

**YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME**

**A STUDY ON PROVISION OF AFFORDABLE AND RENTAL HOUSING IN
YANGON**

**KYAW NAING HTUN
EMPA- 21 (18th BATCH)**

November, 2022

**YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME**

**A STUDY ON PROVISION OF AFFORDABLE AND RENTAL HOUSING IN
YANGON**

**A Thesis submitted as a partial fulfillment towards the requirement for the
degree of Master of Public Administration (MPA)**

Supervised by

Daw N Khum Ja Ra

Associate Professor

Department of Applied Economics

Yangon University of Economics

SubmittedBy

Kyaw Naing Htun

Roll No -21

EMPA 18th Batch

(2019-2022)

November, 2022

YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME

This is to certify that this thesis entitled “ A Study on Provision of Affordable And Rental Hosuing In Yangon Region” submitted as a partial fulfillment towards the requirement for the degree of Master of Public Administration has been accepted by the Board of Examiners.

BOARDS OF EXAMINERS

.....

(Chairperson)

Professor Dr. Khin Thidar Nyein

Pro-Rector

.....

(Examiner)

Dr. Kyaw Min Htun

Pro-Rector (Retd)

.....

(Examiner)

Professor Dr. Cho Cho Thein

Pro-Rector

.....

(Examiner)

Professor Dr. Su Su Myat

Director of MPA Programme

.....

(Supervisor)

Daw N Khum Ja Ra

Associate Professor

ABSTRACT

Housing is one of the important factors which can contribute to a nation's economy. The fulfillment of the housing becomes social benefits and also helps to build human resources that are important for the development of a nation. The objective of the study is to identify the condition of affordable housing provision by DUHD in Yangon Region and to examine the challenges of public rental housing in Mahar Bandoola Public Rental Housing in Dagon Myothit (East). This study was conducted using a descriptive method based on primary and secondary data. The survey was applied using simple random sampling method and sample size is 200. It is found that the provision of public rental housing is less than the requirements. The majority of respondents cannot be expected to have enough of their incomes for housing purchases and most of respondents want to get rental housing and the size between 400 square feet to 600 square feet. Residents who break the rules should also be dealt with by the relevant department. Therefore, government should implement public rental housing schemes with commercial area and other facilities in major cities and try to provide the affordable housing, ownership oriented schemes to the people.

ACKNOWLEDGEMENTS

First of all, I would like to express my profound gratitude to the Yangon University of Economics and Master of Public Administration Programme Committee for kindly premising for giving me the opportunity to study this EMPA course. Next, I would like to express my acknowledgement to Professor Dr. Tin Tin Htwe, Rector, Professor Dr. Khin Thida Nyein, Pro-Rector, Professor Dr. Cho Cho Thein, Pro-Rector and Professor Dr. Tin Tin Wai, Pro-Rector Yangon University of Economics for the kind permission to conduct this thesis. I am also grateful to Professor Dr. Kyaw Min Htun former Pro-Rector (Retd.), Yangon University of Economics for his invaluable construct advice and guidance for writing this thesis.

Moreover, I wish to express my deepest appreciation to Professor Dr. Su Su Myat, Director of MPA Programme and Head of the Department of Applied Economics, Yangon University of Economics, for her invaluable supervision, constructive suggestion and unfailing interest for completion of my paper.

After wards, it is a great pleasure to express my high and special gratitude to my supervisor. Daw N Khum Ja Ra, Associate Professor, Department of Applied Economics, Yangon University of Economics, for her kindness, helpfulness, patience, guidance and supervision throughout the preparation of this thesis.

As always, I owed my special gratitude to all board of examiners and teachers for giving their precious time, energy and efforts in sharing a great variety of knowledge throughout the EMPA course I also wish to acknowledge the kindness of my classmates of EMPA 18th Batch and extend my deepest gratitude to them. I would to offer my deep gratitude to those who earnestly helped and contributed directly and indirectly to accomplish this study.

Finally, the completion of the master thesis was the fruitfulness of the above supporters, A Study of the Provision of Affordable and Rental Housing in Yangon Region was a great chance and an unforgettable moment in my life.

TABLE OF CONTENTS

	Page
ABSTRACT	i
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	v
LIST OF FIGURES	vi
ABBREVIATIONS	vii
CHAPTER I INTRODUCTION	1
1.1 Rationale of the Study	1
1.2 Objective of the Study	3
1.3 Method of Study	3
1.4 Scope and Limitations of the Study	3
1.5 Organization of the Study	3
CHAPTER II LITERATURE REVIEW	
2.1 Housing Theory and Housing Policy	4
2.2 Concept and Definition of Affordable Housing	8
2.3 The Role of Rental Housing	13
2.4 The Fulfillments of Rental Housing in Global Experience	17
2.5 Factors that Need for Public Rental Housing	20
2.6 Public Rental Housing Sector in Selected Countries	21
2.7 Review of Previous Studies	30
CHAPTER III OVERVIEW OF PUBLIC HOUSING SYSTEM IN MYANMAR	32
3.1 Background Information of Myanmar	32
3.2 Housing Policy in Myanmar	33
3.3 Housing Development of Public Sector in Myanmar	34
3.4 Public Rental Housing in Myanmar (2011-2022)	36
3.5 Housing Project Development in Yangon	39

CHAPTER IV SURVEY ANALYSIS	40
4.1 Survey Profile	40
4.2 Survey Design	41
4.3 Survey Result	41
CHAPTER V CONCLUSION	55
5.1 Findings	55
5.2 Suggestions	56
REFERENCES	

LIST OF TABLES

Table No.	Title	Page
2.1	Fulfillments of Rental Housing in Global Experience	18
2.2	Operating System of the Public Housing	22
2.3	Homeownership and Renting Rate in Japan	23
2.4	Type of Rental Housing in South Korea	24
2.5	Provision of Public Rental Housing in South Korea (2015-2018)	25
2.6	HDB Housing Supply and Homeownership Rate (1970-2018)	26
2.7	Public Housing Policy Framework in Thailand	28
3.1	Urbanization Rate in Myanmar (1973-2019)	32
3.2	Transition of Housing Policy and Strategies in Myanmar (1948-2019)	34
3.3	Housing Units Provision from Department of Urban and Housing Development (1948-2019)	35
3.4	Public Rental Housing Project in Regions and States (2011-2022)	37
4.1	Fulfillments of Public Rental Housing in Mahar Bandoola Public Rental Housing Project	40
4.2	Socioeconomic and Demographic Characteristics of Respondents	41
4.3	Economic Condition of Respondents	43
4.4	Housing Provision by DUHD in Yangon Region (1993-1994 to 2010-2011)	45
4.5	Housing Provision by DUHD in Yangon Region (2010-2011 to 2019-2020)	46
4.6	Low-Cost Housing Provision by DUHD in Yangon Region (2011-2012 to 2021-2022)	47
4.7	Mid-Cost Housing Provision by DUHD in Yangon Region (2011-2012 to 2021-2022)	49
4.8	Reasons for Application of Public Rental Housing	51
4.9	Want to Pay Rental Fee of Respondents	52
4.10	Availability of Electricity and Water in Present Place by Respondents	52
4.11	Want to Get Housing Size of Respondents	53
4.12	Want to Housing Type of Responds	53
4.13	Distance of Public Area and Existing Place of Respondents	54

LIST OF FIGURES

Figure No.	Title	Page
2.1	The Critical Context of Housing Policies	17
2.2	Affordable Rental Housing Program in Vietnam (2018-2019)	30

LIST OF ABBREVIATIONS

ANHS	-	Australian Government's National Housing Strategy
ASEAN	-	Association of Southeast Asian Nations
BLS	-	Bureau of Labor Statistics
CHID Bank	-	Construction, Housing and Infrastructure Development Bank
CODI	-	Community Organizations Development Institute
DTZ	-	Debenham Thourad Zadelhoff
DUHD	-	Department of Urban and Housing Development
GHB	-	Government Housing Bank
HDB	-	Housing and Development Board
HOLC	-	Home Owner Loan Corporation
HOS	-	Home Ownership Scheme
HUD	-	Housing and Urban Development
JHF	-	Japan Housing Finance Agency
NGO	-	Non-Government Organization
NHA	-	National Housing Authority
UR	-	Urban Renaissance Agency
PPP	-	Public Private Participation
UN-HABITAT	-	United National-HABITAT
YCDC	-	Yangon City Development Committee
YRG	-	Yangon Regional Government

CHAPTER I

INTRODUCTION

1.1 Rationale of the Study

Housing is one of the important factors which can contribute to a nation's economy. It is linked with development of other parts of the economy closely attached to people's needs, demands and social processes with the supply of land, infrastructure, building materials, technology, labor, and housing finance. These linkages pave the way for the sustainable development and poverty reduction. If there is no arrangement of a housing sector, there is also no development of urban centers. Housing is a basic human need and an important component of the urban economy. According to the historical evidence, housing problem can never be absolutely solved, but can only be eased.

The fulfillment of the housing becomes social benefits and also helps to build human resources that are important for the greater development of the nation. From a social point of view, housing is a social good as well as a welfare activity. From an economics point of view, it can be considered a highly valuable commodity. The housing sector needs government intervention and control, even in market economies.

In developing countries, rural to urban migration is also a major problem resulting in over-urbanization in some major cities and related urban problems which include physical, human and economic problems. Human problems are especially acute as most urban growth results from mass migration from the countryside. The city needs to plan well for the problems where public utilities, transport and communication systems and sanitation and waste disposal need to be planned, financed, constructed, and maintained. Housing is most needed for immigrants and housing programmes are needed to fulfill these requirements leading to appropriate settlement schemes.

One-third of today's urban population live under slum conditions and that the urban population in most developing countries has to live in poor conditions. The urban population of Myanmar is estimated to reach 23 million in the next 30 years.

(UN HABITAT, 2003).40% of them are estimated to be low-income families; 9 million urban poor will be facing severe housing problems. Most of the urban poor will be living in big cities such as Yangon and Mandalay (UN HABITAT, 2003).

Myanmar is also facing the consequences of urbanization in large cities, especially Yangon City because of rural to urban migration. Many rural people from all parts of Myanmar have migrated and still migrating to large cities in search of a better life and basically a permanent job in the city. However, most end up with odd jobs facing insufficient income and worst still with no house to live in. In this case, the most vulnerable households have to settle down in slums. Slums usually produce a number of problems such as crime, communicable disease outbreak. The authorities concerned are now dealing problems of these squatters and also for government staff^ pensioners who do not own a house. Public and private housing projects have been implemented to solve the problem of housing needs for the low-income households, pensioners etc.

The resultant increase in housing price and rental charges have made many families become homeless and forced to settle in Slum areas. Therefore, the problem is faced by every country, and they need to provide slum and squatter areas with urban facilities and urban face. In 2019-2020, squatter quarters are increasing at a high rate in some major cities because of migration. There is a long history of migration from the countryside to the city in Yangon as in most other cities. These migrants come to Yangon seeking more stable, year-round employment. For instance, in the after math of Cyclone Nargis (2008), many former delta residents fled their homes and farms and sought safety, food, shelter, and new livelihoods in Yangon. In 2020, the current population of Yangon is 5.3 million and nearly 8% of population (Over 400,000 squatters) lives in informal settlements.

The low price of the housing is not being provided, the poor people and squatters may still not be able to purchase them. Therefore, affordable public rental housing are the particle solutions for the present time and the government should implement affordable and public rental housing schemes in some major cities such as Yangon. So, this study intends to find how improving the affordability and public rental housing in Yangon Region,

1.2 Objective of the Study

The objectives of the study are as follows;

- (1) To identify the current status of affordable housing provision by DUHD in Yangon Region
- (2) To examine the challenges of public rental housing in Mahar Bandoola Public Rental Housing in Dagon Myothit (East)

1.3 Methods of Study

This study used descriptive method based on primary data and secondary data. Primary data were collected simple random sampling method. Primary data were collected using form 200 applicants from Mahar Bandoola Public Rental Housing in Dagon Myothit (East) Township and affordable housing provision by DUHD in Yangon Region. Secondary data is collected from DUHD, YCDC, YRG, corresponding government department, some research papers and internet website.

1.4 Scope and Limitation of the Study

This study is mainly focused on condition of affordable housing and public rental housing in Mahar Bandoola public rental housing in Dagon Myothit (East) Township and affordable housing provision by DUHD. This study was not relevant for the other regions and townships.

1.5 Organization of the Study

This study is organized into five chapters. Chapter one is the introduction, it describes rationale of the study, objectives of the study, scope and limitations of the study and organization of the study. Chapter two includes literature review. Chapter three describes overview of affordable and public rental housing in Myanmar. Chapter four is survey analysis that include the affordable housing provision by DUHD and challenges of public rental housing in Dagon Myothit (East) Township. Chapter five is conclusion with findings and recommendations.

CHAPTER II

LITERATURE REVIEW

Housing is one of the basic requirements of the people, it is necessary to make the fulfillment for providing the adequate housing facility to the people of all the groups including the people of low income group to pave the path for the sustainable and equitable development of the world.

2.1 Housing Theory and Housing Policy

Social housing is primarily not allocated by financial considerations of market actors. Supply is not based on profit-maximizing decisions as in private rental markets; rather, non-pecuniary goals prevail as social housing providers are to a large extent driven by their public tasks (Whitehead and Scanlon 2007). Concurrently, demand for social housing services is not steered by tenants' ability or willingness to pay the rent, but by a politically and socially defined and interpreted form of need (MacLennan and More 1997).

Furthermore, since social housing rents are prescribed by governments and tend to be kept below market levels, they clearly have a different purpose than the signaling function of market rents. This implies that adjustment in social housing to new market circumstances remains publicly controlled and thus reflects political objectives rather than decisions of independent providers and consumers of housing services (Whitehead 2003). According to international practice, not more than 30% of family income can be regarded as affordability for housing (O' Neill P, 2008).

Housing policy, institutional and regulatory frame work affect the housing supply and demand and housing outcome that influence the consumers of the housing. It is clear that effective housing policy formulated by the government will bring about the well-functioning housing delivery system that result in supply meets demand and subsequently lead to sustainable housing development available and accessible to all people needing housing. The diagram below represents the factors that affect the working market.

2.1.1 Definition of Rental Housing

Rental housing is defined here as property owned by someone other than the resident or by a legal entity for which the resident pays a periodic rent to the owner. In "pure" rental housing schemes, there is no obligation for the owner to sell or for the resident to buy the occupied unit. It is simply a formal or informal agreement between a tenant and a landlord to rent a dwelling for a certain period of time at a predetermined price. Social rental housing is defined as rental accommodation in which the rent is set at a level below market rates to make it affordable for people considered disadvantaged, such as low-income earners, the elderly, the disabled, and migrants. The difference between the market rent and the subsidized rent is sometimes obtained through subsidies to the landlord. In other cases, it is provided by owner if a religious institution, charity, NGO, or public entity owns the property.

The rental housing consists of four main parts and they are Public Housing, Subsidies, Tenants and Owners. These definitions are as follows;

- (a) Public housing is a form of social housing that is owned by a governmental entity.
- (b) Subsidies are tools that permit housing to be accessible to those that cannot afford market rents. These can be applied to the fulfillment of housing, "supply side," or to assist with periodic payments, "demand side." Supply-side subsidies include grants, low-interest loans, and tax abatements. Demand-side subsidies include housing assistance payments and vouchers.
- (c) Tenants are people who rent or lease housing from landlords.
- (d) Owners range from individuals to institutions that own property they rent or lease to tenants. Types of owners include the following;
 - i. Individual owners of a single rental unit or a small number of units
 - ii. House or apartment owners who rent a room in their home
 - iii. Companies that provide housing for workers, whether they own the housing or partner with a private landlord
 - iv. Medium-scale owners who own from 10 to 100 units
 - v. Institutional owners and investors, for whom the ownership of rental housing is a significant line of business

2.1.2 Characteristics of Rental Housing

These critical issues for Characteristics of Rental Housing can be classified six issues and explain in detail below.

(a) Rent level and Rent Setting

As housing is a human right, with reference to the Universal Declaration of Human Rights (1948 Article 21.1) and the UN International Covenant on Economic, Social and Cultural Rights (1966 Article 11), rents have to be set at an affordable level.

Landlords always tend to argue that rents are too low; tenants say that they are too high. Both sides are likely to abuse the statistics. As such, it is rarely easy to establish the truth. Part of the problem about rent levels relates to what is what is meant by rents being 'too high'. Sometimes, rents make up a very high proportion of the tenant's income but are nonetheless still too low for landlords to make a profit or even pay for maintenance of the property (UN HABITAT, 2003).

Rents should be in reasonable proportion to the income. By Western standards 'reasonable' level, means 20-30 per cent of disposable family income. If a tenant household cannot pay the rent being charged, the market would suggest that either the rent must fall or the household must leave. If the rent falls, and landlords receive a smaller income, the danger is that the quality of the housing supply will decline. A further problem is that when there is a substantial difference between the levels of rent that will encourage landlords rent out property and the ability of rental households to pay that level of rent, landlords will stop investing in rental housing.

(b) Rent Subsidy

The rent subsidy is a housing benefit and intended for people who are not able to pay the housing costs for their rental dwelling. It is part of an enabling approach to housing in which the goal is to create a well-functioning housing sector that server the requirements of all key stakeholder groups. In many countries in order to be considered for rent subsidy, regulations are used that have to do with income, age personal means and rental price.

(c) Housing or Rental Cost

Housing cost or rental cost is a key issue in the analysis of living standards. In part this reflects variations in the quality of housing, but there are also significant cost variations that do not reflect quality changes or differences. Expenditure on housing is

an important item in household budgets. Housing costs vary greatly from one household to another and from place to other.

(d) Technical Standards and Quality of Rental Housing

The quality of the housing stock depends mainly on the following factors;

- i. The technical condition,
- ii. The facilities in the dwelling itself.
- iii. The dwelling`s appearance,
- iv. Noise insulation and
- v. The floor space in the rooms.

In many countries especially in the developing countries large numbers of tenants live in very poor housing conditions. It is a well-known fact that homeowners look after their property whereas tenants do not. Studies have shown that "homeowners, unlike renters and landlords, have both an economic and a use interest in their properties. This combination of interests seems to provide powerful incentives for owner-occupants to maintain their properties at a higher standard and to join organizations that protect the collective interests of home owners in the area" (UN HABITAT 2003). The quality of housing stock also depends on the country`s housing policy and is also very much related to who owns the rental stock. Usually the landlords are responsible for the maintenance of the building.

(e) Legal Issues: Tenants Rights

In developed countries, majority of the tenants and landlords sign written contracts that conform to rules laid down in the rental legislation. This gives both landlords and tenants the right go to the court in order to seek redress against wrong doing by the other side (UN HABIT AT 2003). The International Union of Tenants` Charter states that "the right to quality, affordable and accessible housing is a universal human right which must be legally enforced in the constitutions and legislation of all countries".

(f) Housing Management and Maintenance

The management and maintenance of the existing housing stock is an important task for housing organizations. In the developed countries a large amount of money is spent on management and maintenance but this is not true in developing countries where they do not have enough money to meet the demands for housing. That is why most of the housing is badly in need of repair. It is common that the landlord is required to keep housing in good condition and is responsible for all the

cost that this requires. Only the small, daily maintenance is the responsibility of the tenant. Maintenance can be carried out on parts of the building in a specific cycle of several years and they are major maintenance and require a lot of capital. It could be either the entire façade of the building or specific facilities in the dwelling are tackled. Management of the housing stock is more than just the dwelling in good technical repair. The quality of the living environment, management of the public spaces, maintenance of green areas, pavement surfaces, combating vandalism and decay are very important for improving the quality of life in the neighborhood.

2.2 Concept and Definition of Affordable Housing

2.2.1 Concept of Affordable Housing

In English, the word "affordability" is frequently used, and its definition is universally accepted. In fact, during the past 15 years or so, the phrase "housing affordability" has gained a lot of popularity. Affordability, however, is a difficult term to describe. In this usage, the word "afford" refers to the capacity to make a purchase without experiencing financial hardship. But how does one know when they are having financial problems? Even when a person's salary is obviously more than the cost of an item, many times goods are nevertheless deemed to be out of reach. According to Stone (1994), affordability has more to do with comparable costs and incomes than it does with the fundamental qualities of housing. Of fact, any item or service might be included in the scope of this argument. Glaser & Gyourko (2003), assert that the ability to pay criterion conflates housing costs with poverty, and that income should not be taken into account when determining affordability. They contend that a more sensible comparison point for prices is the actual cost of building a home. However, this definition conflicts with the definition of "afford" we provided above, which amply demonstrates the importance of money. Two perspectives on this financial strain exist. How much of our money is going toward this buy, first of all? Second, how much money do we still have to spend on other items? The same rules that apply to other goods also apply to homes. But because we don't have a clear definition of the word "afford," these two policies have a common flaw.

Generally speaking, affordability can be viewed of as a continuum, which is itself a relationship between relative prices and income. At one end is reasonably priced, while at the other is obviously not. The notions of affordability as they relate to housing and as they relate to other products are fairly similar. The obvious

difference is that while someone may think a certain house is relatively reasonable, they may think another good at the same price is extremely expensive. This is made possible by the fact that what matters to us most is how much money we have left over after a purchase and what we anticipate using it for. We require less money after housing expenses than we do after, say, clothes expenses since housing costs make up a considerably larger share of a household's monthly expenses than most other categories. Additionally, compared to most other purchases, the whole expense (and reward) of buying a house can be spread out over a number of years.

Accessibility is a related term that is used in the context of housing. Accessibility is a representation of the initial circumstances a prospective tenant or owner would encounter. The interest rate, house prices, rents, income, and the lending standards are all included. Government housing policies may also have an impact on accessibility; for instance, a grant for first-time homebuyers may increase the "accessibility" of a purchase. Affordability, on the other hand, usually relates to the ongoing expenditures of owning or renting. It unmistakably reflects many of the same elements that affect accessibility and may also be impacted by legislative initiatives.

2.2.2 Housing affordability

The list below includes some definitions that are used in academic and policy settings. Most of these formulations incorporate the ideas of sufficient lodging and sufficient residual income. "These two components can be considered the heart of any definition of housing affordability," notes DTZ New Zealand (2004).

"Affordability is concerned with guaranteeing some set level of housing (or different standards) at a price or rent which does not impose, in the eyes of some third party (often government) an undue burden on household incomes" (Maclennan and Williams, 1990).

"Any rent will be affordable, leaving the consumer with a socially acceptable standard of consumption for both housing and non-housing when rent is paid," the response is (Hancock, 1993). Most definitions of the phrase read, "A household is said to have a housing affordability problem when it pays more than a specified percentage of income to receive suitable and appropriate housing" (Hulchanski, 1995).

"Physically suitable housing provided to persons who, absent some special government action or unique arrangement by the housing providers, could not afford the rent or mortgage payments for such dwelling" (Field, 1997).

"Definitions of affordability concentrate on the relationship between housing spending and household income and specify a benchmark in terms of that income above which dwelling is regarded as unaffordable," says the APA (Freeman, Chaplin and Whitehead, 1997).

"The idea of reasonable housing expenses in relation to income: that is, housing costs that give households enough money to cover other essential requirements like food, clothing, transportation, medical care, and education." (National Housing Strategy of Australia, 1991).

"Housing affordability" refers to a household's ability to pay housing expenses while still being able to cover other essential living expenses (Burke 2004). "Affordability is about people's ability to secure housing and to remain in it; it is not just a function of housing costs and income levels" (Housing New Zealand Corporation, 2005).

Affordable housing is one part of the housing market in Western developed countries as well as in Eastern developing countries. Housing has not only the characteristics of commercial profit but social; security protection. Despite the fact that there is no universal definition for "affordable housing", housing policy makers have accept the target group for affordable housing specified by James E. Wallace as " if a family's total monthly cost is less than 30% of householder's income, the affordable housing policy would be applicable". Affordable housing is defined as housing that is legally restricted for the use of persons or households who meet specific income requirement" (Jingchun Lin, 2011). Affordable housing refers to housing units that are affordable by that section of society whose income is below the median household income (UN-Habitat, 2016).

The term housing affordability has come into popular usage for the past years replacing housing need at the center of debate about the provision of adequate housing for all (Whitehead, 1991; Swartz and Miller, 2002). Linneman and Megbolugbe (1992) concede that, "Talk of housing affordability is plentiful, but the precise definition of housing affordability is at best ambiguous." As observed by Hancock (1993), "housing affordability" is concerned with standards of housing consumption; and more importantly, it captures the notion of opportunity cost, which

she regarded as the essence of housing affordability. That is; what has to be sacrificed in order to obtain housing and whether the sacrifice is reasonable or otherwise excessive in some sense. Hancock, (1993) further observed that in that definition, housing and basic non-housing goods are taken as merit goods, that is; goods whose consumption has a socially desirable minimum within the 13 society. According to her, “any rent would be affordable, which leaves the consumer with socially acceptable standards of both housing and non-housing consumption after rent is paid” (Hancock, 1993). In other words, affordability implies the ability of households to pay the cost of housing without imposing constraints on living cost (Stone, 1993). Putting these elements together, Freeman (1997), assert that housing affordability focuses on the relationship between housing expenditure and household income, and defines a relative or absolute standard in terms of that income above which housing is regarded as unaffordable. Thus, it is evident that providing affordable housing is not just simply about cheap and decent home, it entails having regard for broader range of factors. However, Boamah, (2010) further gave these factors include good access routes, ventilation, sanitation and access to basic human need such as water. At the level of national policy, despite the common use of such terms as ‘affordable housing’ and ‘provision at affordable costs’, most governments have often been reluctant to explicitly defining affordability within a policy context. This could in part be attributed to inherent ambiguities with the concept and in part to political caution and expediency (Bramley, 1994). However, in some countries policy definitions of affordability are similar to those above. For instance, as cited in Debenham Thourad Zadelhoff (DTZ) New Zealand (2004), the Australian Government’s National Housing Strategy (ANHS) defines affordability as “the notion of reasonable housing costs in relation to income: that is, 14 housing costs that leave households with sufficient income to meet other basic needs such as food, clothing, transport, medical care and education” (Berry and Hall, 2001). In New Zealand, housing affordability is defined as the “ability of households to rent or purchase housing in an area of choice at a reasonable price, the capacity of households to meet ongoing housing costs, and the degree that discretionary income is available to achieve an acceptable standard of living”(Working Party On Affordability Issues, 2003). Generally, these definitions tend to invoke, with different levels of emphases, some or all of the three standards of socially acceptable housing, housing cost and quality of life (King, 1994). Within this context, adequacy of shelter and residual income (that is; income remaining after all

personal debts including house rent or mortgage have been paid) are considered the core components of the definition of housing affordability. Such definitions inherently involve or include judgments not only about the quality and merit – good attributes of housing but also about the relationship between housing expenditure and income, and acceptance of the view that housing should represent not more than a given element within that income. In order to make use of these definitions, the standards are usually defined in a relative way (when defined in relation to the existing situation of households in general) or in a normative way (when defined by an independently defined value). The problem is that there is hardly any consensus around need-type standards (such as living standards) on which many definitions of housing affordability are based. Therefore, there is a lack of consensus on how best to quantify the extent of discrepancy between the housing expenditure of households and what they are expected to spend given their consumption needs. 15 There are different perspectives on the maximum percentage of income that households of different sizes, compositions, and incomes should be expected to have to pay for housing.

2.2.3 Factors that Contribute to Housing Affordability

The literature has identified a number of elements that affect housing affordability (DTZ New Zealand 2004):

- (a) Income (both current and projected over the long term) has a direct impact on a household's capacity to make housing purchases and payments.
- (b) Rent and house prices: These variables show the amount of money needed to obtain a place to live.
- (c) Interest rates, nominal and real: affects how much it costs homeowners to borrow money.
- (d) The state of the labor market: This factor influences a household's capacity to engage in the labor force, generate revenue, and sustain housing expenditures over time.
- (e) Rent and mortgage payments have a direct impact on a family's capacity to save and grow its housing consumption in the future. This is especially important for households trying to buy a home in the rental market.
- (f) Supply issues could make it more difficult for the market to adjust to an excessive demand for homes.

These elements clearly link to one another. People's incomes are directly impacted by labor market conditions, particularly their assurance of future revenue sources. Interest rates, home prices, rentals, and wealth all affect how much a person must pay in mortgage and rent. House prices are impacted by supply-side restrictions. Due to variations in demand for home purchases, interest rates can also have an impact on home prices.

2.3 The Role of Rental Housing

Rental housing is a very common phenomenon in most of the countries of the world, be it developed countries. In most of the developing countries the rental housing stock has increased over the past decades, but rental supply has not been able to keep pace with the demand. The rental housing stock varies between countries, within countries and between cities. The nature of the rental housing stock is very diverse and generally speaking, rental market can be divided into two parts. In some countries, rental housing is provided mostly by the public sector, in others by landlords. But the forms of rental housing also vary considerably. In developed countries, most of renting are subject to the legal process, whereas in most developing countries this not the case. So it is very difficult to generalize the nature of rental housing.

There are various involved in the rental housing; they are the landlords, tenants, sharers, and shareholders in the cooperatives. Each of these actors and their roles are described in detail below.

2.3.1 Landlords

The supply side of most rental markets is characterized by the landlords. There are private landlords who are mostly small-scale investors and own one dwelling only and very few own more than three. The other type is institutional landlord, which would include central government, local government, public enterprise, corporation, pension funds, investment bank or insurance company. All landlords let property to obtain an income but the reasons they do so and the strategies that they follow in generating that income are highly diverse (UN-HABITAT, 2003). Rent for these landlords serve as a safety net against precarious employment, meeting household expenditure, housing improvements, a regular source of income when moving from waged employment to own account forms of employment, capital investment and

rotation in generation (Kumar, 2002 quoted in UN-HABITAT, 2003). From the housing life cycle point of view, renting is a temporary arrangement. Letting property also provides a partial solution to the problem of what to do with a house if it cannot be sold. Some inherit homes that they do not wish to live in. Others need to move but are unable to sell their existing home in order to buy another (UN-HABITAT, 2003).

2.3.2 Tenants

Tenants are usually families who are staying in a dwelling unit with a condition of paying a certain amount of money regularly. The characteristics of the tenant population depend fundamentally upon the nature of the local housing market. In certain cities one kind of household may own whereas in others the same kind of households may rent. A household's decision rests on the relative costs of renting versus owning and upon the relative size of the rental housing stock (UN-HABITAT, 2003).

When UN-HABITAT analyzed the characteristics of tenants, the following factors were taken into consideration:

- (a) **Income;** The poor households tend to rent while the rich one's own. However poorer cities differ from those in developed countries as many poor families can also own a 'house' in informal or illegal way when free or cheap lands are available.
- (b) **Age;** Tenants tend to cluster at opposite ends of the age range. In most cities it tends to be a young person's tenure, particularly prevalent among students, those entering the housing market for the first time and migrants. Sometimes it is also an old people's tenure.
- (c) **Household structure;** generally in most cities, certain kinds of households always tend to rent: recent migrants, foreigners, young and mobile households, single people, and couples without children. In the United States of America, 'one in three renter household consist of one person', similar pattern appears to be true in Sweden, when 40% of the household comprise of single person (Astrand, 2005). In many developed countries like Sweden and the Netherlands, the number of household continue to rise, but the size of average household continues to shrink. While in the developing countries, both the numbers as well as the size of the household are rising.

- (d) **Migration;** Compared to the natives, the newly arrivals in cities are in an inferior position in term of income level, social status and familiarity with the local situation. Usually they cannot afford or they do not have access to house ownership. So rental housing is the best option for the new those arriving new to the city. The main factor related to migration is the urbanization process.
- (e) **The life cycle;** Many housing researchers have attempted to explain tenure choice in terms of an individual`s life cycle. Young people tend to avoid the responsibility of home ownership whereas families and rate of divorce also affect the tenure choice.
- (f) **Culture;** In some countries the youth tend to leave the family very early and in others they can stay with parents until getting married. This has a strong relationship with the indigenous culture. Some cultures have the fanatic bias towards the ownership which will also affect the nature and demand of rental house.

2.3.3 Sharers

In most societies, many people share their homes with others. This arrangement may be temporary, brought about by long visit from distant relatives, financial difficulties or marital problems. Sharing has both advantages as well as disadvantages; it is advantages because it will be chapter as both sharer and the host derive benefits from sharing. The disadvantage is about the lack of independence and privacy. If the rooms are small then sharing raises room densities and sometimes produces overcrowded living conditions. Servicing can also be a problem when sharing increases the number of people living in the property. Various surveys suggest that sharers can be identified by the certain features. The great majority of the sharers are related to owners, most sharers tend to be younger than tenants or owners, Sharers tend to be quite poor, many are only sharing for a time some are more permanent residents than most tenants. Sharing is common in some cities than in others. Differences in the incidence of sharing may be a cultural feature of the society concerned.

2.3.4 Shareholders

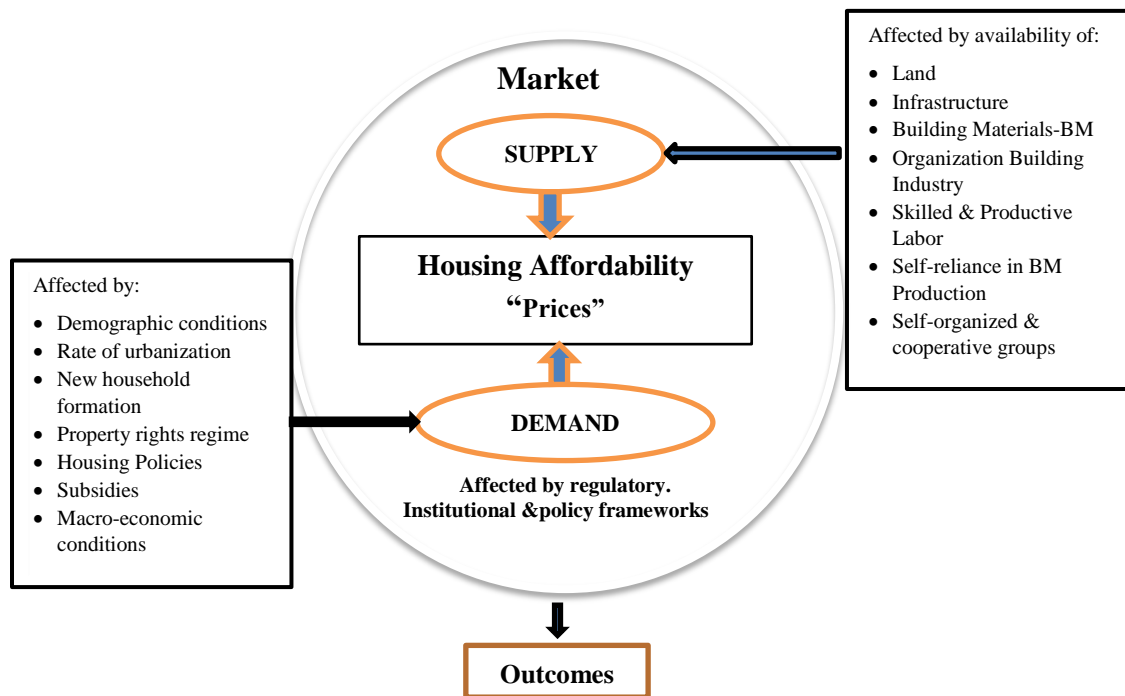
A shareholder, also referred to as a stockholder, is a person, company, or institution that owns at least one share of a company's stock, which is known as equity. Because shareholders are essentially owners in a company, they reap the benefits of a business' success. These rewards come in the form of increased stock valuations, or as financial profits distributed as dividends. Conversely, when a company loses money, or suffers declines in their portfolios' values. A single shareholder who owns and controls more than 50% of a company's outstanding shares is known as a majority shareholder, while those who hold less than 50% of a company's stock are classified as minority shareholders. In rental housing of PPP project, government is a majority shareholder and private is a minority shareholder. Because of government owns and controls more than 50% of PPP project in public rental housing.

2.3.5 Private Rental Housing

Private rental housing is dwellings owned by individuals or corporations and rented to households. The rent is a source of income for private landlords the apartments are mostly built with an intention of profit. Sometimes the private rental sector is regarded as a sector where dwellings are distributed through the market. Access is allocated by ability to pay and rent level is determined by supply and demand. Usually it is the richer section of the society that own and the tenants families seem to poorer. The private rental housing is a good and safe business to be involved in many countries.

The vast bulk of rental housing across the world has been provided by the private sector, and increasingly by small investors. The exceptions are found in some Western European countries. In Denmark, Finland, Germany and Switzerland, some companies continue to put money into rental housing and in France, banks, insurance companies, pension funds and real estate companies rent out one eighth of the total housing stock (UN Habitat 2003). In Asia, vast majority of landlords also seem to operate on a small scale. In India most landlords were found to be operating at the individual or household level. Similarly in Pakistan, most landlords were found to be operating at the individual or household level. Similarly in Pakistan, most landlords operate on a small scale in Karachi, large scale landlords of build structures are almost non-existent (UN Habitat 2003).

Figure (2.1) The Critical Context of Housing Policies



Source: UN-Habitat (2011)

2.4 The Fulfillments of Rental Housing in Global Experience

As home ownership was popular and given priority in many countries, there was no longer any enthusiasm to further develop the rental housing system. However, in-depth analysis showed that, similar to home ownership, rental plays an important role. Most families have to rely on rental housing in one or another period in their lives. Thus, rental housing constitutes a large portion of the housing stock in every society.

If the government focuses only on the implementation of homeownership, a big wave of squatters trespassing and setting down in the areas are likely to occur. Moreover, the government faced with a haphazard housing development process. Most governments consider the volume of housing ownership rise simultaneously with the economic development of the country. As such, they did not pay adequate attention to upgrading rental housing. In actual fact, according to the experience of the majority of the world's countries, there is no necessary connection or relationship between the nation's development and the rise in its homeownership. The higher rate of home ownership in the developing countries as compared to that of the developed countries is mainly due to the low urbanization rate of developing countries and to the fact that the majority of their population residing in rural areas with low housing prices.

Table (2.1) Fulfillments of Rental Housing in Global Experience

Country	Year	Ownership	Renting	Other
India	2019	86.6	11.4	2
Myanmar	2019	85.5	7.5	7
South Korea	2019	57.7	42.3	-
Austria	2019	55.4	44.6	-
Germany	2019	51.5	48.5	-
Sweden	2019	64.1	35.9	-
UK	2019	65.1	34.9	-
USA	2019	65.3	34.7	-
Japan	2019	61.8	34.2	4

Source: UNFPA Myanmar and OECD Housing Database (2020)

As urbanization increases together with economic development, rental housing becomes the main living pattern in urban areas. The low ownership rate in the tenure of the developed countries is not due to the rise in urban housing prices but also to the existences of suitable rental housing system. This can be seen in Table 2.1, where the rental housing rate in developed countries is generally higher than that of the developing countries. It can be also surmised that, with the growth of cities, residency in rental housing has increased. The fact that millions of people are living in rental housing and also that more people need rental housing, should be practically accepted. Together with the development of urban cities, the requirement for rental housing increase in some regions or areas. At present, there are only a handful of countries that really in, and encourage rental housing. However rental housing expands even without encouragement. As such, it can be seen that there are a now a few countries that have changed their attitudes towards rental housing.

UN-Habitat also mentioned that governments are encouraged to recognize that renting is an essential component of a balanced housing system and avoid policies that favor only homeownership, and consider renting to be one of the various ways to improve housing conditions. In any country, some percent of rental housing should be available for those who cannot afford to buy. In the majority of the countries, to create housing ownership for the low-income population, direct government subsidy, fulfillment of tax relief and housing finance and population, direct government subsidy, fulfillment of tax relief and housing finance and other measures has been

implemented at the costs of billions of money. Although it is true that some households have benefited from such government efforts, the populations with low incomes, or those who cannot own houses or those who are able to access loans but are unable to afford regular household running costs, are still living as tenants. These classes continue to be dependent on the rental housing system for their existence.

In some countries, the private sector is the major provider of rental housing, while in a few other countries, the private sector is the sole provider. In the developing countries, although the public sector ought to be the sole provider of rental housing, nowadays, in general, the government's role in the fulfillment of rental housing is actually declining gradually. Therefore, the private sector is providing unsystematic and low-grade rental housing in the market. In developing countries, the main source of rental housing is the rental houses provided by individuals in the private sector. Their rental housing is mostly located in places where the majority of low-income earners reside. As a consequence, most of the rental housings are outside of the government's laws, regulations and controls and exist in informal forms. All over the world, the majority of governments, at a minimum, have to fulfill rental housing, at least for a specific society. For example, military servicemen, government employees, government personnel, university students and people in requirement of housing due to natural disasters and other catastrophes, and to low-income persons. The amounts of investment were differing for the construction of public rental housing for the low-income persons according to the needs and to extent of government endeavors.

According to the UN-Habitat, in the 1990s the world's public housing was 19.5% of the total housing stock. Since public housings were developed some cities (e.g. British cities, cities in the Netherlands and some cities in Latin American countries), the problem faced by the developing countries concerning rental housing was the inability to fully fulfill the housing requirements. It is necessary to recognize that rental housing development not only fulfills housing requirements, but also increases job opportunities, promote the construction sector, upgrade suburban areas and creates supplementary income for poor families. The above benefits of rental housing should clearly be appreciated by the government. Since low-income urban upgrading programs depend on rental housing upgrading activities.

2.5 Factors that Need for Public Rental Housing

There are various factors that need for Public Rental Housing. The main factors are Rental Fee, Housing Size, Housing Facilities, Location and Public Facilities. (UN Habitat 2003) Each of these factors is described in detail below.

2.5.1 Rental Fee

Rental fee is a key issue in the analysis of living standards. In part this reflects variations in the quality of housing, but there are also significant fee variations that do not reflect quality changes or differences. Expenditure on housing is an important item in household budgets. Rental fee vary greatly from one household to another and from place to other. Public rental fee should be reduced than private rental fee because tenants of public rental housing are most of low-income people.

2.5.2 Housing Size or Housing Type

Housing size also influences public rental housing tenants' demands and satisfaction because people are willing to live in bigger house with better space distribution in different rooms. Therefore, housing size has significant impacts on the rents of public rental housing. There are several types of options in public rental housing, an informal rental unit in poor condition in a slum, a market-rate apartment in good condition that is affordable for service or factory workers, a small multifamily property that a young person rents from a relative, and a shared unit or public housing for an elderly person with very little or no income. The quality of housing provided in these units is an important component in understanding where a government should and should not target policies to develop or strengthen a rental housing market.

2.5.3 Housing Facilities

The provision of services like water, electricity, drainage and infrastructure like roads are important for housing. The households benefit directly from these services and infrastructure by saving time and money and can have better living conditions. Often investment on infrastructure and services encourage new construction and upgrading of existing housing, including the provision of more houses to rent. The various services like water, electricity, road, drainage, and common space are important housing facilities. Then, housing consist the number of

bed rooms, the number of bathrooms, floorage, floor, indoor decoration and the age of housing are important factors of public rental housing.

2.5.4 Location

The relative location features are the distance to the center of the town, the distance to the workplace, the distance to the nearest bus station, the distance to the nearest subway station. Transportation may influence target tenants' demand for public rental housing and the level of rent for reason that good transportation can save tenants' commuting time and costs as well as improve tenants' living quality. If housing is near to the public places, do not cost for transportation. Therefore, housing location is very important for tenants of public rental housing.

2.5.5 Public Facilities

Public facilities can influence tenants' demand to influence the rents because the degree of perfection for public facilities near the public rental housing is in positive relevance with the living quality of tenants, which is actually similar to the Public facilities near the commercial housing. School, market, and hospital have been identified as important public facilities that could influence the rent of commercial housing and further lead to the change of rents for public rental housing.

2.6 Public Rental Housing Sector in Selected Countries

In 2009, approximately 1.2 billion people live in rental accommodation in the world. The public rental housing system is used in developed and developing countries over the world. Most of them, public rental housing sector development in selected countries are as follows;

2.6.1 Public Rental Housing in Japan

Japan's Housing policy in the latter half of the 20th century comprised three pillars with a wide range of targeted groups; Public Rental House, the Japan Housing Corporation (now the Urban Renaissance Agency [UR]), and the Government Housing Loan Corporation (now the Japan Housing Finance Agency [JHF]). The system overview of Public Operate Housing is as follows;

Table (2.2) Operating System of the Public Housing

	Operating System of the Public Housing
Target Group	Low-income people with housing problems
Age Criteria	None
Income Criteria	In principle, in the range of less than 50% (¥259,000 of monthly income), the local government establish the ordinance, considering the 25% (¥158,000) criteria specified by a Cabinet Order.
Supply Method	Built by local government Build by private sector, purchased or rented by a local government.
Housing Improvement Cost	By including the construction cost, public housing in the project cost which is subject to the calculation of a grant-in-aid, as a general rule 1/2 of such project cost shall be granted to the local government.
Rent	Rent based on occupant's income, location and size of house. (The central government provides grants to local governments to support the reduction of rental fees.)

Source: Ministry of land, Infrastructure and Transport (Japan) (2019)

Japan government strategy is that Urban Renaissance Agency (UR) rents the housing with the price which cannot affect the market price for the middle-income households' who need the rental housing and local government arrange the public rental housing (Publicly Operated Housing) with very lower price rather than market prices for the low-income households. (Urban Renaissance Agency (UR))

One of the significant characteristics of publicly operated housing is the rent of the house is extremely lower or less than the rent in real in real estate market. It is because of the central government subsidizing the cost of construction. The local government is systematically arranging for the people who earn low-income and for the qualified person to access housing units. Rents are deducted accordingly with the amount of central government's subsidy. According to the housing statistics in Japan (2018), 61.7% of the housing stock were owner-occupied houses, and the rest, 38.23% were tenants with different types. It shows the significant portion of Japanese is living in rental housing. 10.3% of housing was public-rented houses, and 28% were private-rented houses.

Table (2.3) Homeownership and Renting Rate in Japan

Year	Homeownership	Renting & Others
1968	60.3%	39.7%
1973	59.2%	40.8%
1978	60.4%	39.6%
1983	62.4%	37.6%
1988	61.3%	38.7%
1993	59.8%	40.2%
1998	60.3%	39.7%
2003	61.2%	38.8%
2008	61.2%	38.8%
2013	62.0%	38.0%
2018	61.7.3%	38.3%

Source: Government of Japan, Statistics Bureau (2019)

Rental housing units with more government subsidy are rental with cheaper rent. The qualified factors for rental housing are income of a person, the numbers of person in a family including disables persons, lower standard of existing house, being a single mother and, etc. Nevertheless, based on the requirement of rental housing units, limitation of income bracket for tenants are occasionally revised by the local government. One of the critical factors and the strength of the system is that local government enforces a tenant to move to a better housing unit when his income increased over the eligible income frame. The effectiveness of Japan's public rental housing scheme in practice, usefulness and consistent implementation of the scheme made it not only successful but also contribute to the national economy.

2.6.2 Public Rental Housing in South Korea

The Republic of Korea's rental housing sector is dominated by the private sector as the stock of public rental housing remains small, although it has expanded in recent years. The private rental sector is closely integrated with the owner-occupied market through a unique type of rental system, the chosen. The first government program for public rental housing was initiated as a component of the 1988-92 drive to build 2 million new housing units. The program consisted of a plan to build

250,000 permanent rental units for the lowest 10 percent in the income distribution. The program ran into difficulty in securing land in the cities and was deemed too costly for government. As a result, the program ended after producing 190,000 units. Government interest in public rental housing was renewed by the Kim Dae Jung government in 1998. The government announced a plan to build 50,000 national rental housing units by 2002. As the chonseil deposit index increased in 2000, the target was adjusted in 2001 to build 100,000 units by 2003, and later to 200,000 units. These rental units were to be rented for 5-10 years and then sold. According to the 2000 census, 3.3 million households, or 23.1% of all households, were living in house that fell short of the minimum standards; they formed a basis for the rental housing program.

The Lee Myung Bak housing modified the public housing program of the previous administration by lowering the annual target for production as well as by increasing the share of low-cost housing for owner occupation. The rental housing program consists of five kinds of units: permanent rental (to be rented for 50 years), national rental housing (30 years), public rental (7 years), long-term chonseil (20 years), and rent-to-own (5 to 10 years).

Table (2.4) Type of Rental Housing in South Korea

Rental Housing Name	Rent for Years	Target Group
Yong-Gu Rental	50 years	extremely very low-income group
Kook-Min Rental	30 years	low-income group
Happiness Rental	7 years	university student, First-time employees, newlyweds, etc.
Long-term Chonseil Rental	20 years	middle and low-income group
Lease-to-sale type Public Rental	5 or 10 years	middle and low-income group
Existing Multi-family Public rental Existing housing lease and re-let rental	Least 20 years	extremely very low-income group, socially disadvantaged groups

Source: Ministry of Land, Infrastructure, Transport and Tourism (2020)

The target for 2009 to 2018 is to build 100,000 permanent rental units, 400,000 national rental housing units, 300,000 rent-to-own units by the private sector. The government provides a direct subsidy and a below-market-rate loan through the NHF. In 2015, this was set at a 3% interest rate, payable for 20 years after a 10-years grace period. Land that could be developed was subsidized as well. About 36,000 rental units were built between 2008 and 2015. One side effect of the public rental housing drive was that it nearly wiped out the rent-to own scheme by private developers.

Table (2.5) Provision of Public Rental Housing in South Korea (2015-2018)

Types	Young-Gu Rental	Kookmin Rental	Happiness Rental	Chonseil Rental	Lease-to-sale Rental	Multi-family Rental	Total
Rental Period	50 years	30 years	7 years	20 years	5 or 10 years	20 years	
Housing Units (,000)	193	106	521	385	30	358	1709

Source: Ministry of Land, Infrastructure, Transport and Tourism (2020)

Rental housing has long been a residual sector to owner-occupied housing. In recent years, more renters have been renting by choice, so that chonseil deposits and rents have been increasing. This trend is likely to continue as the price of housing stabilizes and population aging proceeds. A key question concerns how the supply of rental housing can be increased to meet increasing demand. Some argue that public rental housing stock should be expanded, but it will be very costly. Another issue relates to making rental housing more affordable. Politicians are in favor of introducing some form of rent control. A national program of housing voucher is being considered.

2.6.3 Public Rental Housing in Singapore

Singapore is a densely populated city-state with an area of 712 square kilometers and a population of 5.07 million, of which 3.77 million are residents. Over the past six decades, Singapore has built an impressive stock of housing through

heavy state involvement. The Housing and Development Board (HDB) established in 1960, with an initial mandate to provide basic rental accommodation for the poor was a key institution. Since the Home Ownership Scheme (HOS) was introduced in 1964, home ownership has been promoted as an integral part of nation building. HDB has built about 1 million residential units over the past 50 years. The rental housing sector is divided into the regulated rental sector and the unregulated private rental sector. In HDB sublet housing, units that have been privately owned and occupied for five years can be leased to citizens and permanent residents with prior approval from HDB at market-determined rents.

HDB social rental housing comprises smaller, low-cost rental units provided directly by HDB for low-income households. This represents the social housing sector for Singaporeans, especially since rent control in the private housing sector was phased out. A proportion of HDB's rental units also cater to transitional families—those waiting for their Home Ownership flat—as well as to foreign workers. The private rental stock consists of high-quality dwellings to serve foreigners and locals with high income. HDB provides public housing between 1970 and 2018 are as follow;

Table (2.6) HDB Housing Supply and Homeownership Rate (1970-2018)

Year	Population (‘000)	Total Housing Stock	HDB Housing	HDB Proportion of Housing Stock	Homeownership Rate
1970	2075	305,833	120,138	39%	29.4%
1980	2414	467,142	337,198	72%	58.8%
1990	3047	690,561	574,443	83%	87.5%
2000	4017	1,039,677	846,649	81%	92.0%
2010	5076	1,156,732	898,532	78%	87.2%
2018	5535	1,296,304	968,856	75%	90.3%

Source: Government of Singapore, Department of Statistics (2020)

Singapore has promoted home ownership through various policies since 1964, and its current home ownership rate is among the highest in the world. However, the small public rental housing sector serves the housing needs of low-income households. The private rental sector operates freely to cater to the demand by residents as well as foreigners.

2.6.4 Public Rental Housing in Thailand

The rental housing market in Thailand-and in Bangkok, in particular-is multifaceted. It serves many groups with different products and several sources of financing. Some experts have argued that it is an efficient market, with little or no need for governmental intervention. Others note that there are still a great many people in need, particularly those who live in slums or in squatter settlements. The private sector is actively involved in providing rental housing, particularly for lower-income workers and students. It is market dominated by small landlords; some who own what can be termed “self-help housing,” that is, a room in their own house or an apartment in the same building in which the landlord lives. Those who own multiple units are still small landlords.

In the public sector, the government created three housing-related organizations, all of which play some role in rental housing development and finance. The Government Housing Bank (GH Bank), the nation’s largest provider of affordable mortgages, also finances developers of rental housing. The National Housing Authority (NHA) develops housing projects, some of which have been used for rental. The Community Organizations Development Institute (CODI) handles the most difficult challenges of slums and squatter settlements. In practically, not truly rental housing, are alternatives to home ownership. Although these institutions provide much of what is needed in the rental housing sector, more still needs to be done. The government’s housing organizations note that a national housing policy needs to be formally adopted and that rental housing and other types of non-ownership models should play a strong role in this policy. The fact that more than 4 million people live in units built from nonpermanent materials show that housing conditions need to be improved.

NHA’s role in the provision of rental housing is as a developer, manager, owner, and provider of subsidies. In 2016, NHA constructed or rehabilitated 641,918 units. Of these, 289,254 (45percent) were related to slum upgrading and 154,584 (24

percent) were built under the Baan Eua Arthorn (low-cost housing) program. Approximately 16,000 units were built for rental housing. The official minimum standard for living space is set by the NHA at 34 square meters (340square feet) per home for five people (6.8sq/m per capita). CODI takes a broad community development strategy in which its housing is neither home ownership nor rental. Rather, it is an integrated, community-based strategy that is based on a type of cooperative model.

The responsibility for the development and financing of rental housing resides in a number of entities. Both the public and private sectors are involved with relatively clearly defined roles and in a way that matches the segmentation of the market itself. The market appears to work efficiently on the upper and middle ends. Even on the lower end, some argue that rental housing is affordable and that it meets the needs of the consumers. However, the greatest need is in the lower end of the market, particularly for those living in slums and in squatters' settlements. Here the limitations of the nation's housing policies can be seen.

Table (2.7) Public Housing Policy Framework in Thailand

No.	Public Housing Policy Framework	
1	Target Group	<ul style="list-style-type: none"> - Middle- and low-income groups - Vulnerable: aged, handicapped, single parent, and others
2	Scope	<ul style="list-style-type: none"> - Maintenance of sustainability of project for low-income group - Provision of loan for lower middle-income families - Ensure supply of adequate number and variety of houses - Improve amenity and good living environment in residential area.
3	Roles of Public Sector	<ul style="list-style-type: none"> • Maintenance of fair competition and transparency of housing market to keep/improve reliability of housing market • Assist housing businesses to be growing industry • Support of private businesses to exploit lower income housing services • Guidance to improve quality of houses

Source: National Housing Authority, Thailand (2019)

2.6.5 Public Rental Housing in Vietnam

The housing market in Vietnam has been steadily growing over the last two decades. From 1999 to 2009, 275,000 housing units were supplied in Vietnam and an additional 325,000 are expected between 2009 and 2019. Housing demand has increased by about 10% every year, and reports suggest an additional 394,000 housing units need to be built annually until 2049, considering Vietnam's current urban population growth rate (3%).

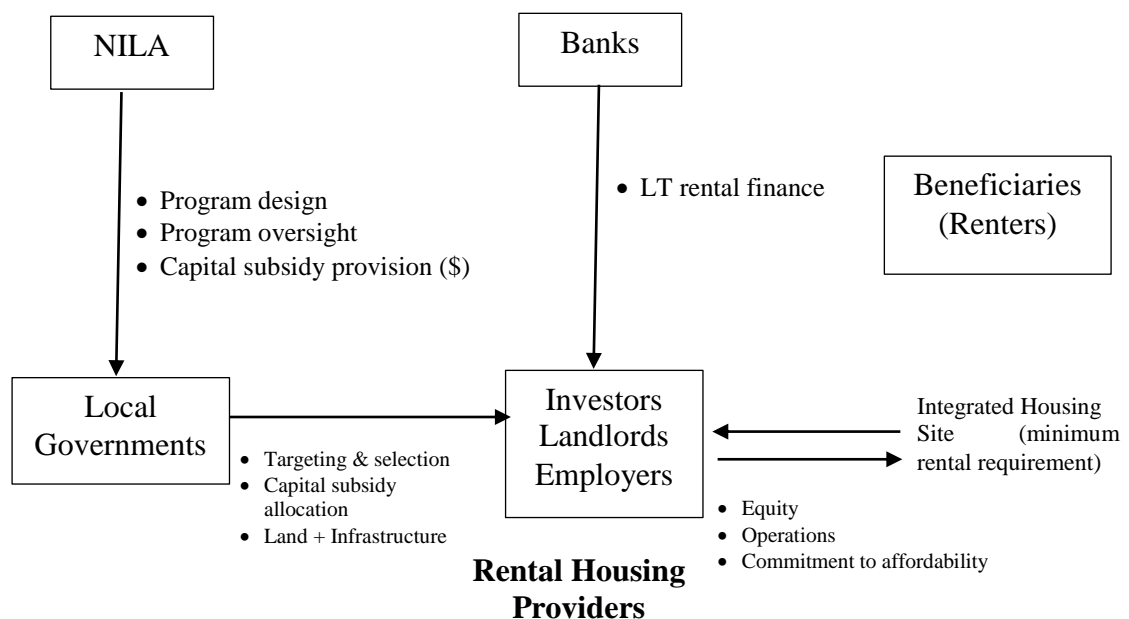
In 2018, almost 20 percent (approximately 4.8 million households) of Vietnam's 24.2 million households live in poor conditions. Population growth and urbanization have exceeded the government's ability to ensure its citizens have access to safe and affordable housing. The share of the urban population is expected to reach 50 percent by 2040 as Vietnam continues to promote industrialization as a means to facilitate economic growth and poverty reduction. This will mean that an estimated 374,000 additional units are needed in cities annually, with the number of urban households projected to increase to 10.1 million in 2020 (from 8.3 million in 2018), as a result of urban population growth and a decline in the average household size at 1.1 percent per annum. In Vietnam, the average housing per capital is 33.8 square meters (363.8 sq/ft) in urban area and 27.1 square meters (291.7 sq/ft) in rural area.

According to the 2009 Census, rental housing makes up around 15 percent of Vietnam's housing stock, or 3.3 million units nationwide. Rental housing demand is concentrated in urban areas (up to 26 percent of households in HCMC), among migrants (64 percent of migrants in HCMC and Hanoi live in rental housing), youths and low income households. The need for temporary housing or rental solutions can be expected to increase as Vietnam becomes more urbanized, the population of students and migrant workers rise and the average age of marriage continues to increase, with many young people choosing to settle later in life.

In Vietnam, existing affordable rental housing is mainly informal, small-scale and substandard. The low level of formality faced by many tenants has a significant impact on livelihood opportunities and magnifies vulnerability to poverty, particularly for migrants. Despite rising demand, the supply of formal affordable rental housing is limited, due to the low payment capacity of tenants, legal hurdles, and the difficulties for private sector to prepare financially viable projects, which prevents their participation and incentivizes landlords to remain informal.

The development of an affordable rental program, driven by local governments, to increase private sector provision of quality and affordable rental housing in priority areas. This program would initially focus on supply-side support that is complemented by a set of reforms and activities to create an enabling environment for the formal rental market. In time, demand-side assistance can be introduced to assist the poorest and most vulnerable households. In order to access subsidies, rental housing providers must make a commitment to maintain units at affordable levels for a set length of time for the target population (e.g., 10 years). Local governments would oversee projects, which could include mixed-use and mixed-income elements to support development of integrated and well-serviced neighborhoods, as well as the financial viability of projects. The initiative can be started with pilots in industrial zones to respond to existing demand, and after testing, expanded to address other priority groups in urban areas, including low-income households, students and young families.

Figure (2.2) Affordable Rental Housing Program in Vietnam (2018-2019)



Source: World Bank group in Vietnam (2019)

2.7 Review of Previous Studies

Sai Thet Naing Moe (2012), studies that innovation of housing policy development in Myanmar. In this study found that the long-term year 2020, the existing town developed area are can accommodate within the balance density. Public Private Participation (PPP) is also significant role of the development of housing sector and win-win situation has been realized in many project in Yangon. The role of public sector in housing development should be as facilitator and regulator to focus and provide for the necessary of the low-income group and public sector employees.

Myint Swe (2015), found that “Affordable housing is a housing that is affordable to lower or middle-income households”. He suggested that the cost of land and infrastructure should subsidize to reduce the unit cost of housing, in order to increase affordable housing supply to lower middle-income groups and public rental housing for the lowest income groups.

Aye Zaw Pe (2019), found that housing projects by the government, international organization and private sector implemented for the low-income households, pensioners, squatters in Yangon City and the majority of the respondents opinions on living in the new settlements are expressed as being at a satisfactory level. He suggested that government should encourage the housing for low-income families such as rental housing, low-cost housing etc., depending on their level of income.

CHAPTER III

OVERVIEW OF PUBLIC HOUSING SYSTEM IN MYANMAR

3.1 Background Information of Myanmar

Myanmar is the largest country in mainland Southeast Asia, having 261228 square miles in size and 51 million populations with 70% of the population working in agriculture, various kinds of ethnic nationalities reside collectively and widely spread in 14 Regions and States and Union Territories. It share borders with Bangladesh, China India, Laos and Thailand. Naypyitaw is the capital of Myanmar and Yangon, as the former capital is the country’s most important commercial center.

Urbanization the distribution of population density in the urban and rural areas varies directly with the development of the economy, especially with the establishment of industrial and economic zones. Due to economic prospects, job opportunities migration from the rural and other urban areas will increase the urbanization of a specific urban area. Among the ASEAN countries, after Indonesia regarding the area, Myanmar is the second largest country. However, the percentage of the population residing in urban areas is low.

Table (3.1) Urbanization Rate in Myanmar (1973-2019)

Year	1973	1983	2014	2019
Total Population (Million)	28.92	35.31	51.49	54.04
Urban Population (Million)	6.82 (23.6%)	8.47 (24.0%)	14.88 (28.9%)	16.76 (31.0%)
Rural Population (Million)	22.1 (76.4%)	26.84 (76.0%)	36.61 (71.1%)	37.28 (69.0%)

Source: Population and Housing Census (2014) and MOLIP (2019)

The total population stood at 54.4 million in November 2019, according to the Minister of Labor, Immigration and Population, urban population is 16.76 million (31%) and rural population is 37.28 million (69%). The urban population in Myanmar has increased gradually and 29.6% in 2014 to 31% in 2019. Between 2014 and 2019 the urban population is increased 0.67 million (1.4%). Three cities dominate the urban scene; Yangon with some 4.5 million residents, Mandalay, with around 1.2 million and Naypyitaw, which is home to some 1.16 million people. Approximately, 17 million people live in urban areas with Yangon and Mandalay accounting for 20% of total population. Myanmar has a relatively low level of urbanization at 31% but it is estimated that 35% of the population by 2050, according to the World Bank (Oxford Business Group, 2020). According to 2018 statistic of GAD, there were 3431 ward and 13597 villages in Myanmar. And there were 76 districts and 330 townships and 464 cities in which more than 100000 people were residing. Among them in Yangon alone, 10% of the total population of the country was living and it accounted for 42% of the total urban population.

3.2 Housing Policy in Myanmar

The changing of Myanmar's housing policy can be guessed by dividing into four parts. Although the housing policy had not been announced officially, government emphasized in housing sector from 1950 through 1965 and 1989-2010, tried to introduce multiple tactics for housing supply and implemented the mass production of housing by the public sector. In the period of socialist government, it is the time of not only the least of the government's involvement and enthusiastic in the housing sector but also the government did not promote the housing development in private sector. Transition of housing policy and strategies of Myanmar in Table (3.2).

Table (3.2) Transition of Housing Policy and Strategies in Myanmar (1948-2019)

No	Period	Housing Policy	Strategies
1	1948-1962	To fulfill the substantial amount of housing need due to by public sector	Establishing HDB(DUHD), New Towns Implementation, Large-Scale Provision of Public Rental Housing
2	1962-1988	To Provide Some Numbers of Houses to Public and Government Staff based on a principles of “ no-profit – no loss”	Construction for Public Housing and Government staff housing
3	1988-2011	To promote the role of the private sector in housing and supply large-scale housing by public sector	Introduction to PPP in the housing sector, Establishment new towns, Large-Scale resettlement program in major cities
4	2011-2019	To upgrade living standards and provide adequate housing for all citizens To fulfill the needs of the housing to low-income citizens and government staffs	Establishment CHID Bank (2013) home loan system (mortgage), Implementing affordable housing, government staff housing and rental housing, one million housing plan

Source: Department of Urban and Housing Development (2020)

In 2019, housing policy by the incumbent government provided the needs of housing the provision of affordable housing to low-income group and rental housing to government staff. It is implemented by government, affordable low cost housing for low income people and used home loan mortgage system by CHID Bank, establish in 2013.

3.3 Housing Development of Public Sector in Myanmar

Most of the lives and housing have been destroyed due to World War II which caused many homeless families across the country. Moreover, there was lots of migration to the urban areas due to the insurgency, social and economic factors. After gaining independence in 1948, rehabilitation was systematically carried out under the government. A national level housing development board was established and housing and construction works were carried out in full force in big cities, including Yangon and Mandalay. The outstanding feature of the effort during the 1950s was the fact that all the houses thus built could be rented by the middle and low-income citizens and employees at affordable rental charges. Looking back at Myanmar's housing development process it initially started with public rental housing. However, there is one organization directly involved in public sector housing development, the Development of Urban Housing Development (DUHD).

Myanmar's successive governments in the past considered the provision of dwelling units as many as possible to fulfill the partial demand as one of its public sector ordinary tasks. They neither paid attention to the efficient development of the housing sector as a whole and nor to form a strict regulation in this area. In Myanmar the housing sector has been given less attention than the other sectors in all national budget allocation, allocation of urban land and prioritizing in setting plan.

Table (3.3) Housing Units Provision from Department of Urban and Housing Development (1948-2019)

No	Periods	Housing Units					Total
		Rental Housing		Sold Housing			
		Public rental Housing	Government Staff Housing	Low-Cost	Mid-Cost	High-Cost	
1	Parliamentary Government (1948-1962)	6601	-	-	-	-	6601
2	Socialist Government (1962-1988)	3393	7637	-	-	-	11030
3	Military Government (1988-2011)	-	73	3448	45655	2473	51649
4	Democratic Government (2011-2016)	3012	4647	8588	6189	1066	23502
5	Democratic Government (2016-2019)	1224	6856	6816	1504	1380	17780
Total		14230	19213	18852	53348	4919	110562

Source: Department of Urban and Housing Development (2020)

According to Table (3.3), housing provision in five periods of government. In 1948-1962, parliamentary government's housing policy was committed to fulfill the requirement in rental housing for low-income citizens. During this administration, DUHD had implemented only public rental housing schemes in major cities. Three new satellite towns with 34000 plots built to supplement housing for the settlers in Yangon municipality. In 1962-1988, socialist government's housing policy, DUHD built some public rental houses until 1972 and after that DUHD had given priority only construction of rental houses for the government staff during this period. In

1988-2011, Military governments can be considered as a turning point of the housing sector. The Military government built new towns for placement of squatters as well as for the government staffs. It encouraged the full swing development of Yangon housing sector. One of the significant changes was the introduction of PPP in housing projects and enhancement of private sector investments. Although the ratio of production of public rental houses and government staffs housing were almost minimal, DUHD implemented the different types of housing project simultaneously.

In 2011-2016, Democratic government changed housing policy for five years, 2011 to 2015; the government gave priority to building low-cost housing producing over 80% of the total housing units' production of DUHD. The government provided free land to develop low-cost housing projects and funded some portions or all of infrastructure costs. However, there was a question about the low-cost housing price which was still high or unaffordable for low-income persons. During its five year tenure, this government encouraged to build houses for the government staffs. At the end of the five years term, the government allotted 46 billion kyats to build public rental housing in regions and states. In 2016-2019, Democratic government has not changed the direction of the previous government's housing policy. DUHD is generally constructing affordable housing and housing for government staffs and has just started to implement redevelopment housing projects.

3.4 Public Rental Housing in Myanmar (2011-2022)

After independence, Myanmar faced a big housing shortage problem and it was a fundamental issue for U Nu's government. At that time, public rental housing for low income persons were constructed in the major cities all over the country. From 1951 to 1956, in 27 cities of 27 districts, about 6000 unit of public rental housing were built for the low-income citizens. This period can be considered as a new era for rental housing provided by the public sector. However, after 10 years, between 1962 and 1972, in Yangon City, to fulfill the requirement of public rental housing a satellite town, Thuwunna with 2812 rooms was built over 25 square mile land. Since then such housing development activities were wholly stopped for more than 45 years. There were a few government staff housing activities, but public rental housing scheme had vanished entirely.

Although, the percentage of rental housing in urban area in Myanmar is more than (20%), it can be said there is no effective fulfillment by the government,

provision by private sector is mostly in informal markets. Myanmar's regional governments have not been given any specific responsibility for implementing rental housing. Thus, there is still lack of designated agency for the rental housing schemes for low-income household.

Table (3.4) Public Rental Housing Project in Regions and States (2011-2022)

No	Regions / States	Building Type	Building	Rooms
1	Kachin State	4U×4 storey	3	48
2	Kayah State	8U×2 storey	2	32
3	Kayin State	4U×3 storey	6	72
4	Chin State	4U×3 storey	2	24
5	Sagaing Region	12U×5storey	4	240
6	Tanintharyi Region	8U×3storey	2	32
		4U×3storey	2	16
7	Bago Region	4U×4storey	7	112
8	Magway Region	8U×6storey	3	144
9	Mandalay Region	8U×4 storey	11	352
		12U×6 storey	22	1584
10	Mon State	4U×4 storey	4	64
11	Rakhine State	8U×6storey	1	48
		4U×6storey	1	24
12	Yangon Region	6U×4storey	50	1200
13	Shan State	4U×5storey	6	120
14	Ayeyarwaddy Region	8U×4storey	2	64
		4U×5storey	3	60
15	Naypyitaw	12U×5storey	7	420
		4U×5storey	33	548
Total			171	5204

Source: DUHD (2020)

In 2022, public rental housing projects are fulfilled by union government in Myanmar, 46 billion kyats are funded by Central government and built by Regional governments for these projects, 14 projects of regions and states are expressed above

table. In each of region and state, total 4236 rooms of public rental housing are management by regional government for low-income households and retired government staffs from each region and state.

In Kachin State, there are 48 rooms of them are rented by low-income households and the rate of one month rent fee is 30000ks. In Kayah State, 32 rooms are rented by low-income households and retired government staffs and the rate of one month rent fee is MMK 37000ks. In Kayin State, 48 rooms are rented by low-income households and retired government staffs; one month rent fee is 20000ks. In Chin State, there are 24 rooms and not rented yet. Most of the Chin people are not rent the housing and live in own building therefore rental housing in Chin State as like use staff housing. In Rakhine State, there are 72 rooms and not rent yet. Most of Rakhine people are not rent the housing and live in own building. Then most of the people like the location of downtown area. In Shan State, 120 rooms are rented by low-income households and retired government staffs, its rent fee is 30000ks for low-income households and 20000ks for retired government staffs. In Mon State, 64 rooms are rented by retired government staffs and one month rent fee is 30000ks.

In Sagaing Region, 120 rooms in Monywa and 120 rooms in Shwe Bo, all of rooms are rented by low-income households and retired government staffs; one month rent fee is 20000ks. In Thanintharyi Region, 120 rooms are rented by low-income households and retired government staffs and one month fee is 32000ks. In Bago Region, 112 rooms are rented by low-income households and retired government staffs; one month fee is 25000ks for low-income household and 30000ks for retired government staffs. In Magway Region, 120 rooms are rented by retired government staffs and one month rent fee is 20000ks. In Mandalay Region, 1728 rooms are rented by low-income household and government staffs; one month fee is 40000ks. In Ayeyarwaddy Region, there are 124 rooms, 60 rooms are rented by retired government staffs and 64 rooms are rented by low-income households. It is one month rent fee is 43500ks for retired government staffs and 35000ks for low-income household. In Yangon Region, Mahar Bandoola Public Rental Housing Project is constructed in Dagon Myothit (South) Township. There are 1200 rooms and 900 rooms of them are rented by low-income household, retired government staffs, company staffs and government staffs. It is one month rent fee is 30000ks; one month maintenance fee is 5000ks and 1000ks for put away rubbish and management by Yangon Regional Government. Therefore, 4236 rooms of public rental housing are

implemented by union government in Myanmar and all of public rental housing is managed by regional government.

3.5 A Housing Project Development in Yangon

To solve these problems and to develop housing and urban development throughout the country including Yangon in order to deal with municipal development issues the national government enacted the national rehabilitation of housing for town and country development Board in 1951. It taken under the supervision of the N.H.B. Then, according rehabilitation and Town and village Municipalities.

The state of public housing and rehabilitation Town and village Municipalities. In the city of Yangon No(51)st middle township U Wisara, Pyay Taw Thit , Lan Thit from lather, Union Avenue housing, Dagon Seik Kan Yu Za Na section (1,2,3)housing, N0 (168)Quarter 'housing ,Dagon South Inn Wa and Ka Naung Housing, Aung Myint Mo housing, Hlaing Thar Yar in Kyan Sit Min section (1/2) housing, Htee Hlaing Shin housing , Shwe Lin Pan housing , Than Lynn Thilawa housing.

The group of housing sector policy for low-income people planning for urban families to get the right to live and rent at a moderate standard rate within their income and wealth property and applying the principle of “No-profit, no-loss” basic theory is to request the return of the government capital investment through (75) years amortization system interest rates were not included and electricity and external water.

CHAPTER IV

SURVEY ANALYSIS

4.1 Survey Profile

Dagon Myothit (East) Township is contained in East District of Yangon City. It has a land area of approximately 79.1 square kilometers (Census, 2014) and it comprises 32 wards. In this Township, the population is 371,646 and the total number of households is 76,984. All people in the township live in urban areas. Dagon Myothit (East) Township population density is 4,698 persons per square kilometer.

One of the most significant project developments by Yangon regional Government is “Mahar Bandoola Public Rental Housing Project”. Mahar Bandoola Public Rental Housing is located in Dagon MyoThit (East) Township. It is located along No (2) High Way, Dagon MyoThit (East) Township. In Mahar Bandoola Rental Housing, land ownership was transferred from DUHD to Yangon Regional Government for implementation of the project. The number of buildings are 50 in this project and it has 1,200 rooms, one unit has 2 beds and 640 square feet.

Table (4.1) Fulfillments of Public Rental Housing in Mahar Bandoola Public Rental Housing Project

No	Particular	Amount	Remarks
1	Number of Rooms	1200 units	Live in 900 room and 300 room are rest
2	Size of Room	640 Sq/ft	2 Bed Rooms, Dining Room, Kitchen and Bathroom with Toilet
3	Cover Market	1unit(98 Rooms)	1 Room size is 6*6 Square Feet
4	Rental Fee	30000 Ks	Maintenance Fees 5000 Ks, and Put away Rubbish Fee 1000 Ks
5	Electricity	Government Line	
6	Water	Water Tube Well	
7	Bus Station	1 unit	

Source: Yangon Region Government (2020)

Mahar Bandoola Public Rental Housing project developed with kyat 20 billion funding of Union Government in 2015-2016 fiscal years. It has 50 buildings comprising four storeys – six units building, but 9 building out of 50 were under inspection for quality issue. Therefore, accommodate a total of 948 low-income families, civil servants, pensioners and squatters from aforesaid project area. All residents has made agreement with DUHD to follow the 26 terms and conditions. Residents have to pay monthly rental fees of 30000 Ks, maintenance fees of 5000 Ks and 1000 Ks for put away rubbish and for tube well pump. All rental fees have to be paid not later than the 10th day of a month. Total plot area of this project is 12.5 acres and it was consists YBS station and commercial area, about 1.25 acres. The rest of area is housing area and it has about 11.25 acres. The number of building are 50 building in this project and it has 1200 rooms, one unit has 2 beds and 640 square feet. Then, the commercial area which has one cover market and it has 98 rooms. In this project, 1 unit floor area is 650 square feet. Then, 1 unit has 2 bed rooms, dining room, kitchen and bathroom with toilet and it consists of government electricity and water tube well.

4.2 Survey Design

In this study Mahar Bandoola Public Rental Housing in Dagon Myothit (East) Township. There are 1200 rooms in this housing. Among them 900 rooms are permitted by low income families and 300 rooms are left. This study was conducted descriptive and con sampling methods. This survey was conducted through structured questionnaire for the respondents in Mahar Bandoola Public Rental Housing. The selected sample size was 200 respondents from Mahar Bandoola Public Rental Housing.

4.3 Survey Result

4.3.1 Socioeconomic and Demographic Characteristics of respondents

Table (4.2) Socioeconomic and Demographic Characteristics of Respondents

Sr No.	Particulars	No. of Respondents	Percentage
1	Gender		
	Male	164	82
	Female	36	18
2	Age		
	Less than 30	2	1
	31 to 40	25	12.5
	41 to 50	65	32.5
	51 to 60	88	44
	Above 60	20	10
3	Marital Status		
	Single	3	1.5
	Married	160	80
	Widowed	25	12.5
	Divorced	12	6
4	Educational Level		
	Read and Write	5	2.5
	Primary Level	28	14
	Middle Level	32	16
	High School Level	23	11.5
	Graduated	96	48
	Master Degree	16	8
5	Family Member		
	Under 3	12	6
	3 to 5	139	69.5
	6 to 8	33	16.5
	8 to 10	16	8

Source: Survey Data (2022)

In Table (4.2), it is found that the application of public rental housing, 164 respondents (82%) are male and 36 respondents (18%) are female. The age groups of respondents are less than 30, 31 to 40, 41 to 50, and 51 to 60 and above 60. Most of the respondents 44% are the age between 51 to 60 years old; the second group is

between 41 to 50 years old. Most of the respondents are married and the educational levels of the respondents are graduated. The household sizes of the respondents are 3 to 5 members. This shows that the majority of the respondents are medium sized families.

4.3.2 Economic Condition of Respondents

Table (4.3) Economic Condition of Respondents

Sr No.	Particulars	No. of Respondents	Percentage
1	Number of Employees		
	Under 3	144	72
	3 to 4	51	25.5
	5 to 6	5	2.5
	7 to 8	-	
2	Occupation		
	General Worker	21	10.5
	Daily Worker	2	1
	Own Business	16	8
	Civil Servant	84	42
	Company Staff	41	20.5
	Pensioner	36	18
3	Monthly Income of Household (MMK)		
	Less than 300000	59	29.5
	300001 to 500000	83	41.5
	500001 to 700000	45	22.5
	700001 to 900000	8	4
	Above 900000	5	2.5
4	Average Monthly Expenditure (MMK)		
	Less than 200000	64	32
	200001 to 300000	76	38
	300001 to 400000	16	8
	400001 to 500000	14	7
	500001 to 600000	17	8.5
	600001 to 700000	7	3.5
	Above 700000	6	3

Source: Survey Data (2022)

According to Table (4.3), the highest number of employed family members of respondents is under 3 members and they are 144 respondents 72% of the total respondents. It shows that all of family members are not employed and number of employed members are about half of family members. In occupation of respondents, the most of respondents are civil servants and second group are company staff. The majority of respondents of the monthly income are between 300001 to 500000MMK and the average monthly expenditure of respondents is between 200001 to 300000MMK.

4.3.4 Affordable Housing Provision by DUHD in Yangon Region

Department of Urban and Housing Development (DUHD) was implemented several housing programs for different income level of people during the regime of successive governments. Among those are included housing project designed and developed for low income families in need of housing. DUHD was use different types of housing provision and some are as following;

- (a) Public and Rental Housing
- (b) Site and Services Schemes (land development)
- (c) Slum Upgrading Schemes (hut to apartment scheme)
- (d) Urban Redevelopment Projects
- (e) Low-Cost, Mid Cost, High-Cost Housing Development
- (f) Estate Redevelopment Projects

The following table shows the number of housing provision units by DUHD in Yangon Region during (1993-1994 to 2021-2022).

Table (4.4) Housing Provision by DUHD in Yangon Region (1993-1994 to 2010-2011)

Sr. No	Year	Low-Cost Housing Unit	Mid-Cost Housing		Total Housing Unit
			Hut to Apartment Housing (Units)	Redevelopment Housing (Units)	
1	1993-1994	-	-	322	322
2	1994-1995	-	351	231	582
3	1995-1996	-	1402	618	2020
4	1996-1997	-	2223	694	2917
5	1997-1998	-	3617	2457	6074
6	1998-1999	-	1838	3619	5457
7	1999-2000	128	666	3709	4503
8	2000-2001	1072	576	3512	5160
9	2001-2002	1287	314	3115	4716
10	2002-2003	299	454	2633	3386
11	2003-2004	115	-	2741	2856
12	2004-2005	547	-	2806	3353
13	2005-2006	-	-	2205	2205
14	2006-2007	-	-	2307	2307
15	2007-2008	-	-	1065	1065
16	2008-2009	-	-	617	617
17	2009-2010	-	-	775	775
18	2010-2011	-	-	788	788
Total		3448	11441	34214	49103

Source: DUHD (2022)

During 1993, Yangon Region was relocated to four New Dagon Townships, Shwe Pyitha and Hlaing Tharyar and other new towns with the provision of leased land with basic infrastructure. After 1993, low-cost housing units 3448 were produced to low income families and then after 2004 the provision was stopped. Hut to apartment scheme is an extensive and successful program producing 11441 units for low-income families but the program terminated. It was found that there were no

housing project targeted to low-income people from 2004 to 2010 and housing supply dramatically decreased due to poor housing policy.

According to Table (4.4), some part of the inner city area through on hut apartment schemes during 1993. In 1994-1995, Tamwe Township Min Yee Kyaw Swar Housing Project and some part of the inner-city through on sit relocation by provision apartment units for squatter families. There are 47 hut to apartment project in 13 townships and had 11441 units for low-income families, but after 2002-2003 this program terminated. Since, 1997, low-cost housing program was introduced in South Dagon (Aung Zeya Housing), Hlaingtharyar (Bo Aung Kyaw and Kyansitthar Housing), Thaketa (Kewma Housing) and Insein (Danyingone Housing). In this program 3448 apartment units have been constructed for the low-income and mid-income families, but the provision was stopped after 2004-2005.

From 1993-1994 to 2010-2011, the urban redevelopment program to enhance the general physical appearance of the urban area and to fee important sites for public uses such as park and commercial development. There are 34214 units with about 56 urban development project and managed by DUHD in coordination with private developers through private public partnership and sharing basic. The numbers of over 600 buildings it's was included high class and high rise apartments, condominium, plaza, commercial, services and mixed use building are cooperated in the project.

Table (4.5) Housing Provision by DUHD in Yangon Region (2010-2011 to 2019-2020)

Sr. No	Year	Low-Cost Housing Unit	Mid-Cost Housing	Total Housing Unit
1	2010-2011	3448	45655	49103
2	2011-2012	-	951	951
3	2012-2013	-	1060	1060
4	2013-2014	2344	2466	4810
5	2014-2015	3324	1319	4643
6	2015-2016	2920	393	3313
7	2016-2017	3868	-	3868
8	2017-2018	576	-	576
9	2018-2019	728	416	1144
10	2019-2020	198	-	198

Source: DUHD (2022)

Table (4.5) shows that low-cost housing units 3448 and mid-cost housing unit 45655 were total recorded from 1993-1994 to 2010-2011. In the late 2011-2012, reform housing policy, the government aim to develop urban system continuously towards balanced and sustainable development of housing across nation and to upgrade living standard and provide adequate housing for all citizens. According with housing policy, one million housing program will be implemented for 20 year long-term plan (2011-2030). As part of the one million housing plan DUHD has formulated a plan to supply 20% of the total volume, which 90% will be low-cost housing units and 10% will be affordable housing units. In the process of low-cost housing production from 2011-2012 to 2013-2014 decreased because of housing policy change and budget constraints. After 2013-2014, low-cost housing production increased. In mid-cost housing production was annually produced from 2011-2012 to 2017-2018. From 2011 to 2013 it was not provision for low-cost housing. From 2016-2017 to 2018-2019 was not provision mid-cost housing because of transition period of government housing sector and housing policy reform.

Table (4.6) Low-Cost Housing Provision by DUHD in Yangon Region (2011-2012 to 2021-2022)

Sr No.	Township	Housing Project	Type of Building	No. of Building	Total Unit
1	Hlaing Tharyar	Industrial Zone-3	8U-4S	14	448
		ShweLinpan Phase-I	6U-4S	32	768
		ShweLinpan Phase-II	8U-4S	16	512
		ShweLinpan Phase-III	6U-4S	21	504
			8U-4S	5	160
		KyanSitMin Phase-I	8U-5S	19	760
			6U-5S	16	480
			4U-5S	28	560
KyanSitMin Phase-II	12U-5S	10	600		
	8U-4S	14	448		

Table (4.6) Low-Cost Housing Provision by DUHD in Yangon Region (2011-2012 to 2021-2022) (Continued)

Sr No.	Township	Housing Project	Type of Building	No. of Building	Total Unit
2	Dagon Myothit (Seikkan)	Yuzana Phase-I	8U-4S	18	576
			6U-4S	12	288
		Yuzana Phase-II	8U-4S	28	896
			6U-4S	12	288
		Yuzana Phase-III	8U-5S	20	800
Kanaung	8U-4S	12	384		
	6U-4S	20	480		
	Yoma	8U-4S	12	384	
			6U-4S	16	384
			12U-4S	24	1152
3	Dagon South	Aung Myint Mo	6U-4S	24	576
			8U-4S	12	384
4	North Oakkala	Shwepaukkan	8U-4S	14	448
5	Than Lyin	Thilawar Phase-I	8U-5S	19	760
			6U-5S	24	720
Total				442	13760

Source: DUHD (2022)

According to the table (4.6), from 2011-2012 to 2021-2022, Department of Urban and Housing Development have been constructed 442 buildings, 13760 units for low-cost housing provision in Yangon Region. Hlaing Tharyar (Industrial-3, Shwelinpan Phase-I,II,III and Kyan Sitt Min Phase-I,II Housing Projects), Dagon Myothit (Seikkan), (Yuzana Phase-I,II,III, Kanaung and Yoma Housing Projects), Dagon South (Aung Myint Mo Housing Project, North Oakkala (Shwepaukkan Housing Project), Than Lyin Township (Thilawar Phase-I Housing Project).

Table (4.7) Mid-Cost Housing Provision by DUHD in Yangon Region (2011-2012 to 2021-2022)

Sr No.	Township	Housing Project	Type of Building	No. of Building	Total Unit
1	HlaingTharyar	ShweLinpan Commercial/ Industrial -2, Phase-I	2U-4S	23	184
			4U-4S	17	272
			1U-4S	4	16
			6U-4S	32	768
		Hteehlaingshin	4U-5S	16	320
			4U-4S	13	208
			2U-4S	20	160
2	Shwepyitha	Industrial-3	4U-3S	14	168
			4U-4S	9	144
			4U-5S	15	300
			6U-3S	8	144
3	Insein	Mingyi	6U-3S	2	36
			3U-3S	1	9
		Gyogone	1U-4S	1	4
			4U4S	2	32
4	Than Lyin	Thilawar	4U-5S	12	240
5	Dagon South	Aung Myint Mo	4U-3S	8	96
		Inwa	4U-5S	22	440
			4U-4S	2	32
			4U-3S	7	84
			2U-4S	18	144
			6U-3S	3	54
			1U-4S	1	4
			2U-3S	1	6
		Pearl Mon	4U-4S	15	240
			2U-4S	4	32
		Town Center-3	2U-4S	26	208
			4U-3S	11	132
			4U-4S	45	720
65 Ward	2U-4S	17	136		
	4U-3S	7	84		

Source: DUHD (2022)

**Table (4.7) Mid-Cost Housing Provision by DUHD in Yangon Region
(2011-2012 to 2021-2022) (Continued)**

Sr No.	Township	Housing Project	Type of Building	No. of Building	Total Unit
6	North Oakkala	Shwepaunkkan	4U-4S	7	112
			4U-3S	5	60
		Waiponla	2U-4S	8	64
			4U-4S	1	16
		Waibargi	2U-3S	6	36
Bawgabala	2U-4S	3	24		
	4U-4S	5	80		
		Thander (17)	4U-8S	2	64
7	Tharketa	Water Front	2U-3S	1	6
			Villa-2	4U-3S	1
		Myinttawtha	2U-4S	7	56
			4U-2S	1	8
8	Dagon Myothit (Seikkan)	Towncenter	2U-4S	7	56
			6U-2S	1	12
9	Botataung	No (84/88)	2U-10S	1	20
			6U-3S	1	18
		No (76/78)	2U-8S	1	16
10	Tamwe	Myinttarnyunt	4U-5S	1	20
11	Yankin	Yanaye	4U-6S	12	288
12	Thingangyun	Kyipwaryae	4U-4S	13	208
		Danaaung	4U-3S	1	12
Total				461	6605

Source: DUHD (2022)

According to table (4.7), Department of Urban and Housing Development have been constructed 189 buildings, 3005 units for mid-cost housing provision in Northern and Southern District and 272 buildings, 3600 units for mid-cost housing provision in Eastern District in Yangon Region. DUHD provided low-cost housing 13760 units and mid-cost housing 6605 unit for low and middle income people in Yangon Region with the financial system of CHID Bank's home for saving, housing mortgage loan.

4.3.5 Challenges of Application of Public Rental Housing

The factors of need for public rental housing is basically on reason for application of public rental housing want to pay rental fee, condition of getting electricity and water, want to get housing size, want to get housing type and distance between public area and exiting place of respondents. Table (4.8) shows that the reasons for application of Public Rental Housing respondents

Table (4.8) Reasons for Application of Public Rental Housing

No.	Reasons	No. of Respondents	Percentage
1	Live alone	6	3
2	Private rental fee is expensive	167	83.5
3	Household size is big	9	4.5
4	None of living area	2	1
5	Live with relative's house	14	7
6	Live in Slum or squatter	4	2
7	Low-income	0	0
Total		200	100

Source: Survey Data (2022)

According to Table (4.8), 83.5% of respondents are wants to get public rental housing because of private rent fee is expensive. The majority of respondents are live in private rental apartment. Therefore, the most reason of all respondents are private rental fee is expensive. Then the reason of household size is big of respondents are 4.5% and live with their relative's house and live lonely are 3%. It is find that the main reason of respondents are wants to get public rental housing is private rental fee is expensive.

Table (4.9) Willingness to Pay Rental Fee of Respondents

No.	Rental Fee	No. of Respondents	Percentage
1	Less than 20000ks	5	2.5
2	20001 to 30000ks	39	19.5
3	30001 to 40000ks	87	43.5
4	40001 to 50000ks	69	34.5
5	Above 50000ks	0	0
Total		200	100

Source: Survey Data (2022)

According to Table (4.9), shows that willingness to pay public rental fee of respondents and the level of rental fee is categorized into 5 levels ranging from less than 20000 ks to above 50000ks. In the survey result, 43.5% of the respondents are wants to pay rental fee is 30001ks to 40000ks followed by 34.5% of respondents with wants to pay rental fee is 40001ks to 50000ks. It is find that 78% of respondents wants to pay public rental fee is between 30001ks to 50000ks.

Table (4.10) Availability of Electricity and Water in Present Place by Respondents

No.	Particular	Electricity (No. of Respondents)	Percentage	Water (No. of Respondents)	Percentage
1	Government's Lines	140	70	138	69
2	Help by Neighbors	49	24.5	43	21.5
3	Get by Buying	11	5.5	19	9.5
Total		200	100	200	100

Source: Survey Data (2022)

According to Table (4.10), 70% of respondents use electricity from government lines and 69% of the respondent's use of water from government support. The second groups of respondents are 24.5% use help by neighbor and 43 respondents (21.5%) use water help by neighbors. Because of they are tenants who lived in together landlords.

Table (4.11) Desired Housing, Size of Respondents

No.	Housing Size	No. of Respondents	Percentage
1	Below 400ft ²	15	7.5
2	401 to 600ft ²	150	75
3	601 to 800ft ²	29	14.5
4	801 to 1000ft ²	6	3`
5	Above 1000ft ²	0	0
Total		200	100

Source: Survey Data (2022)

According to Table (4.11), shows that the desired housing size is categorized into 5 items ranging from the size of below 400 square feet to above 1000 square feet. In all of respondents, 150 (75%) respondents are wanted to get the size between 401 to 600 square feet, followed by 29 (14.5%) respondents with want to get the size between 601 to 800 square feet. It is found that 89.5% of the respondents are wanted to get the size between 401 to 800 square feet.

Table (4.12) Desired Housing Type of Responds

No.	Housing Type	No. of Respondents	Percentage
1	Rental Housing	168	84
2	Sale Housing	32	16
Total		200	100

Source: Survey Data (2022)

According to Table (4.12), 84% of respondents are willing to get rental housing and 16% of respondents are wanted to get sale housing. It found that most of the respondents are want to get rental housing than sale housing.

The distance between public area and existing place of the applicant from public rental housing are shows in table (4.13).

Table (4.13) Distance between Public Area and Existing Place of Respondents

No	Particular	Near (Yes)		Not Near (No)	
		No. of Respondents	Percentage	No. of Respondents	Percentage
1	To Workplace	67	33.5	126	63
2	To School	82	41	148	74
3	To Market	76	38	139	69.5
4	To Bus Stop	107	53.5	97	48.5
5	To Park and Playground	64	32	136	68
6	To Hospital	79	39.5	119	59.5

Source: Survey Data (2022)

According to Table (4.13), distance of public area and existing place of respondents, 33.5% of the respondents are near to the work place and not near to the work place are 63% of the respondents. They use mode of transport such as bus and motorcycle and they can use transporting costs. The distance between school and present place, 41% of the respondents are near to the school and not near to the school are 74% of the respondents. If their house is not near to school the students go to school using by bus or by car or by motorcycle. Therefore, they incurred cost of transportation for the students. In all of respondents, 38% of the respondents are near to the market and 69.5% of the respondents are not near to the market. According to survey data, the distance between bus stop and current place, 53.5% of the respondents are near to bus stop and 48.5% of the respondents are not near the bus stop. Most of the respondents are near to the bus stop and they can walk to the bus stop and the rest of the respondents are not near the bus stop they can cost more charges for going to bus stop. The distance between park and playground and respondent's home, 32% of the respondents are near and 68% of the respondents are not near. The distance between hospital and present place, 39.5% of the respondents are near and 59.5% of respondents are not near.

CHAPTER V

CONCLUSION

5.1 Findings

Housing provision of DUHD in Yangon Region and other States and Divisions housing project carried out public housing and rehabilitation Town and village Municipalities. In the city of Yangon No(51)st middle township U Wisara, Pyay Taw Thit , Lan Thit from lather, Union Avenue housing, in Dagon Seik Kan Yu Za Na section (1,2,3)housing, N0 (168)Quarter housing,in Dagon South Inn Wa and Ka Naung Housing, Aung Myint Moh housing, Hlaing Thar Yar in Kyan Sit Min section (1/2) housing, Htee Hlaing Shin housing , Shwe Lin Pan housing , Than Lynn Thilawa housing,in Ayeyarwaddy region , Ohnmardanni housing , in Mandalay region Myayinandar housing , in Nay Pyi Taw housing, in Thnintharyi region housing , in Mon State housing , in Kayan state housing , in Sagaing Region housing. In 2022, public rental housing projects are fulfilled by union government in Myanmar.

The tenancy rules for the public rental housing found now have seen set Among these things.

- (1) The tenant must be responsible for keeping the entire apartment clean beautiful and healthy. The tenant shall not keep any illegal items in the premises water/ pure in addition to electrical equipment, if you want to install more equipment you must request permission from the department and install it at you own expense.
- (2) Either the entire building belonging to the department less but not a full lease.The property is owned by the grand rather or not selling with or without value purchase giving accepting while is given mortgage accepting a mortgage.
- (3) The tenant is subject to the above terms and conditions. If a person violates an agreement, they will be removed from the government premises according to the government housing in 1955.

Housing is a basic human need as well as a living standard for the family. Affordable housing plays an important role of housing needs for low-income people. Therefore, the government is making earnest effort to implement the affordable housing projects that will actually accessible and beneficial to low-income people ownership housing for those who can afford a house as well as rental housing for those who cannot afford a house. In this study, the housing provision of DUHD in Yangon Region from 1993 to 2022, the grand total of low-cost housing is 17208 units and affordable (Mid-Cost) housing is 52260 units. DUHD is able to construct and deliver between 3500-5000 units per year. it was found that the provision of low-cost and mid-cost housing units is inadequate of the housing needs.

And, then the challenges of Public Rental Housing Project in Mahar Bandoola, this study found that 41% of respondents have an expense between 200000 Ks and 300000Ks. This can be considered that most of their monthly expenditures are below 300000 Ks. According to international practice, not more than 30% of family income can be regarded as affordability for housing. Most of family's income is about 300000 to 500000Ks; average 400000Ks and 30% of family's income is 120000Ks. Therefore, low-income families cannot be expected to save enough of their income for housing purchase. The majority of respondents lives in private rental apartment and wants to get the size of room between 400 ft² and 600ft².

The majority of respondents 84% are wanted to get rental housing and 16% of respondents are wanted to get sale housing. It found that wanted to get rental housing more than wanted to get sale housing. The government should provide the public rental housing for low and middle income people. The applications want to get public rental housing because private rental fee is expensive. They want to pay for rental fee is 30000 Ks to 40001 Ks, want to get electricity is government line and water system is government supports and they want to get public rental housing in near to the market, bus station, hospital, school, playground and park. The housing facilities such as water, electricity, drainage and infrastructure like roads are provided in this housing project. It needed to provide the public facilities, such as market, school, hospital, park and playground. It is found that requirements of public facilities such as hospital, bus station, playground and park and school. Government should provide needed to public facilities in public rental housing and implemented for the public facilities.

5.2 Suggestions

Yangon is the most economically developed city in Myanmar. Therefore, for housing projects should be convenient in Yangon Region Government and Union Government plans . As housing residents should be living be below department rules . The department should be careful not to break the rules . Residents who break the rules should also be dealt with by the relevant department. According to base on finding, housing projects are conducted by the government and private sector. Government should encourage the housing for the low-income family's rental housing and low-cost housing depending on their level of income. Most of low-income people want to get public rental housing because private rental fee is expensive. Therefore, government should try to reduce private rental fee by implementing adequate public rental housing as a way of PPP, guiding principles and policy for rental housing and supporting housing provision of more public rental housing. DUHD should be standardized to reduce the size and price of low-cost and affordable housing, due to most of the people preferred low-cost housing over the size of an expensive house. The government should be applied the targets and eligibility criteria is essential for the effectiveness of the targeted policy with short-term and long-term plan. The government should be created employment opportunities to increase household income so that people can afford own houses, due to the key for ownership housing of low-income people is 30% of household. The government should be subsidized the cost of land and infrastructure to reduce the unit cost of housing.

REFERENCES

- Astrand, J. (2005). Housing and housing policy in Sweden, Lecture handout on Housing Policy and Finance Module, Lund University, Sweden.
- Australia National Housing Strategy (1991), "The affordability of Australian housing." Canberra, Australian Government Publication Services, Issues Paper 2.
- Aye Zaw Pe (2019). "A Study on Housing Provision for Low-income Household in Yangon City" (Unpublished MPA thesis, Department of Applied Economics, Yangon University of Economics.
- Boamah, N. (2010). Housing affordability in Ghana. A focus on Kumasi and Tamale .Ethiopian journal of environmental studies and management, 3(3)...
- Bramley, G. (1994). Bridging the Affordability Gap. London: Association of District Councils.
- Burke, Terry (2004). "Measuring housing affordability." Australian Housing and Urban Research Institute, 50107.
- Feins, Judith, D., and Terry Saunders Lane (1981). How much for housing? New perspective on affordability and risk. Cambridge, mass; abt books, 1981.
- Field, C.G. (1997). "Building consensus for affordable housing." Housing Policy Debate, 8(4): 801-832.
- Freeman, A, R. Chaplin., and C, Whitehead. (1997). "Rental affordability: A review of international literature." Cambridge, Property Research Unit, University of Cambridge, Discussion Paper 88.
- Glaeser, Edward, L., and Joseph Gyourko (2003). "The impact of building restrictions on Housing affordability." FRBNY Economic Policy Review June 2003: 21-39.
- Hancock, K, E. (1993). "'can pay? Won't pay?' or economic principles of affordability." Urban Studies, 30(1): 127-145.
- Housing New Zealand Corporation (2005). "Building the future: The New Zealand housing strategy." Wellington.
- Hulchanski, D. J. (1995). "The concept of housing affordability: Six contemporary uses of the housing expenditure to income ratio." Housing Studies 10(4): 471-492.

- Jingchun Lin (2011). The Development of Affordable Housing, "A Case Study in Guangzhou City, China," Department of Real Estate and Construction Management, M.Sc Program in Real Estate Management, Thesis Paper.
- King, A. (1994). Towards indicators of housing stress, Department of Housing and Regional Development, Housing and Social Policy Group, Monograph series No. 2, AGPS, Canberra.
- Linneman, P. D., & Megbolugbe, I. F. (1992). Housing affordability: Myth or reality? *Urban Studies*, 29(3), 369-392.
- MacLennan, D., and R, Williams. (1990), *Affordable housing in Britain and America*. (York: Joseph Row tree Foundation).
- Myint Swe (2015). "A Study on Affordable Housing Development in Yangon City," (Unpublished MPA thesis, Department of Applied Economics, Yangon University of Economics.
- O'Neill, P. (2008). "Housing Affordability Literature Review and Affordable Housing Program Audit", Urban Research Centre University of Western Sydney.
- Robinson, E. A. (2006). *Affordability of Housing Concept, Measurement and Evidence* March 2006. Available from; www.treasury.grt.n2/.../twpo603.pdf
- Sai Thet Naing Moe (2012). "Urbanization and the Role of Public Sector in Housing Development of Yangon City," (Unpublished MPA thesis, Department of Applied Economics, Yangon University of Economics.
- Schwartz, M., and Ellen W. (2008). Who can afford to live in a home? a look at the data from the 2006 American Community Survey US census bureau (2008).
- Stone, Michael E. (1994). "Whose shortage of affordable housing?" *Comment Housing Policy Debate* 5(4): 443-458.
- UN HABITA, (2003). *Rental Housing; an Essential Option for the Urban Poor in Developing Countries*, Nairobi, Kenya
- UN HABITA, (2011). "*Affordable Land and Housing In Asia: United Nations Human Settlement Program*".
- UN HABITA, (2012). "Ghana housing profile". Retrieved March 4, 2019, from <http://www.housingfinanceafrica.org/wpcontent/uploads/2012/05/unhabitat-HF-in-Ghana-2.pdf>.
- World Bank (2019), "*Myanmar's Urbanization Creation Opportunities for All*". Report.