing provision for low middle-income people commonly much focuses on the financial aspect. To make it financially viable, usually housing developers or

housing corporations compromise other aspect such as comfortableness and appropriateness. They commonly use minimum standard usually regarding to the health standard when designing and building the housing. It apparently neglects the development of individual and family well being.

It is indeed such a dilemma that in one side the government should be able to provide houses for the low middle-income people with the price as low as possible, but in one side the housing corporations or developers will downgrade the quality of the building by minimizing the size of rooms within a living unit and/or building materials. They also provide the housing estate with minimum common open space.

This study reveals that physical condition of housing is significantly related to place attachment as one of social cohesion domains. Place attachment could bring up sense of belonging among the residents since they will fell “home” to their living place and hence, willingly maintain or improve their environment. Payton (2003) suggested that place attachment has strongly correlation with civic activity. The later is necessary to improve neighbourhood environment based on residents’ voluntary participation particularly within the places that have limited resources.

Aspects such as quality, size and number of rooms within the living unit as well as flat type should be reconsidered by housing corporations or developers, although they always argue with the reason, efficiency of resources. There should be more rational trade off between financial aspect and quality of the living places. This is to make the housing more sustainable. The government should also encourage this policy, toward future flat housing development, by providing housing subsidy of development. By that, the housing developers could pay more attention to the quality of the living places without pushing over the number of living units to be built. They could also provide more attractive physical environment particularly for the common space to bring up the residents together and stimulate them to more interact.

The government mainly local authority should give appropriate public service and infrastructure to the housing estate, which was frequently neglected, leaving the area behind. By improving the quality of the environment in the housing estate, it will enhance residents’ pride to the area.

However, the neighbourhood service is not merely government’s responsibility. All residents should aware of their neighbourhood and take responsibility. It could be achieved as long as there is a common vision, and a particular level of civic culture within the neighbourhood.

The later as aforementioned is much related with place attachment. This study also shows that civic activity is related with the involvement of residents in housing management. Hence, PPRS as the official tenant association within the housing estate should be able to bring all community levels in the neighbourhood to actively involve in housing management in any form of action so that they are willing to participate in any activities conducted to improve the neighbourhood. PERUMNAS should also give more responsibility to PPRS to take care the area.

Not only would involving residents in housing management enhance civic activity, but it also could bring up tolerance of diversity among neighbours. Living in harmony would be much easier achieved, if people could have respect to the

differences existing in their neighbourhood. Based on the study result, this should be done along with minimizing victimization incidence within the neighbourhood. Once again, the role of PPRS in this part is so determinant to organize the residents keeping their neighbourhood. Saegert (2004) suggested that an organized community would likely to have fewer problems with crime.

Besides improving the condition of physical environment, the tenants and PPRS should also together keep the peacefulness and safety in the neighbourhood. Hence, the tenants will not only regard their neighbourhood as physical environment, but also they will also be attached to their neighbourhood due to the conducive situation of living in the area.

With the enormous role of PPRS, local government together with PERUMNAS should have given a kind of technical assistance to enhance the capacity of its members in managing the housing estate.

Apart of that the housing is mainly provided for low middle-income people, the government should consider combining the estate with a particular proportion of high income people. This strategy besides to uplift the economical condition of the area, it is also to create chances of making job opportunities for the low middle-income people, since the later tend to rely on the former one. Hence, label of exclusion in the area will gradually be diminished, and the area starts to confidently develop.

A following research about differentiation between renting flat housing and purchasing flat housing toward social cohesion should be undertaken to get more comprehensive study. The former one, nowadays, becomes more popular than the former one in the context of Indonesian housing policy. The recent government program so called “a thousand towers of flat housing” based on rent tenure would be a good time to do the research. This research would identify whether the renting type of flat housing would give higher or lower social cohesion than the purchasing system, and how will the sustainability of rent flat housing be achieved considering that the housing will only be occupied for short period of time.

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## Annex 1: List of questionnaire

1. Age : .....
2. Sex : 1 Male 2 Female
3. Ethnic :
  1. Tionghoa/ Chinese
  2. Batakese
  3. Javanese
  4. Malay
  5. Sundanese
  6. Acehnese
  7. Others (\_\_\_\_\_)
4. Religion :
  1. Muslim
  2. Christian
  3. Catholic
  4. Budha
  5. Hind
  6. Others (\_\_\_\_\_)
5. Household type
  - 1 Couple with no dependent children in household (omitted category in models)
  - 2 Couple with dependent children in household
  - 3 Sole parent with dependent children in household
  - 4 Lone person household
  - 5 Group households/multiple family households
6. Highest *education level* achieved:
  - 1 University/ diploma
  - 2 Senior school
  - 3 Junior high school
  - 4 Elementary
  - 5 Not entering school
7. How often do you eat meat?
  - 1 Every day
  - 2 Three times a week
  - 3 Twice a week
  - 4 Once a week
  - 5 On a fortnight basis
  - 6 Once a month
  - 7 Other .....
  - 8 Never
8. *Labour force status*:
  1. Government employee
  2. Teachers
  3. Private company employee
  4. Business owner with regular employee
  5. Business owner helped by family members or irregular employee
  6. Domestic servant
  7. Self employed
  8. Others (\_\_\_\_\_)
9. Are you satisfied with your current job?
  - 1 Strongly dissatisfied
  - 2 Dissatisfied
  - 3 Neither satisfied nor dissatisfied
  - 4 Satisfied
  - 5 Strongly satisfied
10. Do you expect to have same job in the next 12 months?
  - 1 Yes
  - 2 No

11. How do you consider the distance between your job location and your living place?

- 1 Very far
- 2 Far
- 3 Neither far nor close
- 4 Close
- 5 Very close

12. Have you been experiencing *financial hardship* in last 12 months:

	1 Yes 2 No
1 Could not pay electricity, gas or telephone bills on time	
2 Couldn't pay mortgage/rent on time	
3 Pawned or sold something	
4 No meals	
5 Asked for financial help from friends or family	
6 Asked for help from welfare/community organizations	

*Area Attachment*

13. How do you agree with these following statements?

	1 very agree 2 Agree 3 fair 4 Disagree 5 Very disagree
It is a good place to raise my children	
I feel much advantage living in this area	
I am willing to invest time or effort to make this an even better place	
I sometimes feel like I don't belong in this place*	
What happens to this place is important to me	
Moving out from this area will be the best option for my future*	

14. *Dwelling type* :

- 1 F21
- 2 F36
- 3 F54

15. In what *floor do you live* in?

- 1 1<sup>st</sup> floor
- 2 2<sup>nd</sup> floor
- 3 3<sup>rd</sup> floor
- 4 4<sup>th</sup> floor

16. What is your dwelling *tenure*?

- 1 Outright owners
- 2 Purchaser owners
- 3 Renting tenants

17. How many *years have you lived* in this neighbourhood?

- 1 0 – 5 years
- 2 6 – 10 years
- 3 11 – 15 years
- 4 16 – 20 years
- 5 > 20 years

18. How many of your neighbours in the area do you know personally, that is, well enough to know their name or have a conversation with?

- 1 0 – 10
- 2 11 – 20
- 3 21 – 30
- 4 30 – 40
- 5 > 40

19. Do you personally know other tenants?

	1 Yes 2 No
The same floor in the same block unit	
Different floor in the same block unit	
Different block unit	
Other people beyond the estate	

20. Were the people you met and visited with?

	1 Yes 2 No
A. Of different ethnic or linguistic group/race/caste/tribe	
B. are poorer or wealthier	
C. are older or younger	
D. are different religion	
E. are community leaders	

21. In the last three months, how often is your interaction with people in this area to these following activities?

	1 Never 2 Rarely 3 Sometimes 4 Often 5 Always
The frequency of people visiting your home	
The frequency of you visiting someone's home	
To have a conversation together out of your home	

22. What is the language used to communicate in the neighbourhood?

- 1 Bahasa
- 2 Ethnic language
- 3 Both bahasa and ethnic language

23. Do you participate in the following social activities in the neighborhood?

	1 Never 2 Rarely 3 Sometimes 4 Often 5 Always
Saving group (arisan)	
Religious activities	
Wedding ceremony	
Funeral	
Religious festival	
Cultural festival (imlek, syukuran)	
Sport activities	
Art activities	
Celebrating for national events	

24. Are there any community activities in which you are not allowed to participate?

- 1 Yes
- 2 No, I can participate in all activities → skip to question 26

25. Why are you not allowed to participate?

- 1 Poverty
- 2 Occupation
- 3 Lack of education
- 4 Gender
- 5 Age
- 6 Religion
- 7 Ethnicity or language spoken/race/caste/tribe

26. In terms of social support, how often is each of the following kinds of support in your neighbourhood available to you if you need it?

	1 None of the time 2 A little of the time 3 Some of the time 4 Most of the time 5 All of the time
Someone you can count on to listen to you when you need to talk	
Someone to take you to the doctor if you needed it	
Someone that can watch my children while they are playing around	
Someone to help with daily chores if you were sick	
Someone to turn to for suggestions about how to deal with a personal problem	
Someone to give you information to help you understand a situation	
Someone to do something enjoyable with like play games, sport, or other recreational activities	

27. Have you ever been participating in the following activities?

	1 Yes 2 No
Participated in an election (beyond compulsory voting, like electing Head of Tenant Association)	
Signed a petition or solicited signatures for a petition	
Contacted the media regarding local problems	
Contacted local authorities regarding local problems	
Attended a communal meeting	
Cleaning up trash or litter	
Neighbourhood Night Watch (Siskamling)	

28. What are the major problems affecting this neighbourhood? (Please rank the three most important problems)

- |                                     |     |                      |
|-------------------------------------|-----|----------------------|
| 1 Safety/crime                      | 1st | <input type="text"/> |
| 2 Noise                             | 2nd | <input type="text"/> |
| 3 Youth delinquency                 | 3rd | <input type="text"/> |
| 4 Water scarcity                    |     |                      |
| 5 Electricity black out             |     |                      |
| 6 Poor access to health care        |     |                      |
| 7 Poor access to education          |     |                      |
| 8 Poor access to transportation     |     |                      |
| 9 Dull road                         |     |                      |
| 10 Litter lying around              |     |                      |
| 11 Bad drainage                     |     |                      |
| 12 Lack of employment opportunities |     |                      |
| 13 Dilapidated building             |     |                      |
| 14 Other (specify)_____             |     |                      |

29. Are there any of those problems caused by the following differences?

- 1 Yes
  - 2 No → go to question 28
- Which two differences most often cause problems?
- 1 Differences in education
  - 2 Differences in tenure
  - 3 Differences in wealth/material possessions
  - 4 Differences between men and women
  - 5 Differences between younger and older generations
  - 6 Differences between long-term and recent residents
  - 7 Differences in religious beliefs
  - 8 Differences in ethnic background/race/caste/tribe

30. Thinking about this local area, which of the things below, if any, do you think most need improving? Please tick up to three

- |   |  |
|---|--|
| <input type="checkbox"/> Repairing of building and its facilities | <input type="checkbox"/> Health services                           |
| <input type="checkbox"/> Road and passageway improvement          | <input type="checkbox"/> Area provision for business               |
| <input type="checkbox"/> Environment cleanness                    | <input type="checkbox"/> Street lighting                           |
| <input type="checkbox"/> Meeting and multi function hall          | <input type="checkbox"/> Security guard post                       |
| <input type="checkbox"/> Parking and open space                   | <input type="checkbox"/> Positive activities for young generations |
| <input type="checkbox"/> Sport facilities                         | <input type="checkbox"/> Social activities                         |
| <input type="checkbox"/> Playgroup facility                       | <input type="checkbox"/> Low level of crime                        |
| <input type="checkbox"/> Cultural facility                        | <input type="checkbox"/> Other (Please write in)                   |
|   | <input type="checkbox"/> Don't know                                |

31. To what extent do you agree that having people from many different ethnic and cultural backgrounds makes the neighbourhood a better place?

- 1 Agree strongly
- 2 Agree somewhat
- 3 Neither agree nor disagree
- 4 Disagree somewhat
- 5 Disagree strongly

32. In your opinion, is this neighborhood generally peaceful or marked by violence?

- 1 Very peaceful
- 2 Moderately peaceful
- 3 Neither peaceful nor violent
- 4 Moderately violent
- 5 Very violent

33. In five years, has the level of violence in this neighborhood increased, decreased, or stayed the same?

- 1 Increased a lot
- 2 Increased a little
- 3 Stayed about the same
- 4 Decreased a little
- 5 Decreased a lot

34. In general, how safe from crime and violence do you feel when you are alone at home?

- 1 Very safe
- 2 Moderately safe
- 3 Neither safe nor unsafe
- 4 Moderately unsafe
- 5 Very unsafe

35. How safe do you feel when walking down your street alone after dark?

- 1 Very safe
- 2 Moderately safe
- 3 Neither safe nor unsafe
- 4 Moderately unsafe
- 5 Very unsafe

36. In the past 12 months, have you or anyone in your household been the victim of a violent crime, such as assault or mugging?

- 1 Yes
- 2 No

37. How do you see the quality of neighbourhood infrastructure?

	1 Very poor 2 Poor 3 Fair 4 Good 5 Very good
Clean water supply	
Electricity	
Telephone line	
Sanitation	

38. How do you rate the quality of the neighbourhood services?

	1 Very poor 2 Poor 3 Fair 4 Good 5 Very good
Garbage carrying	
Outdoor lighting	
Public safety	
Building and communal facility maintenance	
Drainage and road maintenance	
Fire extinguisher	

39. Since the last five years, how would you say the housing conditions have:

- 1 Much worsened
- 2 Worsened
- 3 Remained the same
- 4 Improved
- 5 Much improved

40. Are you satisfied with the following components of your home?

	1 Strongly dissatisfied 2 Dissatisfied 3 Neutral 4 Satisfied 5 Strongly satisfied
Wall	
Floor	
Window	
Door	
Ventilation	
Ceiling	

41. How is your satisfaction in accordance with the size of each following rooms?

	1 Strongly dissatisfied 2 Dissatisfied 3 Neutral 4 Satisfied 5 Strongly satisfied
Living room	
Bedroom	
Dining room	
Kitchen	
Toilet	
Front terrace	

42. Are you satisfied with the quality of your existing rooms now?

	1 Strongly dissatisfied 2 Dissatisfied 3 Neutral 4 Satisfied 5 Strongly satisfied
Living room	
Bedroom	
Dining room	
Kitchen	
Toilet	
Front terrace	

43. Are you satisfied with the number of rooms available in your living unit?

- 1 Strongly dissatisfied
- 2 Dissatisfied
- 3 Neutral
- 4 Satisfied
- 5 Strongly satisfied

44. Do you feel you get involved in every decision making related to the housing management?

- 1 Not strongly involved
- 2 Not involved
- 3 Neutral
- 4 Involved
- 5 Strongly involved



## Annex 2: Reliability of scale analysis

### 1. Place attachment

#### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.267	.239	6

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
13.1) Place attachment (growing kids)	16.4250	3.978	.113	.285	.235
13.2) Place attachment (advantage of living)	16.7167	5.617	-.311	.123	.491
13.3) Place attachment (investing time and effort)	15.8667	3.680	.320	.273	.085
13.4) Place attachment (sense of belonging)*	15.6833	4.252	.118	.208	.232
13.5) Place attachment (care with the place)	16.0083	3.723	.241	.167	.133
13.6) Place attachment (plans to move out)*	16.5500	2.989	.278	.274	.053

### 2. Neighbourhood interaction

#### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.686	.689	3

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
21.1) The frequency of people visiting your home	5.6083	2.459	.622	.535	.425
21.2) The frequency of you visiting someone's home	5.7000	2.565	.621	.533	.434
21.3) To have a conversation together out of your home	4.7750	3.285	.295	.087	.841

### 3. Social activities

#### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.746	.746	9

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
23.1) Saving group (arisan)	19.6833	23.496	.519	.357	.707
23.2) Religious activities	18.8500	22.986	.494	.308	.710
23.3) Wedding ceremony	18.3917	23.299	.597	.513	.696
23.4) Funeral	18.5083	22.739	.651	.563	.686
23.5) Religious festival	18.4417	23.223	.525	.419	.705
23.6) Cultural festival (imlek, syukuran)	18.1333	26.285	.185	.178	.766
23.7) Sport activities	19.8583	27.198	.224	.113	.751
23.8) Playing games	20.0833	27.791	.226	.178	.749
23.9) Celebrating for national events	18.9167	23.304	.425	.354	.724

**4. Social support**

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.840	.849	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
26.1) Someone you can count on to listen to you when you need to talk	13.3950	39.597	.628	.547	.813
26.2) Someone to take you to the doctor if you needed it	14.0840	38.501	.672	.522	.806
26.3) Someone that can watch my children while they are playing around	14.3361	40.191	.643	.566	.812
26.4) Someone to help with daily chores if you were sick	14.2773	40.321	.679	.619	.808
26.5) Someone to turn to for suggestions about how to deal with a personal problem	13.5546	39.978	.662	.604	.809
26.7) Someone to give you information to help you understand a situation	13.3529	40.942	.427	.218	.848
26.8) Someone to do something enjoyable with like play games, sport, or other recreational activities	13.8067	38.954	.522	.321	.833

**5. Civic activities**

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.443	.530	7

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
27.1) Civic activity (election)	10.8898	.936	.098	.051	.493
27.2) Civic activity (petition)	10.2627	1.050	.324	.197	.373
27.3) Civic activity (contact media)	10.2288	1.152	.274	.206	.413
27.4) Civic activity (contact local authority)	10.2458	1.127	.221	.192	.413
27.5) communal meeting	10.4237	.776	.416	.236	.267
27.6) cleaning up	10.9237	.874	.193	.075	.424
27.7) Neighbourhood night watch	10.2966	1.082	.146	.114	.430

**6. Neighbourhood infrastructure**

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.746	.759	4

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
37.1) Clean water supply	10.3902	3.130	.639	.649	.638
37.2) Electricity	10.5000	3.191	.639	.651	.641
37.3) Telephone line	10.6829	2.935	.485	.268	.733
37.4) Sanitation	10.5366	3.363	.444	.239	.741

**7. Neighbourhood service**

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.951	.951	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
42.1) Satisfaction with the room - Living room	14.5932	15.611	.863	.810	.940
42.2) Satisfaction with the room - Bedroom	14.5339	15.465	.906	.863	.935
42.3) Satisfaction with the room - Dining room	14.7203	15.400	.895	.810	.936
42.4) Satisfaction with the room - Kitchen	14.7288	15.823	.879	.800	.938
42.5) Satisfaction with the room - Toilet	14.4492	16.215	.837	.742	.943
42.6) Satisfaction with the room - Front terrace	14.8559	16.603	.713	.588	.957

## 8. Home component

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.947	.947	6

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
40.1) Home component- Wall	16.1933	14.513	.751	.590	.947
40.2) Home component- Floor	16.0504	13.777	.871	.768	.932
40.3) Home component- Window	16.0084	14.042	.896	.816	.930
40.4) Home component- Door	15.9748	14.279	.850	.759	.935
40.5) Home component- Ventilation	16.1092	14.030	.827	.693	.938
40.6) Home component- Ceiling	15.9244	13.884	.832	.709	.937

## 9. Room size

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.939	.939	6

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
41.1) Satisfaction with the size - Living room	14.3729	14.424	.853	.827	.923
41.2) Satisfaction with the size - Bedroom	14.3644	14.678	.883	.841	.920
41.3) Satisfaction with the size - Dining room	14.5678	14.624	.881	.784	.920
41.4) Satisfaction with the size - Kitchen	14.8525	15.254	.775	.665	.933
41.5) Satisfaction with the size - Toilet	14.3136	15.585	.775	.629	.933
41.6) Satisfaction with the size - Front terrace	14.6356	15.618	.740	.604	.937

## 10. Quality of rooms

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.951	.951	6

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
42.1) Satisfaction with the room - Living room	14.5932	15.611	.863	.810	.940
42.2) Satisfaction with the room - Bedroom	14.5339	15.465	.906	.863	.935
42.3) Satisfaction with the room - Dining room	14.7203	15.400	.895	.810	.936
42.4) Satisfaction with the room - Kitchen	14.7288	15.823	.879	.800	.938
42.5) Satisfaction with the room - Toilet	14.4492	16.215	.837	.742	.943
42.6) Satisfaction with the room - Front terrace	14.8559	16.603	.713	.588	.957

### Annex 3: Partial correlation analysis

#### 1. Place attachment

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	.290**	.278**	.305**	.292**	.289**	.287**	.254**
Home ownership	.175	.158	.209*	.173	.173	.179	.16
Place living on	-.002	.004	-.007	-.002	-.002	.003	-.008
Length of stay	.178	.162	.218*	.175	.174	.183*	.134
Advantage of the area	-.048	-.052	-.046	-.047	-.048	-.055	-.053
Neighbourhood infrastructure	.283**	.280**	.290**	.281**	.280**	.278**	.227*
Neighbourhood service	.214*	.214*	.213*	.217*	.212*	.212*	.167
Home component	.253**	.251**	.271**	.256**	.252**	.249**	.191*
Room size	.237**	.227*	.247**	.236**	.235*	.238**	.148
Quality of rooms	.229*	.212*	.240**	.228*	.227*	.230*	.142
General housing condition	.207*	.205*	.205*	.204*	.203*	.198*	.166
Number of rooms	.291**	.290**	.293**	.292**	.290**	.286**	.248**
Involvement in housing management	.033	.032	.035	.029	.031	.024	.057
<b>NEIGHBOURHOOD CONDITION</b>							
Peacefulness	.326**	.317**	.336**	.325**	.325**	.321**	.329**
Trend of violence	-.095	-.099	-.098	-.094	-.094	-.095	-.085
Experience of being victimized	-.017	-.028	-.014	-.02	-.02	-.001	-.055
Safety	.226*	.224*	.235*	.225*	.223*	.219*	.177
<b>INEQUALITY</b>							
Job satisfaction	.245**	.262**	.250**	.244**	.245**	.248**	.224*
Expecting the same job in 12 months	-.197*	-.195*	-.197*	-.196*	-.199*	-.197*	-.201*
Formal/ informal sector	.024	-.007	.025	.03	.034	.036	.03
Financial difficulty	.259**	.260**	.271**	.259**	.257**	.263**	.267**

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

#### 2. Social support

##### *Neighbourhood interaction*

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	-.102	-.125	-.115	-.064	-.062	-.091	-.077
Home ownership	.067	.042	.054	.086	.08	.058	.079
Length of stay	.118	-.055	-.056	-.066	-.062	-.079	-.06
Place living on	-.062	.096	.112	.145	.143	.106	.153
Advantage of the area	-.131	-.137	-.134	-.137	-.135	-.114	-.13
Neighbourhood infrastructure	.061	.054	.055	.085	.091	.086	.111
Neighbourhood service	.071	.069	.072	.059	.079	.079	.107
Home component	.01	.006	0	.064	.063	.026	.059
Room size	-.011	-.029	-.019	.024	.034	-.012	.063
Quality of rooms	.032	.006	.024	.073	.086	.031	.109
General housing condition	-.011	-.016	-.007	.009	.011	.039	.017
Number of rooms	.061	.058	.059	.101	.108	.087	.098
Involvement in housing management	-.013	-.015	-.017	.007	-.008	.015	-.027
<b>NEIGHBOURHOOD CONDITION</b>							
Peacefulness	.16	.146	.155	.172	.17	.210*	.164
Trend of violence	.07	.067	.075	.066	.065	.071	.064
Experience of being victimized	.02	.008	.016	.034	.034	-.032	.042
Safety	-.008	-.013	-.015	.028	.02	.037	.028

INEQUALITY							
Job satisfaction	.12	.139	.116	.129	.12	.115	.138
Expecting the same job in 12 months	.08	.086	.08	.075	.088	.081	.08
Formal/ informal sector	-.15	-.197*	-.15	-.179	-.193*	-.191*	-.153
Financial difficulty	.103	.102	.097	.147	.136	.097	.104

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### *Number of neighbours known*

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	-.067	-.084	-.13	.004	-.001	-.07	-.04
Home ownership	.439**	.428**	.384**	.490**	.476**	.442**	.457**
Length of stay	.478**	-.083	-.051	-.097	-.091	-.086	-.086
Place living on	-.089	.468**	.427**	.544**	.535**	.482**	.527**
Advantage of the area	.139	.137	.127	.136	.141	.137	.143
Neighbourhood infrastructure	.067	.062	.034	.111	.116	.064	.12
Neighbourhood service	-.245**	-.249**	-.243**	-.278**	-.243**	-.246**	-.220*
Home component	-.105	-.11	-.182*	-.02	-.031	-.108	-.062
Room size	-.072	-.086	-.119	-.012	-.004	-.072	-.004
Quality of rooms	-.103	-.126	-.159	-.039	-.03	-.103	-.043
General housing condition	-.029	-.033	-.002	.006	.005	-.039	.001
Number of rooms	.04	.036	.028	.11	.111	.036	.077
Involvement in housing management	.293**	.295**	.285**	.344**	.314**	.292**	.284**
<b>NEIGHBOURHOOD CONDITION</b>							
Peacefulness	.16	.15	.126	.184*	.178	.157	.165
Trend of violence	.02	.017	.045	.012	.011	.02	.013
Experience of being victimized	-.045	-.056	-.073	-.023	-.026	-.038	-.024
Safety	-.073	-.078	-.118	-.013	-.032	-.083	-.038
<b>INEQUALITY</b>							
Job satisfaction	.124	.139	.099	.143	.127	.125	.144
Expecting the same job in 12 months	-.036	-.033	-.038	-.048	-.026	-.036	-.037
Formal/ informal sector	.068	.039	.069	.025	.012	.075	.066
Financial difficulty	.195*	.195*	.155	.278**	.252**	.196*	.196*

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### *Social activities*

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	-.031	-.034	-.075	.034	.008	-.028	-.023
Home ownership	.217*	.217*	.161	.253**	.232*	.215*	.222*
Length of stay	.260**	-.145	-.12	-.154	-.147	-.151	-.145
Place living on	-.145	.260**	.207*	.309**	.287**	.257**	.277**
Advantage of the area	-.095	-.096	-.109	-.106	-.099	-.09	-.095
Neighbourhood infrastructure	.182*	.181*	.161	.225*	.213*	.191*	.207*
Neighbourhood service	.102	.102	.11	.085	.11	.104	.116
Home component	.155	.155	.115	.253**	.212*	.161	.181*
Room size	.119	.117	.091	.182*	.166	.119	.161
Quality of rooms	.098	.096	.066	.167	.151	.098	.135
General housing condition	0	0	.02	.032	.02	.015	.009
Number of rooms	.117	.117	.11	.184*	.163	.126	.132
Involvement in housing management	.138	.138	.128	.176	.146	.148	.135

NEIGHBOURHOOD CONDITION							
Peacefulness	.146	.145	.121	.166	.155	.163	.147
Trend of violence	.023	.023	.041	.016	.018	.023	.021
Experience of being victimized	.029	.027	.011	.051	.041	.014	.036
Safety	.145	.144	.119	.210*	.174	.163	.162
INEQUALITY							
Job satisfaction	.146	.148	.128	.162	.146	.144	.152
Expecting the same job in 12 months	.122	.123	.123	.117	.13	.122	.122
Formal/ informal sector	-.133	-.141	-.135	-.18	-.173	-.146	-.134
Financial difficulty	.210*	.210*	.182*	.285**	.243**	.208*	.210*

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

## Functional social support

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
HOUSING CONDITION							
Dwelling type	-.298**	-.298**	-.313**	-.245**	-.246**	-.294**	-.285**
Home ownership	.155	.16	.16	.194*	.183*	.151	.166
Length of stay	.183*	-.093	-.089	-.101	-.095	-.101	-.091
Place living on	-.092	.187*	.193*	.234*	.229*	.177	.212*
Advantage of the area	-.059	-.059	-.062	-.07	-.066	-.05	-.058
Neighbourhood infrastructure	.172	.173	.169	.221*	.229*	.186*	.218*
Neighbourhood service	.015	.015	.016	-.007	.028	.019	.041
Home component	-.034	-.033	-.043	.058	.051	-.026	0
Room size	-.024	-.023	-.03	.038	.05	-.025	.029
Quality of rooms	-.049	-.047	-.056	.019	.033	-.05	-.002
General housing condition	-.02	-.02	-.017	.015	.016	.005	.001
Number of rooms	.082	.083	.081	.155	.161	.096	.111
Involvement in housing management	.087	.087	.085	.127	.101	.103	.078
NEIGHBOURHOOD CONDITION							
Peacefulness	.1	.102	.097	.121	.117	.126	.103
Trend of violence	.091	.092	.094	.086	.085	.092	.087
Experience of being victimized	-.119	-.118	-.123	-.1	-.103	-.152	-.105
Safety	.026	.027	.022	.092	.075	.051	.055
INEQUALITY							
Job satisfaction	.260**	.260**	.259**	.284**	.269**	.258**	.276**
Expecting the same job in 12 months	-.07	-.071	-.07	-.083	-.062	-.071	-.071
Formal/ informal sector	-.123	-.122	-.123	-.175	-.195*	-.144	-.126
Financial difficulty	.055	.055	.051	.129	.108	.051	.055

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).



### 3. Civic activities

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	-.147	-.175	-.153	-.106	-.085	-.15	-.115
Home ownership	.107	.08	.115	.13	.131	.109	.125
Length of stay	.115	-.232*	-.238**	-.243**	-.244**	-.234*	-.236**
Place living on	-.236**	.089	.127	.145	.157	.117	.161
Advantage of the area	-.002	-.008	-.003	-.008	-.006	-.006	0
Neighbourhood infrastructure	-.019	-.029	-.021	.006	.026	-.023	.041
Neighbourhood service	-.139	-.145	-.139	-.156	-.133	-.14	-.1
Home component	-.09	-.098	-.096	-.036	-.013	-.093	-.032
Room size	-.097	-.12	-.1	-.061	-.031	-.097	-.012
Quality of rooms	-.112	-.147	-.116	-.072	-.038	-.112	-.032
General housing condition	-.103	-.11	-.103	-.082	-.072	-.115	-.068
Number of rooms	-.04	-.047	-.041	.001	.027	-.044	.004
Involvement in housing management	.358**	.364**	.358**	.390**	.382**	.358**	.348**
<b>NEIGHBOURHOOD CONDITION</b>							
Peacefulness	.033	.015	.032	.045	.046	.027	.038
Trend of violence	-.067	-.073	-.067	-.074	-.08	-.067	-.078
Experience of being victimized	.03	.016	.029	.046	.052	.04	.059
Safety	-.075	-.083	-.077	-.037	-.033	-.084	-.029
<b>INEQUALITY</b>							
Job satisfaction	.119	.142	.119	.13	.122	.12	.144
Expecting the same job in 12 months	0	.006	0	-.006	.011	0	0
Formal/ informal sector	-.161	-.217*	-.161	-.195*	-.232*	-.158	-.167
Financial difficulty	.069	.068	.069	.117	.121	.07	.069

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### 4. Tolerance of diversity

Items	Zero-order correlation	Control variable					
		Sex	Age	Ethic	Religion	Household type	Education
<b>HOUSING CONDITION</b>							
Dwelling type	.114	.126	.096	.159	.153	.146	.11
Home ownership	.121	.137	.09	.139	.132	.11	.119
Length of stay	.141	-.081	-.062	-.08	-.076	-.112	-.077
Place living on	-.076	.156	.111	.166	.16	.122	.138
Advantage of the area	-.045	-.043	-.052	-.05	-.048	-.01	-.046
Neighbourhood infrastructure	.076	.081	.064	.099	.1	.127	.071
Neighbourhood service	.174	.176	.178	.164	.181*	.198*	.172
Home component	.109	.113	.088	.165	.155	.146	.106
Room size	.13	.141	.116	.168	.171	.138	.134
Quality of rooms	.121	.138	.105	.163	.167	.125	.122
General housing condition	.035	.038	.046	.055	.053	.135	.03
Number of rooms	.138	.141	.134	.178	.177	.195*	.135
Involvement in housing management	.195*	.196*	.189*	.217*	.201*	.264**	.199*
<b>NEIGHBOURHOOD CONDITION</b>							
Peacefulness	.007	.016	-.008	.016	.013	.091	.007
Trend of violence	-.117	-.115	-.109	-.123	-.123	-.125	-.115
Experience of being victimized	.497**	.508**	.492**	.516**	.513**	.447**	.499**
Safety	.045	.048	.03	.08	.068	.136	.039
<b>INEQUALITY</b>							
Job satisfaction	.092	.084	.082	.101	.092	.085	.089
Expecting the same job in 12 months	-.081	-.084	-.082	-.087	-.077	-.087	-.081
Formal/ informal sector	.188*	.216*	.188*	.169	.165	.134	.188*
Financial difficulty	.152	.154	.137	.194*	.178	.146	.152

\* . Correlation is significant at the 0.05 level (2-tailed).

\*\* . Correlation is significant at the 0.01 level (2-tailed).