

CONSTRAINTS ON THE AFFORDABILITY OF MIDDLE-INCOME GROUP IN MULTI-OWNERSHIP HOUSING: A CASE OF KHULNA CITY WITH PARTICULAR FOCUS ON SONADANGA RESIDENTIAL AREA

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ABSTRACT

Ensuring housing for the urban dwellers is one of the major steps towards sustainable urban development. However, affordable housing for middle income households has been marked as a challenge as the ideas and interpretation differs in countries due to social and economic contexts. Despite the context, housing affordability is affected by the prevailing market conditions and individuals' income sources, equally with the existing policy environment under various social and economic variables. Khulna, the third largest city of Bangladesh, is undergoing rapid urbanization process and housing demand is increasing here day by day because of concentration of people. The study area is Sonadanga residential area, which is located in Ward no.17 of Khulna City Corporation Area. It is in proximity to the city center and is one of the major residential areas in Khulna City. The distance of the study area from CBD is 1 to 1.5 km and well connected with the CBD through a planned road network. This study is undertaken to identify the major barriers on affordability of middle-income group in multi-ownership housing in Sonadanga residential area. To conduct this study secondary data have been used from existing literature in this field.

Keywords: Middle-income group, housing affordability, multi-ownership housing, Sonadanga residential area

1. INTRODUCTION

Khulna is the third largest city of Bangladesh and one of the prime industrial cities. Because of industries people gather here for employment opportunities and give rise to an increased number of households. As a result, demand in dwelling units is uprising here for this additional households and it was estimated that by the year 2020, Khulna City will require additional 2,24,736 new units of housing (Hossain, 2004). For this reason, adequate housing supply is needed by public and private sectors. But as the public sector housing is not sufficient in Khulna City, people are searching for private sector housing. According to Mondal (2012), among the two parties of private sector housing (private land owners and private land developers), recently people are not relying on private landowners mostly because of illegal landowner ship and for this reason they are now going to the private development agencies who are implementing many housing projects in different parts of the Khulna City.

The Khulna Development Authority (KDA) was established in 1961 for the planning and management of the city and the only public sector authority in Khulna for housing development (Hossain, 2004). The KDA prepared a master plan for Khulna city in 1961. The plan was prepared for an area of 70 square miles. In 2001 a second master plan was prepared for extended area of 174 square miles and replaced the previous one (Chowdhury, 2013). Present population of Khulna is about 2.3 million (BBS, 2017) and estimated annual growth rate is about 3.8% (USAID, 1999, as cited in Ahmed *et al.*, 2013). Most of the populations of Khulna City are migrants comprised of about 47.80% of the total population in which major factor identified as employment purpose (KDA, 1998, as cited in Ahmed *et al.*, 2013). As a result, housing is a necessity for this increased amount of population.

Since 1960 up to 2004, KDA and Housing and Settlement Directorate (HSD) jointly provided about 6000 serviced plots, which was considered insufficient compared to the actual annual demand of 8300 units (Hossain, 2004). Therefore, the major supplier of urban land in Khulna is the private sector, supplying about 90% of houses per year (Hossain, 2004). Public sector housing initiatives are mainly on lower income groups, those who cannot afford to pay rent for housing and the private sector primarily serves the upper income group for better profit. For this reason, middle income group don't have significant amount of accessibility in both sectors of housing. As a result, middle income group depends on rental housing for meeting their housing needs (Mazumder, 2016).

1.1 Socio-economic profile of Khulna City

There were several phases of population growth in Khulna City. Due to the extension of railway line from Jessore to Khulna the first growth came during the British period in 1885 (Naznin, 2012). Second growth came during the partition of India in 1947, because of the influx of the refugees. Industrialization of Khulna in the 1960s caused third

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phase of population growth in this region. According to Mondal (2012), Khulna City experienced a tremendous growth of population following liberation in 1971, which was mainly due to the rural urban migration and natural increase of population, thus contributed to increase about 4.13 percent per year. This implies that migration from other places to Khulna had been the dominant factor of the population growth. His study revealed that, among the total population, about 60 percent belong to the age group of 14-44 years, 22 percent belong to the age group 14 years and less and 5.9 percent have age 60 years and over. Among these three groups, the age group 14-44 is the most economically active above the economy of Khulna City. Moreover, he showed, monthly income of about 66 percent employed people of Khulna City is within Tk. 5,000 while 30 percent of them is within Tk. 2,500. Only 3.5 percent of the employed people belong to monthly income group of Tk. 15,000 and above (Mondal, 2012).

1.2 Housing demand in Khulna City

As population is increasing more dwelling units are needed for increasing population in Khulna City. Although the number of households is increasing at a higher rate, housing stock is increasing at a slower rate (i.e. by self, HSD and developers) and thus the rate of housing crisis is increasing (Mondal, 2012). In Table 1, we can see that the shortage for new houses in 1991 was 8,200, in 2001 it was 31,616 and in 2011 it was 93,493. This picture reflects the trend of population growth rate in Khulna city, which is going up every year and with decreasing household sizes, housing crisis is also incremental. Table 1, therefore, shows that population is increasing in Khulna City but household size is decreasing from 1991 to 2011.

Table 1: Necessity for New House in Khulna City

Year	Household Size	Total Household	Housing Stock	Necessity for New House
1991	5.7	114,918	106,739	8,200
2001	4.5	171,826	146,209	31,616
2011	4.2	341,767	248,274	93,493

Source: Mondal, 2012

1.3 Housing Delivery System in Khulna City

Housing delivery system in Khulna City is dominated by private informal sector, like other cities of Bangladesh. Although the cooperative housing system was found to be negligible, private formal sector in Khulna City has not yet been developed properly (Hossain, 2004). There are public housing sub-systems that provide housing for the employees of the government and semi-government organizations (Hossain, 2004). Table 2 shows the major housing delivery sub-systems in Khulna.

Table 2: The housing delivery sub-system in Khulna City

No.	Housing Delivery Sub-system	Percentage (%)
1.	Private housing sub-system	90
2.	Public housing sub-system	1.5
3.	Development authorities' site and service scheme	4
4.	Slum and squatter sub-system	4.5

Source: Hossain, 2004

Table 3: The income range of middle income group

Income group	Category	Monthly income range (In Tk.)
Middle income group	Lower middle	13200-24999
	Middle	25000-49999
	Upper middle	50000-70000

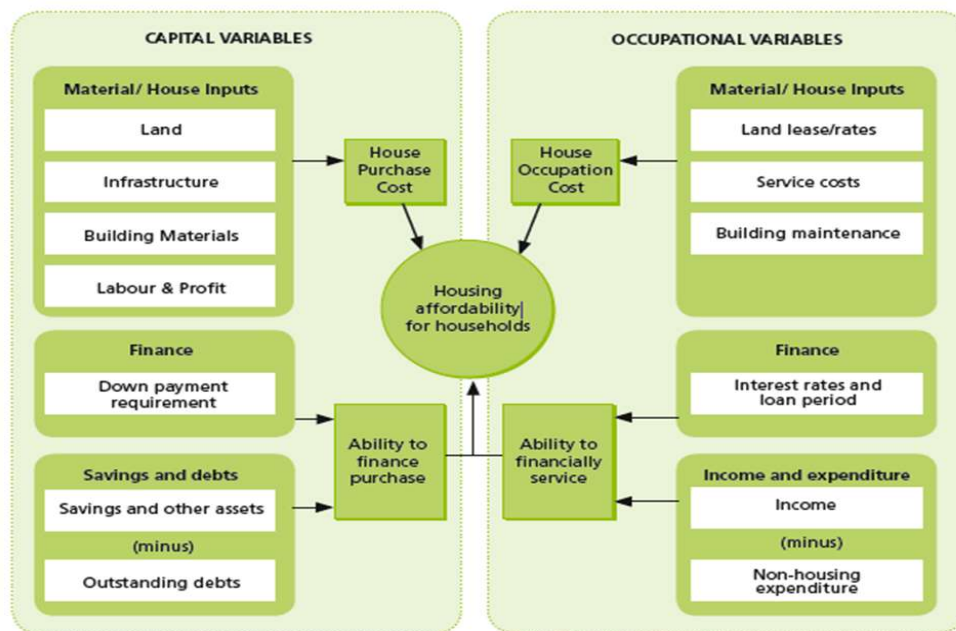
Source: World Bank, 2014 as cited in Mazumder, 2016

1.4 The Definition of Middle Income Group and Components of Housing Affordability

The World Bank classifies every economy on the basis of Gross National Income (GNI) which is considered to be the best indicator of economic capacity and progress (Mazumder, 2016). Table 3 provides the classification and income range of the middle income group according to World Bank. Middle income housing means housing for those people who can afford permanent safety and hygienic condition of housing at a place for suitable job and other economic or certain activities (Mazumder, 2016). But in the actual case of middle income people it has lower amount of accessibility to afford permanent housing. The housing scarcity problems also adversely affect the middle

income people who eagerly wish to own a house with secure tenure but generally are not able to own in current market situations. Due to the absence of public and private housing providers in the middle income housing market, middle income households depend on other two options for accommodation- one is to live in self-built housing and the other is to rent housing from their individual owners.

Affordable housing is the adequate quality and location that the occupants can meet without hampering other basic living costs or threatens their enjoyment of basic rights at the same time (Majale *et al.*, 2011). They added, the housing affordability is affected by many factors. Figure 1 outlines the components of housing affordability for households. In their research, Majale *et al.* (2011) mentioned two foremost variables (capital variables and occupational variables) to set affordability among which capital variable is associated with house purchase costs that sum up land, infrastructure, building materials, labor, profit and the ability to finance the purchase set by the finance down payment requirement and the balance of household savings. Another principal variable, occupational variables are associated with keeping the house. The ability to occupy and pay for the house is influenced by material inputs (land lease and rates, services costs, and building maintenance) and finance inputs (loan repayment period and interest rates, and household income minus non-housing expenditure) (Majale *et al.*, 2011). They also found housing affordability involves beyond the simple idea of house purchase price to household income. For example, Many Asian countries are onset to high purchase costs of housing due to highland price resulting from insufficient available land for development (Majale *et al.*, 2011). Housing affordability for lower and middle income groups are related to housing finance or finance terms such as high down payment requirement, high interest rates, and short loan periods (Nenova, 2010; World Bank, 1993).



Source: Majale, Tipple *et al.*, (2011)

Figure 1: Basic components of housing affordability

Throughout the world, especially in the developing countries, middle income group are found to be the struggler of house-ownership problems because of incessant land price hikes, inflation and high prices of construction materials. In spite of national and international efforts aimed at developing appropriate shelter policies and strategies, no effective remedy has been found to cure housing deficits (UNCHS, 1995, 1996), especially for the middle income group. Though there are organizations and policies to solving house- ownership problem, they mostly suit for either the higher income group or lower income group. So, the middle income group should remain in the spotlight because of their difficulties in house-ownership and thus affordability.

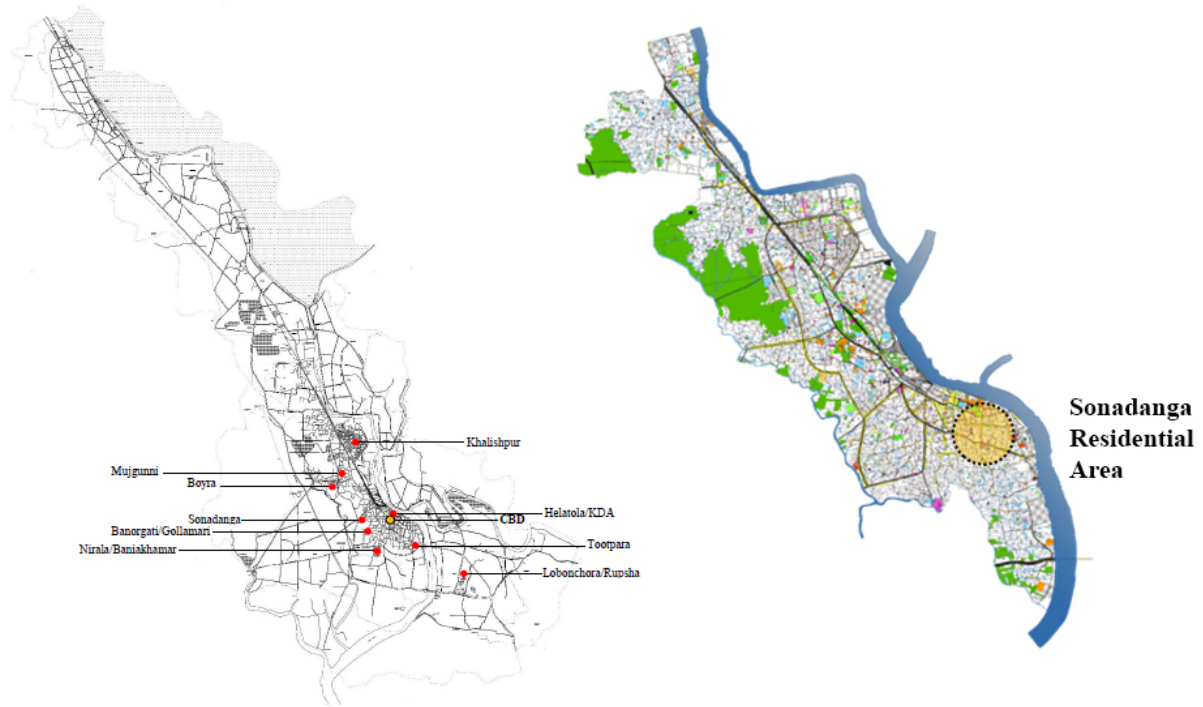
2. METHODS OF THE STUDY

This study has been carried out by mainly using secondary data sources. Secondary data includes various books, research works, journals and works of undergraduate and post-graduate students i.e. theses, projects etc. These are collected from the different institutions and organizations. Urban and Regional Planning discipline and Architecture

Discipline of Khulna University were the sources of these secondary data. The method includes analysis of the data on the case study area to identify the major constraints which impede affordability of the particular group i.e. middle income group in this case.

2.1 Brief overview of the Sonadanga Residential area and the major income group

Since 1967, KDA has developed 8 residential areas in different locations of Khulna for different income groups with 3161 plots occupying total 263.79 acre of land including Sonadanga Residential Area, located North Western part of Khulna city (Hossain, 2004).



Source: Author, 2018 Source: Architecture Discipline, Khulna University, 2018

Figure 2: Location of different residential areas of **Figure 3:** Map of Sonadanga Residential Area
KCC Area

Its importance is very high in the context of the residential areas prevailing in the city as it has very close proximity to the city center. From a recent survey conducted by 4th year students of Architecture Discipline, Khulna University, the major group identified in this area are mainly upper-middle and middle-income group comprising mainly businessmen, doctors, teachers, Govt. and private service holders. Sonadanga residential area was developed as site and service scheme of Khulna Development Authority (KDA) and had been developed in two phases (Hossain, 2004). The first phase was started in 1967 and completed in 1981 which was first planned housing development project in Khulna undertaken by KDA. The second phase was started in 1987 and was completed in 1994. Table 4 illustrates the specification of the two phases.

The overall Sonadanga area (1st phase and 2nd phase) has a very high concentration of residential plots with respect to other land uses (Architecture Department, Khulna University, 2018). Because of its close proximity to the city center, many upper and middle-income group people are concentrating in this area.

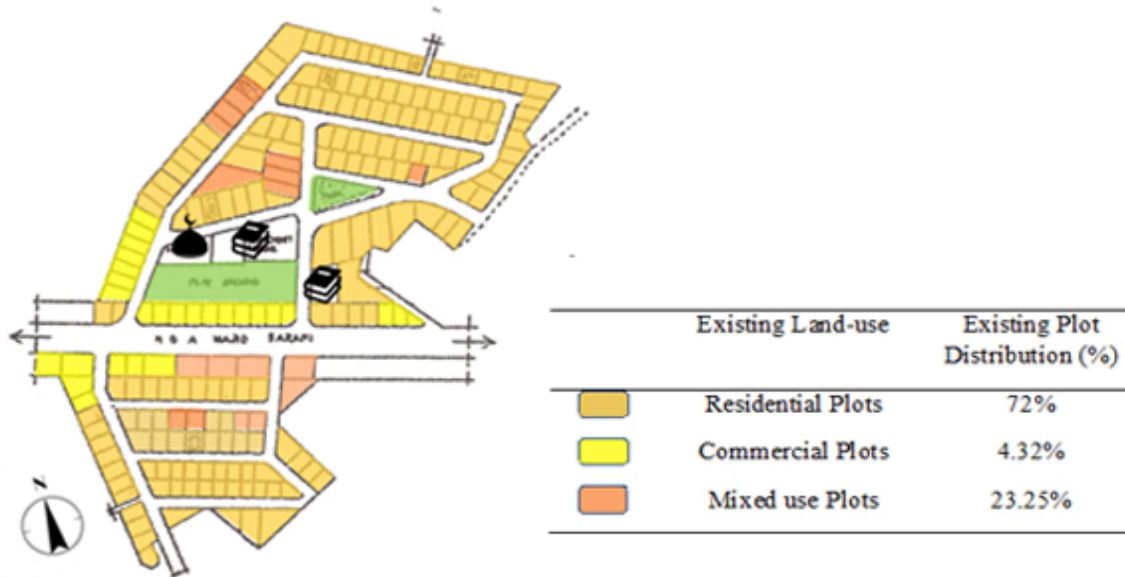
Table 4: Sonadanga Residential Area Development Project taken up by KDA

Name of the Residential area (R/A)	Area (acre)	Project period	Total Plot nos.
Sonadanga R/A (1 st phase)	30.69	1967-81	205
Sonadanga R/A (2 nd phase)	34.84	1987-94	443

Source: Architecture Discipline, Khulna University, 2018

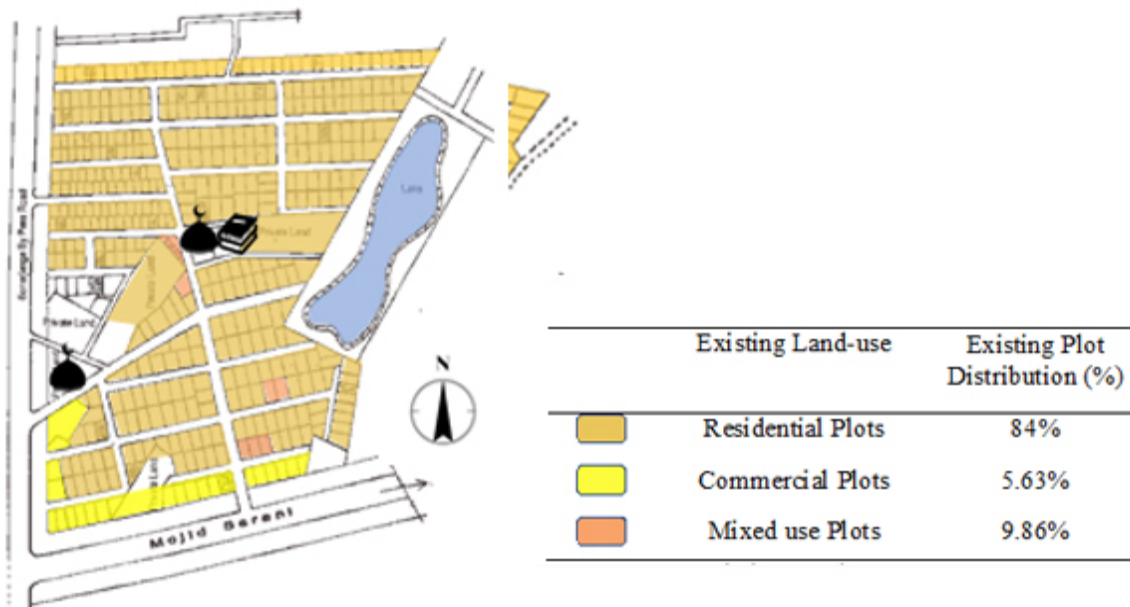
2.1.1 Sonadanga Residential Area (1st phase)

Sonadanga 1st phase is located in the North-western part of Khulna City. It is located in the Ward no. 17 and is in proximity to the city center. The importance of the Ward No. 17 is very high in the context of residential area of Khulna city as it is very near to the city center. The distance of the study area from CBD is 1 to 1.5 km and well connected with the CBD through a planned road network. Existing road network and plot distribution is shown in Figure 4.



Source: Architecture Discipline, Khulna University, 2018

Figure 4: Plot distribution of Sonadanga Residential Area (1st phase).



Source: Architecture Discipline, Khulna University, 2018

Figure 5: Plot distribution of Sonadanga Residential Area (2nd phase)

According to the study of Hossain (2004), in Sonadanga Residential Area 1st phase, there are 206 plots of about 1146.26 katha in an area of 30 acres of land with approximately 400 households with the average plot size is 5.56 katha (445.15 sq. yards) and the area of maximum number plots is 400 sq. yards. 98 % of the total built structure is permanent, where the higher income people (highest house rent providers) of Khulna are living (Hossain, 2004).

From a recent survey conducted by 4th year students of Architecture Discipline, Khulna University, it was revealed that, in Sonadanga 1st phase the size of flats varies between 450-1600 sq. ft in which tenure ship is mostly rental and sublet consisting of income groups mainly middle, upper middle & upper income group.

2.1.2 Sonadanga Residential Area (2nd phase)

Sonadanga Residential Area 2nd phase was started in 1987 at Sonadanga of Khulna City under the management of KDA (sites and services schemes) and the plot distribution ended in 1994 (Hossain, 2004). After acquisition, the land was developed by providing different services and facilities and then distributed/sold to prospective plot buyers. From the survey conducted by 4th year students of Architecture Discipline, Khulna University, it was revealed that, in Sonadanga 2nd phase, the size of flats varies between 800-2000 sq ft, which are mostly used as rental and a few flats used by respective owners. Study further showed that income groups are mainly lower middle, middle, upper middle & upper income group derived from interviewing 30 households.

2.2 Multi-ownership housing delivery system in Sonadanga residential area

Multifamily residential i.e. multi dwelling unit or MDU is a housing typology where multiple separate housing units of residential inhabitants are contained within one building or several buildings within one complex and this process starts with the formulation of the system through which the work or project will be executed (Razon and Ahmad, 2017). It may be defined as the property held by tenancy in common and the property comprises of more than one dwelling unit accommodated in a vertically repetitive structural system and each unit separated by its floor and roof slabs and walls with common access and services. Multi-ownership housing delivery process may be divided into five phases (Razon and Ahmad, 2017):

- The land procurement phase,
- Design phase,
- Initial investment Phase,
- Construction phase,
- Handover phase (by lottery basis)

Overall the system of housing delivery can be categorized as: Group effort, Co-operative Society and Developer. Group effort comprises of four to five households which may be among the family and friends. Co-operative Society is an institutionalized body and has fairly large number of households as members. In theory, both the above systems have non-profit motives. Whereas developer-built project is usually characterized by profit motives and thereby may become costlier than that of other two delivery systems.

Multi-ownership housing delivery system in Sonadanga residential area is dominated by private informal sector like other areas of Khulna City. In general, Multi-ownership housing delivery system in Sonadanga residential area is characterized by Group efforts and comprises of many households which may be among the family and friends or relatives. But recently private formal sector is developing which includes private real estate developers and cooperative housing scheme.

3. RESULTS AND DISCUSSION

3.1 Housing Affordability Situation in Sonadanga Area: Major Impediments

The current scenario of housing affordability situation of middle-income group in Sonadanga residential area is described in light of the following components:

3.1.1 Income trends and expenditure scenario

There are primarily three predefined economic classes in the urban areas of Bangladesh. They are the upper class, the middle class and the lower class. But in the big cities, the difference between the lower class and the upper classes is quite wide. As a result, middle class has been classified into several sub-sections. According to the study of Zahur (2016), the middle class has been classified into the Lower-middle, Middle-middle and Upper-middle income group.

From a recent study of 4th year students of Architecture Discipline, Khulna University it is found that people from middle-middle, upper-middle and higher income group are living in Sonadanga 1st phase. And lower-middle, middle-middle, upper-middle and higher-class people are living in the Sonadanga 2nd phase. Flat or apartments are needed for mainly lower-middle and middle-middle income class people. Upper-middle income and higher class

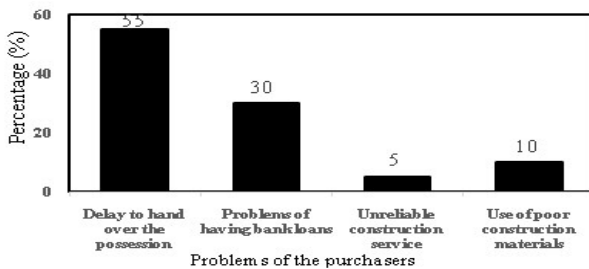
people are not interested in developing apartments (Razon and Ahmad, 2017). They build 6–8 storied building by their own finance where they use one floor to live and the other floors are used to give rent to tenants. Basically, the building acts as an income source for them. But lower- middle and middle-middle income class people are not capable to buy plot because of higher rate of land. They prefer to buy apartment as the price is comfortable to them. As the lower-middle and middle-middle income class people are living here, their income range is monthly 20,000 Tk. to 70,000 Tk. Table 5 shows the percentage of income group and their monthly income of both Sonadanga 1st and 2nd phase.

Table 5: Percentage of income group in Sonadanga residential area (1st phase and 2nd phase)

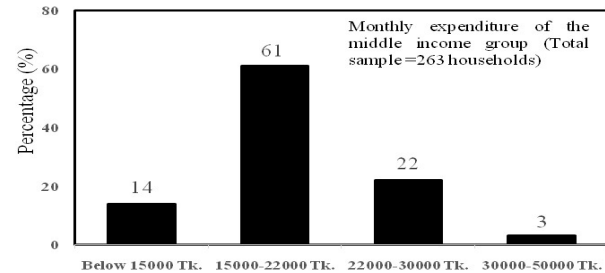
Income group	Average monthly income range (Tk.)	Percentage (Total sample = 30 households)
Lower	5,500-8000	6.67
Lower middle	20000*	3.33
Middle	20,000-40,000	20
Upper middle	30,000-80,000	40
Upper	85,000-1,20,000	30

* One respondent Data Source: Architecture Discipline, Khulna University, 2018

About 63.33% of the surveyed group consists of the middle-income group and from total sample (30 households) 40% were upper-middle income group. Among them, occupations are mainly businessman, doctor, teacher, Govt. and private service holders. From a study conducted by Biswas (2015) on the income structure of middle income group in Khulna City, it was found that, about 56% earn (13,200-24,999) BDT per month and their percentage is the highest. About 23% earn (25,000-49,999) who are in the 2nd positions and 21% earns (50,000-70,000) BDT who are in the last position. He surveyed 263 households throughout the Khulna City for this research.



Data Source: Biswas, 2015



Data Source: Mondal, 2012

Figure 6: Current trends of Expenditure of the middle-income group in Khulna City

Figure 7: Opinions of purchasers on performance of private real estate developers

In the case of expenditure measurement of these households, he found out that, the average monthly expenditure (15,000-22,000) BDT holds the highest percentage (61%) after the 8th national pay scale. Figure 6 summarizes his findings on the expenditure range of Khulna City focusing on the middle-income group.

3.1.2 Absence of alternative sources of income

Most of the people of Khulna City particularly middle-income group have only one source of income unlike the inhabitants of Dhaka who have multiple sources of income. So, it is difficult for them to purchase apartments with single income source.

3.1.3 Social problems

Most of the people of Khulna City are not accustomed with apartment living i.e. they are not prepared to own a flat because of their social requirements and still possess dream about owning a house rather than flat ownership. Another problem with the flat-ownership lies with the performance of the private real estate developers in Khulna City. Many people are not relying upon the developers because of their poor performance. According to Mondal (2012), the problems mainly faced by the purchasers are:

- Delay to hand over the possession
- Problems of having bank loans

- Unreliable construction service
- Use of poor construction materials by real estate developers to maximize profit

Figure 7 illustrates the views of the purchaser on the performance of the private real estate developers.

3.1.4 Increasing land value

At present people of our country are facing housing scarcity problems because of increase in land price, building materials and rapid growth of population (Jabbar, 2004). Also, this land price is one of the major criteria for selection of land by the developers. Land price is strongly related to the position of the land, soil condition, amenities which are associated with the property (Ray, 2014). Land price vary from one place to another place because of these factors.

At present in Khulna City land price is increasing because of scarcity of land. For this reason, middle and lower income people are more willing to buy flats as they are facing problems regarding acquiring property. Table 6 shows the land price of different location in Khulna KCC area.

As Sonadanga Residential Area was developed as planned residential area under the supervision of KDA, land owning demand is high in this area as a result of demand theory. Land price are high enough for struggle to afford land for middle-income group (Mazumder, 2016). In reality, middle-income groups are inhabitants in this area but reside in rental apartment. Table 7 shows the residential land value changes over time in different areas of Khulna City.

Table 6: Real Scenario of Land price in different location of Khulna KCC Area

Residential Area	Govt. price/katha in Tk. (Lac)	Market price/katha from developers in Tk. (Lac)
Helatola/KDA	8.81	60-100
Nirala/Baniakhamar	4.87	20-30
Tootpara	5.12	20-25
Banorgati/Gollamari	3.40	15-20
Lobonchora/Rupsha	1.75	10-15
Sonadanga	2.78	20-30
Khalishpur	2.91	15-20
Boyra	3.45	15-20
Mujgunni	3.06	15-20

Source: Mondal, 2012

Table 7: Residential land value changes in Khulna City

Name of Mouza	Land value in Tk. (Lac)/Katha		
	2005	2010	2015
Tutpara	8	10	12.1
Boyra	10	13	15
Khalishpur	10	12	15
Nirala	12	15	20
Sonadanga	15	25	30
Mujgunni	9	11	13

Source: Mazumder, 2016

Throughout the Khulna City for residential purpose average land price increasing rate is 23%. In the planned residential areas i.e. Sonadanga and Nirala, land price increasing rate is higher (30%-40%) than other areas of Khulna City in which land price in Sonadanga residential area is the highest.

3.1.5 Construction and material cost

Although in Khulna City there is comparatively lower material and labor cost than in Dhaka, the total construction cost is almost equivalent. Because of the practice of deep foundation (piling) for the soil condition and added maintenance cost in exterior finishes for salinity of water, the total construction cost for building here is almost similar to Dhaka, which is higher than any other suburban areas of Bangladesh.

From the observation of Biswas (2015), there has been a gradual rise in the cost of construction materials in Bangladesh with prices doubling over the past 10 years and quadrupling over the past 20 years, but still less than the phenomenal property price escalation in the country. But he argued that this rise in the cost have roughly followed

the inflation trend, and thus rise in income levels. From this, he concluded, “it’s the rise of the land prices that really has pushed the property prices to unaffordable levels”. Table 8 shows the rise in the prices of construction materials in 2005-2015.

Table 8: Rise in the Prices of Construction Materials, selected years (2005-2015)

Year	Price of brick, per thousand pieces (Tk.)			Price of Sand, per cu ft (Tk.)		Price of cement, per bag (50 Kg) (Tk.)			Price of iron bar, per ton (Tk.)	
	1 st class brick	2 nd class brick	3 rd class brick	Local sand	Sylhet sand	Shah cement	Confidence cement	Royal cement	BSRM steel	KSRM steel
2005	4500	3800	2500	8.00	22.00	400	360	380	40000	42000
2010	7800	6800	5400	12	35	450	400	440	48000	50000
2015	8000	7000	6500	28	38	465	415	425	56000	56500

Source: Biswas, 2015

Table 9: Per sq ft land value and construction cost in different mouzas of Khulna City

Mouza name	Land Value (in Tk. per sq ft)	Building material Cost (in Tk. per sq ft)	Total Cost (in Tk. per sq ft)
Baniakhamar	1306	594	1900
Tutpara	1680	594	2274
Boyra	2083	594	2677
Sonadanga	4166	594	4760
Lobonchora	2083	594	2677

Source: Biswas, 2015

In Table 9 total cost of a building comprising per sq. ft. land value and construction cost in different mouzas of Khulna City is given. From Table 9, it is evident, total cost is the highest in the Sonadanga mouza among all the mouzas in Khulna City.

3.1.6 Constraints in housing finance

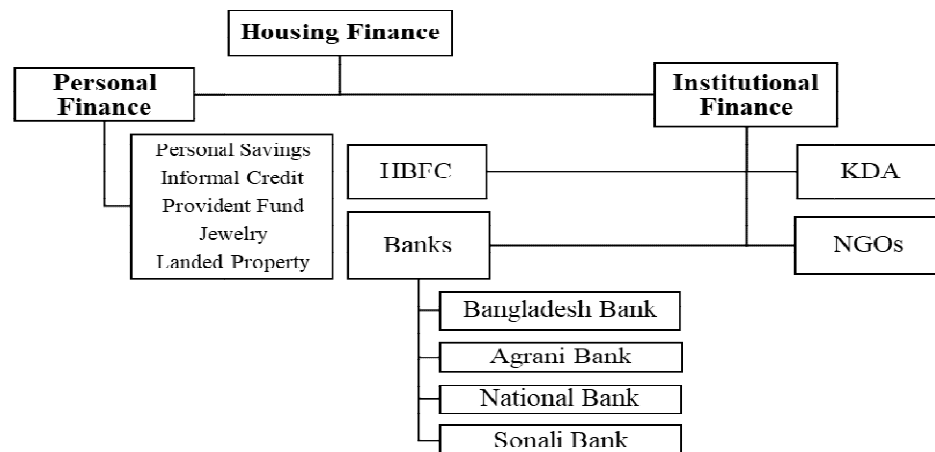
For housing construction finance is an important factor. Due to lack of adequate fund, some plot owners are unable to construct their houses. Currently in Bangladesh the existing sources of housing finance includes House Building Finance Corporation (HBFC), personal saving funds of potential urban house builders and buyers, Government loan, Government budgetary allocation, construction by internal donor agencies, commercial banks, specialized financial institutions and NGOs (Hossain, 2004). The share of housing in public sector development programs have been comparatively less in Bangladesh and only 5% of the housing units constructed in Bangladesh are financed from the formal sector (Hasan, 2002).

Lack of Housing finance is a common problem in Bangladesh as well as in Khulna. A very few percentages of population have access to public sector loans provided for housing development (Jabbar, 2004). Present condition of the housing finance in Khulna City is given in the Figure 8. From a socio-economic survey of Khulna City, it was found that of the 64% of the households’ owning dwelling units, 96% financed the construction of houses from their own sources (Jabbar, 2004). Only 1.4% of households have access to institutional finance such as from HBFC, bank or NGOs etc. and about 2% households borrowed from relatives and friends while a very insignificant proportion borrowed from their colleagues (Hossain, 2004). The housing Finance sources of Sonadanga residential area (1st phase and 2nd phase) is illustrated in Table 10.

Personal savings/finance

From Table 10 it was seen that majority of the people in the Sonadanga residential area finances their housing from their own fund (about 80% in the 1st phase and 63% in the 2nd phase). Inhabitants here are mostly upper-middle income group (about 40%). Next dominant group is middle-middle income group consisting about 20% of the residents. In the Table 11 the monthly housing and non-housing consumption and associated savings of different income groups of Sonadanga Residential area is provided.

From Table 11 it is seen that among the all income groups only the middle-middle income group are facing difficulties in personal savings because of higher housing consumption than non-housing consumption (about 28.33%) and their savings consists of about 11.66% of the total household income.



Source: Hossain, 2004

Figure 8: Sources of Housing Finance for Construction in Khulna City

Table 10: Sources for Finance for Construction in Sonadanga Residential Area

Sources	Sonadanga R/A 1 st phase (%)	Sonadanga R/A 2 nd phase (%)
Self finance	80	63
Loan from HBFC	5	4
Loan from Bangladesh Bank	3.33	-
Loan from Commercial Banks	6.67	26
Loan from Private Banks	5	-
Other Assistance	-	7
Total	100	100

Source: Hossain, 2004

Table 11: Savings scenario of different income groups in Sonadanga Residential Area

Income group in Sonadanga Residential Area	Rent Range (In Tk.)	Housing Consumption (%)	Non-Housing Consumption (%)	Savings (%)	Flat Size (Sqft.)
Lower	3000	25	67.5	7.5	225
Lower-middle	3000	30	40	10	300
Middle-middle	7916	28.33	26.66	11.66	775
Upper middle	12958	28.33	32.08	19.58	812
Upper	22385	36.66	41.66	16.11	1280

Source: Architecture Discipline, Khulna University, 2018

Institutional finance

HBFC (House Building Finance Corporation) is the major and specialized institution that advances credit to the general public for housing in Khulna City. According to Hossain (2004), about 2500 applications have been accepted by HBFC during 1985-2004 but stopped disbursement later. This is due to the increase in defaulters for low rate of rent and thus the inability of the borrowers to repay installments (Hossain 2004). However, HBFC is contemplating to resume sanctioning loan as soon as 45% of the disbursed credit is recovered. Besides HBFC, Government banks i.e. Sonali bank, Rupali Bank and Agrani Bank are mainly for urban areas housing and as given to its employees and other indirect participants in Housing Finance are KDA, HSD and PWD (Hossain 2004).

In Khulna City Bangladesh Bank, Agrani Bank, Sonali Bank and a few private banks provide loans for housing. Bangladesh Bank sanctions loan for both the phases to buy the land for housing and for construction of building against the proper application of its employees (Hossain 2004). The Agrani Bank sanctions loan of house building for both general people and their staffs. Sonali Bank also provides loan of house building, but it is very difficult to identify the actual amount of loan for housing purpose due to mismanagement of maintaining the defaulter list in head office of Sonali Bank in Khulna (Hossain 2004).

Problems in terms of availability of loans, high interest rates and repayment time

According to Mondal (2012), loans for buying flat are only available in Dhaka and Chittagong City with the interest rates for 9 to 11 percent and their repayment period is 20 years or 240 regular monthly installments, but not in all cities. He added, in specific case for Khulna, lower class and lower-middle class families have a poor access but the middle class and higher middle class have no access to loan and face financial problems. His study revealed some loan providing organizations in Khulna, such as, Delta BRAC Housing Finance Corporation Ltd. (DBH), a private sector non-bank financial institution and House Building Finance Corporation (HBFC), a specialized public financial institution providing loan for construction of houses and extension of existing residential areas. DBH has a very high interest rate 16% to 17% depending upon the size of land whereas HBFC has an interest rate 2.5% to 8% varying with debenture (Mondal, 2012). Also, mortgage requirements restrict getting the loan.

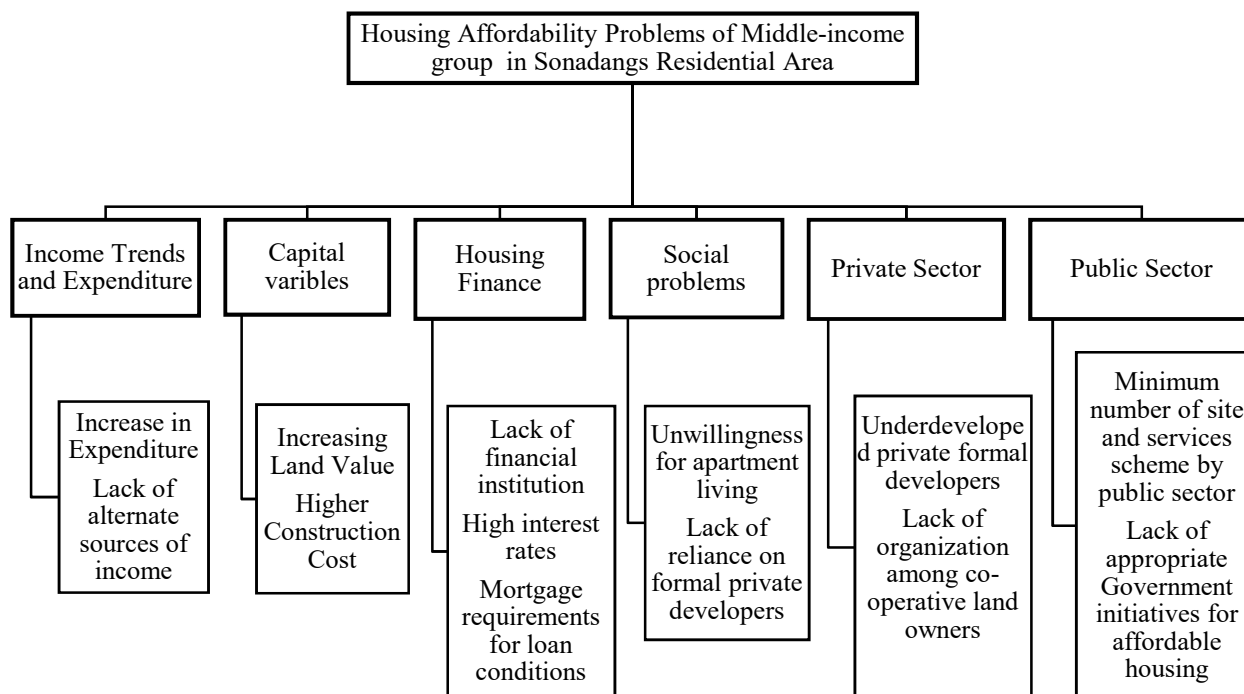


Figure 9: Constraints on affordability of Middle-income group in Sonadanga Residential Area

Table 12: Name of the Institution of Housing Loan and its Interest Rate and Repayment time

Name of the Institution	Interest Rate (%)	Repayment time (Year)
House Building Finance Corporation	8	15
Delta Brac Housing Finance Corporation Ltd.	16-17	15
Bangladesh Bank	14	12

Source: Mondal, 2012

The Bangladesh Bank provides loan for housing development with high interest rate (14% per annum) and repayment time is short, particularly for the middle income group who barely can avail (Mondal, 2012). He added, the respondents are owning apartments by installations with only five years repayment time. Table 12 shows the interest rate and repayment time of the different institutions. The interest rate of the House Building Financial Corporation is lower than the others but this loan is not available for all (Mondal, 2012).

3.2 Major Findings

From this study major impediments found for middle income group in Sonadanga residential area are mainly economic insolvency due to increasing expenditure, lack of alternative sources of income, increase in land value, higher construction cost, unwillingness for apartment living, unavailability of loans due to less financial institutions, high interest rates, mortgage requirements for loan conditions, underdeveloped private formal sector, lack of reliance

on formal private developers, minimum number of site and services scheme by public sector and lack of appropriate Government initiatives for affordable housing for middle-income group. Although Co-operative housing scheme is developing recently, there is a lack of coordination among the individual land-owners.

Some of the impediments are common for major urban areas i.e. Dhaka, Chittagong but in Khulna City alternative sources of income, social values, loan opportunities and lack of reliance on developers play significant role for the struggle of middle-income group to afford multi-ownership housing. We can summarize the findings in Figure 9.

4. CONCLUSION AND RECOMMENDATIONS

Housing is one of the basic needs of human being and Government has the prime duty to provide affordable housing for all income groups. In this regard, Government has to take adequate measures for policy implication focusing on the middle-income group in terms of budgeting, loans from provident funds, pension etc. If these provisions were made, several mortgage loan opportunities will rise easing the financial requirements of housing for middle-income group. Public sector should undertake a greater number of site services scheme for land development and should work on land policy and land price mechanism. For example, in Sonadanga area most of the serviced plots have been acquired by higher-middle income group. If certain number of small plots (2-3 katha sized) were developed and facilities were provided considering the middle-middle and lower-middle income group then they also could easily afford those plots. So, Government should develop land considering people of specific income group to provide affordable housing for all people. On the other hand, formal private sector in Khulna City is not yet developed properly because of lack of reliance on the developers and lack of organizations among the individual owners in case of co-operatives. Government can take initiative in this regard providing an organizational body for funding and monitoring the works of private formal sector. By this, more people will be able to afford housing by raising funds for initial down payment requirement and also can rely on the quality and facilities provided by the developers.

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