

Developing Countries Perspective on Housing Affordability: Recommendations for Pakistan

T. Fariha¹, S. Muhammad², H. Javeria³, Z. Zunaira⁴, M. Sana⁵, G. Areesha⁶, N. Minahil⁷, B. S. Nida⁸

^{1,2,3,4,5,6,7,8}School of Architecture and Planning, UMT, Lahore, Pakistan.
¹fariha.tariq@umt.edu.pk

Abstract-The rapid urbanization during the last few decades has created severe problems of housing especially in the major cities of Pakistan. Housing shortage and enormous rise in housing prices create unaffordability of housing. Most of the people in Pakistan are suffering from housing unaffordability even after allocating major portion of their incomes on housing. The focus of this paper is to identify the factors impeding housing affordability in different developing countries. Different parameters have been identified; these include location, design efficiency, construction material, infrastructure, services, neighborhood design and financial assistance. This paper highlights, how all these parameters could be made effective in order to realize the goal of making housing affordable.

Keywords-Housing Affordability, Housing Need, Housing Supply, Housing Demand, Affordability Standards

I. INTRODUCTION

South East Asia is experiencing high rate of urbanization. Among other countries, Pakistan too faces massive migration from villages to mega cities, resulted in severe housing conditions in urban areas [i]. Pakistan is currently facing housing backlog of around 9 Million units and the number is increasing by 270,000 units every year. To cope with this situation Pakistan needs to deliver around 400,000 housing units per annum for next 15 to 20 years [ii]. The housing problem basically relates to quantitative and qualitative insufficiencies. On the supply side, the Government has made various strategies to respond to this huge shortage. But all these efforts are thwarted due to high building costs, deficiency of housing finance arrangements, strict loan agreements and mortgages from banks etc. [iii].

There is a misconception between *need of housing* and *demand for housing* or the capacity to choose for preferred housing. Though there is a huge housing backlog, but it is essential to identify the fact that people can only obtain what they can pay for. Housing affordability in this context can be described as the “housing units that are affordable by that section of

society whose income is below the median household income” [iv].

High land, funding and building costs are responsible for increased prices of housing units. Increased prices of land have made it very difficult to provide affordable housing to low income groups even in the cases when Government itself is the part of development.

Like other countries of world, Pakistan is also facing property and real estate burden. Property prices in mega cities like Lahore, Karachi and Islamabad are already above millions of US Dollar. The price of a 4500 sft house in the area of Gulberg, Model Town and Defense Housing Authority (DHA) is \$200,000, and 9000 sft house is of \$300,000 to \$500,000 and so on. From previous few years there is an increase of about 5 times. Also the increasing inflation rate has caused immense rise in land/house prices and rents, thereby making housing not affordable for the poor [v]. Recently, few lost cost housing schemes have been introduced in Lahore, however, still they are not within the reach of a common man [Table I].

TABLE I
 MODIFIED FROM AARZ.PK (PRICE IN PKR) (6)

Housing Scheme	Plot Size	Price (PKR)
Ferozpur City	5 Marla	2,095,000
	10 Marla	3,695,000
	1 Kanal	6,995,000
	2 Kanal	11,995,000
Al-Ahmad Gardens	3 Marla	1,500,000
	5 Marla	2,700,000
	7 Marla	3,300,000
	10 Marla	4,200,000
New Lahore City	3 Marla	1,600,000
	5 Marla	2,200,000
	7 Marla	3,000,000
	8 Marla	3,500,000
	10 Marla	4,000,000
	1 Kanal	6,000,000
Qasim Garden Housing Scheme	2 kanal	10,500,000
	3 Marla	1,050,000
	4 Marla	1,400,000
	5 Marla	1,750,000
	10 Marla	3,500,000
	1 Kanal	7,000,000

Al-Kabir Town	3 Marla	1,500,000
	5 Marla	2,500,000
	8 Marla	3,500,000
	10 Marla	4,500,000
	1 Kanal	6,500,000

HOUSING DEMAND	<ul style="list-style-type: none"> • Effective Demand-Ability to pay (affordability)
	Determinants <ul style="list-style-type: none"> • Demographic factors • Income • Price • Price substitution • Financing/Credit • Wealth

II. MATERIALS AND METHODS

For the purpose of this research, detailed literature has been reviewed. The international context, with special reference to the developing countries has been critically discussed. The methodology of this research is based upon the understanding that there is a fault in our definitions of the terms like housing affordability urban poor, urban poverty, housing demands and supply. All of these terms are those, which can never be generalized at global level. With changing locale specific context, the definitions of all of the above mentioned terms change. Therefore, there is a dire need to redefine these terms before blindly implementing any of the other countries' model/solutions. The solutions to affordable housing as being practiced in Malaysia, Indonesia, Chile and Thailand are discussed in detail in order to see their respective prospects in case of Pakistan. Along with that, a critical overview of the measures being or has been practiced in Pakistan regarding provision of housing to the urban poor has been done. Concluding the study thus conducted gives some parameters that effectively define the problem of affordable housing in case of Pakistan.

III. DISCUSSION

A. Definitions of Terms Related to Housing

HOUSING AFFORDABILITY	Affordable housing units can be defined as the units specified to be occupied by the group of society whose household income falls below a presets level and for the purpose special tax incentives are introduced for the families who belong to the low income group(7). Affordable housing can also be related to the Low Income housing it can defined as the housing for those groups whose family income is a in a particular ratio evidently less to the median household income of that area and that particular ratio is worked out by the housing authorities of the concerned area(8).
URBAN POOR	The community living in slums and squatters of cities display desperate mode of poverty without basic facilities usually counts as the urban poor(9)

B. International practices for ensuring Affordable Housing in Developing Countries

Housing affordability is defined by a number of different aspects of affordability including policy measures, income levels of households, construction technology etc. In order to overcome the housing affordability challenge, different countries have adopted different measures, few of which are discussed below:

Malaysia

Malay Government also agrees on the fact that housing is a basic human need and an important part of country's economy. The Government introduced a program namely *My First Home Loan Scheme* to help low and middle income groups working in private sector to purchase their own houses. As per the scheme, a person whose monthly income is less than RM 5,000 can apply for a 100% bank loan for a dwelling unit rather paying down payment of 10% [ix].

Malay Government has also constructed 27,006 low cost houses in 70 projects under Public Low-Cost Housing Program (PLHP). These projects were funded by Federal Government and implemented in small towns and out skirts of cities by State Government.

In the low-medium-cost housing category, a total of 83,910 units were completed, achieving 63.9% of the Plan target. Out of this number, the private sector constructed 61,084 units or 72.8%. The success indicates that there is an active response from private sector in providing affordable housing to the poor [x]. The salient feature of this scheme includes the incentives for general public such as enabling them to own a home without having the need to pay a 10% down payment and targeting low income groups with gross income not more than RM5,000 per month for single borrower [xi].

Indonesia

Indonesia is also among those developing countries facing the housing shortage, based on the data collected in 2013, Indonesia was facing backlog of 11.8 Million housing units and government needs to add 820,000 to 920,000 new units every year, yet government and private sector is able to add only 150,000 to 200,000 units annually. This leaves the government with the gap of 220,000 to 370,000 units which is added to the backlog every year [xii]. In 2017, the average monthly household income in Indonesia was 172 US Dollars [xiii].

Indonesia's new Government took initiatives to deal with national housing backlog by state assistance for affordable housing and construction of many new building blocks not only for low income class but also for those who live in temporary shelter. The governor of Jakarta, president-elect Joko Widodo rehoused squatters from the slum areas to newly-built low-cost apartments [xiv].

Indonesia's Financial Services Authority is pushing banks to provide more long-term mortgages. The shortage of housing is particularly getting pressed into the low end of the market, as affordable housing is proving increasingly hard to be provided due to rising land prices in urban areas. The Government attempts to tackle this issue in the market by subsidizing mortgages for low-cost properties, while discouraging speculative buying. The Housing Finance Liquidity Facility (FLPP) program provides mortgages for low-income families at below-market interest rates. In a study conducted, it was mentioned that the interest rates are around between 10 – 12 percent for a 15 year loan [xv].

The Government took initiatives to provide state subsidy to the banks that dispense those mortgages. FLPP loans were used to buy 87,765 units in 2013. For 2015, the Housing Ministry announced, FLPP mortgages would apply exclusively to flats rather than houses due to the shortage of building space in the vicinity of major cities. In addition to helping low-income buyers finance their mortgages, the Government is engaged in the construction of low-cost apartments. As governor of Jakarta, Joko Widodo aimed to erect at least 200 low-cost residential towers per year over a five-year period, partly to provide accommodation for residents moved out of riverbank slums as the capital tackles congestion and flooding [xvi].

Chile

Even though more than half of the households in South America's large cities cannot afford to purchase a complete housing unit, the national housing policy in the region remain silent towards rental housing market. However, Chile is first among South American countries to initiate a national rental subsidy program which aims to provide affordable rental housing to low and middle income young families [xvii].

Considering the long-term demand of housing, Chile's Ministry of Housing and Urban Development (MINVU) initiated its first rental subsidy program for low and middle income groups, in wake of a diagnostic survey of rental market in the region [xvii].

The program being open to all without any geographical bounding, targeted the vulnerable and young families, where the age of household heads (18 to 30 years). Also factors including a total monthly income (\$360 and \$1,125), a saving account (with minimum balance of 180 dollars) and Social Vulnerability Score (as measured by the Government's-

issued survey) were also taken into account. The main idea behind MINVU's subsidy program had been to facilitate families to contribute as rent, at an average rate of 25% of their monthly income. This 25% served as a subsidized housing rent for those who could not afford housing otherwise.

The overall management and execution of the MINVU's subsidy program is furnished within its fifteen regional offices. These offices deal with applications, enrollment, and housing inspections, while the administration work gets managed by the private banks. For a person to avail this rental housing subsidy program, he would first select the house from the market and signs an agreement with the owner. The recipient deposits their share of rent in the account of a private bank thereafter. Following this, MINVU would deposit the subsidy amount to the same account after which the bank pays a total rent to the owner. Hence, the bank becomes the mediator and administrator in the entire process [xvii].

Thailand

Since decades Thailand has been effectively providing affordable housing to people. The main objective of Government's framework of housing and housing finance policies is to provide affordable housing to low and middle income population of its country.

Thailand has the highest home ownership rate in the world that is 81%, according to 2010 population and housing census. As per statistics of 2010, average monthly household income was 22,070 Thai Baht [xviii]. The country has never faced any housing shortfall and supply problems, since economic crises in 1997 [xix]. Talking of 2010, there were 20.3 Million households in Thailand and number of housing units were recorded to be 21.6 Million, meaning there by an additional 1.3 Million housing units and this difference was recorded to be 0.68 Million in 2000 [xix]. Thailand's Government, private developers and banks played vital role in making housing affordable for lower and middle income people. Different policies have been adopted to make housing affordable for all income groups [xix]. Government has been taking different initiatives to provide adequate housing for low income population. National Housing Authority (NHA) and Community Organizations Development Institute (CODI) are two major Government organizations that offer affordable housing to lower income groups. Both organizations have different approaches.

NHA is one of the institutes which took initiatives to develop affordable housing units in Thailand. After its establishment in 1973 and then until 2003, the Institute was able to develop a total of 430,000 housing units. Besides, in response to the Government's policy to encourage low and middle income groups to

purchase their own houses, NHA in 2003 initiated a subsidized low cost housing project via its “Baan Eua-Arthorns (BEA)” program. Moreover, the Thai Government through CODI developed the Baan Mankong Housing Program in order to deal with the housing issues of poor population of country residing in slum communities. Within this program, the Government provided infrastructure subsidies and housing loans for facilitating the housed poor. The success of the Baan Mankong housing program can be anticipated from the fact that it got implemented in more than 1,000 communities in 69 of the country's 76 provinces, with benefiting more than 54,000 households [xix].

Responding to the Government's policy “more affordable home ownership to low income group”, Government Housing Bank launched a “First Home Mortgage Program” for the first-time home buyers in 2010. A budget of 45 billion THB (Thai baht) was set aside for long term mortgage loans of up to 30 years. Loans were limited to THB 1 million with loan to value ratios of up to 100%. This special affordable program offered zero interest rates for the first 3 years. After that, the borrowers would be charged MRR-0.5%. This affordable housing finance program helped many young families to purchase their own homes [xix]. According to the latest 2010 population and housing censuses 12% of the Thai households reside in rental housing, of which a major percentage i.e. 37% account's to Greater Bangkok. In Thailand most financial institutions provides loans for construction of rental apartments. Currently more than 8000 landlords have developed rental apartments using bank development loans. Rental housing loans have grown steadily from only THB 14, 666 million (\$US489 million) in 2006 to THB 63, 214 million (\$US2.1 billion) in 2011, attributing to an average increase of about 34% per year [xix]. Private developers have also played a vital role in provision of affordable housing in Thailand. This can be seen with a total of around 800,000 units newly built housing in Bangkok over a period of five years, with an average of about 160,000 units annually. About 90,000 housing units were provided during the five years period (2007-2011), balancing the housing demand of people [xix].

A summary of all discussed cases of above mentioned countries have been summarized in Table II as following:

TABLE II
 COUNTRY'S PERSPECTIVE: AFFORDABLE HOUSING
 (CASES OF MALAYSIA, INDONESIA, CHILE &
 THAILAND)

Country	Country's Perspective: Affordable Housing (Housing Programs & Salient features)
---------	---

MALAYSIA	<ul style="list-style-type: none"> • My First Home Loan Scheme provided 100% of housing value to the individuals having monthly income less than RM 5000. • 27000 low cost houses built in 70 projects under Public Low-Cost Housing Program (PLHP) • 84000 low-medium-cost housing were built, a total 63.9% of the Plan target. • The program enabled low income group to own a home without having the need to pay a 10% down payment
INDONESIA	<ul style="list-style-type: none"> • Financial Services Authority ensured subsidized mortgages for low-cost properties and discouraged speculations. • The Housing Finance Liquidity Facility (FLPP) provides mortgages for low-incomes families at below-market interest rates, 10 – 12 % for 15 year loan. Total 87,765 units were purchased in 2013. • For 2015, FLPP mortgages would apply only to flats due to the shortage of building space in major cities. • Governor of Jakarta aimed to build 200 low-cost residential towers per year for 5 year period.
CHILE	<ul style="list-style-type: none"> • Chile's national rental subsidy program provides affordable rental housing to low and middle income young families. • Where the age of household heads (18 to 30 years) and total monthly income ranges between (\$360 and \$1,125). • Aim of subsidy program had been to facilitate families to contribute 25% of their monthly income towards rent. This 25% served as a subsidized housing rent for those who could not afford housing otherwise.
THAILAND	<ul style="list-style-type: none"> • Thailand's Government, private developers and banks played vital role in making housing affordable for lower and middle income people. • NHA after its establishment in 1973 and then until 2003, the Institute was able to develop a total of 430,000 housing • Units. • NHA in 2003 initiated a subsidized low cost housing project which provided infrastructure subsidies and housing loans for facilitating the housed poor. • Implemented in more than 1,000 communities and more than 54,000 households benefitted. • Government Housing Bank launched a “First Home Mortgage Program” for the first-time home buyers in 2010. Loans were limited to THB 1 million offering zero interest rates for the first 3 years, onwards borrowers would be charged MRR-0.5%

C. Case of Pakistan

As much as the situation in Pakistan is concerned there is still excessive room for development of affordable housing neighborhoods. Although the concept has been practiced in Pakistan multiple times, with some of the projects turning out successful, while still many did not advance according to the need of the time. As a result, the affordability in terms of housing access among the people, in particularly, the low income group, decreased significantly. Below, is a

detailed overview of the steps taken towards affordable housing in Pakistan.

History of affordable housing in Pakistan

Soon after the creation of Pakistan, in the very early decades, efforts were made by the Government to improve the housing sector by providing adequate supply of housing units for ensuring a demand-supply housing balance in the country. However, as a consequence, the housing conditions in Pakistan got worse, the land became scarce and the majority of people belonging to middle and low income class could not afford a housing unit, as a result of which significant housing deficit became apparent. Seeing this, a National Housing Policy was devised in 2001 to address the housing issues, but it lacked proper implementation and was failed to bring substantial improvements in the sector.

In Pakistan, the concept of affordable housing was first seen practiced in Karachi by Al Azam Construction Company. The company started its operation in Pakistan in 1960's, constructed low cost housing units for low income group population. The company sold the built houses on no profit no loss basis resulting in comparatively cheaper housing units [xx]. Besides, over the last few decades, in Pakistan the concept of affordable housing has been adopted by many sectors, Government bodies, private developers and different non-Government organizations. The implementation of this concept had been seen in different ways as an outcome of which different neighborhoods got developed. Below, is a brief description of all such development projects with the aim of achieving affordable housing?

Community led housing

Community-led housing is an approach used by the communities to address their housing issues, where individuals get together to form a community and try to come up with decent and affordable housing solutions for all. Within this model, houses were developed and managed by the local people and residents in a non-profit organizational structure. The model followed different approaches including self-help housing, co housing, co-operative housing and tenant housing which further facilitate the entire process [xxi]. In Pakistan, Khuda Ki Basti (KKB) is a live example of community led housing.

Khuda Ki Basti started in 1986 by Hyderabad Development Authority and Saiban and was taken up under the supervision of Ar. Tasneem Siddiqui. The basic approach that was opted in community led housing development projects was based on: "People → Land → Housing → Infrastructure"

As per this approach, the authority did not develop the area on its own rather incremental building of housing and infrastructure was proposed. Undeveloped land is provided to the family, who stays in reception

area for 6 weeks, while building their house themselves with support from authorities. After the construction of the house gets completed, the family moves out of reception area to the newly built house. At this stage, the infrastructure is not present however, alternate arrangement were seen available to facilitate the residents. In KKB the plot was reposed by authorities if found unoccupied or if family failed to deposit installments (Table III) [xxii].

TABLE II
 HOUSING CATEGORIES AND PRICES IN KHUDA KI BASTI (23)

	KKB, Hyderabad	KKB, Lahore
Established	1986	2006
Number of plots	2800	460
Plot size sq. ft.	720	816
Price (PKR/Marla)	1000	80000
Deposit amount (PKR/Marla)	1000	20000+20000
Term	-	40 months
Monthly Installment PKR	-	1000
Monthly Income PKR	500-15000 (\$4-\$129)	3000-10000 (\$25-\$86)

The land for KKB was selected by authorities on urban periphery where a quick settlement rate was recorded and community and infrastructure was developed. The main reason attributing to this quick settlement was the security of tenure because of which the people were see much satisfied in terms of the ownership of land and the house. Moreover, in KKB no collateral was needed rather the group responsibility was deemed adequate. The absence of developed infrastructure not only reduced the prices of plots but also helped deliver the housing units to the target groups. Hence, Khuda Ki Basti can be named as one of the most successful affordable housing project in the history of Pakistan and the concept is still being replicated in multiple cities.

Private housing developments

Private housing, being taken up by private developers, later gets sold to the potential buyers. This is usually profit oriented and people belonging to low income class cannot afford the housing units manufactured by the private sectors. However, in 2008 Ansaar Management Company (AMC), a private developer, started working in Pakistan with the vision to provide quality yet affordable housing for everyone to use to the greater possible extent. Keeping in view that in Pakistan the monthly income of majority of the people is around \$120, AMC aimed at providing housing units to households earning \$100-\$400 per month. Following this, the organization has been able

to deliver a number of projects including Ada Johal in Jaranwala (Faisalabad) and Pakpur Project in Muzaffargarh. These two projects have well accommodated the flood affectees. Till date, a total of 109 housing units have been constructed and 25 of those units have been fully occupied by residents. Besides, there are also some other related projects which are underway and will be completed soon [xxiii].

In case of AMC projects, the interested applicant deposits 15% to 30% as down payment, after which the construction of housing unit initiates and the applicant is permitted to move into the unit within 60 days. However upon failure of doing so, the unit will be repossessed by the authority. For discouraging other investors to avail or invest in this project, the applicant is bound to stay in the unit himself for the first three years the applicant has to stay in the unit himself. This not only restricts subletting of the unit but also ensures the ownership security of the holding. The resident submits the installments over a period of 20 years, after which the complete ownership gets transferred in his name (Table IV). Keeping aside the responsiveness of this project, inviting community collaboration when constructing the house has been seen missing within the intent of this project. Hence, this factor can be taken as one of the reasons behind the low success rate of housing projects done by AMC, furnishing a low occupancy rate.

TABLE IV
HOUSING CATEGORIES AND PRICES BY ANSAAR
MANAGEMENT COMPANY (24)

	Three room	Two room	Three room
Covered area	400 sft	519 sft	692 sft
Price (lac)	9.52	14.65	16.35
Deposit	15%-30%	15%-30%	15%-30%
Deposit amount (lac)	1.42-2.83	2.17-4.39	2.45-4.92
Term (yrs)	20	20	20
Monthly rental (PKR)	6450-7809	9000-12017	11025-13411
Monthly income (PKR)	21,000-27000 (\$181-\$232)	30,000-35,000 (\$260-\$300)	30,000-38,000 (\$290-\$327)

Public sector housing

Public sector housing, being Government based, can be seen as the most effective provision of affordable housing. And within this, Public Private Partnership (PPP) is an established approach for providing housing to the people. PPP is an agreement between public and private sector where resources and risks are shared for purpose of delivering affordable public service & infrastructure [xxiv].

Ashiana Housing: Recently an initiative has been taken by the Punjab Government to provide livable yet affordable housing units to low income groups. Since its initiation in 2011, the Government has launched a number of related projects in Lahore for accommodating its low income community. A brief account of them is given in Table V.

TABLE V
SUMMARY OF ASHIANA PROJECT IN DIFFERENT CITIES
(26)

Project	City	Total no of units	Targetted income group
Ashiana-e-quaid	Lahore	2537	Applicants domiciled in punjab, having no land or house as owners and having their monthly income less than pkr. 20, 000 (approx. 190 usd).
Ashiana-e-iqbal	Lahore	6500-8000	Applicants less than 55 years of age having monthly income of less than pkr 50, 000 (approx. 477 usd)
Ashiana housing scheme faisalabad	Faisala bad	106	Applicants having monthly income less than pkr. 30, 000 (approx. 290 usd)
Ashiana housing scheme sahiwal	Sahiwal	125	
Down payment	25% of price of the house/apartment		
Area	500 sq. Ft. To 800 sq. Ft.		

A predefined eligibility criteria is followed for the allotment of plot. This includes selection of the applicant bearing Punjab's domicile, living in a rented housing unit, and not having owned any plot or house. Also, the monthly income of the applicant should also fall within 20,000 to 50,000 PKR, after which the selection process takes place. In all this, the payment plans differ from project to project, but the amount of down payment remains the same i.e. 25%. The remaining payment is made in installments, along with a major payment which is to be deposited at the time of possession. The location for projects within this scheme is also seen debatable, as it was not deemed feasible for people in terms of travel/commute expenses. Lack of transparent plot distribution was another problem which caused outside investors to intervene within the scheme. In light of the above cited factors, the overall performance and working of the initiative did not meet much success as had been foreseen.

PHA Apartments

In 2001, new federal housing scheme named as Pakistan Housing Authority was initiated to carry out

18 housing projects in four major cities of Pakistan at an estimated cost of Rs. 4.5 billion [xxvi]. The salient feature of this scheme was offering of possession of constructed apartments of 1200 sq ft at Rs. 10 to 12 lacs with only 30 per cent down payment and rest in 70 monthly installments without any markup. However, over the time period, the success story of these apartments have not reached its desired figure.

Recently, the Pakistan Housing Authority under the supervision of Ministry of Housing and Works, Islamabad has launched a project. Provision of constructed and furnished apartments to people belonging to different filed of life but bearing a specific quota (as fixed by the Government) is the main aim behind this project. Site selection for this project has been done in I-16 sector, Islamabad. Within this project, the apartments have been categorized on the basis of size where the size of apartments would vary from 912 square feet to 1496 square feet. How PHA finds buyers is yet to be seen.

Average cost of 912 square feet apartment is about 2,950,000 rupees and the cost of 1496 square feet apartment is 5,200,000 rupees. Allocation of housing units under this project is carried out through proper balloting system and first come basis prior to which all interested applicants apply. The selected candidates then deposit 15% of the total sum as down payment and the remaining amount gets paid in 10 equal quarterly installments over a period of 30 months. The Government claims that this project is affordable for masses and costs 2.5 times less than other such developments. This giant step taken from public sector to facilitate the delivery of affordable housing to masses. However,

Housing finance in Pakistan

In Pakistan, the conventional banks and the government housing institution usually form a major share of the house financing portfolio of Pakistan. Public banks, Private Banks and House building Finance Corporation Limited (HBFCL) are the main sources of getting funds. As per the statistics of State Bank of Pakistan in 2009-10 the private banks financed more than any other sector but in 2015-16 the share of private banks decreased and the Islamic banks stepped up and filled the gap and the share of HBFCL remained almost the same, similarly no significant change was recorded in the performance of the public sector banks [xxvii-xxviii]. As far as the DFIs are concerned their shared remained the same throughout these years and could not increase from zero percent. Foreign banks also offered house financing for its account holders it also faced a decline in the volume of loan disbursed.

House building finance corporation limited is working in the field of housing finance for a couple of decades, HBFCL disburses loans which are profit oriented, interest is charged other than the capital amount. HBFCL disburses loan for renovation of the

house or increment but these loans are very large in volume and their volume can go up to 2.5 Million rupees. The return period of loans can vary from 2 years to 10 years [xxix]. These terms make it difficult for people of low income group to get hold of these loans. In this model HBFCL asks for collateral or guarantee, which cannot be fulfilled by the people of low income group. The available data of 2010 shows a significant default rate of 41 percent, which expresses unaffordability of people towards these huge loans [xxx].

Housing micro finance

Housing micro finance can be defined as the small loans, usually unsecured, distributed among low income class for renovation of house, land acquisition, construction of house, addition to existing structure and basic infrastructure [xxxi].

In the recent past, 2003 onwards, an NGO named Akhuwat, known for interest free micro financing, has also extended its operation to the housing sector. These loans are distributed without any discrimination; the religious centers like mosque, church or temple are used as distribution center, so the sentiments related to the religion are also taken care of in the practice.

In the beginning, Akhuwat distributed loans for business startup, business extension and purposes but from couple of years the NGO has started to distribute loans to improve housing access among the low income group. These loans, actually, support the incremental addition to the housing structure and the improvements of existing housing structures, some used these loans get a piece of land, other added to the existing housing structure of their dwellings. These loans being small in volume, have shorter payback period and a zero interest rate, making manageable for the low income group. On a contrary, the conventional banks, usually, offer large loans for a longer period and the beneficiary has to pay the interest as well (Table VI) [xxxii].

TABLE VI
 AKHUWAT HOUSING LOANS (34) (35)

Akhuwat Housing Loan (2003-2010)		
1	Amount of loan offered	30000 PKR – 75000 PKR
2	Target income group	15000 PKR - 35000 PKR
3	Payback period	24 - 30 Month
4	Installment size	Installment According to Loan amount
5	Total loans disbursed till now	2995 loans
6	Portfolio Share	3%
7	Recovery ratio	99.96%

This micro finance program has helped people substantially in attaining better living conditions. This has led people to get the loans in the locality where they live and they are not required to move to any other settlements. In this case, no collateral is needed, their ownership to the land is secured and they feel comfortable in getting the loans. Supporting the incremental housing style, these loans have aided people when adding a room to their house or when improving the existing structure. This scheme has enabled hundreds of families to improve their housing and increased the affordability of people towards accessing better housing unit. The surprising return rate of 99.96%, speaks for the success of the project itself.

III. CONCLUSION & RECOMMENDATIONS

From above discussion, it is derived that following four are the components through which affordable housing can be achieved. The description of each is outlined below:

A. Location

Location is a major component of housing affordability. The job-work distance is a key factor deciding affordability. Many people pay a large portion of their income to meet the housing cost and others have to cover long distance to reach their workplace. This problem was witnessed in case of KKB (Lahore) where people have to commute long distance for their work places. This situation has made housing unaffordable for lower and middle-income groups. Efficient location can lead to affordable housing by:

- Locating housing within established city or town centers to incorporate existing infrastructures.
- Choosing housing sites near public transportation, shopping, schools and other daily needs to minimize the need for automobiles or their use.

B. Construction Material

Construction sector is usually believed as the backbone of housing. Affordable construction is seen as very important and a necessary parameter. Material efficiency can be achieved through following factors:

- Orientation and configuration of units, outdoor spaces and parking to achieve passive strategies.
- Achieving low-energy building performance through incorporating Leadership in Energy and Environmental Design (LEED) and Energy Star checklists, including: High R-value thermal insulation, high E windows, efficient heating, ventilating and air conditioning, hot water heaters and geo-thermal options [xxxv].
- Designing efficient units that reduce energy use, minimize construction waste and utilize durable and easy/inexpensive to repair equipment, fixtures, hardware and finishes.

- Using environmentally responsible materials with low embodied energy and clean manufacturing processes.
- Choosing materials and finishes that do not produce unhealthy interior environments [xxxvi].

C. Infrastructure and Services

Infrastructure and services are undeniably connected to the affordability of the housing sector and given the scenario, where cities account for almost 70% of energy resources to run their infrastructure and this ratio is expected to rise further in future [xxxvii]. In the said picture, costs of infrastructure, be it initial cost or maintenance cost, can really effect the cost of housing.

To meet the needs of future and ensure affordability in housing sector in time to come, we need to capitalize on practices which result in infrastructure which is smart and self-sustaining. Sustainable Urban Drainage System (SUDS) can be a good precedent in this perspective [xxxviii]. Likewise smart cities concepts can be incorporated to achieve infrastructures having less Capital and Running costs, smart transportation and smart water and electricity system can really help in reducing the living costs [xxxvii].

D. Financial Assistance

This aspect can be best catered by developing like models as discussed in case of Malaysia, Thailand and Indonesia. Long-term mortgage contracts with less mark up and interest rates can revitalize the concept of housing affordability in Pakistan. Currently, various types of financial assistance is provided to low income class by the federal Government, the Commonwealth of Pakistan and nonprofit or community organizations. This assistance is provided as subsidized rental housing, public housing and home ownership opportunities for low-income, first time home buyers [xvi].

Among the major options that Governments should adopt are:

- Control or modify the measures that bound the supply and boost the cost.
- Provision of security of tenure to poor is very important so informal settlements should not be eradicated rather measure should be taken to provide them legal grants.
- Norms of spacing should be changed and adjustable shared housing should be encouraged that could be changed as per requirement. For this National housing policy should reconsider the requirements of spacing.
- As the ultimate objective is to provide housing to the poor people so the housing programs should be designed in the several stages of the transition, allowing the people to develop over time from informal to regular housing.

In developing countries the Housing policies need to be flexible because the demand and affordability is different for different people [xxxix].

REFERENCES

[i] S. Malik and J. Wahid. Rapid urbanization: Problems and challenges for adequate housing in Pakistan. *Journal of Sociology*, Volume 2, Issue(2), 87-110. (2014).

[ii] World Bank. "Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS), "World Bank, Report No: PIDISDSC18646, Sep 14, 2016. [Online]. Available: <https://nigeriaagribusinessregister.com/wp-content/uploads/2017/11/1.pdf>[Accessed 2018]

[iii] B. Fingleton. "Housing Supply, Housing Demand, and Affordability," *Urban Studies*, vol. 45, no. 8, pp. 1545-1563, 2008.

[iv] O. O. Makinde. "Housing delivery system, need and demand," *Environment, Development and Sustainability*, vol. 16, no. 1, pp. 49-69, 2014.

[v] Zameen.com. 2018. [Online]. Available: <http://www.zameen.com>. [Accessed 2017]

[vi] S. Zohaib. "5 Low-Cost Housing Schemes in Lahore," 5 December, 2017. [Online]. Available: <https://www.aarz.pk/blog/investments/5-low-cost-housing-schemes-lahore/>. [Accessed 03 June 2018].

[vii] D. L. Evans and O.W. Evans. *The Complete Real Estate Encyclopedia*, 2007.

[viii] The Economic Times. "Affordable Housing," 2018. [Online]. Available: <https://economictimes.indiatimes.com/definition/affordable-housing?from=mdr>.

[ix] M. S. Suhaida, N. M. Tawil, N. Hamzah, A. I. Che-Ani and M. M. Tahir, "A conceptual overview of housing affordability in Selangor, Malaysia," *World Academy of Science, Engineering and Technology*, vol. 72, pp. 45-47, 2010.

[x] B. Bakhtyar, A. Zaharim, K. Sopian and S. Moghimi. "Housing for poor people: A review on low cost housing process in Malaysia," *WSEAS Transactions on Environment and Development*, vol. 9, no. 2, pp. 126-136, 2013.

[xi] Bank Negara Malaysia. "welcome to Skim Rumah Pertamaku," [Online]. Available: <http://www.srp.com.my/docs/html/faq.html>. [Accessed 2018].

[xii] World Bank. "Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)," World Bank, Report No: PIDISDSC18646, Sep 14, 2016. [Online]. Available: <https://nigeriaagribusinessregister.com/wp-content/uploads/2017/11/1.pdf> [Accessed 2018]

[xiii] CEIC. "Indonesia Monthly Earnings," [Online]. Available: <https://www.ceicdata.com/en/>

indicator/indonesia/monthly-earnings. [Accessed 4 June, 2018].

[xiv] Global Business Guide Indonesia. "Mass Housing Plan Spells Massive Opportunity," 2014. [Online]. Available: http://www.gbgingonesia.com/en/property/article/2014/mass_housing_plan_spells_massive_opportunity.php. [Accessed 2018].

[xv] S. G. Tarigan. "Housing, Homeownership and Labour Market Change in Greater Jakarta, Indonesia," New Castle University , New Castle, 2016. [Online]. Available: <http://hdl.handle.net/10443/3795>[Accessed 2018].

[xvi] D. A. Rondinelli. "Housing the Urban Poor in Developing Countries: The Magnitude of Housing Deficiencies and the Failure of Conventional Strategies Are World-Wide Problems," *The American Journal of Economics and Sociology*, vol. 49, no. 2, pp. 153-166, Apr., 1990.

[xvii] L. M. Ross, D. Pelletiere. "CHILE'S NEW RENTAL HOUSING SUBSIDY AND ITS RELEVANCE TO U.S. HOUSING CHOICE VOUCHER PROGRAM REFORM," *Cityscape: A Journal of Policy Development and Research*, vol. 16, no. 2, pp. 179-191, 2014.

[xviii] National Housing Authority. "DATA COLLECTION SURVEY ON HOUSING SECTOR IN THAILAND," Japan International Cooperation Agency (JICA), 2013. [Online]. Available: http://open_jicareport.jica.go.jp/627/627/627_122_1000013801.html. [Accessed 2018].

[xix] B. Kritayanavaj. "Affordable housing in Thailand," *Asia-Pacific Housing Journal* 6, no. 21, pp.32-37. (2012).

[xx] Wikipedia. "Al Azam," 2009. [Online]. Available: https://en.wikipedia.org/wiki/Al_Azam. [Accessed 2017].

[xxi] J. Gooding and T. Johnston. "Understanding the Potential of Small Scale Community-Led Housing," Locality and the Federation of Northumberland Development Trusts, 2015.[Online]. Available: <https://mycommunity.org.uk/resources/small-scale-community-led-housing-report/> [Accessed 2017].

[xxii] M. H. Siddique and S. S.-u.-H. Zaidi. "Community Oriented Low-Income Housing - 'Khuda-Ki-Basti', Kala Shah Kaku, Lahore – A Step Forward," *GMSARN International Journal* 3, pp. 117-124, 2009. [Online]. Available: <http://gmsarnjournal.com/home/wp-content/uploads/2015/08/vol3no3-3.pdf> [Accessed 2017].

[xxiii] I. Laaldin. Interviewee. *Operations of Ansaar Management Company*. [Interview]. 04 April 2017.

- [xxiv] C. Hardcastle and K. Boothroyd. "Risk overview in public private partnership," in *Public-private partnerships: managing risks and opportunities*, pp. 31-56, 2003. [Online]. Available: https://books.google.com.pk/books?hl=en&lr=&id=Y_hAmDKmJM0C&oi=fnd&pg=PA31&dq=Risk+overview+in+public+private+partnership&ots=Gt-JHylm7E&sig=j1PObkW9kd2WZbqd83HGZxqZBOY#v=onepage&q=Risk%20overview%20in%20public%20private%20partnership&f=false [Accessed 2017].
- [xxv] A. Mehmood. "THE PILLAR THAT HOLDS THE ROOF: The Issue of Land in Low-Income Housing in Pakistani Punjab: A Case of Ashiana Scheme," Gujrat, 2016.
- [xxvi] S. A. RIZVI. "PHA Housing Program," 2001. [Online]. Available: <http://www.pakistaneconomist.com/issue2001/issue6/i&e2.htm>. [Accessed 2018].
- [xxvii] INFRASTRUCTURE AND HOUSING FINANCE DEPARTMENT. "Housing Finance Quarterly Review July-September 2010," State Bank of Pakistan, 2010. [Online]. Available: <http://www.sbp.org.pk/departments/ihfd-qdr2.html>. [Accessed 2017].
- [xxviii] Infrastructure, Housing and SME Finance Department,. "Quarterly Housing Finance Review For the Quarter ended September 30, 2016" State Bank of Pakistan (SBP), 2016. [Online]. Available: <http://www.sbp.org.pk/departments/ihfd-qdr2.html>. [Accessed 2017].
- [xxix] HBFCL. "COMPANY PROFILE House Building Finance Company Limited," [Online]. Available: http://www.hbfcl.com/company_profile.html [Accessed 2018].
- [xxx] Dawn. "HBFC loan default rate reaches 41pc," 10 03 2010. [Online]. Available: <https://www.dawn.com/news/945747> [Accessed 2018].
- [xxxi] CGAP. "HOUSING MICROFINANCE," 2004. [Online]. Available: <http://www.cgap.org/publications/housing-microfinance> [Accessed 2017].
- [xxxii] Akhuwat. "Akhuwat Islamic Microfinance (AIM)," [Online]. Available: <http://www.akhuwat.org.pk/microfinance> [Accessed 2017].
- [xxxiii] Haseeb. Interviewee, *Akhuwat housing loans*. [Interview]. 2017.
- [xxxiv] Akhuwat. "A DECADE OF HOPE, Journey of Akhuwat 2001-2010," Akhuwat, 2010. [Online]. Available: <http://www.akhuwat.org.pk/wp-content/uploads/2017/10/A-Decade-of-Hope.pdf> cessed 2018].
- [xxxv] AIT Solutions. "Technology (Asian outlook on engineering and technology)," Asian Institute of Technology, thailand, 2015.
- [xxxvi] Z. SHARI. "Indigenous Green Architecture: The Future of Affordable Sustainable Building," [Online]. Available: <http://www.constructionplusasia.com/indigenous-green-architecture-future-affordable-sustainable-building/>. [Accessed 2017].
- [xxxvii] D. Wu. "Smart Cities and Infrastructure," 2016. ," [Online]. Available: http://unctad.org/meetings/en/Presentation/ecn162016p01_Wu_en.pdf [Accessed 2017].
- [xxxviii] Anglian Water Services Ltd. "Guidance on the use of sustainable drainage systems (SUDS) and an overview of the adoption policy introduced by Anglian Water," 2018. [Online]. Available: https://www.anglianwater.co.uk/_assets/media/SUDS_LEAFLET_-_AW162.pdf [Accessed 2017].
- [xxxix] G. C. Lim. "Housing Policies for the Urban Poor in Developing Countries," *Journal of the American Planning Association* , vol. 53, no. 2, pp. 176-185, 2007.