1.0 INTRODUCTION
Pakistan is a rapidly urbanizing country. The proportion of its urban population was 15 percent at the time of independence. Now about 40 percent of the population of Pakistan lives in the urban areas. The population of most of the urban areas doubles in 20 years time. Housing provision for the urban poor is still an uphill task for the Planners of the 21st Century. The main difficulties are the low level of affordability of the poor for planned and decent housing and the lack of a culture of planned development in the country. As a result the informal sector builds unauthorized, sub-standard and environmentally hazardous housing usually called as slums or squatter settlements locally know as Katchi Abadis. Various solutions were tried to resolve the issue of low income housing in Pakistan such as sites and services schemes, slum clearance and shifting of squatters to the new resettlement areas, where the ‘core-houses’ were built and provided on installment basis. All of these efforts have failed to resolve the gigantic issue of housing the urban poor who comprise three fourth of the total urban population. However, there have been some good practices also initiated in Pakistan. For example, Orangi Pilot Project (OPP) was initiated in Karachi to improve the living conditions in one of the largest Kati Abadis of Karachi. Similarly, in 1987, the Khuda-Ki-Basti (KKB) project was initiated by the Hyderabad Development Authority (HDA), Hyderabad, Pakistan. It was developed as an answer to various problems of the common public sites and services (based on land banking) schemes launched by various development authorities in Pakistan. It was noticed that the existing sites and services program had failed to house all the low income people who need a house. More over, there has been a considerable downward rading of the higher income groups upon the plots reserved for low income people in the public housing schemes. Thus, the majority of the low-income people was marginalized from the public housing schemes and was forced to live in the slums and Katchi Abadies. Later, when the private sector was allowed to develop housing schemes in the middle of 1980s, it was noticed that the private developers were not interested in the provision of housing for the poor people. They developed some beautiful, planned housing schemes for the high and upper middle income people. Thus the withdrawal of the public sector from the housing sector resulted in worsening the situation of low income housing. This paper takes a cognizance of various approaches and programs initiated by the government at different times to tackle with the issue of low income housing since the independence of Pakistan and makes some useful recommendations for housing the urban poor in Pakistan.

2.0 RAPID URBANIZATION IN PAKISTAN
Urbanization is a universal phenomenon and almost all countries have gone through this process. It is a macro level parametric phenomenon. However, the developing countries such as Pakistan are facing a trend of rapid urbanization in which about 4 percent increase in the urban proportion of population is noticed in just one decade. The current (2009) population of Pakistan is estimated to be about 170 million with a growth rate 2.61 percent per annum (Census of Pakistan, 1998). At the time of independence in 1947, the urban proportion of population in Pakistan was around 15 percent. This proportion has risen to about 40 percent in 2009 and it is expected that by 2030 more than 50 percent of the population of Pakistan will be living in urban areas. The social scientists believe that this rapidity of urbanization may be slowed down when the majority of population starts living in the urban areas. There are three factors contributing towards the rapid urbanization of Pakistan. Firstly, it is the natural growth of population caused by high birth rate which could not be curtailed despite the efforts of the Family Planning or Population Welfare Department. This factor contributes 70 percent of the total magnitude of urbanization. Secondly, the shifting of people from rural areas to the urban areas due to unemployment and lack of public facilities and utility services in the rural areas,

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which causes 22 percent of the total magnitude of urbanization. The third factor is the reclassification of rural areas into urban areas due to increase in the population of villages beyond the 5000 figure and the expansion of large cities engulfing the surrounding villages into urban areas. This factor is responsible for 8 percent of the total urbanization in the country. In Pakistan the number of urban areas (towns and cities) has increased from 337 in 1961 to 538 in 1998 [1]. Similarly, in Punjab province there were 139 urban areas in 1961 which increased to 245 in 1998 (Fig. 1). This is mainly due to uncontrolled natural growth of population of large villages which have become urban areas with the passage of time.

**Fig. 1. Numeric Growth of Towns & Cities in Punjab and Pakistan**

A recent study of urbanization in Punjab, Pakistan [2] shows a special trend of shifting of population to large urban areas or metropolises, bypassing the small and intermediate towns which are growing at a slower pace than the larger cities. This may be due to concentration of industry and business in the major urban centers which provide an attraction of job opportunities to the rural migrants. On the other hand, the development of housing and infrastructure in the form of water supply, sewerage, roads and public facilities such as education and health have not been commensurate to the pace of growth of population of these large cities. This is due to lack of resources and lack of proper planning for sustainable development of our cities. Thus the quality of life has suffered in these metropolitan cities [3]. UN Habitat (1999) states:

"The continued rapid growth of urban populations in developing countries — with the least financial resources to deal with the problem of urbanization — will be one of the major challenges to humankind in the 21st century. Cities in developing countries are already faced by enormous backlogs in shelter, infrastructure and services and confronted with the increasingly overcrowded transportation systems, unsustainable consumption patterns, deteriorating sanitation and environmental pollution.

National and local governments in developing countries have only a very limited capacity to cope with this transformation. This contributes to rapid increases in urban poverty, manifested with poor housing conditions, insecure land tenure, urban crime and homelessness. Moreover, poorly managed cities have negative impacts on environmental conditions." [4]

One of the greatest issues created by rapid urbanization in Pakistan is the housing deficit in urban areas, particularly for low income people. According to the National Housing Policy of 2001, a backlog of 4.3 million houses existed in the country. This backlog might have crossed the 5 million figure by now. Obviously, most part of this housing backlog relates to the low income housing. Annual additional housing requirement is 570,000 units while the annual production is 300,000 units which means a recurring backlog of 270,000 units. This situation gives rise to the growth of slums and squatter settlements in the urban areas of Pakistan.
The low income housing situation in Pakistan has worsened with the rapid increase in its urban population. Today, the exorbitant land values and a tremendous rise in the cost of building materials have made it almost impossible for a low income person to procure a decent shelter in a planned housing scheme.

3.0 THE MAIN ISSUES OF LOW INCOME HOUSING
The following are the main issues of Low Income Housing in Pakistan [5]:

1. There is a big gap between the cost of decent, authorized and planned housing and the affordability of the low income people.

2. The self-help potential (clearly demonstrated in the construction of squatter housing) of low income people has not been utilized.

3. Poor people are unable to obtain proper housing because of their low incomes. But poverty eradication through income generation programs was never made a part of the low income housing programs.

4. In the past, the government did not take any concrete steps of enabling, controlling and facilitating low income housing. As a result the gap between demand and supply of low income housing could not be closed. Similarly, no research was sanctioned for finding out solutions for resolving the issue of low income housing.

4.0 A SHORT REVIEW OF LOW INCOME HOUSING PROGRAMS IN PAKISTAN
Since the independence of Pakistan, a number of programs had been initiated to resolve the issue of low income housing. These efforts can be categorized into two distinct types – the programs aiming at increasing the low income housing stock by construction of new houses and the programs aiming at improvement of the quality of existing low income housing stock [6].

4.1 Issues of Programs Aiming At Construction Of New Housing:

1. The Public Housing Programs such as Sodiwal Quarters, Riwaz Garden Flats of Lahore etc. failed due to their insufficiency in number (as against the huge demand) and lack of understanding of the requirements of the poor people.

2. The Core housing program of Lahore Township and Green Town schemes failed due to their poor construction and inadequate design. Later they were occupied by middle income people and re-constructed with change in design.

3. The Sites and Services schemes which are currently in vogue, have not served the poor people. The small plots (5 Marla or less) reserved in public schemes have been occupied by higher income groups and are now out of reach of the poor people. The private schemes do not cater for the low income people since the developers are interested in profit making.

4. The mosaic of small private schemes results in the lack of higher order physical and social infrastructure e.g. Trunk Sewers, High Schools & Colleges and Hospitals for large populations.

5. Self help housing potential of low-income people is not being exploited in the construction of new housing. Thus the S&S Schemes become unaffordable for poor people and they remain dissatisfied even with highly subsidized housing and do not participate in the maintenance of the schemes.

6. No effort is made to introduce income generation programs with new housing schemes to eradicate poverty.
4.2 Issues of Slums / Katchi Abadies Improvement Program

1. A Paternalistic approach of improvement package has been adopted in the Katchi Abadi Regularization program i.e. every facility and infrastructure is ‘provided’ by the Government.

2. The Katchi Abadi program is heavily subsidized. Thus it is not replicable.

3. Gentrification in improved Katchi Abadies has been noticed i.e. after improvement of Katchi Abadi, higher income people try to buy houses from the low income Katchi Abadi dwellers to construct their own houses.

4. The process of regularization of Katchi Abadis has been slow. This has resulted in a great dissatisfaction among the Katchi Abadi dwellers.

5. No loan facility for house improvement was provided by government or HBFC. Thus some very poor persons could not improve the condition of their houses.

6. Absence of proper sewerage system & Solid Waste Management system in most of the Katchi Abadis.

7. No public participation and community improvement program; so people do not participate in the maintenance of improved Katchi Abadies.

8. No income generation and poverty alleviation program is initiated by the government in Katchi Abadis.

9. No building & development control is initiated in the improved Katchi Abadis so as to incorporate slums / Katchi Abadies in the planned development.

10. There is no program of maintenance of services provided, resulting in the deterioration of services.

5.0 BEST PRACTICES IN PAKISTAN

Despite the failure of the traditional low income housing programs in Pakistan, we can find some best practices also. For example, Khuda Ki Basti project in Hyderabad, and Orangi Pilot Project in Karachi have been very successful programs of low income housing which have been applauded by the international community.

5.1 Khuda-Ki-Basti (KKB) Project, Hyderabad, Pakistan

The Khuda-Ki-Basti (KKB) project was initiated by the Hyderabad Development Authority (HDA), Hyderabad, Pakistan by a Planner Azharuddin Khan and Mr. Tasneem Siddiqui, the then Director General of HAD. This was a low-income sites and services scheme introduced in the low-income blocks of Gulshan-e-Shahbaz, Hyderabad. It was developed as an answer to various problems of the common public sites and services (based on land banking) schemes launched by various development authorities in Pakistan. It was noticed that the existing sites and services program had failed to house all the low-income people who need a house. Thus the majority of the low-income people were marginalized from the public housing schemes and were forced to live in the slums and Katchi Abadies. The KKB project provided a departure from the existing system of provision of housing to the urban poor. Firstly, it changed the sequence of development of housing from the provision of completed houses in a planned and serviced housing scheme to that of provision of a planned (surveyed) plots to the selected urban poor and then development of all the utility services, roads and super structure of the houses by the allottees on self-help basis. Secondly, it introduced the idea of incremental development of infrastructure services and the construction of houses as and when the allottees can afford them on self-help basis. Community organization was at the back of this approach. The KKB approach proved to be successful in the provision of planned and decent housing for the urban poor at affordable cost. The approach has been replicated at 8 different places up till now, including the one at Kala Shah Kaku (KSK) near Lahore.
The following were the main considerations in the Khuda-Ki-Basti project:

- The KKB used the Incremental Development Approach to combat low housing affordability level of the low-income people.
- The KKB adopted the new innovative allotment criteria for allotment of plots to all the needy low-income people without balloting.
- The project utilized the low-income people’s self-help potential in carrying out development works and construction of houses.
- The KKB was an aided self-help program for the development of new and planned low-income housing stock by involving technical staff of the HDA.
- The KKB helped in bridging the time lag between development of a sites and services scheme and construction of houses in the scheme which has become one of the greatest issues of the traditional sites and services schemes.
- The KKB achieved community organization and empowerment of the poor people through a self-help housing project.

5.2 Orangi Pilot Project (OPP) Karachi

The Orangi Pilot Project (OPP) Karachi was introduced by Dr. Akhtar Hameed Khan, initially as a lane sewerage program in Orangi, one of the largest Katchi Abadis of Karachi. Later it became one of the largest NGOs of Pakistan working for the improvement of living conditions of the urban poor. The OPP provides one of the best examples of improving slums and Katchi Abadis on self-help basis. Orangi, a squatter settlement, was suffering from unhygienic conditions due to open, dirty katcha drains in the area. These drains running in the centre of the narrow streets of Orangi were source of spread of infectious diseases and gave a very bad look to the areas.

The following were the main features of the Orangi Pilot Project:

- Dr. Akhtar Hameed Khan, the founder of OPP, worked hard with devotion and sincerely for improvement of Katchi Abadis and eradication of poverty.
- It was basically a lane sewer program for a part of the squatter settlement, called Orangi.
- The project emphasized community organization and empowerment of poor people through a sanitation program.
- The OPP aimed at sensitization of the issue and creation of public awareness.
- Expansion of OPP, an NGO into other welfare programs such as micro credit scheme, women’s training and Research Training Institute (RTI) for other NGOs.
- Use of volunteers from Daood Engineering College for surveys, and community organization.
- Sincere work attracted foreign donor organizations to get involved and to support OPP.

6.0 RECOMMENDATIONS FOR LOW INCOME HOUSING

The following recommendations are made in the light of the review of the traditional low income housing programs and the best practices available in Pakistan:

1. Preparation of Master Plans:
The Government of Pakistan, through proper Town Planning legislation, should ensure the preparation and implementation of Master Plans for all the cities and urban areas of the country. The local planning authorities should develop a number of local district plans continuously for larger areas as part of the Master Planning process. These local plans should be developed by government and should contain large shopping centers, major roads, trunk infrastructure and sites for higher level public facilities such as hospitals and colleges. The Low Income Housing programs should be launched in every city as a part of the Master Plan which should provide policy guidelines regarding the housing demand, space standards and the location of housing schemes to be developed. Moreover, a Housing Research Centre may be established at the University of Engineering & Technology, Lahore for low income housing research.
2. Cross Subsidy Schemes:
The existing private and public sites and services programs should be modified in the light of the suggestions made in this paper to accommodate low income people adequately. It is recommended that all public housing schemes should reserve 75 percent plots of 3, 4 and 5 Marlas (average size of 4 Marlas) for low income people, 20 percent plots having an average size of 10 Marlas for middle income people, and 5 percent plots of 1 Kanal each for the high income people. This type of housing scheme will have an equal distribution of land under developed plots between low income group and the middle plus high income groups. The middle and high income allottees of the plots should be charged 50 percent higher price than the average cost of developed plots while the low income people will pay 50 percent less than the average cost of developed land. Thus, in such a housing scheme, if average cost of developed plots is 1 million rupees per Kanal, the middle and high income plots should be sold at 1.5 million rupees per Kanal, while the low income plots should be sold at 0.5 million rupees per Kanal i.e. a very affordable price of Rs.100,000 for an average plot size of 4 marlas in the low income blocks of the scheme.

The allotment criteria in all the above schemes should be such that only those low income people get the provisional allotment of plots or houses who are homeless and who want to live there immediately. Moreover, the standard of streets in middle and high income blocks should be 40 to 60 feet wide black top roads while in low income blocks of housing the width of streets should be 30 feet with brick pavement to discourage occupation of low income housing by higher income groups.

3. Improved Slum and Katchi Abadi Improvement Program:
The existing on-site slum and Katchi Abadi Regularization and Improvement Program of Punjab should be modified in the light of the experience gained by Sindh Kachi Abadi Authority (SKAA) and the Orangi Pilot Project. It means that the Katchi Abadi residents should be involved in the improvement works by contributing labour and money for the improvement works and re-planning of the Katchi Abadis in order to integrate these areas into planned future development of our cities. Moreover, a directorate of slum improvement should also be established to improve the areas which are not declared as Katchi Abadis.

4. Government Employees Housing:
The Government employees should be provided housing at the time of retirement as per existing program of armed forces of Pakistan. All Master Plans should incorporate this housing program. Residential quarters should be built for low income employees within the premises of the government organization where ever possible.

5. Labour Colonies Near Industrial Areas:
The large industries should develop labour colonies near the industrial estates. The government should enact laws requiring large industries (employing 200 or more workers) to build housing for at least 50 percent of their employees near their industries (with sufficient safeguard from environmental hazards). Similarly, small residential quarters should be built for low income government employees in the Government colonies such as GOR and Mayo Gardens etc.

6. Owner Occupied and Rental Accommodation for the Urban Poor by the Provincial and Local Governments:
The provincial governments should identify vacant state lands in and around the cities and build multistory flats such as Pakistan Housing Authority (PHA) flats. Fifty percent of these flats may be allotted to low income people on installment basis, while the rest of fifty percent flats may be provided to low income people on rental basis at subsidized rents. This type of housing (preferably multistory flats) may also be developed by the local councils (TMAs) on the pattern of the Council Housing in the developed countries. This program will help to improve the assets and income of the Local Governments. The owner occupied flats should be provided on 50 years lease basis to the really low income people on a subsidized rate. These flats should be non-transferable and in case somebody wants to leave, he should sell it back to the Government at reserve price. The rental flats should be allotted on need basis and their merit should be carefully determined using a performa with a number system determining the urgency of requirement by the applicants.
7. Incremental Development Housing Schemes for the Urban Homeless People:
The homeless people living in urban areas should be accommodated in the Khuda-Ki-Basti type of incremental development housing schemes. These schemes provide surveyed plots in a planned housing scheme. The houses as well as physical and social infrastructure is developed incrementally by the allottees on self help basis. The incremental housing development program should be targeted to the poor people living in rental houses in the slums. Such schemes can be initiated by the local development authorities or TMAs as well as by the local NGOs such as Saiban.

8. Land Pooling and Readjustment Schemes through Private-Public Partnership:
In the urban areas where small land holdings exist, land pooling and readjustment schemes should be developed through private-public partnership. The local development authorities or TMAs should initiate a land pooling program by negotiating with the the private land owners. The public authority should accumulate the small pieces of land and plan and develop it on a unified basis. After the development of the housing scheme, the private land owners can obtain the developed plots according to their share of land in the scheme. However, development charges should be paid in full by the participant land owners or a portion of their developed plots can be retained by the public development authority for accommodating the low income people. The land owners may also contribute in advance towards the cost of development of housing scheme. Through this program the public authority can ensure planned development of all land holdings and retain public land in the form of roads, public buildings area, parks and open spaces at no cost to the public exchequer.

9. Short Term Loans for Purchase of Plots:
Short term (3 to 5 years) soft loans may be arranged by Government (House Building Finance Corporation) for low income people to procure plots in the new private and public sites and services housing schemes. Later the Government may facilitate the construction of houses on these plots through an aided self-help program such as Building Together Project of Bangkok, Thailand and the Khuda-Ki-Basti Project of Hyderabad, Pakistan.

10. Poverty Alleviation and Income Generation Program:
Poverty Alleviation and Income Generation programs such as provision of job opportunities in the form of shop-houses, open markets and micro credit schemes should be introduced in all the above schemes. In case of multistory flats, ground floor of four storey apartments should be developed as shopping centre in which shops should be allotted to low income residents.

REFERENCES
3. ibid.
6. ibid.