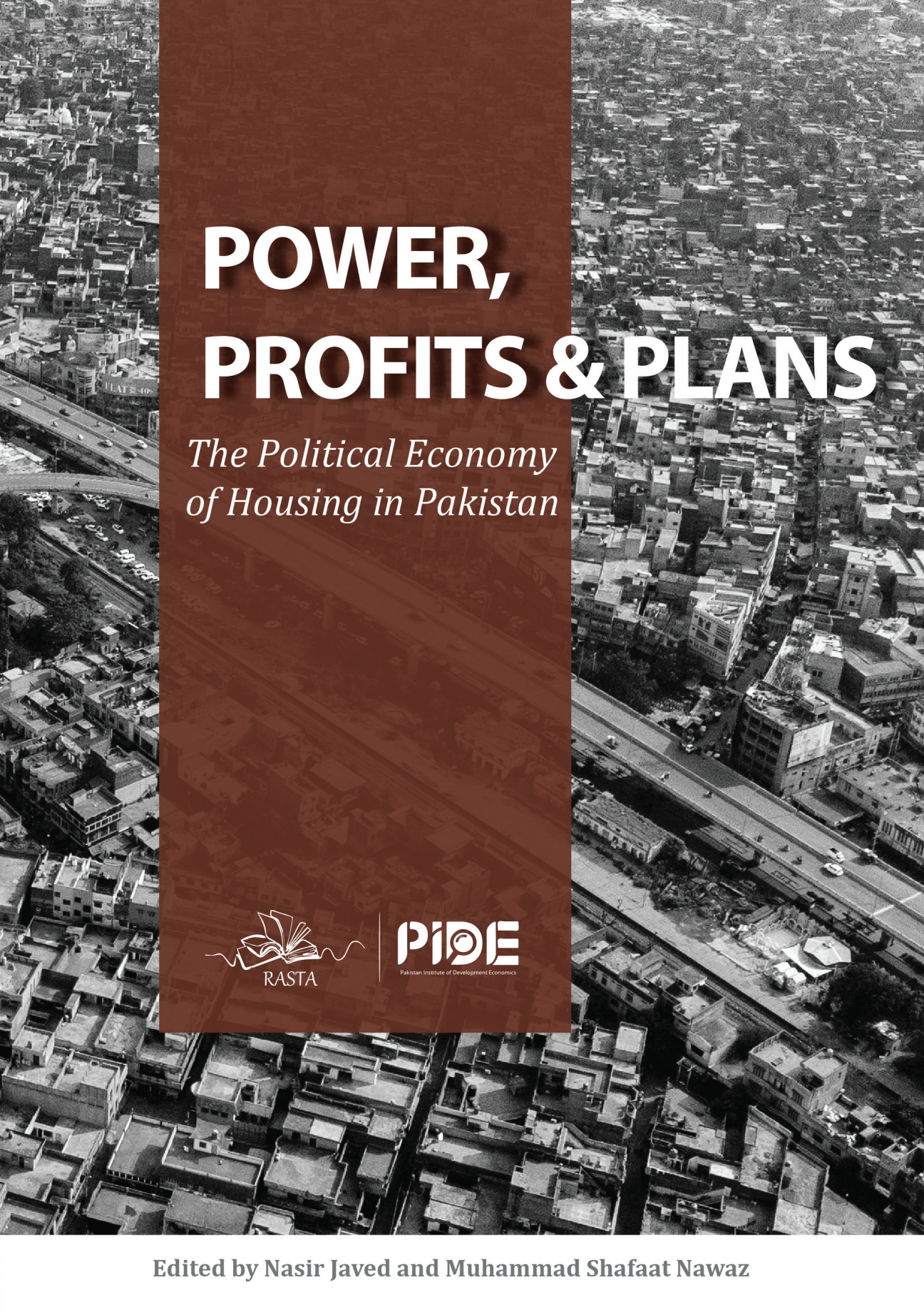

POWER, PROFITS & PLANS

The Political Economy of Housing in Pakistan

RASTA

PIDE
Pakistan Institute of Development Economics

Edited by Nasir Javed and Muhammad Shafaat Nawaz

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Pakistan Institute of Development Economics, Islamabad

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July 2023

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

FOREWORD

In the vast landscape of Pakistan's political and economic challenges, the housing sector stands as a complex and multifaceted domain. It is a sector that intertwines the aspirations and necessities of millions of Pakistanis, while also reflecting the intricate dynamics of the country's political and economic systems. In this book, an exploration of the political economy of the housing sector in Pakistan, shedding light on its underlying intricacies and offering a nuanced understanding of its various dimensions is being undertaken.

Written and edited collaboratively by seven distinguished authors, this book aims at exploring the housing sector in Pakistan, from a number of perspectives including land use, tenancy rights, financing, affordable housing to the political economy. The focus is not just a theoretical discourse, but looks at the institutional, governance and even political perspective. The title, “Power, Profit and Plans”, aptly describes the three key drivers that shape the city scape, especially in large cities. Within these two hundred odd pages, the authors have tried to navigate the historical, social, and economic foundations of the housing sector in Pakistan. The process has been initiated by tracing its evolution from the early years of the country's independence that started with the challenge of accommodating the immigrants from one of the largest human migration in known history and culminating at the latest public sector projects of Naya Pakistan Housing Scheme.

A key factor that has been identified and substantiated with good evidence, is the across-the-board institutional failure, appropriately labelled as the “institutional spaghetti”, a term that is perhaps the best definition of the current scenario.

Drawing on the collective expertise in fields ranging from urban planning and economics to sociology and public policy, the authors present a comprehensive analysis of key issues within the housing sector. The challenges of urbanization and informal settlements to the issues of affordability, accessibility, and sustainability, are reviewed through thecomplex interplay between market forces, government interventions, and societal demands.

An understanding of the political economy of the housing sector is essential for policymakers, academics, practitioners, and concerned citizens. By shedding light on the underlying dynamics, this book aims to contribute to informed decision-making, foster constructive dialogue, and inspire evidence-based reforms.

Recommendations from the authors are grounded in empirical evidence, global best practices, and an understanding of the local context, ensuring their practical relevance and potential for positive change. It is hoped that this book serves as a catalyst for critical conversations, policy reforms, and transformative actions in the realm of housing in Pakistan. By engaging with the political economy of this sector, it will significantly contribute to a more equitable, inclusive, and sustainable future for all Pakistanis.

Last but not the least, I would like to congratulate the Pakistan Institute of Development Economics (PIDE), led by its dynamic Vice Chancellor, Dr. Nadeem ul Haque, for initiating a process which highlights the plight of the urban sector through projects like these, where good research material is limited.

Parvez Latif Qureshi
June 2023

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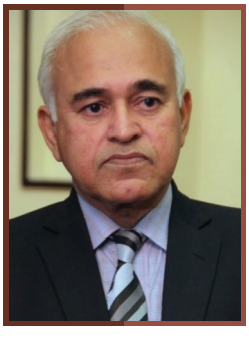

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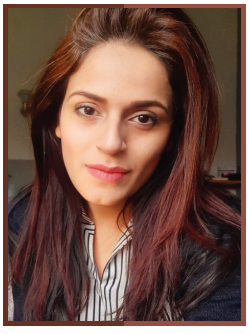

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INTRODUCTION TO HOUSING IN PAKISTAN

Nasir Javed

1.1 INTRODUCTION

The Housing sector in Pakistan is a private sector market. The housing market comprises of different stakeholders like the citizens who are buying, selling, or renting the houses, the real estate investors who buy and sell properties solely for investment purposes, the contractors, the renovators, and the real estate brokers who act as facilitators in the process of buying or selling a property, and housing sector developers who provide the supply of housing. Not forgetting the role of the state, which is supposed to 'regulate' this market, through a set of policies, laws, rules, regulations, taxes, incentives, and facilitations etc. It is this regulatory role that is meant to shape the private housing market. In addition to this role, various governments also functioned as developers as they provided housing under various programs and institutional arrangements, either on commercial terms (mostly done by city development authorities) or subsidized housing for poor. Unfortunately, most of such government initiatives have had negligible impact on the overall market.

1.2 THE STORY OF OUR CITIES

1.2.1 Urbanization and Housing

Housing is at the core of urbanization and urban design. Therefore, a study of housing is a study of urbanization. With a focus on housing, this book delves into the development of our cities, examining how they have evolved into the urban areas we know today.

Urbanization in Pakistan has been fast and unique compared with the phenomenon in the

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West. Urbanization in the Western countries was primarily driven by industrialization and the resulting rural-urban migration but is now stable (and in some cases even negative). On the other hand, in Pakistan, it has been significantly influenced by a couple of internal and external migration waves, on top of the usual influences of industrialization and resultant economic migration. Scholars have documented that Pakistani urbanization is composed of the rapid population growth rate super imposed on the gradual push and pull forces of economic rural-urban migration (Hasan, 2014).

The story of migrations in Pakistani geography can be traced back to more than a century. One of the earliest waves of rural-urban migration was from the eastern parts of Punjab during the late 19th century, spurred by the vast irrigation network and the impetus it gave to agriculture. This migration led to the development and growth of many market (*mandi*) towns and urban centers, and Lahore benefitted the most, being the primate city. The next significant wave was the independence of Pakistan and associated migration across the newly formed border which brought another surge in the urban population. This migration is the largest migration of known human history, with more than a million people relocating across the border. Those who came from India settled mostly in the cities, with Karachi, Lahore, and Hyderabad bearing most of the migrants (Hasan, 2014). Haphazard growth was one of the results of this turbulent situation which persisted in the subsequent years and continued for a decade.

Another wave of international migration of 'Afghan refugees' was witnessed during the Afghan wars from 1979 onwards. The 'war on terror' from 2001 onwards brought yet another wave of refugees. The years following these events also caused internal migration from northern districts and tribal areas of the KP and Balochistan, that were facing serious law and order crises.

Yet, another major factor has been the massive floods of 1953, 1973, 2010, 2014 and 2022 which caused rural to urban migration in higher than usual numbers, in search of secure habitat. However, once the migrants came and settled temporarily in cities, the majority never went back.

Unfortunately, our city managers have not been able to keep pace with this unusually rapid growth in population and urbanization. High demands for affordable housing,

decent infrastructure, and quality municipal services have not been met. It resulted in reducing quality of life for most of the residents, especially the lower- and middle-income groups. These spikes on top of normal economic migration and natural growth have led to an influx of urban population that the authorities simply could not cope with. It led to an imbalance between the housing challenge and the institutional response.

This was not always the case. In the 1960s and 70s, our large cities, especially Karachi and Lahore were decently well-managed cities (Saeed, 1989). What went wrong with our marvelous city of gardens (Lahore) and the city of lights (Karachi), and even the only planned city of our new capital (Islamabad)?

The key elements of the political economy of housing market in the country can be studied under the three interrelated aspects:

- What drives the housing market? – The Reality of Housing Market
- The Political forces and their interplay – The Political Chessboard
- The institutional scenario – The Institutional Spaghetti

Let us see each of these factors and their relative influence:

1.3 THE REALITY OF HOUSING MARKET

Housing is not a linear equation that can be analyzed and solved by analyzing the pure market forces. There is much more than simple production of a house as a product to be marketed among the sellers and the buyers. The external forces are many, often intertwined and many a times invisible, that influence the market. For example, political power makes the overarching structure within which the institutions become ineffective to facilitate the market for housing provision. Such factors shape the geography, economy, and quality of life for the millions of Pakistanis that currently reside and hopefully millions more who will potentially reside in our fast-urbanizing country. The subject in this book is urban housing with a focus on the political economy that has shaped it in our cities.

In a pure market situation, the supply meets the demand at equilibrium price. But in Pakistani reality, the price for the land in our cities has been set so high that it has become

out-of-reach for even the middle class and impossible for the poor. The government, instead of playing its role to correct this anomaly towards equity, has been a contributor to this injustice. Some of the key features of our housing market need elaboration, for a detailed insight.

Despite the fact, that many of our cities have been having master plans, prepared by international and national consultants, we have established development authorities and host of other institutions, laws, rules, regulations, programs and projects, the result has been less than optimum. So has our physical and institutional planning failed us? In theory, planning is concerned with the deliberate effort to influence people's behavior in a certain direction to attain certain goals and the same holds true for urban planning (Groote, 1989). Yet, on a miserable note, what practically happens is well described by Peter Marcuse, that:

> *"City forms and city plans are not the intended results of planners seeking to create a city of maximum quality for its users, but rather are the by-products of forces whose intended goals historically have been power or profit" (Marcuse, 1987).*

Unfortunately, in our urban areas, the predominant factors have been power and profits, relegating the plans and planning to the status of an 'also ran.'

1.3.1 The factor of Power in city planning

Power refers to all kinds of power which is used to influence the 'housing market' to tilt it towards the elite and rich sections of society, mostly to the disadvantage of others. This could be political, bureaucratic, monetary power or a combination of these. The Cantonments and Defense Housing Authorities in all main cities occupy major chunks of prime land and are meant for the elite, with exceptionally low densities and car-based colonies, both antithesis of sustainable urbanization. An example could be that of DHA Multan, which is spread over 38.4 sq km of land. This area is bigger than the footprint of many intermediate cities of Punjab, where Sheikhupura is 28sq km and Rahim Yar khan is 38 sq km. Although the post 18th amendment, housing is a provincial subject, the cantonments and DHA are both working under the federal laws and are immune from the city's master plans, while still relying upon the city's trunk infrastructure.

1.3.2 Profit, Profit and Profit

Another equally powerful and predominant factor engulfing the urban landscape is the profit motive. The private sector is of course meant to work for profit. However, in a sector like housing, which a is a universal need, the profit motive leads to a skewed market, working for the rich to the exclusion of have nots, leading to a disproportionate diversion of limited resources (land, financing, and materials), elbowing out the weaker (less profitable) sections. Such profit maximization for the few on the cost of the misery of the majority other is the story of our cities.

Another factor that the profits bring into the housing sector is the preference over green field projects, rather than the more sustainable but difficult and less profitable option of infill development or urban renewal. This results in urban sprawl. Further chapters provide evidence of this phenomenon in large Pakistani cities. With the growing power of profits earned from conversion of agricultural land into urban plots, the factors of power and profit seem to have been working in a symbiotic relationship. Gradually, even the power and profit tend to influence the plans at the city level.

1.3.3 The Financialization of Housing Market

Housing and real estate markets worldwide have been transformed by global capital markets and finance. Known as the financialization of housing, the phenomenon occurs when housing is treated as a commodity—a vehicle for wealth and investment—rather than solidarity economy's 'social good.'

Housing is increasingly seen as a vehicle for wealth accumulation rather than a social good. 'Financialization' of housing refers to the expanding and dominant role of financial markets and corporations in the field of housing, leading to unaffordable and insufficient housing and discrimination (Leijten and de Bel, 2020). This has been the case in Pakistan, especially with this business of files, advance booking and unregulated transactions, little taxation on gains from land value etc. Lack of credible investment options in the economy has also forced people to invest in real estate, as insurance and safety against future needs.

1.3.4 Who Pays for Development and Who Enjoys the Profit (Land Value Capture)

In addition to regulation, another role of the government in the housing market is the provision of infrastructure. In cities with private housing developing at the peripheries, the public sector money is used to develop infrastructure, including highways, ring roads, connecting roads and sewer etc. to service these localities. This public sector financing leads to rapid and significant escalation of land value, which is sold at exorbitant profit margins to the citizens who choose to live there. At times, this is loan money from international banks and is paid back through general taxation, while only a few ones benefit from it. The original landowners, usually farmers, are paid a pittance for their agricultural lands. Thus, the real profit from the land value enhancement is pocketed by the middlemen / developers. In most of the cities around the world, this enhanced value is used to subsidize the development of infrastructure.

Usually adopted with the idea of public good, it is a policy approach that enables communities to recover and reinvest land value increases that result from public investment and government actions. Land value capture is rooted in the notion that public action should generate public benefit. This could be a robust source of income for the TMAs and development authorities, in the shape of enhanced property taxation or betterment levy. When used in conjunction with good governance and urban planning principles, land value capture can be an integral tool to help governments advance positive fiscal, social, and environmental outcomes. Unfortunately, this is not the case here.

1.3.5 The Myth of Master Plans and Planning

In current urban planning parlance of the country, 'master plans' are considered the core of the profession. However, urban planning should be more than that. Planning includes a comprehensive framework of governance ranging from urban and housing policy, laws and rules relating to financing, zoning, building regulations, land use plans, land use records, property, taxation, transactions, dispute resolution and adjudication, etc.

During earlier decades of the country's policies, The Federal Planning Commission of Pakistan was mandated to prepare and oversee implementation of five-year economic plans, now called Medium Term Development Frameworks (MDTF) at a federal level,

while the line ministries, provincial and local governments executed the policies & plans. Pakistan has had a National Human Settlement Policy (1984), National Conservation Strategy (1988), National Housing Policy (1986), and another National Housing Policy (2001). What component of these policies had any real impact on the development is a big question mark. Even though Pakistan has had a surplus of national and provincial policies, implementation through the mechanism of legal frameworks and institutional capacity building has been the weakest link.

The cities in Pakistan have a history of developing 'City Master Plans' since early 1960s. The first master plan in Lahore was notified for Government House Area in 1970. It was also called Lahore Municipality (Government House Area) Master Plan. The second Master Plan, a true reflection of Lahore was notified in 1972; it was called Master Plan for Greater Lahore. The third Master Plan is called 'Integrated Master Plan for Lahore-2021' and was adopted through a resolution passed in the Lahore District Assembly in 2004. The draft for the latest one (2050) has just been prepared, on which many stakeholders already have innumerable concerns and for good reasons.

The real impact of these plans has been far from the intended results, in all cities. The Lahore Master plan (2001-21), calculating the population needs, had a map showing large areas as 'residential', with no phasing. These large open areas in the southwest proved a blessing for the private sector, which went for the least expensive land, usually far away from the city center, making leapfrog development. A master plan that opens large areas of land, without any phasing takes its toll. When a few planned schemes are developed in the south for example, land in-between is occupied by the lower strata or by the commercial sector. The leftover areas have poor utilities, missing trunk infrastructure or are in poor locations away from jobs or susceptible to floods. This is the main cause of leapfrog development in Lahore resulting in infill development that is messy (World Bank, 2016).

1.3.6 Cooperative Housing Societies

Housing Cooperatives were developed as an institutional arrangement, to offer better and more affordable housing options, especially for individuals with low to moderate incomes. This was in a way a means to reduce the profit of the middlemen and builders. The normal housing market is usually out of reach for the low and lower middle-income groups.

In other words, these cooperatives also provide their members with significant cost savings by collectively addressing housing needs.

The potential of Housing Cooperatives is considerable, as they can help meet the housing demands of a growing population and contribute to economic activity within the country. They operate based on principles such as self-help, self-finance, mutual aid, and self-governance.

In Pakistan, the regulatory framework pertaining to cooperative housing can be understood as follows: a "housing society" refers to a society formed with the purpose of providing its members with residential properties and related housing amenities. The specific conditions governing these housing provisions are determined by society's by-laws. These regulations play a crucial role in governing the functioning and activities of cooperative housing initiatives across the country.

Table 1.1: Distribution of Plots Type in Lahore

Category	Plots	Percentage
Cooperative Housing Societies	1,06,809	29.5
Lahore Development Authority (LDA)	1,03,000	28.5
Housing and Urban Development Department	4,705	1.3
Private Housing Schemes	1,38,503	38.3
Lahore Improvement Trust (LIT)	8,425	2.4
Total	**3,61,442**	**100**

Source: Cooperatives Department, Government of the Punjab

The institution of Cooperative Housing Societies has its roots in legislation that predates the partition. These societies have a significant role to play in addressing the critical issue of providing affordable housing solutions to millions of people. Housing cooperatives operate as self-regulated entities, with their governance falling under the purview of their members. They are formed through collaboration and with the consent of their members.

A cooperative housing society is a legally established organization that is collectively

owned by its members or residents, serving the common housing needs of its constituents. These societies undertake activities such as acquiring land, developing it, and either providing plots or constructing flats, which are then allocated to their members. As an entity, the cooperative housing society takes ownership and management responsibility for one or more residential structures, ensuring that its members have access to suitable housing solutions that meet their needs.

In principle and in theory, the concept of cooperative housing societies is not bad, rather seems to be quite efficient in the provision of housing, especially for the low- and middle-income sections of our society. However, the problem arises when this framework is (mis) used by either the members or hijacked for purely commercial interest. The members, rather than using this framework for their houses to live in, purchase the land (often acquired under state patronage) and then semi-develop it and then start re-selling the plots (at times only files), and practically equating it with a private housing scheme, with hardly any benefit for the end consumers. Lately, this tool has been used by all public sector entities, offices, departments, companies, even the judiciary etc. and in every large city, such societies number in hundreds thus miserably adding to the urban sprawl.

At times, these cooperative societies misuse the names of public sector institutions to lend an air of credibility around a purely private venture. Just in the authority of Islamabad Capital Territory, there are numerous such examples, and in 2020, the Islamabad High Court had to pass orders to the CDA, to force these societies to change the names.

1.3.7 The Ever-Growing Spatial Footprint of Cities

The power and profit motives, many a times supported by the city master plans, have led to a city growth pattern that was more profitable than equitable or sustainable. The result is sprawl with all its negativities. The spatial footprint of the large cities has been expanding faster, and in an inequitable manner. The inequity in access to affordable housing and municipal services is stark. A spatial analysis of Lahore has shown that almost 56% of the land is occupied by the richest quintile, while the poorest 20% is crammed in less than 6% of the city area. The result is that most of our cities are becoming an example of the proverbial ‘a tale of two cities,’ where the well planned posh private housing is spreading fast for the rich, while the have-nots are also increasing in numbers,

as well as proportion, in cramped slums and poor-quality housing. This bipolar, inequitable development is neither sustainable nor desirable, but a reality!

1.4 THE POLITICAL CHESS BOARD

Politics is all about power equation between the various sections of society, formal and informal. A city, the spatial scale where such politics operates, is bound to have multiple stakeholders. In Pakistani cities, some of the powerful sections have been getting away with a larger share of the pie, and in most cases, the state has not been successful in maintaining an equitable distribution. Some of the key features of the political powerplays in the housing market are:

1.4.1 An Elite Capture

Urban housing depends on land use and transport connectivity. Distribution of land amongst the wealthy and 'not so wealthy' is a case in point, with the rich quintile enjoying at least ten times more land per capita. Another aspect is the transport sector, which is designed for the car owners at the cost of unintegrated public transport and pedestrian facilities (Aziz et al., 2018). For example, more than 15 underpasses are exclusively built in Lahore for the cars alongside a series of 'signal free corridors' that made some of the busy commercial urban roads impossible to be crossed by a pedestrian, especially a physically challenged one.

1.4.2 Province versus the City

At the institutional level, the provincial political bosses have found it quite hard to loosen their control over city resources and management. This is especially true for the provincial capitals. This higher-level political control, despite a devolved local government system on paper, has an upside as well as a downside. But the provincial control and spending at capital cities is usually at the cost of other smaller cities and peripheral settlements.

In the federal system of governance, especially after the 18th constitutional amendment in 2010, a major share of financial resources reaches the provinces. The province spends a disproportionately higher share of development budget on building infrastructure and

subsidizing the urban services in provincial capitals, at the cost of rest of the province. There is a general perception, backed by some authentic data, that per capita development spending in Lahore has been many times more than some of the backward districts in the south of the province. For example, for the year 2013, Rs. 2800 per capita development expenditure was allocated for Lahore which was almost double the next highest allocation in Punjab for Rawalpindi which was Rs. 1450 per capita.

This provincial political power has an impact on the sustainability of services as well. The provincial level politicians, who are in the driving seat, have more interest in keeping their vote bank happy, even at the cost of inability to provide equitable and sustainable housing and municipal services. This desire has cost the city dearly, as in the case of the water supply. The water rates have not been revised for more than a decade and hence, once a sustainable service delivery, has now become heavily indebted and scarce, leading to water crises for which scholars have been evaluating the ways to cope with water deficiency (Hameed et al., 2021). This playing to the gallery might be pleasing in the short run for the political bosses but is costing the city indefinitely as little is being spent on system expansion or upgradation, resulting in delayed maintenance & long-term sustainability issues. Regularization of illegal settlements (*Katchi Abadies*) is another political gimmick that the residents of such *Abadies* organize under the patronage of local politicians to successfully attain the regularization target.

1.5 THE INSTITUTIONAL SPAGHETTI

1.5.1 The Government's Role as Regulator

Housing being a market, the Government's role is to regulate and facilitate it, especially to ensure equity and to facilitate the provision of shelter for all as a right. However, performing this duty has proved to be beyond the capacity of our institutions and institutional framework. The capacity of the institutions that are supposed to regulate is very weak, even by design. Some of the key players in this regulation are the urban planners and architects who are supposed to read, understand, and implement the (master) plans, land use rules and building regulations and then approve the private housing scheme plans and the building plans. The professional staffing at the local councils (TMAs) is a case study. There is usually only one urban planner as Town Officer (TO) planning, irrespective of the size of the city. In some TMA cities like Sialkot, with a

population of more than half a million, with just one urban planner, the dream of any meaningful regulation is already a lost battle. On top of that, in many TMAs, even this position is lying vacant. The result is that thousands of housing schemes emerge outside regulatory control. The other side of the story is that schemes that apply for approval are put to face a bureaucratic labyrinth and red-tapism. Seeking approval for a housing scheme, therefore, becomes a long tiring process for the developers who then seek other (mostly beyond regulations) ways to develop their housing supply.

In a report of the Standing Committee on Law and Justice (2016), it was observed that "illegal housing societies mushroomed due to cumbersome and yearlong CDA procedures for issuance of LOP/NOC and then cancellation of the same on minor violations while missing bigger ones". A special audit of the Housing Societies Directorate of Capital Development Authority Islamabad (CDA) was conducted for the period 2011-16 by the Auditor General of Pakistan (AGP) at the request of the Public Accounts Committee. The finding was that the lengthy and cumbersome procedures of CDA push sponsors away from seeking permission. The CDA website announces that there are more than 140 private housing schemes which are unauthorized and without approval. The number of 'approved schemes' is much less. So much for the 'regulation' by government.

In Punjab, there are thousands of illegal housing schemes that exist on ground (some complete and fully colonized, some incomplete, and some fake and fraudulent), but the Government has hardly done little more than announcements and issuing lists for the public. Interestingly, in 2021, a special law was promulgated to 'regularize' these illegal schemes. This looks like a déjà vu of the *Katchi Abadies* regularization framework.

1.5.2 The Rental Housing

Pakistan is one of the countries with the lowest share of the rental housing as can been seen in the table 1.2.

Table 1.2: Percentage Share of Rental Housing

Country	Share of Rental Housing
Switzerland	68 %
Germany	64 %
France	47 %
United Kingdom	44 %
Canada	42 %
Japan	39 %
United States	37 %
Italy	24 %
China	14 %
Russia	11 %
India	30 %
Pakistan	17%

Source: Prepared by author from multiple sources including statista.com, PSLM 2019-2020, and Knight Frank (n.d.)

The challenge underlying our chaotic urbanization and expensive housing is the lack of institutional capacity, and serious obscurity in roles and responsibilities amongst a plethora of authorities, agencies, and departments, with several local, provincial, and federal institutions, operating in the same geographical area. With more than a dozen urban institutions in every city, the situation can at best be described as spaghetti. This is especially true for Karachi, Lahore, Peshawar, Quetta, Rawalpindi, Islamabad, and other cities. Some of the cities are primarily cantonments, especially Rawalpindi and Abbottabad, for example, with little share of the local governments.

In a three-tier system, the city council should be leading the development, while our cities are governed primarily by the provincial government. In the last three decades, the local governance system has been revised and altered at least three to four times, resulting in confusion within the local governments as to the power and functions of the city authorities. An example is the Metropolitan Corporation Lahore (MCL) which could have been the 'queen' of the political chess board but has been relegated to just another player over the years. Same is the case with Karachi and other large cities.

The role of the Federal government is not just limited to policy planning, but more than that. Posh localities in Lahore, Karachi, Rawalpindi, Peshawar, and other cities span almost one third of the area but are home to less than a tenth of the population. Such localities are mostly managed by the civil section of military authorities, the Lahore Cantonment Board (Pakistan Cantonments Act, 1924) and the Defense Housing Authority (DHA) mandated under another federal law (Defense Housing Authority Lahore Ordinance, 1999). These authorities do not recognize City's master plan and have their own building regulations, land-use rules, and even municipal services; a kind of city within the city, much preferred by the elites to live, but depends on the trunk infrastructure and jobs for the rest of the cities.

The role of provincial government has been gradually increasing in local governance. Lahore is a case study worth mentioning. The local government history in Lahore started in 1862, when Municipal Committee for Lahore assumed office. Later, to support the committee, a more focused agency for development, The Lahore Improvement Trust (LIT) was established in 1936 under the united Punjab 'Town Improvement Act' 1922. The development of these two concurrent bodies led to overlaps and duplication of the functions and issues such as fixing the responsibilities. The friction between these two institutions still exists, while the later organization has been transformed into Lahore Development Authority (LDA), with much broader mandate than just new development (Aziz et al., 2014). At least half the city is under the control of Lahore Development Authority, which is governed by the provincial government. LDA manages development, land use and building byelaws in its domain.

Municipal and urban services have a similar scenario. Water and sanitation services in the city are provided by an agency (Water and Sanitation Agency, WASA) of the Lahore Development Authority, while waste management has been outsourced to a public sector company, Lahore Waste Management Company (LWMC), which is under provincial control. City parks and green areas are the responsibility of another provincial entity, the 'Parks and horticulture Authority' (PHA), while the historical old city is managed by the 'Walled City' authority (Haroon et al., 2019). Likewise, the transportation is managed by multiple agencies with minimum integration (Aziz et al., 2018).

Moreover, multiplicity of institutions, yet another complication is varying definition of the city in terms of geographical area by these government bodies. The one boundary

adopted by the Bureau of Statistics (BoS) defines the urban population in national census. The BoS takes the urban local council boundary, which usually is quite restrictive and large chunks of urban built areas are left out and remain 'rural.' In the case of Lahore, however, it has changed as the entire district has been declared urban, under the Metropolitan Corporation. This means the entire district is a city, including the 2 million rural residents in the peripheral suburbs of 200 odd mauzas. There is more to the story of Institutional weaknesses.

1.5.3 Land Records

Urban and peri-urban areas are composed of intricate property relationships, which encompass ownership rights, tenancy rights, occupancy rights (such as lease agreements and rights granted to residents of informal settlements under public schemes), and development rights, among others. These property relationships are vital for the economic value and GDP generated in urban areas. However, the lack of updated and comprehensive urban property records creates opportunities for fraud and increases the occurrence of property disputes. Unfortunately, there is no formal and comprehensive system of urban land records in any of the provinces.

The available records, although often incomplete, can be classified into the following categories:

Integrated Rural and Urban Records

As per the Land Revenue Acts of 1967 (originally West Pakistan Land Revenue Act 1967, later adopted by provinces), the revenue officers are to maintain the land records of rural / agricultural lands. Any land that falls within the built-up areas must be encircled in a red line (*lal lakeer*), and the revenue officer (patwari) does not maintain land record of these areas, rather allocates a single survey number. When urban areas are developed, the district collector is supposed to extend and notify the *lal lakeer* to include all built up areas. Unfortunately, this practice was abandoned in the late 60s and today, most of what comprises 'urban areas' in cities, are 'technically' still rural and the record is maintained by the patwari. One reason for not extending the *lal lakeer* is that we do not have a credible system of urban land records to replace the patwari's record. However, since rural records are not suitable for the urban properties, there is lot of confusion and most people resort to 'registered sale deeds,' followed by entry in patwari's 'rural record.'

In some large housing societies, the large areas of land are entered in the revenue record in the name of housing society, while the individual plots / pieces of land are recorded and transferred in the offices / registers of the housing society. The same practice is followed by the Development Authorities & DHAs, and many private housing societies. Since such records (except DHA) have many issues of title, possession, credibility, and duplicate files etc., the banks refuse to accept these as collateral, making all this investment a dead investment.

City Survey Records

A few city surveys were conducted by municipalities, especially in Sindh and the cards' maintained by the municipalities, under the Sindh City Survey Act, wherein the Board of Revenue appoints City Survey Officers who are mandated to conduct survey of urban properties and then maintain their records. However, even these records are not updated, and city survey is not a regular feature.

Computerization of Land Records

In all provinces, there have been various initiatives in the name of computerization of land records, mostly funded by development lenders. However, two features of these are common in all such initiatives. First, these are not a complete solution and suffer from many weaknesses, and second, these only cover the agricultural / rural lands and not the urban lands.

Urban Immovable Property Tax Records

Since 1958, the urban areas of cities have been included in the local council's taxation, under the Urban Immovable Property Tax Act 1958. (Originally it was the West Pakistan UIPT Act of 1958, which after 1971, was adopted by all the provinces and became a provincial Act). The Provincial Excise and Taxation departments at the provincial level maintain records of the urban taxable properties in their registers and a certified copy of the register (PT 1) is a proxy for ownership of an urban property. However, this is not a title and hence insufficient.

In many old city areas, the owners have been living in ancestral houses, which were never transferred in the names of heirs and in most cases, they do not hold any credible evidence of ownership. The impact of all this piecemeal urban property ownership records is that all investment in the housing sector is dead investment, fraud and corruption is rampant and civil courts are overloaded with litigations, further adding to the already inefficient housing markets. This inefficiency in most of the urban areas leads to an excessive premium in the few societies (DHAs and Cantonments) where the titles are clean and secure.

1.6 CONCLUSION & WAY FORWARD

Factors discussed above have contributed to this imbalance leading to an abundant supply of high-income housing and a shortage of low-income housing and developed land. The profit has been the strongest force in housing. Often supported by the political players and facilitated by weak institutions, profit has been in the driving seat. The story is not simple. An interesting interplay of political and economic forces has been leading to this trend. This phenomenon is not unique to Lahore or Pakistan only, but most of the developing countries in the south (Shatkin, 2017). Considering there is an acute and ever-increasing gap between the supply and demand for quality urban housing, the private developers jumped to the opportunity and converted huge chunks of agricultural lands in the urban periphery, instead of investing in infill developments or urban renewal projects. Moreover, they focused primarily on the high-income sector, as that is much more profitable, rather than the lower income housing investment, which ended up in informal settlements and low-quality housing, resulting in bipolar growth.

There is no doubt that provision of housing shall continue to be a market phenomenon. The role of the government should be to facilitate this market because shelter is a fundamental requirement and right. However, direct provision of housing by the state has not proven to be a market correcting factor and of little practical impact, if at all.

Our housing market is skewed in favor of the rich and influential. The role of government in the shape of regulating the market has not been successful, primarily because the plans are flawed, the plans are half (at times even less than half) enforced, and the institutions have little capacity to either plan or to implement the plans. The result is that powers and profits have taken over any kind of plans.

The Government has been functioning more like a reverse NGO, where the rich and influential are subsidized at the cost of poor and have nots. With the current institutional complications and capacities getting even more complicated due to newly emerging provincial companies and authorities, the possible outlook in the medium term seems to be the same as it was in the past.

To change the trajectory of development towards a more sustainable and efficient housing market, there is a need for radical course corrections, addressing all three aspects of the power equations, profit rationalization and institutional strengthening. And that is a tall order, as many factors are too well entrenched with a heavy inertia with deeply vested interests. Banking only on the master plan or the few regulations would be naïve.

There is no doubt that the three key factors of power, profit and plans would continue to shape the city. What the city needs is an understanding of the relative equations and to create a more equitable and sustainable market, which caters to the needs of a majority. The Government needs to improve the planning process, to make the market work towards the majority, making it equitable and playing only the role that it should, rather than continuing the failed attempts at direct provision of the product. A restructuring of the urban governance institutions, their processes, roles, and responsibilities is necessary to eliminate overlap and confusion in relation to well-defined rules and regulations.

Some of the key reform areas could be:

- Improve the land records and property titling system to make properties secure, bankable and reduce litigation.
- Facilitate the provision of financing, especially for the lower income segments.
- Taxation, especially on rental market and the transaction cost (in terms of time and money) be facilitative towards a productive market.
- Promote and enhance the rental market, through incentivizing-built properties and discourage vacant lands, which are a dead investment and misuse of development done at public expense.
- Prepare the city plans that are more realistic and aimed at improving city

densities, reducing the cost of transport and towards better job opportunities.

- Improve the capacity of institutions towards better regulation.
- Regulate the private and cooperative housing societies towards efficient delivery of housing, rather than waiting for frauds and misuse of capital and then making laws to legalize the same.
- Promote the idea of licensing private building inspectors rather than current low-grade government employees who have little capacity or motivation to regulate.
- Rationalize the cost of land by improving densities and towards a transit-oriented development.
- Densify the cities through better planning and infill development to reduce sprawl. This will require careful policy and regulatory framework beyond current practice of increasing the FAR.
- Subsidize the much-needed infrastructure through land value capture as a significant source instead of current practice of using public money or loans.
- Employ the use of more scientific methods (GIS & Remote sensing technologies) to assess the property values rather than current arbitrary and block systems.
- Promote and incentivize climate change resistant housing and infrastructure (Nawaz and Akbar, 2020).
- Embed the community engagement in governance for inclusive policy. This is only possible if the debate and discussion take place at a much wider level than the sham consultation for planning in the shape of few selected gatherings.

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PAKISTAN'S HOUSING PROGRAMS AND FRAGMENTED REGULATORY FRAMEWORKS

Syeda Sani-e-Zahra Naqvi and Ali Salman

Housing is recognized as a constitutional right of every citizen in Pakistan. However, to provide the 'Housing for All,' the Government of Pakistan has yet to develop an integrated and comprehensive framework for the same starting with a strategic vision, followed by a sound enabling and regulatory framework, and a robust implementation arrangement. The housing sector in Pakistan despite having a written National Housing Policy lacks a holistic vision for the sector as well as its implementation mechanism comprising a hierarchical institutional framework across the provinces and cities as well as planning & housing legislation with supporting supplementary regulation. The existing planning and housing framework has a set of housing schemes rules, and out of context zoning & building regulations, which has resulted in inadequate housing for the poor on one hand and inequitable and land consumptive housing surplus for the rich on the other.

2.1 HOUSING FOR ALL: A CONSTITUTIONAL RIGHT!

Housing is a necessity of life after food and water, and in fact most important from the standpoint of one's quality of life. From a consumer's perspective, housing is beyond just a shelter or a roof on their heads, a source of economy and stability, and the most important asset. Housing rights are part of international human rights law and embedded in the Universal Declaration of Human Rights, which acknowledges that every citizen has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, and housing. It is also part of all major international human rights treaties such as international covenant on Economic, Social and Cultural Rights, which argued 'the right to housing should not be interpreted in a narrow or

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restrictive sense which equates it with, for example, the shelter provided by merely having a roof over one's head or views shelter exclusively as a commodity. Rather it should be seen as the right to live somewhere in security, peace and dignity' (Office of the High Commissioner for Human Rights, 2002). It is often mistakenly assumed that the covenants are only applicable to the governments once they reach a certain level of economic development, whereas, it is an obligation of each of the signatories to undertake steps "individually and through international assistance and cooperation, especially economic and technical, to the maximum of its available resources with a view to achieving progressively the full realization of the rights recognized in the present covenant by all appropriate means, including particularly the adoption of legislative measures" (Office of the High Commissioner for Human Rights (OHCHR), 2006).

The Constitution of Pakistan barely acknowledges the right to housing in Article 38 as part of the promotion of social and economic well-being of the people, which states: "38(d) provide necessities of life, such as food, clothing. housing, education, and medical relief, for all such citizens, irrespective of sex, caste, creed, or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness, or unemployment." However, it does not impose any positive obligations on the provincial and local governments and only provides negative obligations in a manner that anybody having a house, or a property cannot be deprived of it. Complying as it claims interest and commitment in housing provision, Government of Pakistan may learn about the 'right to housing' from Section 26 of the new constitution of South Africa stating: "1) Everyone has the right to have access to adequate housing; 2) The State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of this right; and 3) No one may be evicted from their home, or have their home demolished, without an order of the court made after considering all the relevant circumstances. No legislation may permit arbitrary evictions" (Baig et al., 2020).

'Housing for all' has been a mandate of the UN-Habitat with various approaches starting from 'social housing' to 'enabling approach to housing' to repositioning 'housing at the center of national and local urban agendas. The United Nations launched several initiatives and instruments since 1970s to address the issues of housing shortage and homelessness, however, the housing issues did not get the required attention as being part of the urbanization process. Towards the Habitat III, it was realized that a lot had

gone wrong and that the housing needs to be placed at the center of the urban agenda with an integrated framework for planned urbanization (UN-Habitat, 2015).

2.2 HOUSING: A COMPREHENSIVE VIEW

Housing sector in Pakistan has inherent challenges like supply & demand disparities, slums and informal settlements, distorted land markets and land speculation, lack of clear land titles, finance shortage, and constrained rental housing etc. While the housing shortage is worsening in terms of affordability crisis, housing availability/affordability is becoming a long distant dream for even middle-income population in the country. Meanwhile, the government of the Pakistan has only focused on providing housing subsidies or a few built housing units for the poorest of the poor, which has not even met that demand. The ever-worsening housing crises of the country needs both a curative as well as preventive approach while meeting the needs of growing urban population rather than addressing some apparent issues through piecemeal.

At the time of independence, the urbanization levels of Pakistan like other cities of Asia and particularly South Asia were lower as compared to the rest of the urbanizing world, yet Pakistani cities have grown over six decades to make Pakistan the fastest urbanizing country in the South Asia with urbanization rate of 3%. Although the census figures report 36.91% urban population in Pakistan, some researchers claim it more than 50-55% given the spillover of cities across their administrative/urban boundaries visible through the satellite imagery and night lights data (Ellis & Roberts, 2016).

According to the United Nations, Pakistan's population is expected to hit 262 million by the year 2030 (Department of Economic and Social Affairs, 2019) with an estimated urban share of population being 50%. This means approximately 55 million more people will migrate to its cities for economic opportunities and improved quality of life. This implies that the Government of Pakistan would need to take multi-pronged approach to deal with this enormous challenge starting from realizing that Pakistan is no longer an agricultural economy and will further urbanize rapidly and poorly if not managed well.

2.3 A HOLISTIC APPROACH VERSUS A PIECEMEAL ONE

The function of governance is to ensure an enabling environment for an equitable housing market, where developers provide diverse housing options suitable for all segments of society. The existing and past emphasis from the government has been towards provision of subsidies or government-built housing units for low income segment only. The lack of focus towards an integrated approach as well as legal and policy imperatives for housing provision has led to skewed development of suburban housing schemes suiting only the need and affordability of the top income quintiles of the population. Resultantly, only 1% of housing units developed annually cater to 68% of the population earning up to PKR 30,000 per month, in contrast to 56% of housing units for 12% population earning PKR 100,000 and above (Shaikh, 2018).

2.4 PLACING HOUSING AT THE CENTRE OF THE NEW URBAN AGENDA

The global population growth and urbanization trends suggest that the 21st century is going to be an urban century, where there will be rapid increase in both population growth and urbanization, especially in the developing countries. This phenomenon of rapid urbanization has a strong link to the urban housing sector as increasing urban population will need sufficient areas for adequate shelter, meeting their needs as well as affordability levels.

The United Nations and other international organizations have been promoting interventions like social housing, and upgrading of informal settlements etc., since 1970s, however, the need to shift paradigm by putting 'Housing at the Centre' of the national and local urban agendas has evolved from the previous experiences/lessons learnt of putting economy and jobs at the Centre of city planning and development. The urbanization and economic opportunity without an adequate supply of housing had resulted in expansion of slums and informal settlements across the world, and the piecemeal approach of improving their conditions was outpaced by newly formed slums and informal settlements, demanding a change in approach.

Putting 'Housing at the Center' requires:

a. Housing policies and strategies at national and local levels to be integrated into

urban development policies

b. Curative approach for the existing slums and informal settlements and preventive approach towards forming new ones

2.4.1 Housing at the Centre of Urban Planning & Urban Planning at the Centre of Urban Governance

To have Housing at the Centre of Urban Planning is not new. The first ever Town Planning Legislation 'The Housing, Town Planning &C. Act 1909 had primary focus towards housing i.e. "…to provide a domestic condition for the people in which their physical health, morals, character and social condition is improved… or the primary concerns for the sanitary and aesthetics improvement of working class dwellings, and prevention of slums in new peripheral suburban development" (Cullingworth et al., 2014).

Early cities used to have urban management through local governments in the form of providing municipal services including water supply, sanitation, solid waste management etc. or for developing satellite towns or housing schemes. As the world started to become dominantly urban, comprehensive town and country-side planning frameworks were developed with hierarchy of urban settlements, types of plans and their preparation and implementation mechanisms as well as establishment of hierarchical planning institutions. The town and country planning frameworks have evolved into sophisticated and improved instruments keeping in view the dynamics of urban living and inclusion of citizen's needs and voices. Unfortunately, Pakistani cities faced a weak spatial planning system without holistic frameworks for land governance, housing markets, legislation, and taxation etc.

2.5 PAKISTAN'S HOUSING PROGRAMS

Pakistan's National Housing Policy was first formulated in 1992 that aimed at identifying and then finding solution to housing backlog in various cities of the country. As noted earlier, the problem was not accurately defined as it was too restrictive to an "assumed shortage." The policy was revised in 1994 and then finally formulated again in 2001 – a course adopted by the government to address the challenges related to quantity and quality of housing stock in the country. It took the country about 55 years to publish its

National Housing Policy (NHP). And now since 2001, the country has not revised or updated the policy, NHP 2001 can be assumed to be functional.

In many respects, the strategy of NHP 2001 is laudable. It provides for specific measures for resolving land related issues by reducing the role of the government direct ownership through quotas. It also provides for inclusion of both informal and formal housing sector while committing to stop further development of slums. NHP also guarantees appropriate changes in the zoning regulations to allow mixed use. It talks about uniformity, transparency, and market orientation in land disposal. However, given these desirable policies, the actual practices of successive governments have been uncoordinated. One institutional issue is that of 18th amendment thus making a federal government policy irrelevant for housing, which is a provincial subject. Having said that, NHP 2001 broadly points to the measures which can address housing problems in the country.

According to noted Urban planning expert, Arif Hasan, "For the last 15 years, the de-facto housing policy in Pakistan has been about individual families accessing the market and the state liberalizing credit facilities for it. However, the low-income groups that constitute the majority of the population cannot access these credit facilities because accessing them requires collateral, or a formal-sector job, which most do not have" (Hasan & Arif, 2018). This implies the absence of policy.

Regardless of the policy, each government launched its own housing development program or schemes. Unlike policy, which demands changes in regulations, byelaws and practices, these developmental schemes have found support, both through political ownership and budgetary measures. Figure 2.1 gives an overview of different housing schemes which evolved in the tenure of different governments.

2.5.1 Prime Minister Junejo's Apni Basti Housing Scheme

The project was launched in 1987 and aimed at constructing 150,000 housing units. Despite having a small federal development spending budget of less than Rs 30 billion, PM Junejo inaugurated some useful development programs. However, as investors and middle – income groups secured their housing units in the scheme, the *Apni Basti* project was unable to achieve its original purpose of targeting the poorest household. The project was able to deliver only 35,000 housing units out of which many remained vacant for

years after their construction since they became unaffordable for the low-income group population. Also, other problems including no provision of water, shortage of gas and power issues made the project unsustainable (Haq, 2016).

2.5.2 Prime Minister Nawaz Sharif's Apna Ghar Housing Scheme

With a commitment to providing shelter to 'all citizens of Pakistan,' PM Nawaz Sharif inaugurated the *Apna Ghar* Housing Scheme in 2013. The government came up with a plan of providing 500,000 low-cost housing units to the low-income group of the country in a 5-year period through public-private partnership (Haq, 2016). The focus of the scheme was on providing employment opportunities, better sanitation, and social protection to shelter-less people. However, even after announcement of the project, the PM did not approve the summary for the next eight months. The scheme was announced in November 2013, but by the end of 2014, the government did not release the seed money of Rs. 500 million for the project (Government of Pakistan, 2016). Not even a single piece of land was purchased in any area of the country. Moreover, for two years, no permanent chief executive and related working staff to run the scheme was approved. It was also decided to set up an advisory board that may look at the affairs of the scheme which never came into existence for two years. By 2015, provinces started identifying land for the scheme with an initial planning framework. The government assured that the project shall complete within a 4-year phased plan, however no visible progress could be made during PMLN tenure (Haq, 2016).

2.5.3 Shaheed Muhtarma Benazir Bhutto Housing Scheme

Pakistan People's Party in 2014 launched the SMBBT scheme in Sindh to provide 50,000 plots to households with income less than or equal to Rs.10,000. By 2017, the work on the scheme did not even initiate in urban cities like Karachi and Hyderabad, where just a few households of rural Sindh were catered to. The project was destined to provide low-cost residential plots to 15,000 under-privileged families of Sindh, however, due to the delay in the schemes, a portion of the land was illegally occupied in areas of Sindh. As a result of which challans worth Rs. 170 million were issued to transfer land ownership but due to delays by the Sindh government, it failed to happen.

350 acres of land in Karachi, 19 acres (for 300 families) in Hatteri (Hyderabad), 12 acres

(200 families) in Mirpurkhas, and 5 acres (120 families) in Nawab Shah was allocated under the scheme but no work was commenced till end of 2017 (Abro, 2017). Like older housing schemes, SMBBT was also accused of financial irregularities and administration problems including quality of housing units. The accusation led to the arrest of the Chairperson and related staff of the scheme in 2015 by NAB. As per its website, SMBBT has received 100,000 applications, and has successfully allotted 27,500 plots to the under privileged families.

2.5.4 Chief Minister Mian Shahbaz Sharif's Ashiana Housing Scheme

A project by the Government of Punjab under Punjab Land Development Company (PLDC) in collaboration with the Bank of Punjab (BOP) for homeless and poor people, *Ashiana* housing scheme was proposed in 2010 and inaugurated in 2012. The aim was to support those who could not cope with the excessive cost of land and building materials. A total of 380 acres of land was suggested to construct residential units including houses, flats, and apartments under the scheme.

Houses under the scheme were priced as 3 marlas – Rs. 840,000, 5 marlas – Rs. 1,190,000, following a monthly instalment of Rs. 4500 and Rs. 7500. The scheme targeted individuals with a monthly income of Rs. 20,000 (Kahloon, 2014). Keeping this in view, the target audience did not complement the payment plan as it would be difficult for an individual to pay monthly instalment of Rs. 7500 with an income of Rs. 20,000. Delays in balloting and allotment of housing units gave rise to accusations against the scheme owners. A loss of Rs. 715 million caused failure of the project (Waqar et al., 2018). Owners of the housing units waited for the possession of their houses for more than two years. Moreover, the scheme had no hospitals or schools, those who planned to live in the scheme would have to travel 5 to 6km to cater to their day-to-day needs. No boundary wall of the society led to increased criminal cases. As per reviews by the public, many falling under low-income groups were declared ineligible under the *Ashiana* Housing Scheme. With that, anyone over the age of 55 years, yet falling in the low-income category, shall not be declared eligible for the scheme.

Table 2.1: A Review of Housing Programs in Pakistan

HOUSING PROGRAMMES REVIEW					
Tenure	**PM Junejo**	**PMLN**	**PPP**	**PMLN**	**PTI**
Duration	**1987**	**2013**	**2014**	**2010**	**2020**
Programme	*Apni Basti*	*Apna Ghar*	*Shaheed benazir Bhutto* Housing Scheme	*Ashiana*	*Mera Ghar Mera Pakistan*
Slogan		"Homes like Turkey and China: Common man housing scheme"	"An unmatched welfare scheme of the govt of Sindh for low income families"	*"Be-gharon k liye apna ghar"*	"Low cost housing finance scheme for the nation"
Target Audience	Middle Class	Low income group	Household with income <= Rs. 10,000	Applicant's income <= Rs. 20,000	Middle - income group
Target Province		1000 places around Pakistan	23 districts of Sindh	Punjab	All cities of Pakistan where bank has its branch
Estimated Spending		Rs. 60 billion	Rs. 9,421 million		Rs. 180 billion and Rs. 59 billion loan disbursement
Procedure		Installment and Loan Advisory Board	Free of cost Balloting method	Managed by PLDC Balloting method Installments for 10 yrs	Loan term housing finance loans
Promise	150,000 units	500,0000 units	50,000 plots	500 units	5 million units
Delivered	35,000 units		27,500 allotted		
Issue	No utilities Un-realistic pricing, unsuitable location	No progress till 3 years Seed money of Rs. 500 million not released		Delays in balloting and allotment Failure of project caused Rs. 715 million	

Source: Developed by Authors Using Various Publications

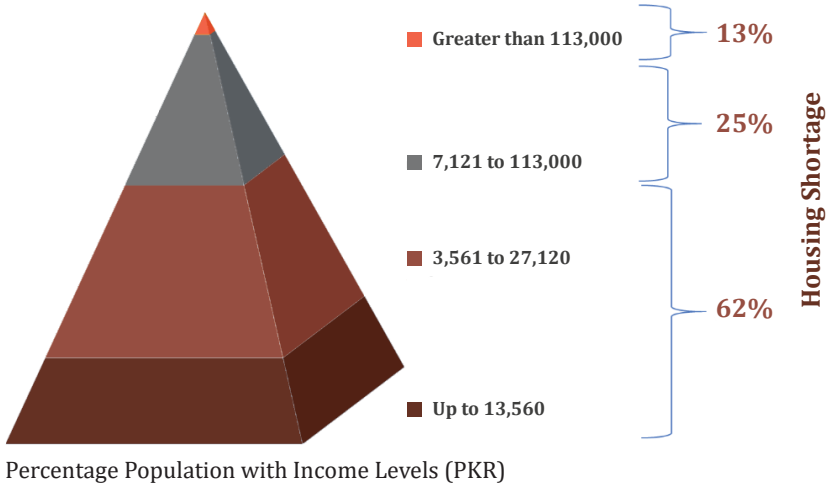
2.6 SITUATION ANALYSIS: HOUSING CHALLENGES & THE MISSING LINKS

2.6.1 Housing Shortage: Quantitative & Qualitative

Pakistan is the fastest urbanizing country in South Asia and sixth most populous country with 207 million population and around 75 million (36.1%) urban inhabitants according to the 6th Pakistan Population Census 2017 (PBS, 2017), projected to 227 million population and 81.9 (36%) million urban inhabitants as of January 2022 (Department of Economic and Social Affairs, 2019). With rapid urbanization and lack of proper policy & planning, the housing shortage is escalating over the years, though shortage figures have never been assessed through any structured surveys or studies and are derived mostly from the census data or the Household Integrated Economic Surveys. There have been several estimates of housing shortage in Pakistan ranging from 8 million in 2009 (Aly et al., 2016), 11 million in 2019 ("Pakistan Facing Shortage of 11m Homes, Says Minister") as well as 10 million & 11-12 million both on separate pages of the Naya Pakistan Housing Program's website (Naya Pakistan Housing Programme, 2021), but not an official figure for the country. This housing shortfall requires building at least 350,000 housing units per year for the urban areas, where the supply is only around 150,000 units per year (Hasan & Arif, 2018), worsening the backlog because of further damage to existing housing stock during rains, floods and earthquakes etc.

The housing shortage in Pakistan has several dimensions and is both quantitative as well as qualitative. The quantitative shortage not only refers to availability of lesser housing units as compared to the demand, but also refers to disparities between housing supply and demand for various income groups. As in Figure 2.2, it has been estimated that from the total needed housing units, around 62% are needed by the lower income households (earning up to PKR 27,120), 25% for the lower-middle income households (earning up to PKR 113,000) and 10% for upper middle income (earning greater than PKR 113, 000) – short figures are from (Hasan & Arif, 2018), and Income levels are (Raza, 2010) quoting (Nenova, 2010) inflated for year 2021.

Figure 2.1: Housing Demand and Supply Gap Across Income Groups



Source: Developed by author, based on the two studies and updated using WorldData.info figures of inflation: Shortage figures from (Hassan, 2018), Income levels from 2010 (Raza, 2017) quoting (Nenova, 2010), inflated for year 2021(WorldData.info)

This acute housing shortage for the lower income population has another side of over-supply of housing units for the rich. For example, in Karachi around 200,000 apartments are under construction while around 300,000 developed plots and 68,000 apartments are already lying vacant as investment by the rich. Similarly, Lahore's housing schemes by the Lahore Development Authority developed in 1990s or later are still more than 50% vacant like Jubilee Town (35-40% occupancy even with complete scheme development), LDA Avenue One (40-45% occupancy due to litigation issues till the year 2020) and Mohlanwal (25-30% occupancy with some development problems) even after 20 plus years. This implies that quite a lot of plots are lying vacant in these schemes based on these occupancy figures, i.e., Mohlanwal (996 plots) and Jubilee Town (2570 plots) (extracted from the layout plans of these housing schemes).

These quantitative shortages in the form of lesser than required housing units matching the buying power of the inhabitants result in qualitative housing shortages in the form of congestion or over-crowding in the existing settlements. Around 15% of this need is met through densification of inner city areas, 25% through formation or densification of slums or *Katchi Abadies*, and 60% through informal agricultural subdivision (Jabeen et al., 2015). This densification worsens the existing living conditions within those slums or

Katchi Abadies, which often have tenure issues in addition to lack of ample services to survive decently. The informal agricultural subdivisions have the same conditions at the *Katchi abadies*, however do not have tenure issues but poor environment to live. The congestion/over-crowding in housing units is evident from the Pakistan Population Census of 2017, where a family size is calculated to be 6.2 persons per unit nationally and 5.97 for urban areas, further computed to be 3.1 persons per room (Pakistan Bureau of Statistics, 2017). Moreover, the housing congestion is also obvious from the PSLM/HIES data 2018 which shows low income levels for most population quintiles and number of rooms in housing units across various provinces, causing to infer that households with as many as 8 or even 11 people may be living in a one room or two room houses (Pakistan Bureau of Statistics, 2020).

2.6.2 The Missing Link

There have not been any surveys and studies to estimate housing shortage, where currently suggested numbers are based on unproved assumptions and hence need a fresh housing needs assessment.

The Housing need or demand calculations are computed simply from the population counts, housing units and with a generalized assumption of an average household size, which does not actually hold true for all provinces or even many cities.

The total figures of housing shortage are misleading in terms of what is missing in those housing units. What proportion needs new housing units, structural strengthening, tenure support, or services provision or upgradation or a combination of these etc.

The figures also do not provide information on what types of housing units are required, whether single family, multi family, group, clustered housing, or provide information about the livelihood or income level of the family, which has a strong relevance to the type, size, design, and location of housing units.

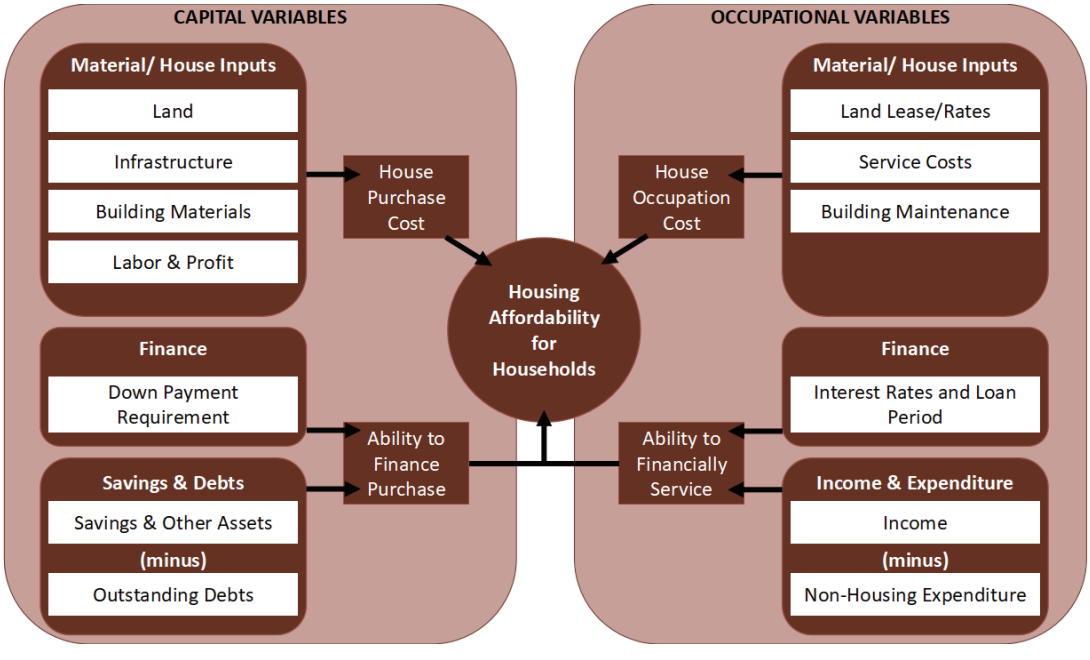
2.6.3 Affordability or Unaffordability

Although the term 'Affordable Housing' is misleading, housing affordability and unaffordability are the most crucial factors for both housing provision and consumption.

Affordability is measured through affordability indices or ratios as defined by various countries or international organizations. One of the commonly used indicators is called 'Housing Affordability Ratio,' i.e., the ratio of monthly income spent on housing. If a household spends around 30% of their monthly income on the housing cost, it is considered affordable. Another indicator is called Housing Price to Income Ratio, which is defined as the ratio of median housing price to annual median household income and its considered affordable if this ratio does not exceed 3 (Palayi & Priyaranjan, 2018).

Housing affordability is a function of housing cost, household income and living costs including food, transport, services, rent and maintenance etc. "For some people, all housing is affordable, no matter how expensive it is; for others, no housing is affordable unless it is free" (Menshawy et al., 2016). Housing affordability in terms of capital (purchase) and occupation (keeping) costs is summarized in the Figure 2.3 (sourced from Affordable Land and Housing in Asia, 2011). The capital costs comprise cost of land, infrastructure, materials and construction, finance including savings and assets used as down payment, whereas the occupational costs comprise services and maintenance, the instalments and interest as well as non-housing expenditure.

Figure 2.2: Basic Components of Housing Affordability



Source: (Majale, 2011) Figure redrawn by Author

The housing affordability in Pakistan has gone down over the years because of low-income levels for most of the population quintiles, increasing land prices due to speculation, and lack of available housing finance for most of the population. Certain challenges affecting the affordability indices are elaborated below.

2.6.4 Deficient Framework to Define Affordability

The existing housing framework in the country does not define affordability indices for:

- various urban areas, hence, no classification of any available housing as affordable or unaffordable for various income groups
- any notified median housing prices for any zones in urban areas
- any introduction of 'affordable housing obligations' identifying certain housing units for a dedicated low-income group in various neighbourhoods
- any qualification criteria (such as Low-Income Group (LIG), and Economically Weaker Sections (EWS) as in India) for those needy households to prevent dedicated units from going in the hands of upper income groups.
- an affordable housing strategy as part of the Housing framework within a holistic urban development framework.

2.6.5 Land Challenges

- Housing affordability in Pakistan has been severely affected by the land hoarding and speculation, which has made it difficult for even middle-income households to even access decent housing options. This distortion in the land and housing markets is because of lack of a comprehensive urban planning framework and a supporting real estate sector. The result is in the form of high housing cost to income ratio ranging from a 6 times the income to cost of plot, to 14 times the income to cost of house, almost a decade ago (Dowall & Ellis, 2009). Another study revealed that the land prices increased by 100% between the year 2012 and 2018, raising a single floor house's cost to 6.6 million in 2018 from 3.7 million in 2012 (Khalil & Nadeem, 2019). The land speculation serves an alternative to investment in gold or bonds because of its inflation beating price appreciation.

- Weak property registration system and archaic land titling system which is not even designed for urban areas is another issue, which causes land price escalation because of lack of transparency about information of available and affordable land within the urban centres. The land transfer procedure causes significant burden on the investors in the form of cumbersome and lengthy procedures For example, it used to take 25 days in Lahore and 208 days in Karachi to register a commercial property, which has now been reduced to 22 and 149 days respectively under the Ease of Doing Business Project (World Bank, 2018). However, the builders in Karachi claim that pre-construction approvals including registration actually takes 12-16 months (Aslam & Sattar, 2018).
- Cities of Pakistan have quite a high percentage of public land within city areas, but unclear and inefficient land policies, resulting in keeping the government land vacant on one hand while continuing extensive expansion of informal settlements on the other. For example, government entities in Lahore own around 30% land (Dowall & Ellis, 2009) and those of Karachi own more than 90% etc. (Yuen & Choi, 2012).

2.6.6 Weak Spatial Planning and Unplanned Development

- Weak spatial planning and unplanned development in Pakistan has impacted housing provision through several issues including poor and socially segregating urban form; ad-hoc and sprawling development with inequitable land consumption; skewed land markets, lack of availability of infrastructure and services especially for the low-income segment; poor urban environment etc.
- The institutional, legal, and regulatory aspects of the spatial planning will be discussed in detail later in this section.

2.6.7 Housing Finance

- Housing finance in the form of both mortgage or construction finance is non-existent in Pakistan with Mortgage finance to GDP ratio of 0.23%, i.e., the lowest in the South Asia region with India and Bangladesh at 7% and 3%

respectively. The yearly demand of housing units is around 350,000 whereas, the mortgage loans are only extended at the rate of 1,500 per year, and that too of an average loan-to-value (LTV) ratio of 48%, forcing borrowers to arrange the rest from their own savings (Khalil & Nadeem, 2019).

- According to Pakistan Population Census 2017, around 70% of population is engaged in informal sector with no documented credit transaction history or ability to afford the down payment or the collateral, and hence majority excluded from a mortgage finance market.
- With a small mortgage market, construction finance is also not available to all builders and developers especially for those who are involved in informal practices without getting registered with the regulators or achieving credit ratings. This also leads to delay in construction because the owners and buyers must arrange for capital, which results in price escalation due to time overrun.
- One of the key reasons behind the limited availability of mortgage finance was the absence of effective foreclosure laws, which are now being taken care of by the Naya Pakistan Housing Project. Certain measures are being taken in this regard including the ordinance called the "Recovery of Mortgage-backed Security Ordinance 2019" and provision of non-judicial foreclosures by creating position of an adjudicator for disputes resolution.
- Fragmented rental legislation is another issue of providing affordable rental housing options especially for households without long term employment options. Existing legislations across the Country and taxation on rental income poses several restrictions and discourages households from renting houses. Even with a better legislation in Punjab in the form of Punjab Rented Premises Act 2009, only 20% of housing units are available for rents. Islamabad is the only city which has a higher percentage of rental housing i.e. 40% options as compared to the average for OECD countries, which is 38% (Dowall & Ellis, 2009).

2.6.8 Slums & Informal Settlements

Since the housing demand in Pakistan is half met and mostly is for the low-income population, lack of affordable housing options result in continuous expansion of slums

and squatter settlements. The World Bank estimates around 39.3% of Pakistan's population living below the poverty line ("Poverty in Pakistan Rises to over 5% in 2020, Estimates World Bank," 2021), and around 40.1% living in slums (*Pakistan - Population Living in Slums,* 2018).

Around 60% urban population of Pakistan is concentrated in its top ten cities with million plus population, and so are urban slums. Karachi, being the largest city with around 15 million population, has 61% population living in slums & *Katchi abadies*. There are around 700-800 *Katchi abadies* in Karachi, housing around 50% of the City's population, of whom 89% are living below the poverty line. Lahore, being the second largest city with around 11 million population, has around 2 million inhabitants living in slums and *katchi abadies*. With an annual demand of 800,000 housing units per year, only 26,700 building permits are issued annually, leaving no option than to encroach 1000s of acres (Yuen & Choi, 2012). Other cities also have similar statistics of hundreds of slums and katchi abadies with millions of inhabitants.

Here it is particularly important to understand the issue of housing versus houses, especially for poor communities. The high percentage of inhabitants in slums and squatters does not mean that all need newly constructed houses or need to be resettled. In fact, each community has one or more of the issues like over-crowding, lack of durability or safe structures, lack of tenure security, lack of improved services and sanitation etc., which needs careful study to assess each neighborhood/community/*katchi abadi's* housing needs and preferences, referred to as 'Social Engineering' (Siddiqui, 2019).

2.6.9 The Missing Link

From the beginning, the principles in five year plans were developed as "the Government's program must be designed to mobilize the labor, funds, and physical resources of the people who will own and use the houses and common buildings" (Qadeer, 1996); which was probably interpreted by both the government and citizens as the government's obligation to provide it for free.

The approach of the Government should have been to develop sound policies, institutional & legal framework for housing and services planning and execution. Sound

institutions would have prevented market failures such as speculation, illegal squatting, and encroachments, which resulted in acute housing shortage especially for the low-income people.

The initial efforts to resettle refugees were in the form of allowing them to squat and then relocate to outskirts away from the livelihood sources. That approach did not work, which should have been replaced with the incremental approach to develop by only providing tenure security near job locations.

The Government's focus had always been on projects involving bricks and mortar because of political visibility, whereas housing provision is more than just building houses and depends on a lot of factors.

The public sector professionals, including planners, seemed to be unaware of the living style and conditions of most of the low-income segment and provide housing at such locations and of such design that does not suit their needs or affordability levels. For example, Prime Minister Muhammad Khan Junejo launched a 'Widows Housing Project" in mid 1980s which completed 20,000 2-room housing units in record time but they were never occupied by the widows as they refused to occupy houses because of social incompatibilities (Siddiqui, 2019).

The public sector does not have any other methods like participatory planning or public private partnership options for low-income housing than just the usual method of top-down imposed planning.

Another reason for which the government subsidized housing does not reach the target segment is because it does not match with their affordability levels, lifestyle, or job location. For example, Chief Minister Punjab's *Ashiana* Housing Project in 2010-11 aimed at developing 3 & 5 marla houses for the poorest of the poor earning monthly PKR 20,000 or less. Even the houses which were constructed could not be occupied by the poorest because of their inability to pay monthly instalments, even if they arrange the down payment from somewhere. As a result, most houses are either on rent or have been sold or in the process of being sold as available on real estate websites (per authors' discussion with real estate agents).

Review of State Bank's low income financing policy for Naya Pakistan Housing Policy reveals that the same mistake is being repeated where the housing being targeted for the lowest income with a starting minimum cost of PKR 3 million when evaluated across the income quintiles reveals its affordability only for the fifth population quintile, thus being unaffordable for 80% population (Khalil & Nadeem, 2019).

2.6.10 Disjointed Public Sector Interventions

Institutional Framework

Table 2.2: Institutional Framework

1	Planning Commission: Prepares Five Year Plans and Oversees implementation	• Lack of hierarchical planning institutions across Federal, Provincial & Local Governments • Failed to keep Spatial Planning and Urban Governance at the Centre of Plans & Budgets. • Keeping in view the enormous urbanization challenge, primary focus should be on the Sustainable Urban Development focused agendas as set up by the United Nations to which Pakistan is a signatory. • Nationally, institutional structure is sizeable but hollow and non-performing
2	Ministry of Housing & Works • Pakistan Housing Authority Foundation 1999 • Federal Government Employees Housing Foundation (FGEHF)	• Not mandated to initiate programs for all income segments but mainly for public sector employees; not even meeting that target

	• Naya Pakistan Housing Authority (NPHA)	
3	Academic departments of architecture and urban planning in universities	• Lack of nexus between academia and urban planning industry
4	Departments of Housing & Physical Planning at all four Provinces • LDA, FDA, MDA, GDA, RDA, HAD, Urban Development board NWFP (The then Khyber Pakhtunkhwa) • PHATA • PLDC	• Although developed for overall spatial planning but not designed and equipped with legal framework for urban planning or housing provision, trained and qualified professionals, or implementation mechanisms.
5	Board of Revenues • Land Record Authorities • *Katchi Abadi* Directorates	• Continuing the functioning based on archaic Land Acquisition Act 1894 • Not equipped with innovation land development or management strategies
6	Cantonments & Military Formations including DHAs	• Limited to cantonment areas, though affecting the entire city environment because of totally different regulatory framework
7	The Housing Building Finance Company (HBFC), jointly owned by the State Bank of Pakistan and the Government of Pakistan, 1952	• Needs expansion and new initiatives to serve a sizeable population

Source: Authors (2023)

Legal and Regulatory Instruments

Table 2.3: Limitations in Legal and Regulatory Instruments

1	Perspective Plans/Vision Documents • 1st Perspective Plan: 1965-85 • 2nd Perspective Plan: 1988-2003 • 3rd Perspective Plan: 2001-11 (upgraded to Vision 2030: 2005-2030 Vision 2025: 2015-25	• Meant to be long range and open-ended plan with qualitative targets which should have preceded the development of five years plans, which are supposed to be the short-term plan with quantitative targets, to be achieved through a national development budget. • Inconsistent with the preceding plans, static and not dynamic, as well as a little regressive visioning 2025 after 2030.
2	Five Year Plans: 'Housing & Settlements' as a distinct sector; changed title to 'Physical Planning & Housing (PP&H)' (12 plans prepared so far)	• Should have been prepared in a framework to follow visions of the long-range perspective plans or vision plans. • Inconsistent with one another, for example initiatives not rolled to the next ones. • Spatial dimension missing in all the Five-Year Plans, hence socio-economic development did not translate into meaningful results. • Significantly low proportion of budget expenditure on PP&H (5-6% except for 1st and 6th plans) which further dropped till the 8th plan. No real need assessments carried out or performances evaluated.

		• Housing programs are implemented through five main policy areas. The first area focuses on improving housing conditions in *Katchi Abadis* (informal settlements) and enhancing overall housing quality. The second area involves providing essential community utilities like water supply, sewerage, public transport, sanitation, and more, in both urban and rural areas. The third area is dedicated to building institutions responsible for conducting surveys, designing and planning cities, establishing planning and housing departments at the provincial and local levels, and setting up research laboratories. The fourth area addresses the construction of government buildings and the provision of housing for public officials, along with the development of the national capital. Lastly, special projects are undertaken to tackle specific housing needs and challenges. These policy areas collectively aim to improve housing conditions, develop necessary infrastructure, establish effective institutions, and implement targeted initiatives for comprehensive and sustainable urban development. • Could not address the housing shortage, only focussed on plots, public housing & urban works, less on affordability, more on infrastructure.

3	Improvement Trusts & Master Plans: KIT, LIT etc. Example: Karachi • 1950: Karachi Improvement Trust, upgraded 1957 to Karachi Development Authority • 1958: Doxiadis Associates hired for Greater Karachi Resettlement Plan	• Greater Karachi Plan proposed resettling low-income population in 10 storey flats on the land occupied by the refugees. It failed as was tied to the proposed development of the new administrative area, which was not developed, and hence the proposal of government was accepted to move poor to colonies outside the city. • Two townships envisioned at outskirts as potential industrialized satellite towns, providing jobs to low-income households. Plots with services planned with 30% government subsidies; squatters moved to these Korangi and Karachi townships. 45,000 one-room nuclear houses planned, 10,000 constructed by 1964, rest project got shelved; jobs were not generated hence 50% households moved back to city centre, sold houses to speculators. The planned public facilities were not occupied, and commercial activity started in houses. With squatters cleared from the city area, a vicious circle of illegal, informal settlements started at the periphery started with birth of informal sector.
4	A confiscatory land acquisition act (1973) for compulsory acquisition at PKR 20,000 per acre in Punjab & Balochistan	• Notion of public sector supremacy in delivering mass housing • Repealed in 1986

5	Need specific statutes: • Need specific statutes: Development of Cities Act 1976 • Lahore Development Authority Act 1975 • Local Government Ordinance 1979 • 1987: Sindh *Katchi Abadi* Act • 1992: Punjab *Katchi Abadis* Act • 1997: Khyber Pakhtunkhwa *Katchi Abadis* Act	• All local governments, authorities, agencies, and directorate working without an overarching planning and housing framework, assessments, targets, or performance evaluation. • Poor urban form and acute housing and services shortage persists and is worsening
6	National Reference Manual 1986	• Outdated, based on studies conducted in 1970s. Far from the then cities scale and urbanization challenge. Must be revised in volumes as guidelines cannot be similar for mega cities and small towns.
7	Several Master Plans, Structure Plans, Outline Development Plans, Agroville Plans etc. prepared during 1970-80s	• All outdated except only Multan has a valid Master Plan and Faisalabad has a Peri-Urban Structure Plan. • Quality of plans were questionable from the standpoint of proposed interventions at that time. Basically, all were static land use plans which could not keep up with the urban growth pace.
8	Cantonments Act (1924) & DHA ordinances (1999, 2002, 2007 etc.)	• Not part of any legal of regulatory frameworks within Provincial or local Governments, autonomous bodies

9	Episodes of Housing Policies • 1984: National Human Settlement Policy • 1986: National Housing Policy • 2001: National Housing Policy • 2001: National Policy on *Katchi Abadis*, Urban Renewal & Slums Upgradation	• Stand-alone policies without a legal, regulatory, and hierarchical institutional framework from Federal to local levels of governments. • National Housing Policy did not have any parent department or ministry to roll it to the provinces
10	Karachi Building & Town Planning Regulations-2002	• Not thoroughly developed with, required planning standards etc.
11	PHATA Ordinance 2002	• Primarily established to provide shelter to the shelter-less, the mandate is way beyond only developing housing and includes every kind of urban policy or planning etc. but ended up developing a few small housing schemes and managing them to date.
12	2006: Punjab Local Government Commercialization Rules	• Narrowly focussed on commercial uses
13	2007 Model Building Regulations/Bylaws Punjab (Same set as Regulations for Development Authorities & Bylaws for Local Governments) 2014: LDA Building & Zoning Regulations	• Adopted by only a few Districts, not even by Murree which has a different geology, weather, etc. • Certain gaps including limitations in buildability on a plot, lower densities via lower building heights and Floor Area Ratio, which affects housing provision as well as its affordability. FAR

	The Khyber Pakhtunkhwa Land-Use and Building Control Act, 2021	not linked with location • Only allow two types of housing units and mostly single unit row housing model which limits housing provision even for those who wish to develop and test other models.
14	2008-09, Punjab Land Use (Classification, Reclassification & Redevelopment Rules)—notified as three sets: • For LDA under LDA Act 1975 • For FDA, GDA, MDA, RDA under the PDCA 1976 • For TMAs under the PLGO 2001 • 2014: LDA Land Use Rules, Master Plan Rules, Miscellaneous Rules • 2020 LDA Land Use Rules	• Comprehensive set of rules, although initially a stop gap arrangement to o Devise a method to classify land uses to basic categories, • Provide a logical mechanism to convert from one land use to another Develop classification maps, peri urban structure plans, and reclassification/redevelopment schemes to meet the needs of rapid physical expansion of cities in the absence of a planning legislation. • Certain gaps including limited land use categories especially missing mixed-use category, or zoning according to site specific characteristics etc. No provision of developing regions for regional planning • Special Development Zone adding discretion with the authority to use the way they want, stop-gap arrangement of temporary commercialization and classification of roads continues
15	2010: Punjab Private Housing Scheme Rules	• Promoting single use, single unit per plot (mostly), sprawling row housing kind of scheme with limited other uses,

	2020: PHATA Affordable Private Housing Schemes Rules 2020)	20% plots to be dedicated for the poor segment whereas the scheme design and location does not suit anyone not from the same income group (owning private cars for commute) • Does not offer any flexibility or other scheme designs or mixed use, mixed income developments with features of complete communities. • Skewed definition, as defines affordability in terms of plots size, whereas 5-marla can be built as a luxurious house with expensive finishes. The definition of affordability should be in terms of buying power, income levels, etc. • Planning standards will again result in developing the same model of low density, use restricting housing. No standards provided in terms of number of housing units per hectare etc. • Segregation of 20% plots or units is not recommended as it leads to management issues
16	2011: Pakistan Framework for Economic Growth	• Not part of any legal process to get it rolled out to Provinces
17	2014: Sindh Condominium Bill	• Specifically for condominiums
18	2017-47: Punjab Spatial Strategy	• No link with the Punjab Growth Strategy or the Vision 2025
19	2018: Punjab Growth Strategy	• No connection with Vision 2025, lacks spatial dimension of socioeconomic development

Source: Authors (2023)

Housing Programs and Associated Physical Work

Table 2.4: Disjointed Housing and Physical Work Programs

1	1947: Immigrants allowed to squat on available land and vacant public buildings	• Later vacated, and moved to open areas in cantonment, government spent PKR 70-80 million on infrastructure and basic services
2	1947-1960: Transfer of Evacuee Property to Indian Migrants	• Provision of housing through allotment of evacuee properties; significant malpractices reported and were sold in open market
3	Housing and Physical Works Programs in 1950s and 1960s	• Main reasons of failure were government's inability to understand the economics and sociology of lower income population and hence inadequate planning as well as other issues like political instability, lack of finances, and absence of sound urban governance system. • Lessons learnt after government-built housing were not to construct houses for the poor or to expect to recover cost through instalments
4	Public Housing for Government Employees; Comprised construction of houses, and provision of serviced plots	• Lacked proper coordination, mushroomed without any master plan.
5	Serviced Plots for upper- & middle-income population	• Started after success of sites-and-services schemes but benefitted only middle to higher income population.

		• Several suburban land development projects started, the known posh housing schemes especially after the Development Authorities were formed
6	Eradication of *Katchi Abadies*	• Cruel act of demolishing the poor housing areas by viewing them as ugly and undesirables • Resulted in forming illegal informal settlements at peripheries
7	Public Housing for Resettlement of displaced	• Many initiatives carried out but could not deliver as mentioned in Karachi example above
8	Sites & Services for low income	• Till end of 1960s, the sites and services were for middle to high income. Pakistan People's Party started it for low income with smaller plots with even support of the World Bank • Serviced plots and housing schemes became the 'urban development model' continuing till now
9	The *Katchi Abadi* (squatter settlements) Improvement and Regularization Program (KAIRP)	• Malikana Huqooq (ownership rights) Program involving regularization of *katchi abadies*, and an effort to replace slum eradication with improvement, (99-year lease, land and development cost recovery, and community participation envisaged) • Starting the PPP in 1977, followed by General Zia-ul-Haq in 1978, Muhammad Khan Junejo in 1986, they all announced regularization of slums and squatters

		on public land as political motives, which resulted in formation of more abadies on public land. • Failed because even after years a small proportion of leases was processed. With every political announcement, a new wave of informal settlements grew
10	Housing and Physical Works Programs in 1980s and 1990s	• Focus shifted towards private sector for developing and managing urban facilities, as introduced by WB & IMF Sites and Services and plots development continued • Land market became skewed, speculative, and booming for the rich, cooperative housing societies and foundations by universities, army, railways, WAPDA etc. yet unaffordable for the professional classes
11	Public Housing through *Zakat* Fund	• Did not resolve housing program with a very small number of units in scattered form. • 20,000, two-room houses were constructed for widows all over Pakistan, on state land, in record time, but later widows refused to occupy them.
12	Public Housing through Special Funds of Members of Parliament 1986—Five Points Program	• Members of national assembly (324) and four Provincial Assemblies (506) were allocated funds to spend with a condition to spend 50% on the shelter needs of the homeless.

		• Did not work because of lack of coordination or any overarching urban master plan
13	*Mera Ghar* Scheme	• Launched in 2nd tenure of Mr. Nawaz Sharif, apartments were built but were not affordable to low-income people
14	*Ashiana Quaid Lahore*, April 2011	• 3-5 Marla scheme, did not reach the target poor population

Source: Authors (2023)

The Missing Link

The public sector approach to resolving housing challenges has either been on the initiatives involving construction of houses for the poor without needs assessment or in the form of disconnected and isolated policies, legislations, and regulations. Experience from across the world and inaction from within has proven that a comprehensive and integrated approach is needed in the wake of urbanization, where it is important to put spatial planning at the center of urban governance and housing at the center of spatial planning.

National development vision cannot be less than sustainable and inclusive urban development for all, likewise, cannot be less than "Housing for All" in case of housing sector. Currently the Vision 2025, though "putting people first…" and acknowledging "housing as a key component of stable economy…" is not very comprehensive or with any quantitative targets to be translated through the national Five-Year Plans or provincial plans etc.

Pakistan does not have a National Urban Policy or a Spatial Strategy. However, the existing National Housing Policy 2001, though a comprehensive one, did not get implemented because of not having a custodian Ministry or Department at the Federal level to roll it to the Provinces and Local Governments. Moreover, the NHP missed on providing answers to who, what, and how of the housing provisions, which is a primary function of a typical housing policy.

Pakistan lacks a comprehensive urban & regional planning framework, which has led to lack of 1) a formal classification of cities in terms of population and economic base; 2) a comprehensive hierarchy of federal, provincial, and local spatial plans and strategies attempting to translate a shared national vision, their planning and updating processes; and 3) a hierarchical institutional & regulatory framework and a well-coordinated local government system for its implementation.

Because of lack of collective vision, public sector entities at provincial or local levels do not have aligned or unified plans to follow. Most of the cities have outdated master plans or outline development plans, and those available are of inadequate quality, not providing any strategic direction to resolve present issues. The existing planning instruments including land use or housing rules and master/strategic plans without a vision, or a legislation do not provide any direction for developing trunk infrastructure and services or aim to develop inclusive and complete communities (with high density, mixed use, mixed income etc.). Similarly, the building regulations or bylaws, which are usually supplementary legislation to translate the vision and plans are used as stand-alone regulatory instruments adding to the inflated cost of housing as well as poor urban form.

Pakistan has several institutions across its federal, provincial, and local governments, which do not have clear physical or functional authority, which creates confusion about their mandates and responsibilities, and due to lack of an overarching legislation there is no way to hold any public office accountable for unplanned developments. For example: Five large cities of Punjab namely Faisalabad, Gujranwala, Lahore, Multan, and Rawalpindi, are all million plus cities, yet without a unified urban boundary for their urban entities to provide services within. Even the Development Authorities own a small portion of the urbanized area with different development framework.

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STRUCTURE OF LAND SUPPLY

Noman Ahmed and Sana Malik

This chapter documents and critiques the structure of land supply for housing in Pakistan. Land, the major component of housing development, needs prime consideration for the motive to provide housing services at affordable rates to underprivileged citizens (Ahmed, Jawaid & Khalil, 2021). Literature has established that the need for adequate housing comes from 60 percent of low-income groups (Asalam & Sattar, 2018). Hence, the delivery of low-income housing has been acknowledged for economic development at national and local levels in New Urban Agenda (UN-Habitat, 2016). In developing countries, urban areas are congested with low-quality housing for urban poor masses. Insufficient government resources led to the contested and inefficient housing market promoting sprawl, land speculation, poor land records, and weak finance systems (Hassan, 2017). In Pakistan, low-income housing provision has been limited, with few executed projects leaving insignificant supply as compared to the actual demand (Tariq, 2012; Islam, 2015). Lack of affordable housing supply is caused by a range of impediments including weak property rights, irregular construction frameworks, limited housing finance, inadequate taxation mechanisms, and delayed land acquisition (GoPb, 2015; Tariq et al 2018).

The lack of affordable housing supply and high demand of the same from the urban poor leads to copious cases of *katchi abadies* or informal subdivision of agricultural land on the periphery of urban settlements. However, contrary to the current government practice, literature suggests that such migration must not be discouraged as it has been considered an engine of the growth for cities (Nayab, 2022). The situation of housing service, in such areas, is nevertheless miserable as found in Pakistan Standards of Living Measurement Survey (PSLM) 2018-2019 that included reports on housing, water, and sanitation.

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This chapter discusses the structure of land supply amongst such dynamics of housing supply wherein land is the major component.

National Housing Policy (NHP) of Pakistan incorporated that the provincial departments in collaboration with other departments and bodies shall identify and provide land to development agencies and the private sector builders and developers on concessionary rates (GoP, 2001). However local and national planning forums have not addressed the need as expected. Most of the cities in the country are dominated by poor housing, inadequate social services, unfulfilling infrastructure, and a considerable proportion of citizens living in slums or informal housing settlements (Planning & Development Board, 2018).

Due to limited results, the government faces the challenge of identifying and solving the operational loopholes of housing markets (Ahmad & Anjum, 2012; Hashmi, 2016; Tariq et al, 2018). Spatial planning of Pakistani cities must offer preference to natural resources, fixing the boundaries of cities, preparing master plans, clearly demarcating highly productive agricultural lands, revising zoning laws, and applying use of interactive tools like geo-mapping for the governance.

Multiple accounts inform that Pakistan is urbanizing fast. The urban population was recorded as 75 million (or 36 percent of total population) in 2017 census. By the year 2030, it is estimated that about 49.8 percent of the people will be living in cities or settlements possessing urban characteristics; yet professionals and researchers of the domain consider that this percentage is already more than this but hidden and unaccounted from the official sources.

Historically referring, the provincial and regional distribution of urban population in Pakistan is asymmetrical. Per most recent population census, Sindh is the most urbanized province with 52 percent people estimated to be living in cities. Much of this population is concentrated in the larger urban region of Karachi which is one of the fastest growing mega cities in the region (Table 3.1). Punjab has large urban agglomerations along the regional axis of Grand Trunk Road comprising Lahore, Gujranwala, Rawalpindi, and Gujrat. Faisalabad, Multan, and Sialkot are other important urban locations in Punjab, which are growing faster than their hinterland in terms of population. The province is

estimated to be 37 percent urbanized (Bureau of Statistics, 2017) with a fair share of medium and small sized urban settlements along roads, highways, and major riverbanks.

Balochistan has about 27 percent of the population residing in urban areas (Bureau of Statistics, 2017), principally Quetta and its environs. Whereas some settlement expansion activity was witnessed along Gwadar and nearby coastal locations in this province, the poor law and order conditions in the recent past have halted such trends. Khyber Pakhtunkhwa Province (KPK), along with Federally Administered Tribal Areas (FATA), is estimated to possess 17 percent of its population living in urban locations. Islamabad Capital Territory accounts for about one million urban dwellers. Increasing housing demand makes it one of the challenges the governments must grapple with.

According to legal and constitutional provisions, housing is a provincial subject, though other tiers of government have various roles. Various departments of provincial governments are responsible for dealing with planning, development and regulatory issues related to housing. Table 3.2 provides a basic outline of institutional roles and responsibilities in respect to housing.

3.1 LAND FOR HOUSING: A PROVINCIAL SUBJECT

After the 18th amendment in the constitution of Pakistan in 2010, housing was declared as a provincial subject. The impact of the policies by the provincial authorities, however, have resulted in formal land markets that are prone to speculation and personal motives of investment. Moreover, the public has lost interest in government-led housing programs and started to believe that such programs are merely for political victory rather than to serve the unprivileged groups of people (Aslam, 2014; Siddiqui, 2015). In major cities, like Lahore, the development authorities (DA) play only a marginal role for the provision of low-income or affordable housing. Besides, the standards imposed by government agencies are not supportive either. Hasan & Arif (2018) argued that appropriate housing standards were needed for those involved in the housing densification process. This argument is consistent with the motive that high-rise buildings will be constructed instead of horizontal ones to minimize the use of land (Mustafa, 2019).

Provincial bodies in each province adopted different approaches. For example, the

provision of land has been tried through government owned companies like Punjab Land Development Company (PLDC) with the aim to reduce procedural delays to enhance the speed of planning phase. The land acquisition comes in the authority of provincial bodies after the 18th constitutional amendment. Board of Revenue (Punjab) plays this part when government initiated housing projects need acquisition of the land. Furthermore, on the model of housing tax credits in the US, Punjab Housing and Town Planning Agency (PHATA) has planned to offer tax relaxations to the developers who would offer affordable housing, the impact of which remains a future research question.

Land supply for housing through private sector development is also ripe with challenges. Poor directories of land records, for example, can be seen as a compelling cause of delayed approvals of private housing schemes. Further, pledging the land documents is an important part of the housing mortgage agreement, which is again a time taking process.

Table 3.1: Pattern of Migration in Sindh

From Provinces and Administrative Areas	To Rest of Sindh Percentage (%)	To Karachi Percentage (%)	Total Percentage (%)
Punjab	12	88	100
Khyber Pakhtunkhwa	4	96	100
Balochistan	11	89	100
Islamabad and FATA	1	99	100
Total	8	92	

Source: Authors (2023) derivation from census data and related analysis

Table 3.2: Institutional Responsibility Matrix

Function	A Basic Outline Federal Government					Provincial Government									Local Government				Private Sector	
	Planning & Development Division	Economic Affairs Division	Cantonment Board	National Highways Authority	Railway	P&D/ Line	Commissioner	*Katchi Abadis* Authority	Environmental Protection Agency	Development Authorities	Planning and Development Departments	*Katchi Abadis* Authority	Traffic Engineering Bureaus	Building Control Authorities	Water and Sanitation Agencies	Municipal Corporation	Building Control Authorities	Municipal	Cooperative Housing Societies	Builders and Developers
Planning: Growth Strategies	■	■				■														
Planning: Form and Fabric			■							■	■									
Planning: Standards		■	■					■	■		■			■			■			
Coordination and Monitoring							■					■				■				
Building Control			■									■		■			■		■	
Land Cadastral Records			■		■	■				■						■			■	■
Land Development			■				■			■						■			■	■
Environmental Control		■	■						■											
Water and Sewerage			■		■					■		■			■				■	■
Transport Planning																				
Transport Infrastructure				■	■					■						■		■		
Traffic Engineering													■							
Katchi Abadis Leasing			■		■			■				■						■		
(Removal of Encroachments) and eviction								■		■		■				■		■		

Source: Authors

3.2 URBANIZATION AND LAND SUPPLY FOR HOUSING

The high rate of urbanization is one of the core determinants of land demand for housing. The current population of Karachi is estimated to be over 20 million. The number of households in the city is increasing fast, giving rise to intense demand for housing. The Karachi Strategic Development Plan 2020 established that 75 percent of citizens were in poor and low-income groups while 25 percent constituted the middle- and high-income groups. With a household size of 7 and average monthly household income of Rs. 15000 – equivalent to $250.00 (per 2005 rates as calculated in the plan), the affordability of the house remained a persistent challenge.

Likewise, Lahore has become a mega city with a population of over 11 million people per 2017 census. These estimates do not include the rural and semi-urban peripheries which are also experiencing fast growth. Islamabad became the fastest growing urban center per 2017 census. Demand for affordable housing is multiplying fast, especially for low- and middle-income groups in the capital metropolis.

The changing sociological dynamics in the urban areas are also important contributors to the increase in housing need. The joint family structure in cities is breaking down and nuclear families are spreading fast. Consequently, the demand for housing, especially apartments in large cities such as Karachi and single unit villas in various other urban locations, is rising. This is a trend which was observed from the results of 2017 census and has become consolidated thereafter.

The case study of Sindh shall be useful to review, being the most urbanized province of the country. As in Table 3.1, the resultant pattern shows that Karachi has been a focal attraction for people from across the country. Further estimates inform that 48 percent of all the people coming to Karachi decide to relocate due to economic incentives and employment opportunities, offered in the multi-dimensional services sector and the informal sector where unskilled and semi-skilled labor force is absorbed. A significant housing demand is correspondingly generated in the city which continues to multiply as the migrations rise. The transition in Afghanistan, military operation in Swat and Malakand division during 2009 and inter-clan feuds compelled sizable people from Afghanistan-Pakistan border, and KPK to relocate to Karachi. Besides the 2005

earthquake in Kashmir and KPK also made many displaced households come and begin a new life in Karachi. The 2010 and 2011 floods in Sindh and the rest of the country caused many people to move out and reside in safer locations – Karachi offered an attractive choice.

Replacement of housing stock is an important demand factor in the context of urban Pakistan. The baseline references can be drawn from the census data. Several housing studies reveal that a visible demand for housing repairs, replacement and re-development remains in urban areas across the country.

The housing crisis in Pakistan is not as much caused by a deficit of land as it is by un-equitable land ownership and misuse of available spaces. If the rural landscape is dominated by powerful feudalism owning agricultural land, then the urban landscape is dominated by land ownership resting in the hands of military or government entities. The military owns 12% of Pakistan's land which is increasingly being used to develop a multitude of gated-housing communities (Kunwar, 2021). Most notably, Defense Housing Authority (DHA) has continued to build its housing society in Karachi by encroaching on the land of Qayummabad residents who have protested this land-grabbing. On the other hand, with the building of Phase VIII, the DHA has encroached far into the coastal land posing a threat to both the people's security and the health of coastal environment. The Pakistan railway owns 167,690 acres of land across the country and launched an anti-encroachment drive to retrieve its' land in 2018 across Punjab, KP, Sindh and Baluchistan (The News, 2021). This land includes commercial, residential as well as agricultural areas as "dead capital" worth billions which can be used for public interest. Other public organizations also have massive amounts of landholdings in the country. The Pakistan Steel Mill's privatization saw a tussle for its land between the provincial Sindh government and the federal government. These 19,000 acres of land is estimated to be worth billions of rupees.

Many of the new low-income housing schemes initiated come under the authority of the Naya Pakistan Housing & Development Authority (NPHDA) including 9 new projects in KP's Peshawar and Mardan. The government aided the provincial governments in Punjab, KP, and Balochistan, for example Lahore Development Authority (LDA) announced a low-cost housing project based on 4000 apartments for low-income groups (Siddiqui, 2021).

Likewise, a new housing scheme is also launched in Gwadar under CPEC to accommodate local people. Although not particularly aimed at low-income groups, it claims to be "affordable" along with the availability of services such as drinking water, electricity, and internet supply. Table 3.3 offers insights into the housing formats in the country.

When it comes to the rural population of Pakistan, the situation is graver. Populations without access to land and assets such as livestock rely on feudal landowners for housing in exchange for their labor. With no access to land and lack of a permanent address, they do not have national identity cards, no access to education or health care and cannot demand justified wages or worker rights. They live outside the protective system with a constant threat of eviction from powerful landowners. There are several other projects which have warranted a country-wide forced eviction drive in the current government's tenure: for example, the affected of Karachi Circular Railway (KCR) project.

Table 3.3: Formats of Urban Housing in Pakistan

	Supply Format	Remarks
FORMAL	Self-built housing	Dominant mode of housing supply; undertaken in planned schemes through individually arranged resources; regulated by relevant zoning and building control authorities
	Developer / builder constructed housing	Visible mode of housing supply; more prominent in large cities where reasonable clientele and investment opportunities exist; comprises multiple typologies such as cottages, row hosing, walk up apartments and high-rises; financed through clients who pay according to agreed mode of payment; loan facilities occasionally facilitated by developers for their clients; regulated by concerned zoning and building control authorities
	Cooperative housing	Visible mode of housing supply; examples found in large and medium cities; land acquired for housing according to prescribed regulations; allotments done by the cooperative management; house construction undertaken either

FORMAL		individually by allottees or jointly arranged contractors; regulated by concerned zoning and building control authority
	Community housing	Small in scale; well-knit communities such as Parsis, Ismailis, Bohra and other communities' resort to such housing development; Planning and construction either follow the pattern of cooperative or developer built housing
	Welfare housing	Small in scale; provided by various public sector agencies through zakat funds or other relief packages; also includes alternative housing offered to victims of disasters or any development project
INFORMAL	Unorganized invasions on state land	Limited in scale; Groups targeted waste land or district locations in urban areas; housing evolved slowly and gradually; often evicted by state authorities
	Organized invasions on state land	Limited in scale; informally organized targeted land parcels and strips where state authorities did not have immediate priority of development; gradually mobilized and improved settlement; fear of eviction remained valid
	Illegal subdivision of state land	Large scale application: informal land sub-divider colludes with state functionaries, sub-divides and sell land to prospective beneficiaries on easy installments; resulting community lobbies with government to acquire services and infrastructure; possibilities of regularization exist under the relevant laws and procedures of *katchi abadis* regularization
	Unapproved subdivision of agricultural land	Large scale application in Northern Sindh, Punjab, and Khyber Pakhtunkhwa; informal entrepreneurs collude with local landlords for subdivision of agricultural land into housing development; also takes place along water ways, roads, highways, and rail roads; limited possibilities of regularization

INFORMAL	Nascent land grabbing under patronage of influential groups	Visible along peripheries of Karachi and some other large cities; targeting and occupation of state land (and even private lands); occupants, not necessarily needy urban poor, are made to reside to give a flavor of permanence to such settlements

Source: Authors (2023)

3.3 HOUSING AS AN INVESTMENT OPTION

Middle- and upper-income groups in major cities show a strong interest in investing in housing. This demand represents a significant portion of the overall market. According to records from the Association of Builders and Developers, there is a net demand of 400,000 housing units in various categories from the middle- and upper-income groups in the Karachi region alone. However, this demand remains suppressed due to several factors.

One major obstacle is the challenging law and order situation in the area. Cumbersome regulatory mechanisms and shortcomings in legal and administrative procedures for property transfer and registration further hinder the fulfillment of this demand. These factors create a discouraging environment for potential investors.

Another factor affecting the demand for housing is the unauthorized densification of low-density neighborhoods in cities like Karachi. Areas such as North Nazimabad, PECHS, Federal B Area, Societies Area, and Clifton witness the demolition of one-floor bungalows, making way for multi-floor apartments and other similar housing formats. However, despite these efforts, many of these housing schemes in Karachi remain unoccupied or underutilized.Speculation and poor law and order conditions in these outskirts areas contribute to this situation.

In Lahore and Faisalabad, developers in the northern region of the Association of Builders and Developers note a significant demand for spacious housing options. However, regulatory restrictions and limited availability of land pose challenges to meeting this demand. Similarly, Islamabad experiences an increasing demand for housing due to its political and administrative significance. As a result, new housing the continuous

announcement of new schemes in the adjoining areas of the capital territory. To attract the overseas Pakistani investors, many marketing companies have also opened offices and outlets in the Middle East, Europe, and North America where the diaspora is in substantial number. schemes are continuously being announced in the surrounding areas of the capital territory.

To attract investment from overseas Pakistanis, marketing companies have established offices and outlets in the Middle East, Europe, and North America. These efforts aim to tap into the substantial number of overseas Pakistanis residing in these regions and encourage them to invest in the housing sector.

Supply of land for urban housing is hindered by several factors. Inappropriate political decision-making process, obsolete and often retrogressive legal structure, weak administrative controls, incomplete and errors laden land records system and a cumbersome financial system are some mentions. Table 3.4 summarizes key constraints and outcomes in this respect.

Table 3.4: Housing Challenges from Real Estate Perspective

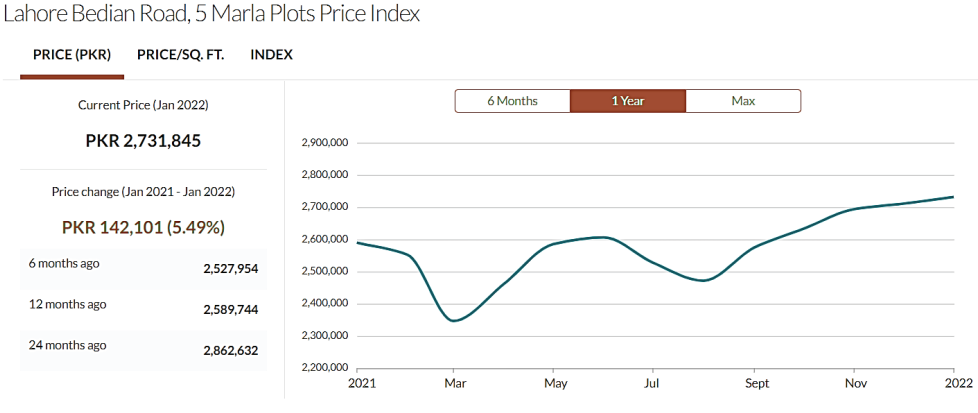
Dimension	Problem	Outcome
Political and decision-making related issues	Limited formal supply of state land to housing market; information flow barriers to stakeholders	Rise in informal practices; retardation of formal market
Legal	Vague titles; ineffective registration of lands; unclear SOPs for compulsory land acquisition	Uncertainty for purchasers; limited or no avenue for engaging banks, HBFC and other agencies
Administrative	Slow moving procedures; little or no comparative advantage for formal transactions	People take recourse to alternate ways of transactions
Financial	Substantial risk market: Banks wish to strictly indemnify mortgage transactions	High markup rates; clientele for banks extremely low

Source: Authors (2023)

For south Asian countries including Pakistan, urban sprawl because of uncontrolled alternations in land and building uses is the most profound attribute of urbanization. Land use and value are interlinked with each other, making land a sensitive and speculative subject in the investment market. USAID's (2016) report mentioned that the connection with infrastructure facilities and accessibility to the road network are primary parameters for measuring the price of the land as an investment and asset. A recent study identified the location as the most crucial factor for land valuation followed by basic amenities, size of the plot, documents, construction, usage, name, and fame of the company (Peerzado et al, 2021).

Major cities of Pakistan experienced an increase of more than fifty percent in their residential market value between 2013 and 2018 (per authors' interviews from real estate agents). The current trends of land price in Lahore city highlight the increase in land price around 6 to 70 percent for 5 marla plots (Wani, 2020). The variation in land value is certainly associated with the location concerning the city's future development (Figure 3.1). The expansion patterns are primarily towards the exchange routes like Motorway and Raiwind road in the case of Lahore. Irregular use of agricultural land for housing projects in peripheries of cities, creatures diminished impacts on agricultural productivity which can lead to land degradation, loss of green cover, and social instability for farmers. The urban land markets constitute a greater portion of the urban economy both in a formal and informal capacity. Yet they are ripe with inherent challenges. For example, prime nature reserve land parcels like lush green fields and jungles have been turned into housing schemes (Latif, 2021).

Figure 3.1: Price Trends for 5 Marla Plots in Various Locations in Lahore



Lahore Raiwind Road, 5 Marla Plots Price Index

PRICE (PKR) PRICE/SQ. FT. INDEX

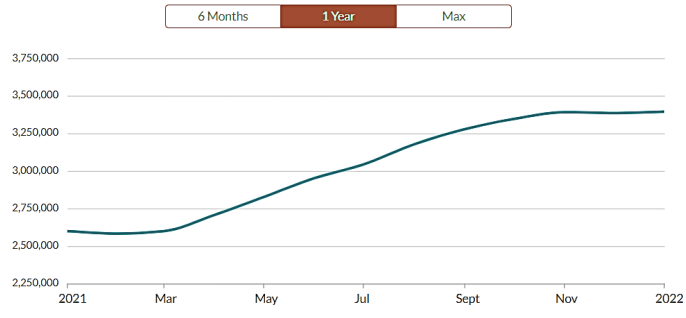
Current Price (Jan 2022)

PKR 3,394,070

Price change (Jan 2021 - Jan 2022)

PKR 794,638 (30.57%)

6 months ago	3,042,584
12 months ago	2,599,432
24 months ago	1,925,504



Lahore Motorway City, 5 Marla Plots Price Index

PRICE (PKR) PRICE/SQ. FT. INDEX

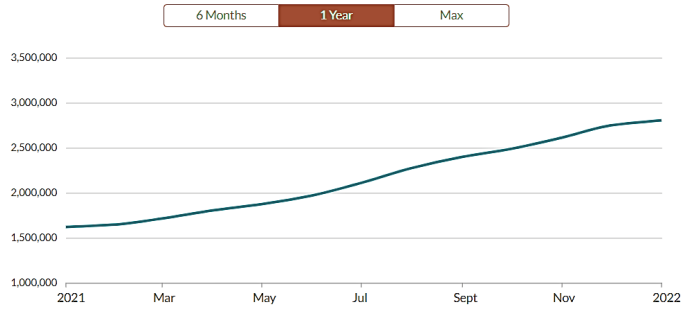
Current Price (Jan 2022)

PKR 2,805,514

Price change (Jan 2021 - Jan 2022)

PKR 1,185,147 (73.14%)

6 months ago	2,110,031
12 months ago	1,620,367
24 months ago	1,513,458



Source: Zameen.com (Accessed Online, 12 Feb 2022)

3.3.1 Property Transactions

The residential market in 2015 accounted for as much as 75 percent of the value of the real estate market and 44 percent of the value of the world's significant assets (Cellmer & Trojanek, 2020). The reason behind this is that the housing market is the most critical component of the real estate sector, making housing an outstanding commodity from other goods produced and consumed by human beings. For this reason, housing property transactions need a transparent scan to see the primary actors involved in both capacities (production & consumption). In Pakistan, after agriculture, real estate is the biggest sector for investment and generating employment due to its connection with more than 40 allied industries. However, the manual property system in terms of documenting profits and payments is now becoming impractical with an everyday busy schedule. IIPS (2022) mentioned that the investors skip this step to save time and rely solely on the

information provided by their respective 'property dealers'.

The property transactions in the real estate market for the housing sector were inquired by a range of key stakeholders. Interviewees such as state stakeholders revealed the significant role of federal departments like SBP, MHW, and FGEHA in terms of housing finance, policy framework, and low-income housing development. The State bank of Pakistan (SBP) has a priority area of development finance which involves housing particularly the low-cost housing finance besides agriculture and SME finance (Interview, SBP official, 2020). SBP also secured a prominent spot as several interviewees also mentioned that SBP is the regulatory body for all the banks and tax relations, as well as foreclosure laws, come under its domain. SBP has a critical role in the policy-making process, and it directs other banks to prepare the draft of relevant finance sections (Interview, SBP official, 2020).

Given such a key role of SBP, another interviewee expressed that HTF requested the sitting Prime Minister that commercial actors in the private sector will not play their active role for NPHP without effective policy from SBP (Interview, HTF official, 2020). Property taxes for transfer come under the provisional domain including stamp duties, which were advised to reduce for bringing transaction cost up to 2 percent of the total cost, hence cutting the overall cost of the property up to 4 to 5 percent (Interview, Private developer, 2020).

3.3.2 Profits and Pricing

According to the SBP, Pakistan has a huge informal economy, estimated at around 70 percent to 91 percent of GDP (Gross Domestic Product), according to the SBP (Delmendo, 2019). The informal nature of property accounts in the country has caused unreported profits in huge percentages due to the poor regulatory measures and inefficient property valuation systems. This informality has been coupled with the negative role to be played by property agents serving in the residential markets of major cities. Market stakeholders like developers and real estate agents control the profit earnings and payment schedule for the urban housing sector. Developers buy the agricultural land in cheaper means and then after suffering through cumbersome approval processes sell the land to common people multiple times its actual price. In the absence of rules, certain unscrupulous developers used to buy farmlands at cheap rates, pay taxes at lower rates and develop

them into housing societies (Mustafa, 2019). For the formal land market, property dealers or real estate agents play the primary role in property transactions. For earning a personal profit, they share exciting offers about the quick profit gains to plot owners to sell and invest over and over. Gul et al (2016) documented that an average per marla annual plot value increased by 16 percent in comparison to an 8 percent increase for a house.

Tirmizi (2020) shared that a comparison of property as investment besides other asset markets like the stock market, gold, government bonds, and foreign currencies was conducted against average inflation; and the complied index showed average returns across these asset classes in Pakistan over the last two decades. To control this market of housing, FBR issued orders to the housing development authorities about regulating the real estate agents and made their registration mandatory with the Anti-Money Laundering (AML) Act. Rana (2021) revealed that the condition to suspend business with the unregistered real estate agents will come into effect on January 1, 2022, according to a notification issued by FBR to prevent the offenses of money laundering, predicate offenses, or financing of terrorism. To control the profit gains by speculators in Bahria Town (Lahore), it was advised to introduce the capital gains tax on profits earned through the resale of plots as another discouraging measure for speculators (Gul et. al. 2018).

3.4 HOUSING PROVISION MODELS

State provided housing is furnished through the conventional model in which the government owns the land and tenders the project to the private sector. Within the scope of the conventional model, PHATA is launching a site and services scheme with the subsidized rate of land in anticipation of NPHP, and housing unit cost would be 18 lac PKR cheaper than the market rate (Interviews, PHATA officials, 2019). It implies that the site & services scheme is adopted in public low-income housing, the land is developed into serviced one by providing infrastructure and then plots are being sold to customers and clients for building their houses. PLDC and PHATA also followed the site and services for housing projects (Interview, Former Government official- LDA & PLDC, 2019).

Civil society projects are more oriented towards a cross-subsidy model based on corporate social responsibility (CSR). *Ansar* Management Company (AMC) conceived the claimed

affordable housing project as low-income housing development within social enterprise capacity in Faisalabad and Lahore. According to the cross-subsidy model adopted for their project, *Safia* homes, the applicant must immediately move into the allotted house within 60 days and the beneficiary is not allowed to sell it before 4 years (Interview, AMC official, 2020). Incremental housing is also an important model that is adopted by the project owners and beneficiaries within low-income communities. Regarding the alliance of GoP with *Akhuwat*, a world-renowned local NGO, for low-income housing provision, beneficiaries would be provided with 500,000 PKR provided as an interest-free loan to assist them to construct the basic structure of their own house including one room, a washroom, and a kitchen (Interview, Akhuwat official, 2020).

Slum up-gradation programs were also highlighted by interviewees to provide affordable housing to low-income groups. One of the interviewees shared an account of professional experience of upgrading a slum in the past while being serving as a government official in LDA. "community-based planning (in consultation with local people) was introduced which led to road pavements and proper installation of sewerage systems to avoid maximum demolition; in evidence to this, people happily paid the up-gradation charges and land titles were given to them within a year improving lives of around 150,000 persons (Interview, Former Government official- LDA & PLDC-official, 2019).

In the domain of the Public-Private Partnership (PPP) model, the low-income housing sector has not seen a bright side for a long time in Pakistan. PPP-based projects have been done in roads and infrastructure, however, within the housing context, it still needs to be matured (Interview, PHATA Official, 2019). Limited attempts of PPP for housing provision were conducted by industry within the private sector in an individual capacity by a few major market stakeholders. Recently Akhuwat has launched a housing project for poor people with the collaboration of the University of Lahore (UOL) and other private donors (Interview, Akhuwat official, 2020).

3.5 FORMAL LAND MARKETS FOR HOUSING

The formal land market in the urban context is doubting the provision of adequate housing units to everyone. Speculation about the real estate market is making housing units unaffordable for low- and middle-income groups. Similar is the case with the

informal housing market where land is expensive for the informal sector. Previous studies have shared the reasons for the growth of *katchi abadis* and informal settlements (Table 3.5). Speculative aspects of inflation in the real estate market for housing properties are related to both formal and informal sectors. Pakistan was positioned in the 3rd quadrant (strong formal institutions and weak informal institutions) among poor countries representing those countries that score high on the formal index and low on the informal scale (Williamson, 2009). His study suggested that strong informal institutions must be obligatory for formal institutions to be effective. This can be related well to the housing sector where formal institutions are not working properly due to weak informal institutional arrangements and a lack of trust between the stakeholders.

Squatting or slum-dwelling are integral parts of the urban sector that continue to be undiminished. The squatting and informal housing activities influence societies at large from individuals, groups, and political parties. In addition to this, the unresponsive attitude of government officials creates more frustration and disappointment in the urban poor. Malik, Slum-dwellers experience worse issues and challenges in their daily routine in comparison to the squatter communities, which are dealing with the low provision of public services and poor governance. However, the property transactions within the informal sector are an ongoing process. Alvi (1997) discussed this matter previously that despite the dubious status of land in the squatter settlements, both houses and land are sold on the market, making it gradually a sub-sector of the housing market.

Urbanization is demanding the crucial use of urban land for different purposes of city management. The way the development and economic process happens in urban areas demands more land area for residential, hospitals, schools, industrial and commercial purposes, which increases cultivatable land and its periphery (Bertaud, 2010). The constitutional standing of land for housing, land value, and property transactions in the real sector is the foundation for understanding the vast subject of urban land markets.

Vast swathes of state land exist in the peri-urban rim of Karachi while ample private land exists in the peripheries of Lahore, Peshawar, and Islamabad. More than four months are needed to complete the transaction of state land if no other objection or encumbrance is found while more than two months are required to complete the transaction of private property. At the slightest procedural lacunae, the transaction gets delayed by weeks and months. Besides an extremely high value of transaction cost must be borne by the buyer.

Table 3.5: Major Reasons for Growth of Informal Settlements

Key Factors	Explanation
Expensive land	The land developed by the government for the poor is too expensive.
Cumbersome Procedures	Land acquiring and transfer procedures are daunting and cumbersome.
Immediate need	The needy groups of people including low-income households and the poor immediately need land.
Non-availability of assistance	Once the land transfer process is complete, the technical aid programs and construction loans are not available to the poor.
Failed system	Government operations and policies have failed in getting control over the informal sector where Low-income households continue to build houses on ill-legal land.
Speculation	Once the land is developed for public housing projects by the government, speculators jump in either professionally or through personal investments

Source: Adapted from (Hasan, 2012; and Malik & Wahid 2014)

Land related transactions often become sources of long-standing disputes which drag for months and years in courts of competent authority. In many cases, even after obtaining favorable verdicts from courts of law, the concerned litigants do not benefit due to the unlawful influences that are at work in normal situations. Karachi and cities in southern Sindh are impacted by this problem. Informal mechanisms of dispute resolution through the intervention of political activists or area influential occasionally help but such attempts do not make the titles of properties bankable or worthy of mortgage. Similarly, while the foreclosure laws and other legal structures allow the re-possession of properties stuck under default or other forms of non-payments, the same properties fetch exceptionally low prices and show remote possibility of becoming worthy of consideration for lenders. Table 3.6 provides a summary of land supply options for housing.

As found in the State of Pakistani Cities Report 2018 (by UN Habitat), the larger cities in Pakistan have experienced a gradual expansion into the periphery land as extended part of cities further enlarging the urban sprawl. As a result, the urban landscape of Pakistan is laid out in segments of formal and informal settlements with a lack of adequate housing

supply. The scarcity of land in suitable places is created not solely due to lack of adequate housing but because of unaffordable prices. The areas that might be suitable for low-income housing schemes are allocated to commercial projects as a result a market-driven shortfall is created in the housing supply leading to the formation of informal settlements.

Table 3.6: Formal Land Supply Options in Urban Areas of Pakistan

Land Supply Mode	Brief Description
Public housing schemes	Planned and developed by development authorities in larger cities and physical planning & hosing (and other) departments by provincial government; distribution of plots done through balloting from the applicants; no effective compulsion to occupy and build upon allotted land; schemes normally subsidized by the government.
Schemes by Defence Housing Authorities and other military agencies	Planned, allotted, and developed by the respective military establishment for their retired and serving personnel; sold and re-sold to high end clientele; major source of speculation and investment for property sector; focused towards upper and upper middle-income groups.
Public housing schemes	Planned and developed by commercial developers; allotted according to market prices; substantial diversity of typology – ranges from basic land subdivision schemes to developed real estate ventures with substantial facilities normally exist in large cities.
Schemes by cooperative societies	Societies of employees, communities or any other type of group is founded; acquired land from provincial boards of revenue, private sector, or any other local arrangement; possess varied performance indicators – some schemes are managed and occupied while many others experience non-occupancy and utilization

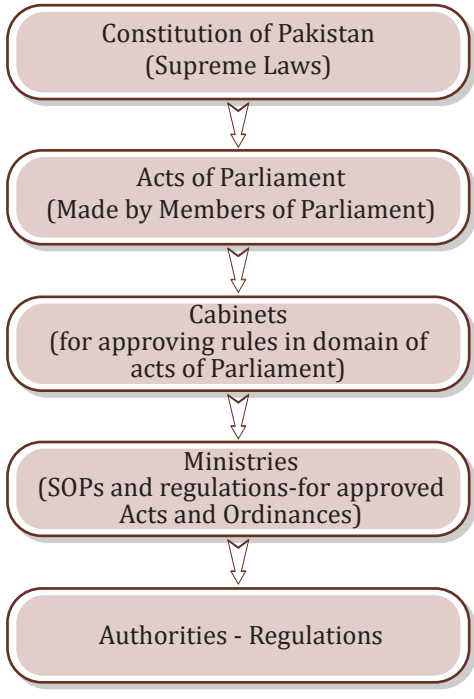
Source: Authors (2023)

Housing laws and legislations are passed from the cabinet and provincial assemblies. The legislative hierarchy concerning the constitution of Pakistan impacts the approval processes of housing laws and regulations. This information was shared in detail by

private and public sector officials (Figure 3.2) revealing that the ultimate power lies within the central core (cabinet) of this legislative hierarchy. The approval process is an interlinked one as "rules and regulations are made by government authorities and chief ministers at the provincial level, the approval is solely in the hands of the provincial minister as cabinet members (Interview, urban development consultant, 2019).

This legislative hierarchy was approved by most of the state stakeholders by mentioning that after the 18th amendment in 2010 within the constitution of Pakistan, housing was designated as a provincial subject. Housing legislation has great scope since it aims to boost the ratio of mortgages through foreclosure laws. Property recovery ordinance (PRO) is important housing legislation that is meant to strengthen the mortgage facility by approving the foreclosure laws. Draft of PRO has been prepared and recently an ordinance is being passed, however, it still carries the time-lapse to get approval from the cabinet (Interview, SBP official, 2020).

Figure 3.2: Legislative Hierarchy per the Constitution of Pakistan



Source: Authors (2023) (Derived from interviews with LDA and former Urban Unit officials, 2019 & 2020)

3.5.1 Planning Permission

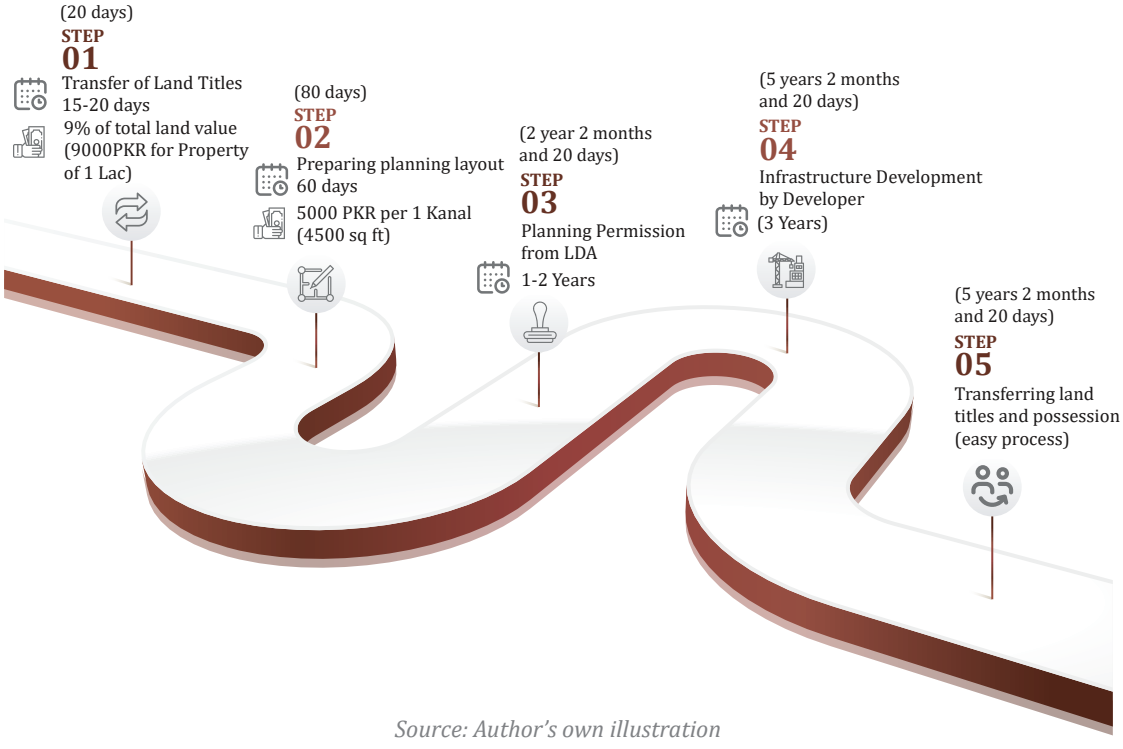
The housing development process in the urban sector is tedious. The lengthy process is due to the lack of digital databases in the property sector and inadequate and inefficient verification systems. The need for a digital database has been recently raised by major policy think tanks. A digital database might help eliminate third parties, i.e., brokers, from the real estate transactions and reduce the incidents of malpractices or fraudulent transactions. In the context of Lahore as the capital city of the biggest province of Punjab in Pakistan, according to qualitative data from interviews, the formal land approval process can take up to 5 years.

Table 3.7: Steps of Planning Permission for Housing Development Projects in Lahore

Key Steps	Explanation
Transfer of land titles	Ownership documents approved by Board of Revenue (Punjab).
Preparing the planning layout	Consultants are hired to develop masterplan and land use as per project requirements.
Planning permission from the local DA	This stage consists of two phases: Verification of documents: NOC from Revenue Department and consultant drawings Technical Approval: NOC required from different authorities overlooking gas, water, and environment, etc.
Infrastructure development	Provision of roads, sewerage, light, gas, and other amenities, here work progress is observed by LDA officials.
Advertisement & sales	Transferring land titles and possession of the property.

Source: Authors (2023) (Data extracted from an interview with big and medium-sized developers, Jan, and March 2020)

Figure 3.3: Developer Value Chain for Lahore City



Source: Author's own illustration

3.6 RENTAL HOUSING

In Pakistan, the main modality of access to housing is through ownership and everyone desires to own one. According to the 2017 census, around 67.6 percent of the existing housing stock is owned by individuals or families. On the other hand, a relatively small percentage of households live as tenants, being one of the lowest ratio of rental vs ownership. Interestingly, rental housing options are not well-developed in urban areas of the country. Despite the rising costs of housing for lower- and middle-income groups, the idea of expanding rental housing hasn't been explored much.

The absence of rental housing choices reflects certain socio-economic realities in Pakistan. It suggests that, to survive, individuals are compelled to acquire housing through formal or informal means, often resorting to ownership. Reviewing the background of the rental housing situation reveals significant issues that need to be understood and addressed to find solutions.

Rent control laws in Pakistan generally favor tenants, which means property owners may struggle to generate fair returns on their investments. The Sindh Rent Control Ordinance of 1979 and the Punjab Rent Restriction Ordinance of 1959, for example, have similar provisions that impact the rental housing landscape in the respective regions.

3.7 KATCHI ABADIS (SQUATTER SETTLEMENTS)

A *katchi abadi*, also known as a squatter settlement, is an informal residential area that emerges on land owned by public agencies or departments. As the practice of squatting became more organized departments. When the phenomena of squatting became organized and spread to a sizable proportion of urban residential locations in Karachi and other large cities of Sindh, the Sindh *Katchi Abadis* Authority Act was enacted in 1987 and an authority was founded to manage *katchi abadis* affairs. Per these rules, the settlements established before 30 June 1997 are eligible to be regularized. The urban poor groups, many of whom are residing for several years, do not receive the security of tenure that could encourage them to improve the conditions of their housing units.and widespread in cities like Karachi and other areas in Sindh, the Sindh *Katchi Abadis* Authority Act was enacted in 1987. This act established an authority responsible for managing the affairs of these settlements.

According to the regulations set forth, settlements established prior to June 30, 1997, are eligible for regularization. However, the urban poor residing in these settlements, many of whom have been living there for years, do not enjoy secure tenure rights. The absence of tenure security discourages them from making improvements to their housing units.

Without the assurance of long-term ownership or rights, residents lack the motivation to invest in the maintenance or enhancement of their homes. This situation poses significant challenges in providing suitable housing for the urban poor and impedes efforts to improve living conditions in *katchi abadis*.

Similar legislation, namely Punjab *Katchi Abadis* Act of 1992, was passed in Punjab. A survey on 154 *katchi abadis* of many sizes was conducted by Lahore Development Authority in 2010 to examine the status of regularization. Likewise in Islamabad, unofficial estimates inform 70,000 inhabitants live in 28 *katchi abadis* in different sectors. Under its Urban Shelter Program, the Capital Development Authority – which only

recognized 10 *katchi abadis* – offered to relocate the inhabitants to a semi-urban location but the effort failed because of an unsuitable alternative location.

Threats of evictions and litigation continue to mar the complex issues of *katchi abadis* in Islamabad where affordable housing options for poor and lower income groups are nonexistent. As reported by CDA, many refugees from Afghanistan, displaced people from FATA and KPK have illegally occupied some areas in 'I' sector in the capital city. The CDA is advised to evict these settlements by the standing committees of National Assembly and Senate which make the matters further complicated. The Khyber Pakhtunkhwa *Katchi Abadis* Act of 1996 has similar provisions for the city of Peshawar and elsewhere. The *katchi abadis* are scattered all along the city and peripheries. Many settlements also exist on Railway lands. While the Ministers and top officials have announced the regularization of all abadis on railways lands, the local functionaries often deny the possibility of regularization due to administrative and legal reasons.

The situation demands objective assessment and survey of *katchi abadis* and for mention of an inclusive and effective strategy to upgrade the *abadis* without causing social dislocations. Evictions are a dominant faced by the urban poor in the present time. The flow of migrants to urban centers has been continuous since the inception of Pakistan. Administrative and institutional mismanagement has caused migrants to form informal settlements at the behest of government officials and private builders which built on public property such as urban *nullahs*. The urban flash-flooding of June 2020 caused the government to put blame on these squatter settlements built on urban *nullahs* instead of addressing years of institutional mismanagement which allowed these settlements to be formed and prevented their residents from finding permanent, formalized housing. *Ali* (2021). The narrative that evictions among urban *nullahs* such as those in *Orangi* Town and *Gujjar Nullah* were needed benefited construction companies and other actors in real-estate. Backed by this government narrative, they were able to evict thousands of people and demolish housing along the nullah without prior notice and without addressing the rehabilitation of the residents. Urban experts including point out that embankments along nullahs are just one reason why urban flooding takes place, most of it happens because the main drainages to the sea are blocked with garbage and chemical sludge, so the widening of respective *nullahs* is not going to completely curb urban flooding in the future (Hasan, 2021). Locals with the help of Urban Resource Centre and

activist movements such as *Karachi Bachao Tahreek* are dealing with this unjust eviction movement by mapping their own areas, measuring how much of the nullahs are filled with debris.

3.8 BUILDING CONTROL AND ZONING

The building control and zoning laws have significant room for improvement. The Sindh Building Control Ordinance (SBCO) 1979 is the key statute that has led to the enforcement of zoning and building bye laws and monitoring and enforcement through Sindh Building Control Authority. Under SBCO 1979, Karachi Building and Town Planning Regulations 2002 were promulgated which were periodically revised. The contents related to housing include procedures for developing public sale projects for open clientele, licensing professionals for construction, standards for land development, procedures for land subdivision or amalgamation, zoning control and related affairs. As the nature of most of the bye laws is prescriptive therefore performance or demand related matters are also addressed in the same manner. In other words, no innovative solution is possible to be implemented. Allegations of long stretched and time demanding procedures also affect the performance of housing entrepreneurs.

In cities like Lahore and other areas in Punjab, there have been established legal measures to address urban development for about thirty years now. The Punjab Land Use (Classification, Re-Classification, and Redevelopment) Rules of 2008, which were introduced under the Punjab Local Government Ordinance 2001, provide a framework for categorizing different types of residential areas. These rules also empower the Lahore Development Authority (LDA) to conduct surveys and develop plans to upgrade and redevelop these areas, adhering to technical and administrative guidelines.

One of the main issues faced by urban neighborhoods in Lahore is the low-density, low-rise development that primarily occurs in the southern parts of the city. Although the Lahore Master Plan 2005-2021 addresses this concern, the implementation of redevelopment plans and efforts to increase population density have been limited.

To regulate the development and sale of residential properties, the Punjab Private Housing and Land Subdivision Rules 2010 were introduced. However, there is a recurring

problem of unauthorized and unregulated schemes being developed, often by politically influential developers, who disregard the legal and administrative provisions in place.

In Islamabad, the Capital Development Authority (CDA) exercises strict control over land development and housing construction processes. Despite these regulations, the expansion of peri-urban areas often disregards the planning controls enforced by the authority.

Similarly, Peshawar faces similar challenges due to the absence of a technically sound and administratively valid master plan. This absence creates difficulties in effectively managing and regulating urban development in the city.

3.9 FINAL WORD

Housing is the most beneficial asset one could have in one's lifetime. However, this dream becomes difficult to achieve for urban poor residents in major cities. The provision of land for such housing projects is the fundamental commodity to execute this dream. Substandard and insecure housing conditions are acting as key determinants of urban poverty in major cities of Pakistan. Little efforts were made in translating the new paradigm of the Naya Pakistan Housing Program (NPHP), launched in 2018, into viable and sustainable policies, following the trend of previous governments. However, the execution side has not seen the bright side of such programs on a massive scale.

It is important to investigate the issues of urban land use focusing housing sector for speculation, urban land records, land acquisition, land valuation, planning approvals, and perspectives of profits and payments. Learning from the formal land markets would help in determining the present and future of the form of cities in terms of housing development and the socio-economic wellbeing of people.

This chapter discussed the land subject from multiple perspectives for housing development and planning in the urban sector. Some key conclusions and ways forward can be drawn out based on the arguments presented by different government and market officials. There is a need to understand the confusion about land acquisition and regulatory approvals, the former comes under the provincial domain and the latter comes under the local domain (DA).

The land records must be maintained as with the actual data and must be updated monthly to overcome the issues of false property transactions. This information is also important for keeping a check on the growth of informal housing units, open plots, rental units, and housing units in construction, demanding to strengthen the local authorities and power decentralization. Interlinkage of several factors is needed to be taken care of for future housing direction including the planning process, informal squatting, speculation, inflation of real estate sector, immediate need of land for poor, and availability of construction loans. The cumbersome process of getting the planning permission for formal housing developments is also a roadway to the growth of katchi abadis and less interest from developers to go into the formal land market. This segment of the urban development sector needs extensive reforms with respect to approvals of planning permission and developer engagement in this process.

Speculation is the key factor for keeping the urban poor out of access to adequate housing units and land in both markets. Property transactions must be documented through the implementation of the RERA manifesto. Housing development in the urban sector involves a complex framework of institutions, approvals, procedures, regulations, and legislation. The interesting facts of developing urban land into housing projects highlighted the crucial role of land records and acquisition as the stumbling point for the smooth institutional working of the sector.

For the housing provision models, it must be accepted that the same projects cannot serve all the deserving groups in need of adequate shelter. It is important to shift the housing planning with consideration of incremental, cross-subsidy, and PPP models besides the conventional method. Pakistan lacks housing research, and the sector needs to be further analyzed in multiple dimensions ranging from the socio-political relations of, housing politics, real estate regulation, sustainable financing, and institutional arrangements. A summary of the key housing indicators reviewed in this chapter is annotated in Table 3.8.

Table 3.8: Status of Key Urban Housing Indicators

	Indicator	Remarks
Housing Demand	75 million urban dwellers in Pakistan in 2017 living in 4.1 million units in Pakistan	Urban population expanding faster than national average it shall become 49.8 percent of the total by 2030
	5.7 million urban dwellers in KPK; 40.5 million in Punjab; 24.8.02 in Sindh; 3.41 million in Baluchistan and 1 million in Islamabad for 2017	In every province and Islamabad Capital Territory, urban population growth rate is higher than national average – with a consequent demand factor for housing
	Earthquakes, floods, and terrorism are some causes that generate instant housing demand.	Climate change factors may induce disasters leading to housing demand – internal social re locations expanding – hence demand for housing shall rise
	Over 20 million people will inhabit Karachi in 2020 with 75 percent belonging to low-income groups	Karachi needs a focused and well thought out strategy for housing this category and facilitation of other income groups, in accordance with rational planning considerations
	Over million people will in habit Lahore – need 140,000 housing now and need is multiplied – 3000 units per annum	Lahore shall need a strategy to balance land supply sprawl and conversion of farmland into housing scientifically
	Peshawar comprises million urban dwellers in 2017 – demand rising at 22000 units per annum excluding backlog.	Spot destruction of housing and neighborhoods in Peshawar due to terror attacks is an overbearing factor which may have impacts on housing strategies and initiatives by conceived stakeholders

	Islamabad is expanding at over 5 percent per annum – requires more than 4000 units every year excluding backlog	Multiple types of housing options are necessary to be provided for Islamabad – including housing for low-income communities
Land	Speculative trading of land for housing, informal procedures of transactions, cumbersome process of conflict resolution and inappropriate responses from public agencies are key constraints – as observed in Karachi, Lahore, Islamabad, Peshawar, and other cities	Land price control, taxation on non-utilization, anti-sprawl strategies, priority utilization of vacant inner-city areas are desirable interventions – scientific organization of land and property records and preparation of urban land price index can also help address prevailing issues – city level planning agencies need to be supported in these tasks
Real Estate	Weak property rights, non-transparent regulatory mechanism, and long stretched litigation are detrimental to real estate development	Detailed appraisal of real estate sector and enacting policy instruments to eradicate inefficiency are needed on priority basis
Housing for Urban Poor	About 15 percent of urban population comprised urban poor as per numerous studies	Social dislocations and migrations due to disasters and geo-political factors shall add more numbers to urban poor – appropriate strategies needed for cities where this population is added
Investment in Housing	Interest of middle- and upper-income groups in investments in housing is found to be rising	Consolidation of property rights, transparency, and convenience in transactions, especially in large cities, can help accelerate this desirable trend.

Land Prices	Rising land prices detrimental in allowing access to housing for middle- and lower-income groups	Regulation and equilibrium through taxation instruments can be useful in rationalizing land prices – an efficient implementation mechanism at city scale is a pre-requisite in this regard
Finance	Multiple risks and predicaments have not allowed housing finance to grow more than 1% of GDP	Flaws in property ownership, rise in informal influences and a lengthy conflict resolution process are core reasons behind this reduced scale of contribution
Regulations	Effective laws and regulations such as Sindh Disposal of Urban Land Ordinance are repealed to serve powerful vested interests.	Legal and regulatory mechanism needs a thorough review and drastic overhaul to suit the investment need user requirements
Rental Housing	Imbalanced tilt of laws, procedures, market practices and social norms favor tenants and put owners in disadvantage	Enormous potential remains in rental housing sector due to movement of population – inherent risks in this sector can be minimized by creating fairness, documentation, and contract enforcement of tenancy agreements –

Source: Authors (2023)

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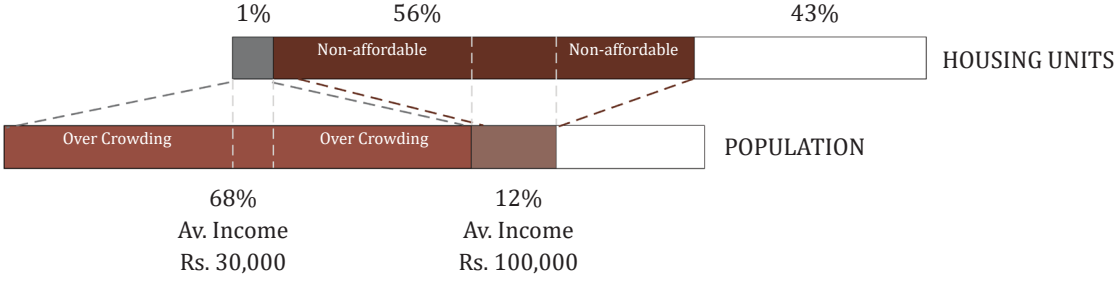
AN OVERVIEW OF HOUSING TYPOLOGIES

Samna Sadaf Khan, Muhammad Naveed Iftikhar and Syeda Sani-e-Zahra Naqvi

4.1 SUPPLY AND DEMAND OF HOUSING

To understand the housing typologies in Pakistan, it is important to review and analyze the current housing trend and market. These factors heavily influence the housing stock. Affordable housing is hard to come by in Pakistan. There is a market distortion with a profit-oriented supply through projects catering to higher to middle income groups. Shaikh (2018) has backed this perception using the data collected by Ansaar Management Company. We have summarized the data in a visual shown in figure 4.1. Only 1% of housing stock produced annually is suitable for 68% of the population who has an average monthly income of Rs.30,000. A further 56% of the units are accessed by only 12% of the population. The mismatch of housing provision is the reason for the housing backlog. This also demonstrates why low-income neighborhoods are overcrowded while higher income neighborhoods are spreading in the urban fabric with a lower density.

Figure 4.1: Housing Production from Private Sector



Source: Developed by authors. Data from Shaikh (2018)

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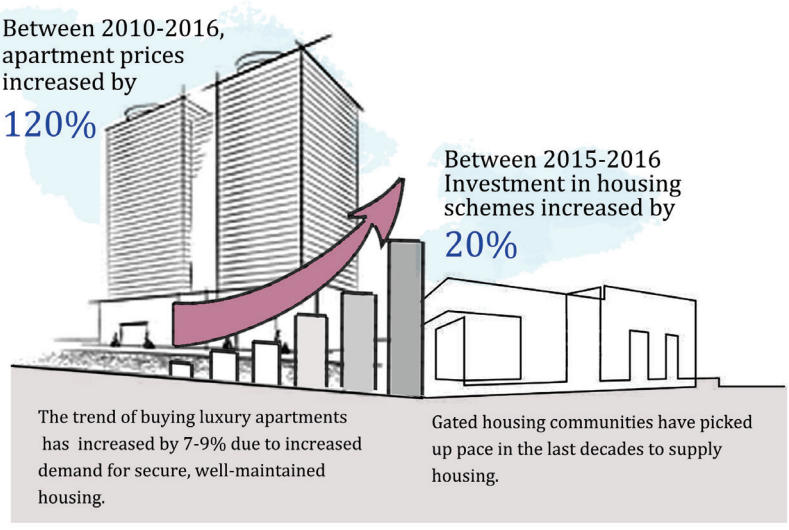
Hasan and Arif (2018) have also recognized the market distortion in Pakistan. Lower middle and low-income residents are marginalized in housing policies. It was the *'katchi abadis,'* which first met the housing demand of this group, followed by an informal subdivision of suburban agricultural land. The pace of development for infrastructure and amenities is slow in the outskirts of the city especially where a powerful investor is not involved. Thus, the other option lower income groups have is to opt for densification in urban centers by informally becoming mid-rise (Hasan and Arif, 2018).

The private sector, being the leading provider, constructs single-family homes in housing societies. These societies are also termed as gated communities with controlled access and fenced from the surrounding. Private investors mostly develop them for the public or they are an institutional outcome such as military residences, or townhouses complexes of a particular organization (Landman, 2000).

Apartment living became a popular housing solution for the middle-class in Karachi. Initially only the government provided mid-rise apartments as employee housing. When the private sector entered the market, they upscaled the typology to provide luxury apartments. Although apartments can provide many housing units in an adequate location, the affordability of luxury apartments makes them inaccessible to most of the population. The housing societies, on the other hand, cover a large area and are prone to speculation, fraudulent schemes, profit-making developers, and a long distance from work and education opportunities. Figure 4.2 highlights the trends of housing supply, which are making cities exclusionary and unsustainable.

Old dense neighborhoods and city centers have not seen any improvement in their housing stock. These areas are now fraught with problems of service delivery. The ever deteriorating but still commercially thriving city centers are marked with their characteristic chaos - traffic, street vendors, beggars and shoppers, low-walkability, visual clutter, noise, and pollution. The situation compels inhabitants to move out for a secure and peaceful home on the outskirts of the city.

Figure 4.2: Housing Supply Trends



Source: Developed by authors. Data from Shaikh (2018)

4.2 URBAN SPRAWL

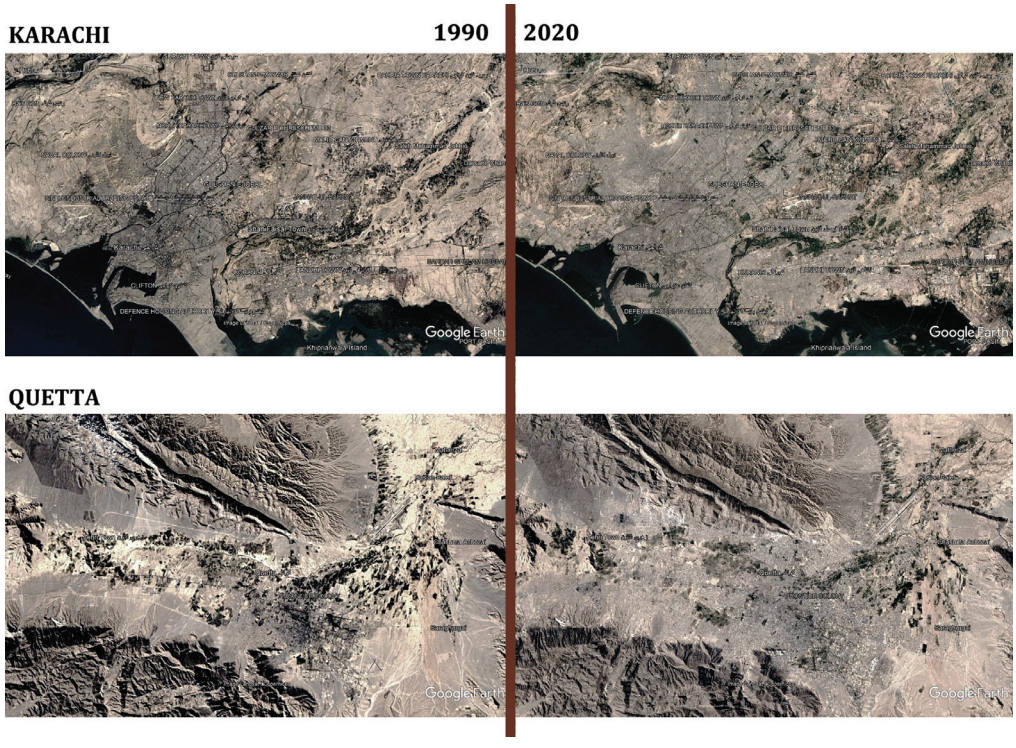
Pakistan is experiencing extensive urban sprawl due to state policies, which disperse population by converting agricultural land to urban land. From Islamabad-Rawalpindi and Faisalabad to Lahore and Karachi, urban sprawl is evident in the outward expansion of metropolitan regions and contiguous urban development.

Image processing of Google earth timeline imagery in figures shows the expansion of cities. While Karachi has expanded in the Northwest and East, it has also densified, eroding any green pockets available in the city. Quetta has seen a significant increase in population over the last three decades and has subsequently filled the built form in its valley.

Lahore has seen extensive expansion towards the South and East through the conversion of green agricultural land into gated housing societies. Massive infrastructural changes have connected the housing societies with the city center. Green pockets in Rawalpindi have also vanished with densification and expansion. The central sectors in Islamabad have remained low density with expansion towards the East, Southeast and West.

Likewise, Faisalabad, Multan, Peshawar, and Hyderabad have seen drastic changes in their footprint as observed in figures 4.4 and 4.5. The cities have been receptors of rural-urban migrations, hence expanded to meet the housing needs of the growing population. Dera Ghazi Khan, Wah, Abbottabad and Mingora are small cities, which have developed in the last three decades (Figure 4.6). If the growth is not monitored in time, the cities will face detrimental infrastructural changes and unsustainable horizontal expansion.

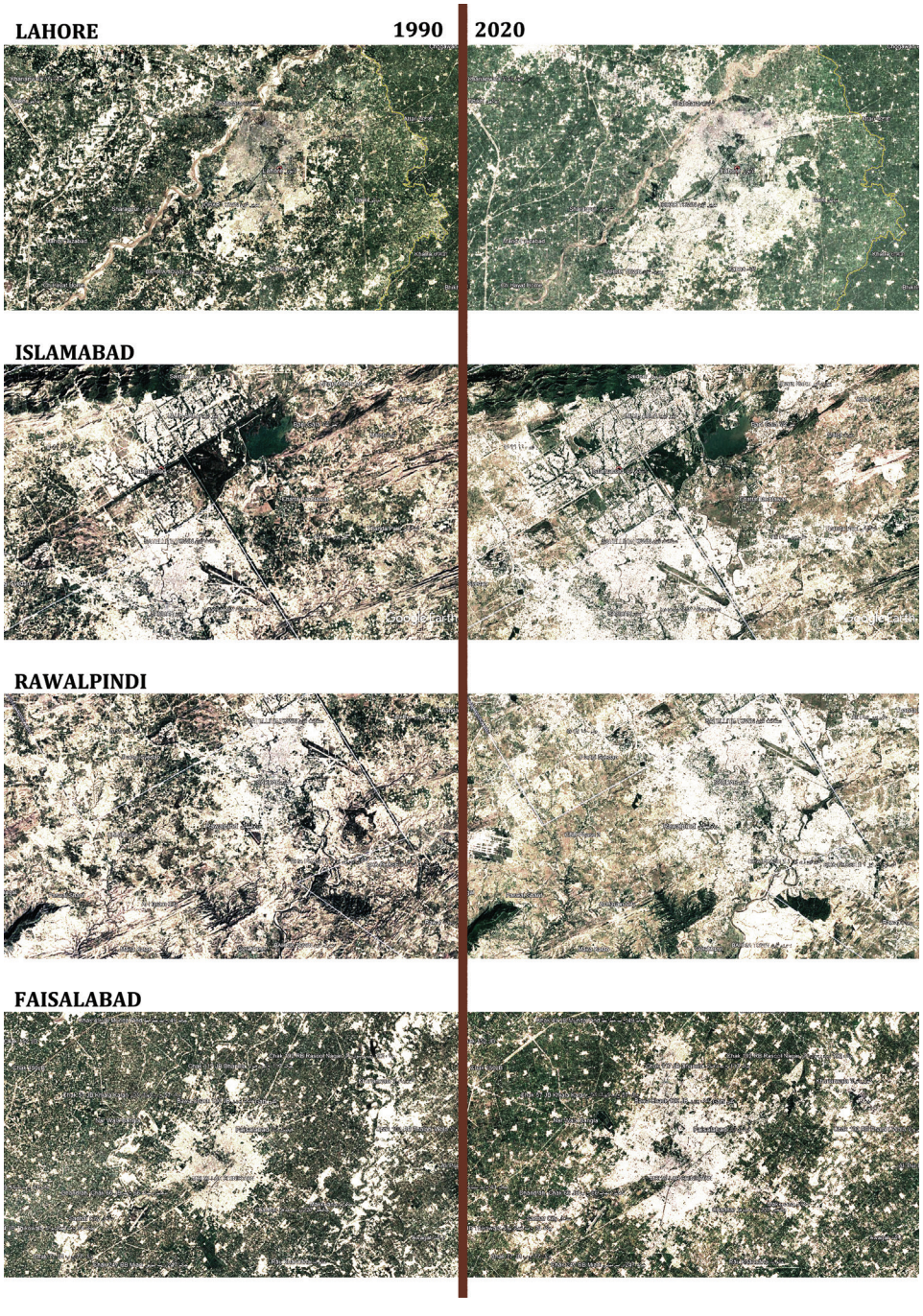
Figure 4.3: Mapping Urban Sprawl in Karachi and Quetta



Source: Developed by authors using Google Earth

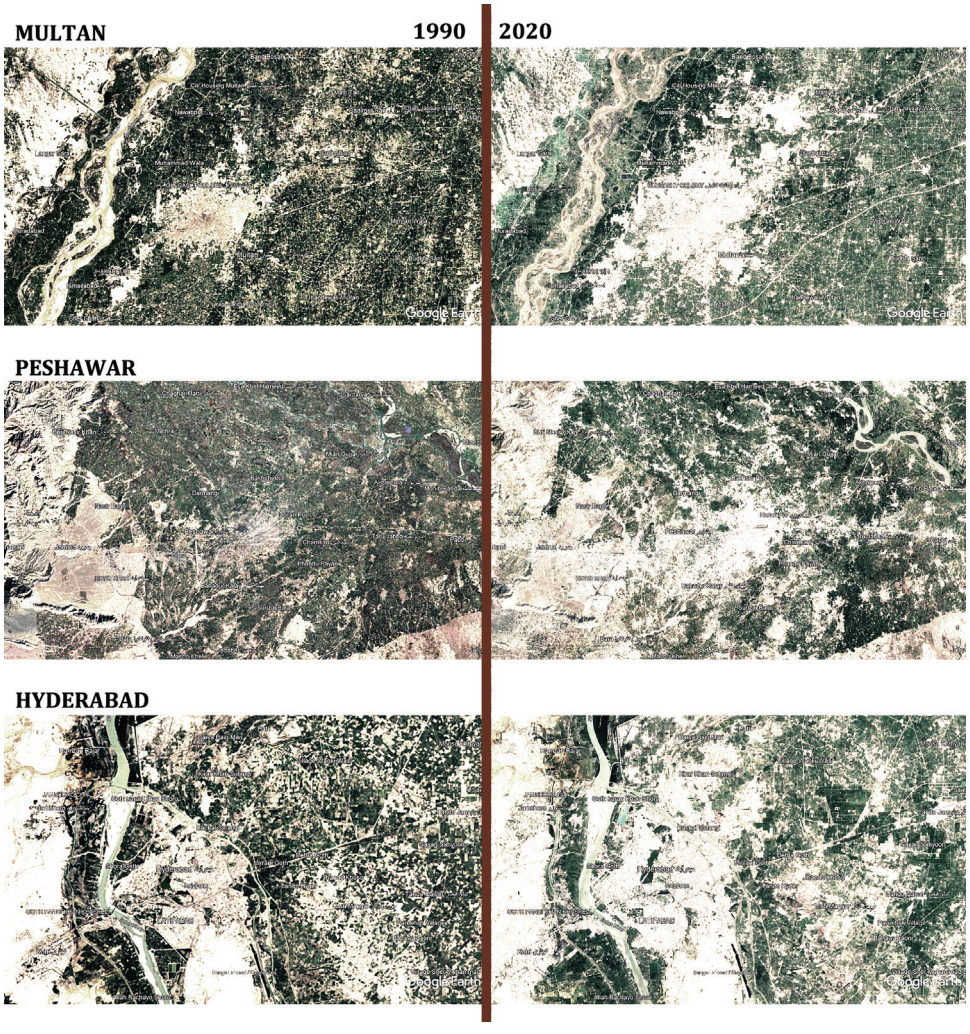
Despite urban development, there is an acute shortage of low-income housing in urban areas of Pakistan. The unemployed, homeless, and poor migrants find shelter in slums, either in the city or on the outskirts. State policies facilitate new housing schemes in peri-urban areas; however, they fail to meet the housing needs of the poor. These housing projects surprisingly pass environmental risk assessments, despite destroying the green cover of cities. Urban sprawl has led to a greater reliance on automobiles with fewer investments in public transport (Anwar et al., 2014).

Figure 4.4: Mapping Urban Sprawl in Lahore, Islamabad, Rawalpindi, and Faisalabad



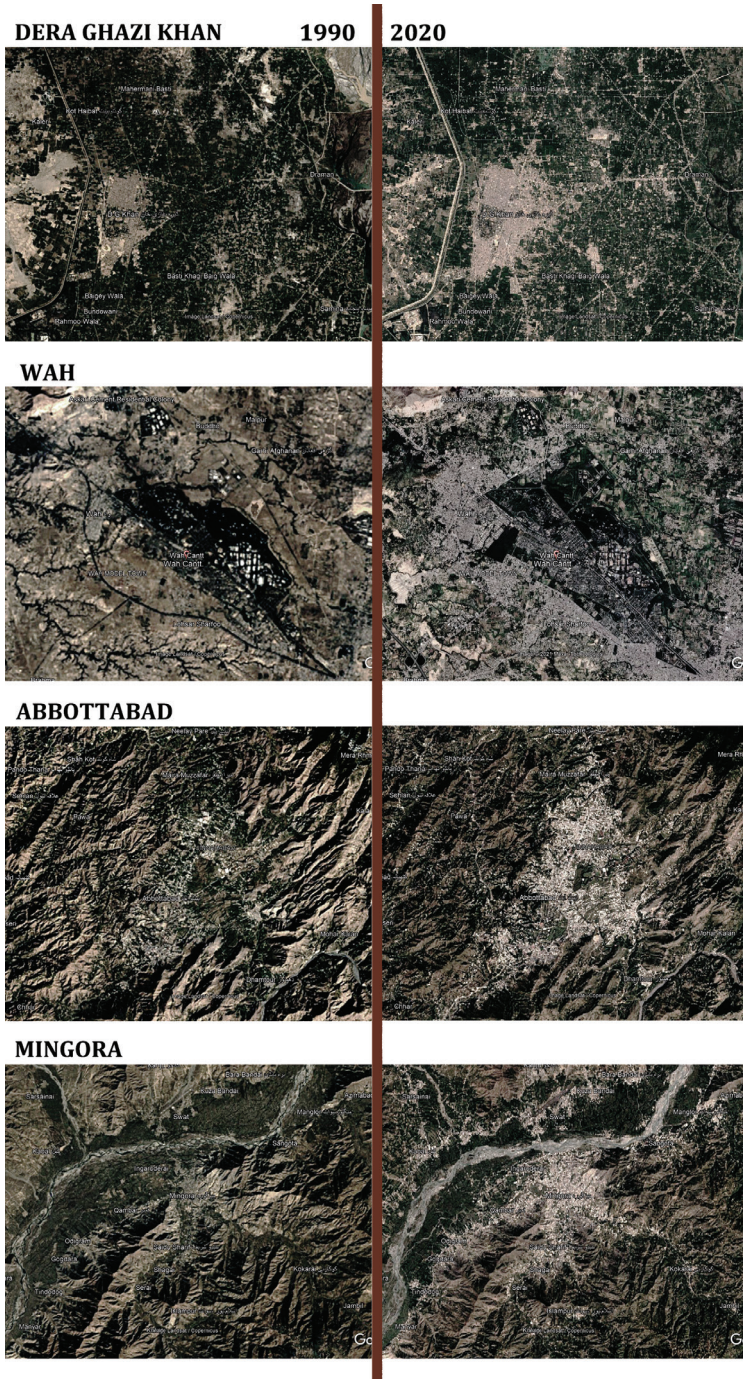
Source: Developed by authors using Google Earth

Figure 4.5: Mapping Urban sprawl in Multan, Peshawar, and Hyderabad



Source: Developed by authors using Google Earth

Figure 4.6: Mapping Urban Sprawl in Smaller Cities



Source: Developed by authors using Google Earth

4.3 IMPACT OF HOUSING SUPPLY ON URBAN DESIGN OF CITIES

While the housing shortage is widely discussed, there are significant challenges of housing adequacy stemming from irregular services, prohibitive costs, inadequate quality, and the location of housing. Pakistan is repeating the mistake of the European and North American garden city model by building housing schemes on cheap and peripheral land. These areas have limited access to services, education and income generating opportunities. The resulting horizontal expansion is accompanied by infrastructure interventions that drastically change the urban fabric. Signal-free highways, underpasses, parking plazas, large retail centers, and segregated residential and commercial zones are among the interventions.

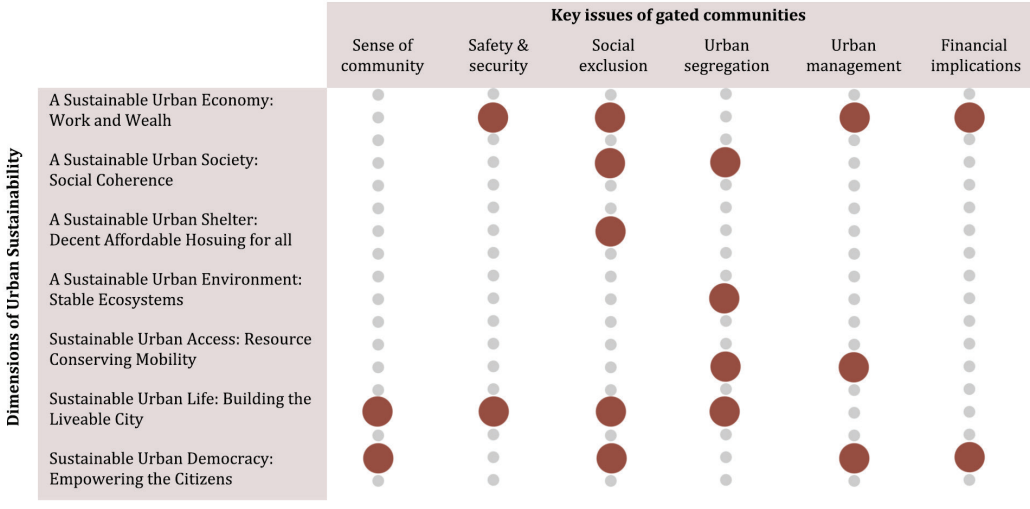
Cities are increasingly becoming places of exclusivity rather than opportunity due to their urban form, which makes 'housing at the center' indispensable (UN Habitat, 2015). Housing involves not only the home and its inhabitants, but also the urban morphology, the neighborhood, and community life surrounding it. City planners and traffic planners, for years, have not prioritized city space and public life in their agenda and the spatial development of Pakistani cities is facing the same neglect.

Historic and dense neighborhood of Pakistani cities are fraught with negative externalities of density. This is majorly due to over reliance on private vehicles in the form of cars and motorbikes both. We take the example of Raja bazaar, a historic market, and a mixed-use neighborhood in Rawalpindi. The area suffers from vehicular congestion, visual clutter, pollution, low walkability, and livability for the residents. The area hosts multiple temples, mosques, gurdwaras and shrines. Yet the architectural heritage remains in neglect. As the houses are overcrowded, it puts a stress on the infrastructure to provide for their needs. There are often sewage blockages and water supply issues. The streets in the area embody a human scale as they were built in an era without cars. As of now, the influx of motorized vehicles on the roads has made the 'shared streets' unworkable. Pedestrians are given the smallest amount of right of way. In local jargon, the area is referred to as a chaotic place instead of being identified as the historical center with tangible and intangible heritage and economic diversity (Khan, 2021).

Like Raja Bazaar are the walled city and dense neighborhoods of Lahore, Multan, Faisalabad, Karachi etc. Residents of such neighborhoods now aspire to move out of the congested areas into housing societies, while marketers tout these as green, clean, and safe. People sell or rent their residential property in central areas of the city to acquire funds for purchasing a spacious house on the outskirts of the city. This trend suits the needs of big families, living as a joint family in overcrowded situations. They still commute to the city centers for their work and education, consequently increasing their travel time and reliance on vehicles. The government, as a result, tears the city apart by building more roads and highways.

Housing in Pakistan is fundamentally a two-fold issue revolving around old and new developments. The existing housing stock that is the old development is compact in mixed-use neighborhoods. However, the livability of these neighborhoods is deteriorating with no concern given to upgradation of infrastructure. Parking fills the residential streets instead of children now. Over-crowded dwellings burden the utilities and infrastructure provided to them. There is also ad-hoc development, which is often incompatible with residential security, for instance having fuel stations within congested streets. On the other hand, the new development is low rise, spread out with single-family homes and car-dependent even for everyday necessities. Gated communities are an example of new developments. Landman (2000) evaluated the development of gated communities with indicators of urban sustainability. The key issues associated with gated communities are lack of sense of community and social exclusion. Whereas safety of these societies is debatable as they displace crime, the location also increases the response time and distance during an emergency. These societies also create fragmentation in the city with inefficient urban management. Establishment and maintenance of gated communities also comes with financial implications. All these issues negatively affect the goal of urban sustainability across seven key dimensions - urban economy, urban society, urban shelter, urban environment, urban access, urban life, and urban democracy. This is summarized as figure 4.7. In this manner, city planning principles and housing form affect the urban character of the entire city.

Figure 4.7: Analysis of Gated Communities



Source: Reproduced by Authors, data from Landman (2000)

4.4 CITIES AND HOUSING TYPOLOGIES

We have selected five housing typologies for analyzing urban design of the cities; detached dwellings, attached dwellings, mid-rise apartment, high-rise apartment, and slums. All the housing stock in the cities of Pakistan can be categorized among these groups. The selection of typologies is based on their prevalence in Pakistani cities. Each category is broad and includes multiple scales of housing within it. These categories also explain the form, footprint, and density of housing, which is essential in analyzing urban design of streets and neighborhoods.

4.4.1 Detached Dwellings

Detached dwellings include housing units of various scales, ranging from 7 marla (marla = 225sq.ft) houses to 1 kanal or more. Figure 4.8 is an indicative section of a street with detached dwellings. Bigger plot sizes such as 4 kanal or more have a considerable portion of green lawn. A seven marla plot will have a smaller portion of green with the garage and a side alley detaching it from the neighboring house. Figure 4.9 below shows a standard house design for 14 marla and two kanal houses. The purpose of the drawing is to highlight the form of open space with the housing unit and its footprint. The construction by-laws also limit the built area depending on plot size, as given in table 4.1.

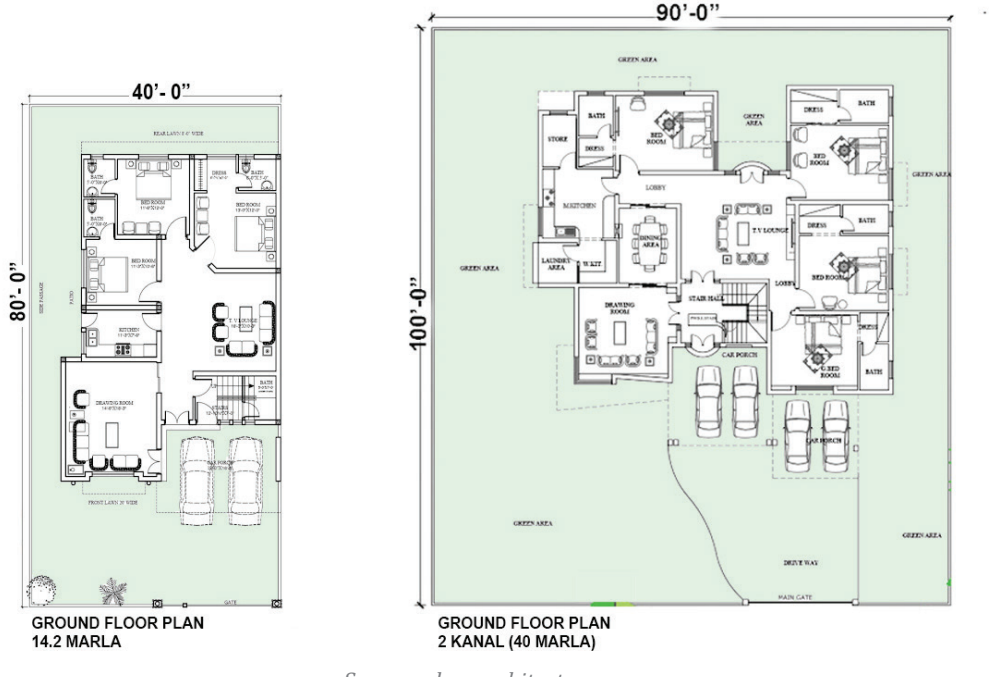
Figure 4.8: Detached Dwellings

Source: Author's own illustration

Detached dwellings are found in neighborhoods for middle to high-income and are prevalent in the new housing societies. Thus, resulting in low-density settlements.

Examples of low-density areas with detached dwellings include F sectors in Islamabad, sectors in DHA and Bahria town of multiple cities where plot size is 10 marla and more, bigger plots in satellite town and Cantt in Rawalpindi, Model town in Lahore and Hayatabad in Peshawar

Figure 4.9: Sample Layout of Detached Dwellings



Source: gloryarchitect.com

4.4.2 Attached Dwellings

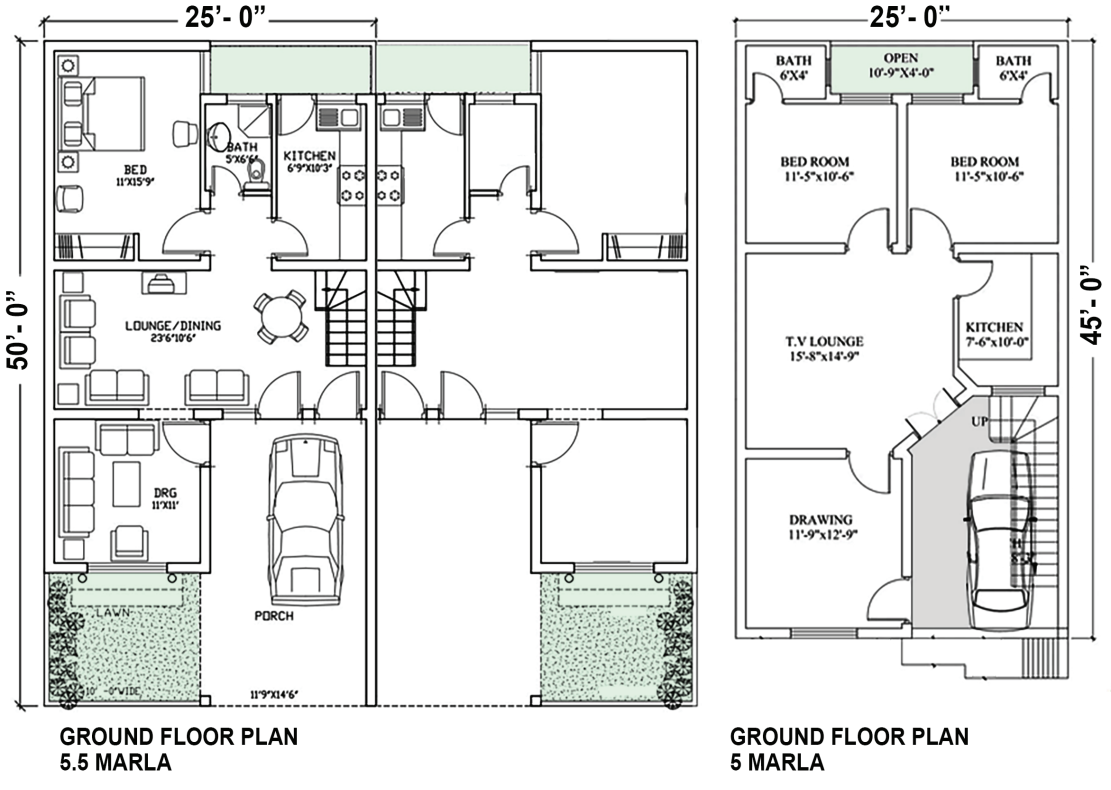
Neighborhoods with attached dwellings are dense as compared to a neighborhood with detached dwellings. An indicative street section is shown in figure 4.10.

Figure 4.10: Attached Dwellings

Source: Author's own illustration

Attached dwellings consist of 3 to 5 marla plot sizes in urban areas. Lower middle and middle-income groups reside in this category. The smaller dwellings of three marla are found in historic city centers, old neighborhoods, housing schemes and townships developed in the outskirts of the city for the lower-middle income group. Five marla houses are found in old neighborhoods, city centers and new housing societies. It is the most common house size for middle-income families offering up to two rooms on one floor, with a garage. Many sub-sectors in Islamabad such as in G and I have attached dwellings of five marla houses. Rawalpindi has a higher ratio of attached dwellings as compared to its twin city Islamabad. Examples of neighborhoods include the inner-city area in Raja Bazar. Mixed-income neighborhoods of Khayaban-e-sir Syed, and Asghar mall scheme have attached dwellings as well as detached. Similar is the case with Lahore and Peshawar where the walled city is the densest part of the city. Housing in older neighborhoods of Lahore such as Shadbagh, Karim Park, Samanabad town is also attached and dense. Namak Mandi and Gulbahar are two examples from Peshawar where multiple muhallas and abadis exist. These are a few examples from the cities without an exhaustive classification of the entire city. Figure 4.11 shows a standardized layout of houses at this scale.

Figure 4.11: Sample Layout of Attached Dwellings



Source: gloryarchitect.com

Table 4.1: Estimated Covered Area Breakdown of Housing Typologies

Housing Typology	Plot Area (sq. ft)	Construction footprint	Open area footprint	Open/Green Area (% of Plot area)
Attached- 03 Marla	675	675	0	0
Attached- 05 Marla	1,125	875	250	22%
Detached- 10 Marla	2,250	1,650	600	27%
Detached- 01 Kanal	4,500	3,110	1,390	31%
Detached- 04 Kanal	18,000	9,903	8,097	45%

Source: Developed by Authors. Information source: Zameen.com

4.4.3 Mid-rise Apartments

The civil government and military initially built mid-rise apartments for employees housing. In Karachi, mid-rise apartments were built extensively when the real estate sector became established as a source of housing. Gulshan e Iqbal and Orangi hills have a considerable number of mid-rise apartments. The private sector in other cities is more inclined towards providing housing through single-family homes in housing societies with a limited number of mid-rise apartment construction.

Karachi, being the metropolitan city, attracted large-scale rural to urban migration while also catering to the refugee influx post-independence. In 1964, land for midrise apartments was allocated in Superhighway - Scheme 16, KDA and was awarded to nine construction companies. This was successful, so KDA invited private developers to bid on land for midrise apartment development, and so the boom in midrise apartments began. Most housing development schemes build medium rise apartments, called flats. Some of the major neighborhoods with developer-built medium-rise apartment housing are Gulshan-e-Iqbal, Gulistan-e-Jauhar, Federal B Area, Clifton, DHA, PECHS, North Nizamabad, along Superhighway and National Highway (Mahmood, 1999).

Many other cities in Pakistan also now have mid-rise apartments to meet the housing need of middle class as well as luxury apartment. Apartment buildings in Bahria town, Awami villas, and mixed-use apartment buildings along Murree Road are some examples from Rawalpindi, which make housing accessible to the middle-income group. Silver Oaks in Islamabad provides luxury living while apartments in G-11, F-11 and E-11 range from middle to higher income groups. Lahore, the most populous city in Punjab, is seeing a boom in apartment construction both at a higher and lower end due to the diversity of population. There is a cluster of apartments near Saddar and Gulberg Lahore such as The Springs Gulberg Lahore, Eleven West Apartments, Gulberg Grove Apartments, Askari Apartments, Casa Reina High-end Luxury Apartments etc. Peshawar as receptor of rural urban migration in KP has also seen the development of apartments especially along the GT road, which runs through the city. Except for PHA flats, private developers often keep the ground floor commercial such as in Saif Mall and Residency, Khyber Heights etc. Warsak Road is another location in the city lined with apartment buildings.

Apartments cover a smaller footprint than single-family homes and contain a greater number of households. They must also consider which open spaces are accessible to their residents. As indicated by figure 4.12, apartment buildings have the possibility to shape their public realm through urban design around them.

Figure 4.12: Mid-rise Apartments

Source: Author's own illustration

4.4.4 High-rise Apartment

Since vertical living has not picked up pace in the country, it is only Karachi where high-rise apartment buildings are found. Karachi is an urban magnet attracting thousands of people to its economic sectors every month. Developers in this bustling metropolis have thus been building apartment blocks one after another to meet the growing demand for housing. The idea of living in apartments has not simply caught on in urban centers like Lahore, Islamabad, and Peshawar as it has in Karachi (Mansoor, 2016).

Though real estate prices in these cities are no less expensive than that in Karachi, people here simply prefer living in independent houses to residing in apartments. An example is the Bahria Icon Tower which is an under-construction skyscraper complex in the seaside municipality of Clifton in Karachi, Pakistan (Figure 4.14). The complex includes a 62-storey tower, which at 300 meters (980 ft), is the tallest building in Pakistan and the fifth tallest in South Asia. The complex also includes an adjacent 42-storey hotel building.

Figure 4.13: High-rise Apartments

Source: Author's own illustration

Figure 4.14: Skyscraper in Karachi: Bahria Icon Tower

Source: Skyscrapercenter.com

4.4.5 Slums

Slums are a visible manifestation of lack of adequate affordable housing, poverty, and inequality in the city (Pal & van Vliet, 2012; UN-Habitat, 2018). They are also referred to as the negative product of urbanization (Samuel & Nisar 2021). Slum inhabitants are from the marginalized groups of society facing numerous challenges of poverty.

Slums are found on public or private lands, but local, provincial, or federal governments do not recognize them. *Katchi abadis* and squatter settlements are considered subsets of the term slums in the context of Pakistan. Since *katchi abadis* are a permanent fixture of the city, the government is compelled to acknowledge their presence. Regardless, squatter settlements are temporal in nature, where occupying land remains illegal (Dowall & Ellis, 2009).

As of 2017, Pakistan had an estimated population of 212 million, making it the fifth most populous country in the world. In 2014, UN estimated 32 million people as slum dwellers in urban areas of Pakistan. Currently, 36.9% of the total population of Pakistan comprises urban population, which is expected to increase to 50.2% by 2050 with an annual growth rate of 3%. With this increase in urban population share, the percentage of slum dwellers in urban areas is likely to increase as well.

Punjab, being the most populous province of Pakistan accounts for 110 million of population for the year 2017. Capital of Punjab, Lahore has 30% of the population as slums, estimating 1.7 million people. In Faisalabad, the third most populous city of Pakistan, there are 104 slums with households ranging from 42 to 2,851 per slum. Karachi and Hyderabad constitute around 1,300 slums with 70% of these situated in Karachi and the remaining 25-30% slums are in Hyderabad. Karachi is also home to the largest slum in Asia i.e., Orangi Town with an estimated population of 2.4 million.

Quetta, the only urban city in Balochistan, has a less developed urban fabric and poor living conditions. As per the *Katchi Abadi* Directorate records, 47 slum areas are identified in the city; however, the number is higher than this. Most of these slums are in the shape of mud houses with substandard facilities. KP has most of its slums in the urban center of Peshawar. Slums in Peshawar are not only because of the Afghan refugees but also because of the floods of 2005, which left 3.5 million homeless with destruction of more than 600,152 houses. A study of UN-Habitat identified 18 informal settlements in Peshawar city making up 15% of the total population of Peshawar. Regardless of being the federal capital, Islamabad also failed to meet the housing need for all. The number of slums around the city has grown from 12 to more than 42 in about 20 years (Coverage Survey in Slums/Underserved Areas of 10 Largest Cities of Pakistan, 2020).

Figure 4.15: Cross-section of Slum Settlement

Source: Author's own illustration

The Myths and Realities about Slum Settlements

Several studies have analyzed slums and debunked the myths associated with them. Table 4.2 below summarizes the content from four sources; Share the World's Resources, Twenty-first season of the governing council (UN-Habitat), Cities Alliance and Borgen Project.

Table 4.2: Myths about Slums, Summarized from Four Research Studies

The Seven Myths of 'Slums' - Share the World's Resources (SWTR, 2010)	Twenty first session of the Governing Council Proceedings (UN-Habitat, 2007)	Cities Alliance (Cities Alliance, n.d.)	Borgen Project - Délice Williams (Williams, n.d.)
There are too many people	Slums serve no purpose	The poor are better off in rural areas than in slums, so their migration to urban areas can and should be stopped.	Slums serve no purpose
The poor are to blame	All Slums are the same, and all slum-dwellers are poor	The poor cause slums	All slum dwellers are poor.
Slums are places of crime, violence & social degradation	There never used to be slums	Relocation is the solution	Slum dwellers are a burden on the economy
Slums are an inevitable stage of development	Slums are the fault of slum dwellers who do not want to help themselves	The poor cannot and will not pay for housing and services.	Slums are the fault of slum dwellers who do not want to help themselves

The free market can end slums	Slum dwellers are a burden on the economy	Valuable land in the city center should not be for existing slum dwellers - it should be developed for high-value, high-density housing, and businesses	The poor contribute nothing to society and nothing good ever came out of slums
International aid is the answer	Crime emanates from the slums	Apartment buildings can better house slum dwellers	
There will always be slums	Squatters do not want to pay rent	Demolish to stop their formation.	
	The poor contribute nothing to society and nothing good ever came out of the slums	Upgrading will attract more squatters; giving them secure tenure will encourage even more to move to cities	

Source: Developed by Authors

Urban slums are often attributed to a population increase, or too many poor people migrating from rural to urban areas for governments to manage. The real problem lies in outdated institutions, ineffective legal systems, incompetent national and local governance, and shortsighted urban development policies which fail to address the need of adequate housing and economy. There is an inequitable allocation of resources. Governments in the developing countries are crippled by debt, hence prioritizing loan repayments over basic services of their population. Thus, slums are not an outcome of an increasing population, but a result of the failure of the housing supply system in cities, a consequence of the public sector and the market's failure.

People living in the slums are not there by choice; rather they are pushed into them by circumstances. There is a deep-rooted myth that poor people do not put in challenging work to change their situation. For example, it is often reported that they do not educate their children and prepare them for better work opportunities. The reality is that slum dwellers tend to do the hardest labor, for their own sustenance as well as the city's. Slums are a bottom-up housing solution, which are a consequence of self-help strategies. Slum dwellers have also been active in participatory slum improvement projects globally. Moreover, slum dwellers' occupation ranges from informal to formal sectors; hence, they have an integral role to play in the economy rather than burdening it. A survey conducted across 211 slums in India revealed that the occupations vary from government employees, ammunition factory employees, painters, vendors, sweepers, drivers, small entrepreneurs or even office workers. Most of the women in slums work as house cleaners. The survey also revealed the presence of a small number of computer professionals, teachers, nurses, and doctors in some of the slums (UN-Habitat, 2007).

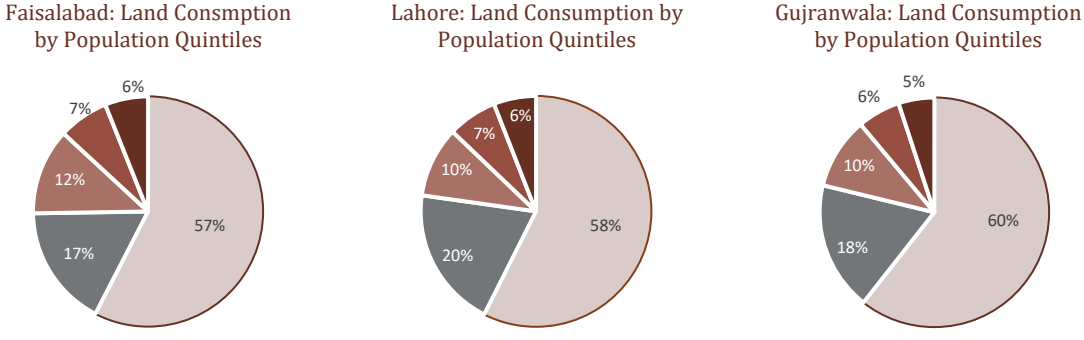
The myth about crime and violence being more prevalent in slums neglects the causal factors behind these: poverty, inequality, lack of social security and youth unemployment. These causal factors stem from the failure of state institutions in equitable resource allocation (SWTR, 2010). Basic education, health and shelter is the right of all. Urban poor are pushed into the precarious conditions of slums and must find their means of survival. The negative connotation with the slums overlooks community building and the social capital these communities have.

4.5 URBAN MORPHOLOGY, EXISTING FRAMEWORK & IMPACTS ON HOUSING

The Pakistani cities have a disorganized and messy outlook as well as poor urban environment. The urban form of all cities comprises low density, sprawling housing schemes, surrounded all over by congested, high density slums and squatters. Just as the housing supply and demand gaps exhibit huge disparities among the rich and the poor, same is true for the land consumption pattern across all cities in Pakistan. In the mega city of Karachi, poor are cramped on 23% of the city's residential area with a density of 1500-4500 persons/ha in contrast to 36% of its rich population on 77% of the City's land

with that of 84 persons/ha (Arif Hassan, 2018). Punjab Cities Atlas 2015 demonstrates that distribution of Lahore city in five quintiles to be occupying 6%, 7%, 10%, 20% and 58% of the City's land area, which pinpoints at the huge inequalities between the same population sizes occupying as less as 6% land area against those occupying 58% of the City's land area. The same trend is visible for all other cities (The Urban Unit, 2017). In addition to that, mismatch between the population expansions against the footprint expansion of the cities across Punjab is also visible from the Atlas, indicating that a huge land has been developed for investment or speculation purposes, with infrastructure in place but nobody living in those areas.

Figure 4.16: Population Quintiles Distribution Against the Percentage of Developed Land in the Cities



Each pie chart shows the percentage of that city's area occupied by 20% of the city's population, for example: land consumption disparity between 20% population occupying 5% of the land against 20% occupying 60% of the land for Gujranwala.

Source: The Urban Unit (2017)

Another disparity is visible across all the cities that almost entire towns are developed/zoned as residential areas with an extraordinarily little economic uses including commercial or industrial, which forces people to convert their residences for the required uses. Moreover, this results in strict use segregation, forcing vehicular commute for even shorter distances in a Country where car ownership rate per households is 9% nationally (Lahore being the city with highest percentage of car ownership at 26%).

There is no concept of mixed use, high density, mixed income, and walkable neighborhoods, though the affluent class is used to keeping domestic help (maids, cooks, cleaners, watchmen, service providers etc.), however, there is no thinking to develop inclusively to allow them to reside near to their workplaces. Hence, the entire population commutes an hour in the morning and evening to get to their workplaces and homes respectively, where the domestic help does not get to live in comfortable houses or own cars to travel conveniently.

Similarly, there is no concept of developing workforce housing closer to the downtowns, commercial districts, or industrial areas/estates etc. Which leads to another common feature of messy urban form in the cities of Pakistan, i.e., pockets of informal housing sometimes in the form of shacks, but mostly paved houses in between formal housing, commercial districts, hotels, hospitals, and along major roads. For example: Figure 4.17 shows two such pockets between Edgerton Road & Abbot Road with mediocre quality informal housing whereas these two roads house a range of public buildings ranging from two television stations, two hotels and several government buildings etc.

Figure 4.17: Pockets of Informal Housing amidst Commercial and Public Buildings

Source: Photographs by Madiha Arslan on authors' request, January 26, 2022

4.5.1 Existing Rules & Regulations are Negatively affecting the Urban Form and Housing Provision:

The purpose of land use planning & subdivision legislation is to provide the citizens with an orderly, safe, and inclusive environment to meet their daily material needs and perform duties and functions. Rules and regulations are always developed in the best public interest; however, they need periodic review to assess whether they are benefiting them or creating disparities and hurdles instead. For example: Land uses were segregated through introduction of Euclidean (Use Segregating Zoning). Zoning after the industrial revolution, rapid urbanization, and urban concentration with an intention to protect the citizens from their adverse effects on their public health and safety. With congestion at the downtowns seeming to be the major cause of tuberculosis and other health problems; the blockage of sunlight and air by the skyscrapers, and the neighborhoods polluted by the industries; 'zoning' was developed as a well thought out and workable tool. However, it ironically proved otherwise and brought more harm to urban living than good through sprawl, pollution, speculation, and degradation (Talen, 2012).

Experience of suburban development, resulting in social segregation and environmental degradation made the developed world discredit it and revert to the traditional compact development with social diversity, pedestrian activities, equitable access to goods, services and facilities, and environmental protection. However, the ongoing trend to follow their suburban development continues in Pakistan, as most of the rules and regulations are either developed as inspiration from the suburban development of the North America or under the influence of the British, though we never promulgated their Town & Country Planning Act, but blindly adopted the supplementary legislation. Thus, the existing rules and regulations relating to land use governance, land conversion, development, environment, preservation, infrastructure & services provision etc. are not integrated, and have never been evaluated or audited in local context. Some provisions in the existing rules affecting the urban form, housing provision or affordability are discussed below.

The Land Use Rules 2009 came into being on the direction of the High Court on the issue of unauthorized commercialization of land and inadequacy of Commercialization Policy in dealing with other land uses. Land use conversion requirement across the cities in

Pakistan is an indicator that the existing plans did not have enough designated land parcels for uses other than residential, which resulted in massive illegal conversion of land.

The Rules were primarily developed as a corrective instrument but ended up including many functions which were not defined anywhere because of lack of an existing urban planning framework, as well as some stop gap arrangements to phase out ill practices deteriorating the urban environment.

Processes for preparation of land use classification maps, reclassification or redevelopment plans, and master plan were included because of absence of any planning rules just to get started on resolving planning issues with specific timelines. However, these plans were not prepared within the specified time limit and the same rules had been revised again in the year 2020 with fresh timelines after more than a decade. This would prove to be a static rather a regressive move to stick with 'land use conversions' instead of correcting the planning failure through a separate set of Planning Rules. Instead of revising conversion rules, urban plans should be revised to incorporate growing needs of the urban areas.

The Land use rules, or master planning instruments do not have a pre-requisite to demarcate potential areas for conservation & preservation including a) places of historic, cultural, or environmental importance; b) land allocation for public spaces, trunk infrastructure, services, breathing spaces, and c) natural watersheds before developing zoning plan or development projects. This has affected the housing market due to lack of connection to trunk infrastructure and services, allowing formation of slums and squatters in low lying areas and riverbeds, as well as damaging a lot of buildings and houses due to rains and yearly floods, which has added to the housing shortage.

The Land Use Rules while listing use categories of residential, commercial etc. has included peri urban and agriculture as well, which are not the land uses as such, but areas with urban or rural character, which can have any of the land uses as planned. The Land Use Rules 2009 and subsequent versions promote segregated uses instead of providing a framework for developing self-sufficient zones promoting complete communities with live-work-play options across the cities. It is especially important to understand that

zoning does not necessarily mean use segregation, but it can be any combination of rules and regulations for a particular land parcel including its mixing of uses, density, compactness, connectivity & walkability as well as social integration. Although the revised uses list has included 'mixed-use' as a category, it is it identified as the preferred one nor detailed with a framework of compatible uses or specification of density & connectivity.

Before the promulgation of the land use rules, the rented parcels where unauthorized economic activities were being conducted such as educational institutes, hospitals, or shops etc., a stop gap arrangement of 'Temporary Conversion' was introduced which had to be phased out by providing enough economic uses through reclassifying or redeveloping zones. Unfortunately, that is also continuing to date and new applications of temporary commercialization are being entertained.

The Land Use Rules because of extensive unauthorized economic uses started with classification of roads as 1) List A: roads or segments notified for continuing commercial activities; and 2) List B: roads or segments notified for freezing the commercial activities. After the first round of classification, the roads lists should not have continued as the roads are part of the connectivity infrastructure, and not areas for designating any economic or residential activities. One of the reasons why most primary roads are choked with traffic and parking issues is that all activities happen along the roads. After the lists of roads had been notified, the hierarchy of major roads, arterial roads, neighborhood roads, streets etc. needed to be developed, and areas enclosed by them should have been developed as self-sustaining zones. Each zone needed to be studied and planned with its residents/owners and upgraded through various urban retrofit strategies such as reclassification for including or excluding other uses; relaxation in building regulations for allowing more housing units; structural strengthening/underpinning; infrastructure rehabilitation; parking, pedestrian, and shuttle facilities; and etc. from case-to-case basis. Neither the Land Use Rules, Zoning & Subdivision Regulations/Bylaws, nor Housing Scheme Rules include any provisions on density or compactness. The density is mistakenly understood to be achieved only by building heights or Floor Area Ratio (FAR), whereas persons per unit area, housing/dwelling units per lot or unit area, blocks sizes are totally ignored.

The Punjab Private Housing Scheme Rules also promote mostly sole use (residential) and do not include any specific density requirements in terms of number of housing units to be provided per unit area. Moreover, even the Affordable Private Housing Schemes Rules 2020 define housing as narrow as the existing approach towards housing for the poor has been by defining as "construction of low-cost houses in the shape of quarters, combined houses, incremental houses, row houses, flats or apartments for low- or middle-income group having maximum plot size up to 5 marlas and 1000 sq. ft. covered area in case of apartments". It is very important to mention that several urban planning experts have the opinion that under the Naya Pakistan Housing Program, "the down payment, installment plan and total cost of even 3 Marla is not affordable for poor people in the country" (Nadeem, 2020) and here the rules are defining minimum of 5-Marla house as an affordable one.

Zoning & Building Regulations and Bylaws only cater to the elitist model of housing and development with British inspired extrovert housing, in an individual use linear pattern, promoting only car dependency.

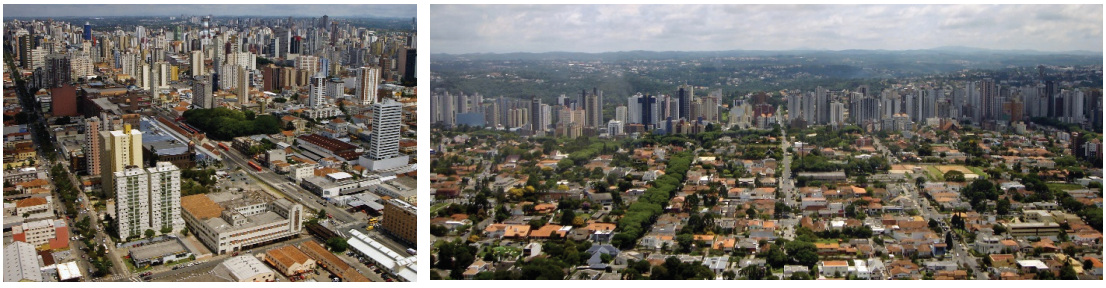
4.5.2 Density Provisions:

The model building bylaws Punjab support low rise and low-density housing and seem to have some confusion regarding the building heights and Floor Area Ratio (FAR), as in most of the tables, both building heights and FAR are specified whereas either of these should be enough depending upon their function. Building heights are usually limited to allow sunlight and ventilation in adjoining properties, whereas the FAR is a measure of buildability and is either important from the density point of view or from the real estate perspective. Optimum density is important for each zone/area of the city from the urban planning & economics perspective providing adequate housing, services, and public transport.

Building regulations/bylaws are supplementary legislation, and are formulated to meet the vision statement of the City or Region, for example: adequate housing near industrial areas, mixed uses and increased FAR along the connectivity corridors etc. Recently, Lahore Development Authority had revised its Building and Zoning Regulations and increased FAR extensively for some uses but without specifying their specific on ground

location, which being a standalone tool will not help meet them any higher density targets. Examples of Curitiba, Brazil or Ahmedabad, India, could be studied in this regard, where land use planning and transportation has been integrated through increase in FAR along Transit routes.

Figure 4.18: Aerial Views of Curitiba, Brazil



Left: Aerial view of Curitiba, Brazil, showing the BRT corridor on Av Sete de Setembro. The image illustrates how land use planning allowed high density to develop along Curitiba's BRT corridors (Ortiz), 2006a). Right: Aerial view of Curitiba, Brazil. The image illustrates how land use planning allowed high density to develop along Curitiba's BRT corridors (Ortiz), 2006b).

Increasing FAR does not readily enhance density of the area and needs certain other measures as well. Particularly for the housing density, it needs to specify within the regulations, the area for each housing unit. For example, we have a common 1 kanal plot with 4,500 sq. ft. area and one house to be built on it. If the density must be increased it must be specified as duplexes of 2,250 sq. ft., or four-plex of 1,125 sq. ft., or 3 floors with 6 units of 1000 sq. ft. of x number of housing units per plot etc. The existing low-density areas can be 'up zoned' in this manner by allowing additional floors with specification of a greater number of housing units per lot. This could be developed separately for housing single residents with communal facilities and suites on each floor. Model Building Bylaws 2016, TCPO, MoUD, India provides a framework where the buildability goes up with increased plot size with a minimum plot area of 30 sqm/ 320 sq. ft. to have 1 housing unit, and incrementally increasing to 1500-3000 sqm/ 3.5-7 kanals to have 12 housing units (Model Building Byelaws 2016, 2016).

Violations in implementation of building bylaws in existing housing schemes indicate the actual need or preference of the citizens to build multiple units on each plot, where part of the reason being the excessive land prices, which are not affordable for even middle-class population. Figures 4.19 & 4.20 show several examples of developed multiple units in a housing scheme design for 1 kanal single-family detached housing units in Lahore. Although the developed units are in violation of the building regulations and put an extra burden on the services laid for the scheme, they are more suited to the citizens' needs or affordability.

Figure 4.19: 6-8 Units Developed per 1 Kanal Plot

Source: Author's own illustration

Figure 4.20: 2-3 Units Developed on 5-6 Marla Plots

Source: Author's own illustration

Density and compactness are two unique features and should not be mixed. For example: On a 1-hectare plot, there can be three ways to provide 75 housing units: 1) low rise, row housing; 2) high rise single tower; 3) mid-rise buildings/townhouses with provision of mixed use. In all cases, the density will be the same as 75 housing units per hectare but compactness of each would be different (Vaggione, 2012). Density in combination with compactness is a win-win situation when land subdivision is conducted at a scale that arterial roads are not more than 1 kilometer apart, allowing to provide public transport within a 10 minutes' walk and pedestrian friendly block sizes to promote walkability (Vaggione, 2012).

4.5.3 The Missing Housing Typologies

The Planned Housing Models

It is argued that People in Pakistan prefer to live on ground in single family homes, because of cultural or religious concerns related to privacy, however, this is not true, and the issue of privacy can be managed well in architectural design through use of levels, parapets, screens etc. Single family, large lots, car dependent housing societies, started during the colonial period, only suiting the rich and the elites, who are only 20% of the total population in Pakistan, whereas it does not suit the need and affordability level of the rest 80%.

Detached/Semi-Detached Row Housing: Inspired from the British rich bungalow housing, private sector housing schemes are designed as detached, semi-detached or duplexes of large luxurious bungalows, middle sized 1-2 kanals/ 7-10 marlas units and as small as 3-5 marlas units even the low-cost housing schemes as demonstrated by the Figure 4.21.

Apart from the planned low density housing model, a limited apartment buildings are also constructed, but either as high-rise luxurious apartments with expensive services or for public sector middle income working class (Figure 4.23), designed around a service core/stair. Similar housing model, if attempted as a solution for low-income population is bound to fail because of high maintenance cost of such apartment buildings as well as their design without any enclosed open spaces like courtyards or compounds, which is a primary need of this income group.

Figure 4.21: Houses in Planned Housing Schemes

Left: Detached & Semi-Detached houses: Eden Canal Villas. Source: Shaukat Nawaz Raja & Associates Archives; Right: Bird's Eye View of Ashiana-e-Quaid Housing Scheme.

Source: Punjab Land Development Company's Presentation

Figure 4.22: Collage of Existing & Missing Housing Typologies in Pakistan

Existing House Models
Supported by Rules & Regulations

Detached Semi-Detached/ Duplex From Luxurious Mansions to smaller 3-5 Marlas for middle to high income

Mid to High Rise Luxurious Appartments with other uses

Mid-Rise Middle Class Public Sector Employees Appartments

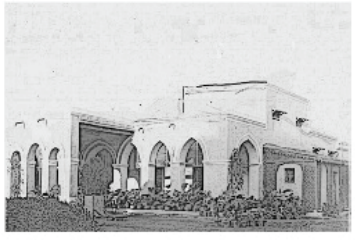
Mid-Rise Middle Class Privated Sector Appartments

Planned Pro-Poor Detached /Semi-Detached Housing Schemes (Very limited)

Slums/Informal Housing Pockets Built by Poor due to absence of affordable & Planned housing

Traditional House Models
Not Supported by Rules & Regulations

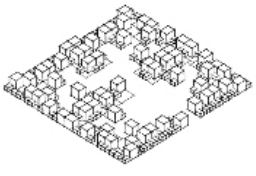
Traditional Bazaar Based Housing for common man. Usually with enclosed courtyards or compounds



Extrovert British Bungalows for Elites

Introvert Elites' Havelis/Mansions planned around courtyards or compounds housing multiple families from in a mixed use locality

Other Suitable Models
Compatible with Existing Models but Never Undertaken

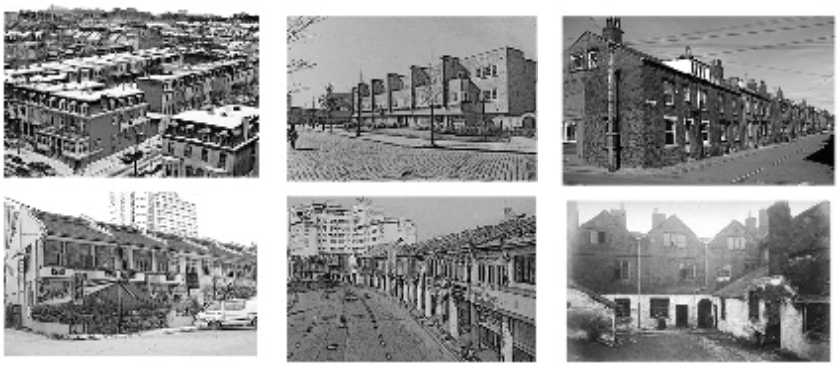


Low to Mid-Rise Clustered Mixed Use Development

Multustoried Adobe or Burnt bricks housing globally, especially Spain, North Africa, Middle Eat and the Americas

Triplexes & Multiplexes

Multiple Choice of Housing Neighbourhoods



Terraced Housing (Origin Europe) Named Differently as (Row Houses (CA)/Town Houses (USA) / Shop Houses or Linear Link Houses (Singapore & Malaysia) Right two images of Back to Back Housing low income industrial workers

Source: Developed by Authors from Wikimedia Commons

Figure 4.23: Apartment Housing

Left: Railway Officers Flats on Walton Road, Lahore. Source: Author's own photography February 19, 2017; Center: Navy Officers' apartment houses on Manora peninsula near Karachi, Pakistan (Savin, 2020); Right: A row of apartment buildings in Zehra Square, Gulshan-e-Iqbal, Karachi(Unknown, 2021)

The Traditional Housing Models

Bazaar based Model

The traditional model of city planning during colonial period where common man used to live in urban areas was the Bazaar Based City Model with retail and business at ground floor, combined with high density housing on upper floors (Figure 4.24).

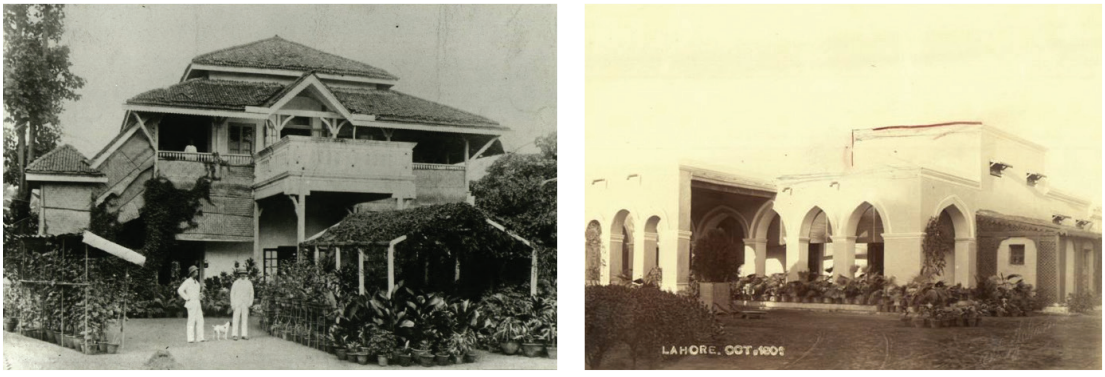
Figure 4.24: Traditional Housing

Left: Bazaar Based City of Lahore. Source: Photograph from the Macnabb Collection of a street scene in Lahore, taken by an unknown photographer, during the 1890s (Library, 1895); Center and Right: Photographs of some old houses in Gawalmandi Lahore corresponding to the Bazaar Based City Model Source: Author's own, January 2022

British Extrovert Bungalows

British inspired extrovert bungalows became quite common during and after colonial period (Figure 4.25), though at some places traditional housing elements were also added in local elite housing. Elite neighborhoods were also developed like Model Town Lahore on the pattern of a garden city with similar extrovert bungalows. This extrovert housing model later took the form of the detached row housing that is unfortunately the only model housing schemes are developed on in Pakistan.

Figure 4.25: British Extrovert Bungalows



Left: A British bungalow in India during the Raj. before 1947 (Unknown, Before 1947); Right: A British Bungalow in Lahore 1901(Unknown, 1901)

Traditional Introvert Housing around Courtyards or Compounds

Introvert residences were designed around internal courtyards. Not all rich wanted to reside in suburban housing and used to build large mansions and havelis with similar courtyard designs in old part of the cities because of social ties. An example of Haveli Nau Nihal Singh is given in Figures 4.26. The current zoning and building bylaws do not allow development of courtyard houses, but only offer one extrovert design with a front setback/lawn and a car porch. Even if someone wants to build a courtyard house, the current bylaws through mandatory front, back and side setbacks limit their ability to develop a reasonable floor space after fulfilling the regulatory requirements of maximum ground built up area. Another traditional mixed use housing model was that of 'compound housing,' where like courtyards, several housing units used to share an internal large space.

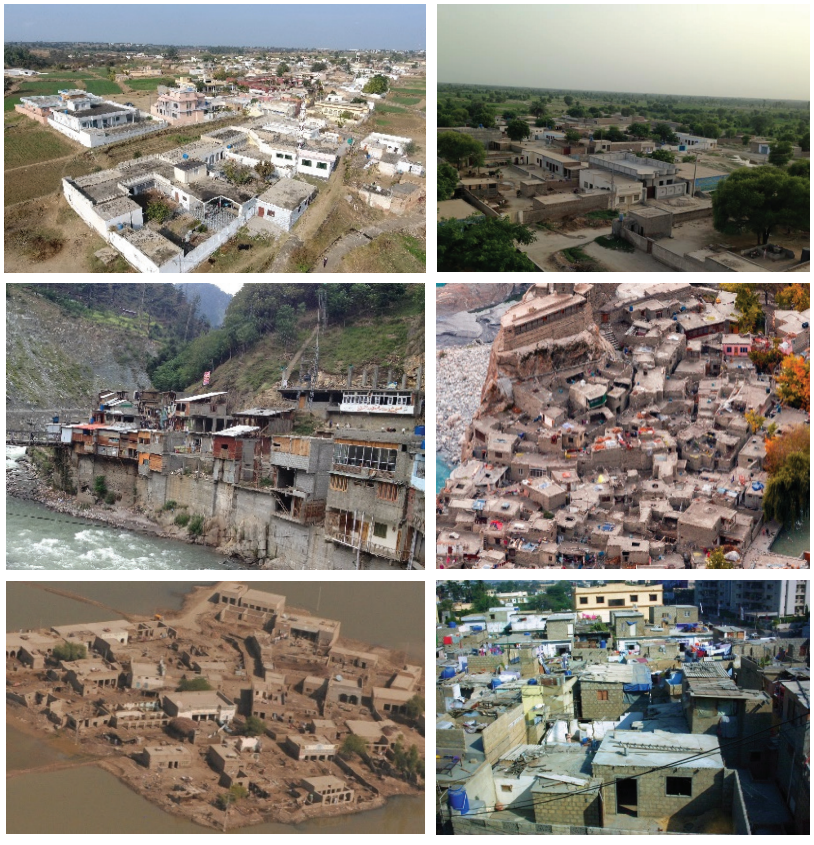
Figure 4.26: Traditional Introvert Housing around Courtyards or Compounds


Left: Haveli of Nau Nihal Singh (now Victoria Girls High School) (Authority), 2015a); Right: Inner courtyard view of Haveli Nau Nihal Singh (now Victoria Girls High School) (Authority), 2015b)

Organic Clustered Housing Model

The other model which was common in early 1900s was low rise, high density clustered housing development (Ajmera, 2021), with shared common spaces for socializing as well as for economic activities such as carpet weaving, crafting etc. for various cottage industries. This model seems like the organic form of existing village settlements, small towns, and incrementally developed and densified slums and *katchi abadies* within the urban areas, due to its design compatibility with the needs of lowest income segment such as labor class or industry workers. The clustered housing model, developed in informal and unplanned manner seems to be the only affordable and compatible housing model for the low-income people as demonstrated by the Figures 4.27, however it has not been recognized as one or explored for implementation through planning rules and regulations.

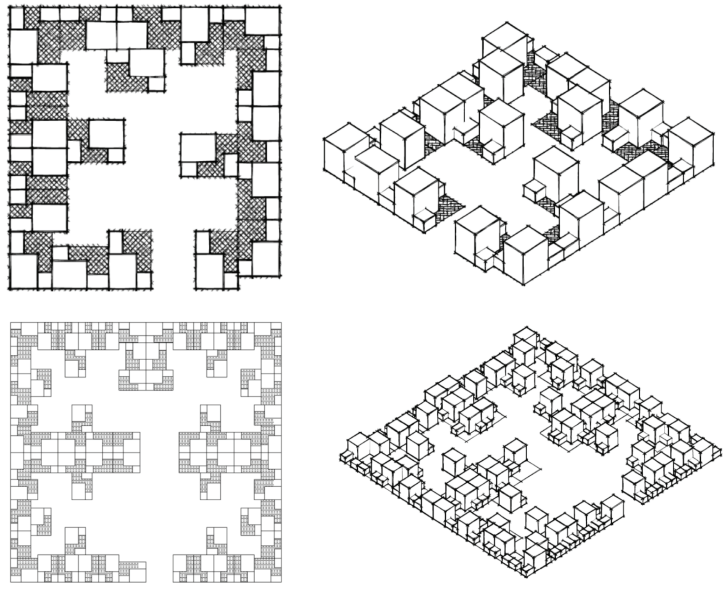
Figure 4.27: Organic Clustered Housing



Upper Left: A Village Settlement in Jhelum, Punjab (Mirza, 2020); Upper Center: A Village settlement in Layyah, Punjab (Kashif, 2016); Upper Right: A Slum inside Karachi City next to Race Cource Neighborhood (Jessica, 2009); Lower Left: A Village Settlement near Pano Aqil Sindh (Staff Sgt. Kali Gradishar, 2010); Lower Center: Settlements along Neelum River, Muzaffarabad, AJK (Afridi, 2013); Lower Right: A Village Settlement near Altit Fort, Hunza, GB (Javaid, 2015)

The clustered housing model with one to two storied housing clusters around courtyards was formally experimented in New Bombay during 1970s, for low-rise, high-density housing projects (Prasad Shetty, 2007). The Government of India through Bureau of Indian Standards notified standards for clustered housing planning in 1993, as well as part of the Model Building Byelaws 2016 by the Town & Country Planning Organization, Ministry of Urban Development ("Model Building Byelaws 2016," 2016). Conceptual illustration of a type of clustered development is given in Figure 4.28.

Figure 4.28: Conceptual Illustration of Clustered Housing



Top Left: A basic cluster module in plan; Top Right: 3-D illustration of the basic cluster module; Bottom Left: Replication of module in four directions; Bottom Right: 3-D illustration of the multiplied modules; Source: "Requirements of Cluster Planning for Housing - Guide," (1993), Reaffirmed (2009), Torus, (2012)

The developed countries also have had traditional low to mid rise housing for the poor urban working class from the 19th century, which still can be adapted for meeting our growing local needs. For example: a) Back-to-Backs: 2-3 floor units joined back to back but separated through alleys/courtyards/compounds as shown in Figure 4.29) Block Housing (Perimeter, Linear, Block-Edge or Space-Enclosing Structures) with multiple units along streets, alleys, courtyards, or compounds with mixed uses on ground floor (Chey, 2018).

Figure 4.29: Examples of Attached Houses

Left: Street fronted back-to-back terraced houses in Harold Grove, Leeds. (Engineer, 2017); Center: Back-to-Back Housing Courtyard, 1883 (Unknown, 1883); Right: Courtyard between Back-to-Back Houses in Birmingham (Unknown, 2010)

4.5.4 Recommendations

Housing sector in Pakistan has not received the attention and approach that it deserved including comprehensiveness and inclusion with past initiatives only in the form of narrowly focused subsidies and housing construction for the poor. It has been experienced from within and learned from the global experiments that adequate housing, if must reach every citizen, needs a change in overall approach where it needs to be placed at the center of the urban agenda. Pakistan, being one of the countries with expected exponential rise in urbanization in this decade needs to not only take a comprehensive remedial approach, but also a preventive approach to meeting housing needs through the following recommendations:

Definitions, Identifications & Assessments

Definitions

Define 'Housing' both as a process and a product, where housing ≠ houses, but a combination of houses, tenure, materials & construction, housing finance & taxation, inadequacies of houses (slums, squatters, lack of services etc.)

Define 'Housing' in terms of the consumers with various factors including a) workforce or family type such as, multi-family, single-family, group housing, studio apartments or hostel/boarding accommodation for non-family working class, old age or special needs

housing etc.; b) income groups such as higher, higher-middle, middle, middle-lower, lower and poorest etc. for the 'affordable housing policy' section of the 'national housing policy'; and c) densities including low rise-low density, low rise-medium to high density, mid-rise-medium to high density, high rise-high density, low density luxurious housing etc.

Identifications

Housing needs, wants and issues need a comprehensive and detailed assessment starting with existing databases of NADRA, Benazir Income Support Program and Ehsas Programs etc. to first identify the lowest economic segment that needs assistance.

Assessments

Housing being part of the Urban & Regional Planning needs a series of sectoral assessments including Housing Supply & Demand Assessment considering the temporally increasing urban population, Assessment of existing Housing Stock to estimate demolitions, conservations or strengthening etc., Strategic Housing Market Assessment, & Strategic Housing Land Availability Assessment etc.

A detailed analysis and audit of the past policies and legislations etc. is a pre-requisite to developing a comprehensive housing framework as part of the larger urban and regional planning framework for the Country. UNHABITAT's Planning Law Assessment Framework 2018 provides a useful tool to start with for this assessment. A comprehensive study on the types of informal settlements is also required for developing target-oriented strategies for issues related to land, tenure, services, structure etc.

The Housing Governance Framework

A Strategic & Collective Vision

Develop a National Urban Vision keeping in view the urbanization challenges and integration of social, economic, and environmental dimensions i.e., the three pillars of sustainable urban development. Vision 2025 may be substituted with missing components to develop a holistic framework, including "Housing-for-All" as one of the sectoral visions to achieving sustainable urban development.

Policy & (Affordable Housing)

The National Housing Policy also needs a backdrop of a National Urban Policy with several strategy components. Moreover, 'Affordable Housing Policy" should be a subset of the National Policy, aiding the income groups with some sort of subsidies or relief based on the definitions and identification of the needy. This is important from the perspective that not all enabling strategies would result in developing pro-poor housing in the open market and would need government interventions. The Housing Policy needs to be linked to the Vision and needs to be part of a Hierarchical (Federal to Provincial to Local) Institutional, Legal and Regulatory Framework so it can be translated into the government's programs/projects & budget.

Legal & Regulatory Framework

Pakistan has never formulated a comprehensive framework for urban planning and management, which has resulted in disorganized and unplanned urban areas as well as deficiencies in all the urban sectors. Considering the enormous challenge of urbanization ahead, Pakistan needs to develop such a framework with a) a formal classification and system of cities; a comprehensive hierarchy of federal, provincial, and local plans and strategies corresponding to the collective vision and policies. An Urban Planning Act is the most important instrument of the framework that helps translate the vision to reality as an obligation. For example, in Philippines, the Urban Development & Housing Act of 1992 mandates the Housing and Land Use Regulatory Board (HLURB) to formulate a National Urban Development & Housing Framework in coordination with local governments and public and private sector (National Urban Development & Housing Framework 2017-2022, 2017). The Framework keeps updating based on urban realities, for example, they keep into inclusion the Climate Change, Disaster Risk Reduction, Sustainable Development Goals, New Urban Agenda etc. and keeps mainstreaming them into their urban strategies.

Institutional Framework

Legal and Regulatory frameworks can never work without a sound institutional framework from federal to local government's level, especially if an elected local governance system is not in place because the urban agenda needs implementation at the

grass root level. There are several models of developing a hierarchical institutional framework with bottom-up or top-down planning approaches, for example, Netherlands' physical planning directorate at National Level develops a National Physical Plan and oversees, the Provincial/Regional plans developed by the Regional Directorates, so they correspond to the national vision. Similarly, local directorates develop their own physical plans in line with the regional sub-national physical plans, overseen by the regional directorates, resolving any conflicts mutually.

Existing Supplementary Legislation

Several issues and missing links have been identified in the previous sections, of which two are critical: 1) developed without any vision or policy to correspond to, and 2) replicated and copied without understanding the local context and urbanization needs. Though the rules and regulations need a thorough review and audit to revise them, some improvements can however be made to them for resolving some housing issues.

Include more housing typologies in the Private Housing Scheme Rules & Building Regulations/Bylaws for developing low-rise to mid-rise but high-density housing areas, suiting local needs and affordability levels. Figure 4.30 shows clustered housing model which is not a very uncommon sight in our unplanned settlements which can be formalized in this manner.

Density provisions are essential for urban sustainability; however, density has several faces and does not all suit all areas or zones of any city. Moreover, overcrowding must not be confused with zoning and must be avoided. Increase the density of most of the areas to at least 250 people per hectare so public transport can be provided. Density can be provided in the following manner:

- Promote 'up zoning', i.e., allowing additional housing units per plot to increase housing density, yet maintaining the character of existing neighbourhoods. For example: 1 kanal vacant housing units or houses with 1 small family may be allowed to develop portions and suites based on some standards for rental housing. They may be allowed to develop up to 2-3 housing units per plot, say 1000 sq. ft. per unit x 4 housing units on a 1 kanal existing plot. Every zone and neighbourhood may need a separate strategy depending on its formation and environment.

- Up zoning or provision of more housing units per plot for new neighbourhoods could be done by reducing the smallest plot size or amalgamation of several to develop mid-rise, medium density units.
- Promote high density, yet mid-rise development for low- or middle-income areas as high rises need more maintenance cost and may result in converting them to ghettos. Extrovert flats and apartments designed for middle-high income do not suit low-income settlements because of their space planning, lack of courtyards or compounds, etc. and hence be planned as small, clustered units with a maximum provision of 3 floors.
- Up zoning or additional floors or housing units' allowance may be provided as a 'density bonus' or 'inclusionary zoning', where the former is not obligatory, but both need to be provided with incentives or tax rebates etc.

Existing Informal Settlements

Rehabilitation & Regularization needs relaxation in building and planning standards as the same standards cannot apply to a new development or an old unplanned settlement. Whereas violations compounding is a highly regressive for new developments, different approach is recommended for old, unplanned, informal settlements and must be rehabilitated and regularized for making them functional. For example: Indonesia has a comprehensive 'Kampung Redevelopment Plan' which is a low-cost rehabilitation plan for informal settlements that has benefited 1.2 million inhabitants by now ("The Kampung Improvement Program, Surabaya - Winner World Habitat Awards 1992," 1992). They have even some streets as narrow as 2 meters but had to be compromised as widening them would have resulted in losing many houses. They have been rehabilitated with compromise on lowering standards, but not in displacing the households (Geoffrey Payne, 2004).

The government will be better off in giving tenure to already developed informal settlements as compared to resettling them at a different location. Where possible, provide tenure and the inhabitants will invest incrementally and upgrade their houses to become structurally sound, because of no fear of displacement. Villa El Salvador neighborhood of Lima, Peru offers a good example in this regard. In 1971, 4000 homeless

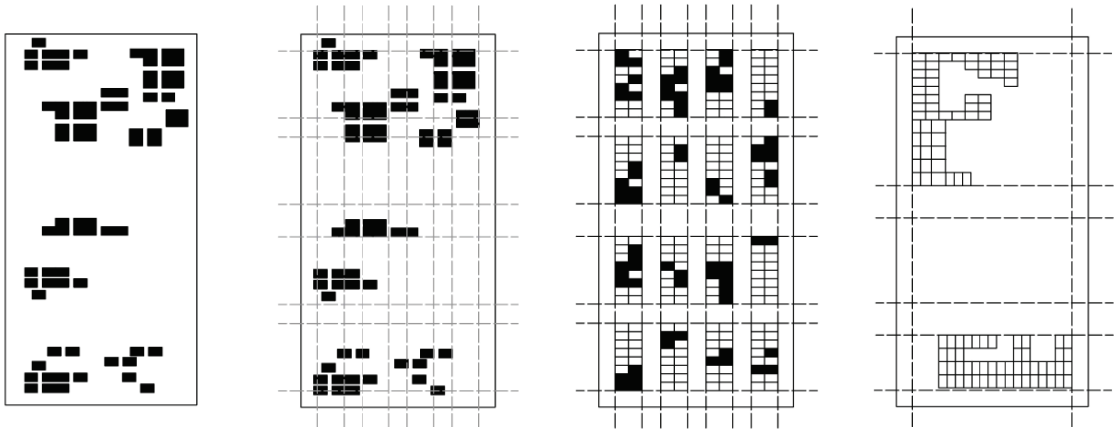
families occupied a piece of land at the outskirts, but the government instead of eviction, provided them 10-meter-wide x 200-meter squatter plots instead without any services. Because of tenure security, the households developed organized housing units, and made government in 4 years to provide services like electricity and elementary school. The settlement grew to 600,000 people in 2015 and is the home to a technical university (Thomas Abbot, 2016).

Figure 4.30: Tenure security resulting in emergence of an urbanized settlement of 600,000 people: An example from Villa El Salvador, Lima Peru

Left: Overview of sheds in a slum of El Salvador; Right: A Google Earth screenshot of a Villa neighborhood in El Salvador developed in grid iron pattern, TheCityFix (n.d.)

Similarly, for low-middle income neighborhoods where tenure is secure and houses' structures are stable, allow an additional floor to be built so their need for extra space is fulfilled in their own area without the need to develop more land and to save them the cost of land.

Figure 4.31: Schematic Representation of the Urbanization Steps of the Ascendant or Informal Planning Model Applied for Squatters Settlements in Lima-Peru



Left: Land Parcel Encroached with Informal Housing, Middle Left: Tenure Provided & Grid for Services & Housing Established on the Parcel; Middle Right: Encroachers align their Units with the Grid because of Tenure Security; Right: Housing Pattern could be in the form of clusters, leaving the rest of the Parcel Area for Economic Uses

Source: Redrawn by Authors, pattern idea from Claudia Sakay et. al. (2011)

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URBAN DESIGN SHAPED BY PAKISTANI HOUSING

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This chapter explores how different housing typologies shape urban design. The study has identified five housing typologies to examine the urban design of various neighborhoods in the major cities of Pakistan. These housing typologies include detached dwellings, attached dwellings, mid-rise apartments, high-rise apartments, and slums. We present a conceptual framework for cities and neighborhoods with the desirable urban design characteristics including lively, walkable, inclusive, safe, healthy, and growth drivers. The analysis of different housing typologies informs us that the current housing trend in Pakistan is failing to shape a sustainable urban design. The research suggests shifting the current trend of housing and urban design. Densification strategies and urban regeneration may be pursued for a more people-centric approach towards urban development.

Cities are made of social, economic, and cultural fabrics. These intangible dimensions take physical form in public spaces, streets, urban design of residential and commercial areas showing a dynamic expression of life (Maretto, 2014). Housing is the most essential component in the physical dimension of cities. When cities fail to provide adequate housing for a growing urban population, it hampers their economic growth, livability, and productivity (Glaeser et al., 2015). But there is somewhat of a lesser focus on understanding the impact of different housing forms on the urban design. This study attempts to bridge this research and policy gap in the context of Pakistan.

Housing shapes settlement patterns through various typologies. Whether it is a slum or a gated community, overcrowding or sprawl, homelessness or vacant houses, there is much evidence that housing is shaping cities worldwide despite regional, demographic,

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socioeconomic and cultural peculiarities (UN Habitat, 2015). Statistical data in Pakistan identifies housing typologies based on construction types, using categories such as, pucca house built of substantial material such as stone, brick, cement, concrete or timber; kucha house constructed of less durable material such as mud, bamboo, reed, or thatch; and semi-pucca house, which are a mix of the two preceding forms. Housing data categorizes the dwelling units using the number of rooms to determine capacity. Different forms of housing can also be used to determine housing capacity, such as townhouses, bungalows, apartments, etc. A study on India categorized housing as bungalows, apartments, penthouses, studio flats, villas, housing complexes, farmhouses, and huts (Agarwal, 2018). Detached dwellings, semi-detached and attached are also common typologies found in housing literature. Smith (2014) conducted a comparative analysis of pre-modern urban housing forms with modern housing. He categorized the typologies based on spatial form in an urban setting such as individual house, house group, contiguous houses, walled compound, and apartment building.

Our study suggests five typologies; detached dwellings, attached dwellings, mid-rise apartments, high-rise apartments, and slums to analyze their influence on urban design. These typologies are suggested based on their prevalence and potential in the current housing stock. Housing under these categories is analyzed using a conceptual framework. We have developed the conceptual framework for urban design by extensively reviewing contemporary scholarships on urban design and cities. The short listed parameters from the literature are livability, walkability, inclusivity, health, safety, and growth drivers.

Our key findings reveal that detached dwellings are the most unsustainable form of living as they give rise to car-dependent, low-density urban sprawl. On the other hand, attached dwellings in dense, compact, and mixed-use neighborhoods possess the ingredients required to drive sustainable growth in the city. Mid-rise apartments meet housing needs by covering the least footprint, whereas high-rise apartments are yet to pick pace in Pakistan. The marginalized section of society cannot afford formal housing hence they resort to slums. These settlements are usually walkable, lively, and mixed with economic activity with strong community ties that hold the people together. Lack of utilities and basic infrastructure, however, makes them undesirable. The supply trend in the housing market is not meeting the demand both in terms of the number of housing units or quality living. The recommendation presented in this study can help in reforming policies and

undertaking further research to address the housing predicament in Pakistan.

This chapter has four sections. In the next section, we discuss our research methodology. We review both local and international literature in section 6.2 to develop a conceptual framework for analyzing urban design of cities. The third portion, 6.3, discusses and analyzes urban design according to the indicators developed under the conceptual framework. The fourth section presents international case studies from the global south to draw parallels with the situation in Pakistan. Fifth section sums up the discussion by identifying how to shift the housing trend in Pakistan. Last section concludes the analysis.

5.1 RESEARCH METHODOLOGY

This research is based on qualitative assessment of secondary data. We have consulted international and national literature, housing data in Pakistan, photographic evidence, listings on real estate websites, news articles, google imagery and our observations on the urban design.

The conceptual framework developed in this chapter is based on the ideology of five leading urban thinkers. We have reviewed their framework for urban design. While there are numerous researchers working on urbanism and cities, we have specifically identified researchers whose work can be related to urban design and housing trends. Housing is not isolated from the social, economic, and environmental consequences felt in the city. The literature of the selected authors also considers these dimensions. We have limited the conceptual framework due to our topic's scope, but it can be expanded by adding more thinkers. The conceptual framework developed in this study can also be used for empirical studies.

We have used the conceptual framework to analyze five housing typologies in Pakistan; detached dwellings, attached dwellings, mid-rise apartments, high-rise apartment, and slums. These typologies are based on what was previously built in cities and what prevails in the present housing market. Currently, real estate developers are leading the housing supply in the form of housing societies with single-family homes. Apartment buildings are also springing up to meet the housing need in various cities. Where housing needs are not met, slums develop are a bottom up approach. We relate each housing typology with the

income group. It serves to ensure that we have broadly covered all socio-economic segments of society.

In addition to academic writings, we have also collected data from a real estate listing website. Areas of housing typologies and their sample designs are selected from publicly available data on real estate websites such as zameen.com. We have also consulted international case studies. The cases are selected from contextually relevant countries of the Global South.

5.2 LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Cities must be sustainable, responsive to people's needs, and create harmony with nature. However, the cities today face challenges of housing insecurity, rural-urban migrations, income inequality, education and health disparities and climate change. The modern planning paradigm in the post-war era changed the cities of the global north not for good. The consequences are still felt today even after changing the planning practices. Cities in the global south are repeating the same mistake despite seeing the results.

The end of 20th century saw a shift towards a more integrated planning paradigm in the North American and European cities. Jane Jacob's seminal book The Death and Life of Great American Cities was published in 1961. It discussed modern urban planning ideology, which separates the city functions into zones and emphasizes freestanding individual buildings. This puts an end to city culture and street life. Jane Jacob brought a decisive shift in the way urban planners were thinking about cities. This was followed by contributions from many researchers and urban planning theoreticians. Jan Gehl, an architect, urban design consultant and writer also comments on modern urban planning. It gives low priority to public spaces, pedestrians, and the role of city space as a meeting place for urban dwellers. What modern cities miss is the connection between the physical form of urban design and human behavior.

Architects and urban planners in the U.S. began working towards urban strategies that took shape in the form of Congress for the New Urbanism (CNU) in 1993. CNU's mission was to revitalize the modern towers-in-the park housing projects with diversity, mixed-income, and well-connected neighborhood (Rose, 2016). European cities also

shifted their car dependencies towards a sustainable model of a compact city. They promoted walkability and cycling infrastructure for healthier and safer living. A perfect case study for this shift is Amsterdam, now known as a cycling city, previously crammed with traffic and a high accident rate in the 1980s. These shifts drastically transformed the urban design of the cities as well as housing typologies. Compact housing in mixed-use and mixed-income neighborhoods was preferred as it encouraged agglomeration and increased access to amenities, education, and employment opportunities. European cities continue to evolve addressing their urban challenges through strategies such as super block of Barcelona, 15-minute city in Paris, London's low traffic neighborhood and Milan's open street plan (Lomas & Dillet, 2020).

On the other hand, rapidly urbanizing cities in developing countries are struggling with stress on utilities, traffic systems, public spaces, and parks in addition to the housing crisis. Pakistan has a flawed approach towards addressing these challenges. The cities are characterized by urban sprawl favoring road and housing estates for the rich. Zoning regulations discourage high risers from residences and mixed use as well as leave little room for public spaces, commercial and recreational development. The government, rather than activating commerce in the city, owns most prime land (Haque, 2020).

Gehl (2010) argues that high density and low-income neighborhoods are especially the ones which require public space in their urban design. Many everyday activities take place in the near vicinity of their dwellings, on streets and on common grounds. Lower income groups walk or cycle without feasible infrastructure and poorly developed public transport.

Motorbikes are a recent intervention in Pakistan to overcome the issues of mobility with deficient public transport. They are affordable for lower income and efficient to move in congested areas. However, high-speed motorbikes make streets unsafe while many motorbikes parked on streets have invaded the sidewalk culture. In short, vehicles have taken over our streets and public spaces in the city by significantly reducing ''opportunities for expression and life quality for large groups of population, especially the economically poorest group" (Gehl, 2010 p.219).

In his book "The Well-Tempered City," Jonathan F. P. Rose uses music theory to argue for harmony and balance in urban development. He provides recommendations for building cities that are more sustainable, resilient and that harmonize humans with nature and each other. He identifies five characteristics that make cities 'happier and healthier': coherence, circularity, resilience, community, and compassion.

Coherence is moving from siloed strategies to integrated ones. Too often, policies do not work together, and funding sources are isolated thus making systemic changes difficult. Circularity refers to connecting our systems in a loop such as through recycling. Many western cities have adopted the principle of circularity in energy through micro-grids. Such systems make a region self-sustainable, allowing it to protect itself from global economic volatility. The third characteristic is cognitive resilience in the urban design of cities. It means that the city's physical ecology should provide a safe environment for its inhabitants to heal. This leads to the fourth characteristic of community, which manifests in a neighborhood. Neighborhoods have a significant impact on the quality of life. Neighborhoods work well with safe and affordable housing, access to transportation options, parks, public spaces and proximity to health and educations amenities. The fifth and last characteristic of compassion holds a broader perspective of community development through individual actions (Rose, 2017).

Along the same lines, Charles Montgomery in his book, "Happy City" describes happiness in a city as more than just getting pleasure, but also being an active member of society.

"The most important psychological effect of the city is the way in which it moderates our relationships with other people."

Montgomery (2014) argues that sprawl - formation of low-density, car dependent suburbs - is harmful to human health and the planet. Sprawl makes people unhappy by isolating them and creating dissatisfaction. Car dependency also generates unsustainable levels of greenhouse gases. On the other hand, more densely populated cities with a well-connected public transport network encourage people to travel on foot or by public transport. Mixing uses and housing typologies leads to greater density. Over the past half century, Jane Jacobs, Richard Sennett, Richard Rogers, and others have made the same argument. By taking everyday examples, Montgomery established the connection that

urban design strongly influences the mood and behavior of people. City planners and developers should pay more attention to how they can create cities for the inhabitants' contentment. The realistic planning of walkable cities starts from downtown, which belongs to everybody in the city (Speck, 2018; Haque, 2020).

We see these ideas taking shape in the general theory of walkability. A walk must satisfy four conditions to be preferred; it must be useful, safe, comfortable, and interesting. Speck (2018) has developed Ten Steps of Walkability and divided them into the above-mentioned four categories.

The first category 'The Useful Walk ' has four steps; put cars in their place, mix the uses, get the parking right and let the transit work. The second category of The Safe walk includes the next two steps; protect the pedestrian and welcome bikes. The third category is called the comfortable walk. It consists of the seventh and eighth step related to urban design of the cities - shaping the spaces and planting trees. The fourth category includes the last two steps; make friendly and unique facades and pick your winners. After meeting the basics in the first eight steps, the ninth step calls for designing the architectural edifices such that they engage with the pedestrians by offering entertainment, retail, and aesthetic value. The tenth step shortlist's locations in the city where the first nine steps should be implemented. For example, a container depot that must be functional and need not be vibrant like a downtown street (Speck, 2018).

The concepts discussed for the walkable city are extensive and correspond with other contemporary literature for cities, such as 'Cities for People' by Jan Gehl. The author is an architect and consultant who has assisted cities in transforming their urban environments. In his book, Gehl (2010) outlines tools to turn unworkable cityscapes into landscapes for people, known as cities for people. The toolbox includes an overview of the planning principles ranging from flow of traffic (pedestrians, bicycle, automobile etc.) to various quality criteria for a city space at eye level. The principles revolve around the concept of putting pedestrians first when solving urban issues.

Gehl (2010) emphasizes four criteria to successful urban design of cities: Lively, Safe, Sustainable, and Healthy. A lively city provides more than the necessity to survive. It provides opportunities for social interaction with society. The safe city argues for sound

public space with traffic safety and crime prevention. Car oriented cities are less safe and exclusive, while a pedestrian friendly city allows intermixing of people from all socioeconomic backgrounds. Walkability as discussed by Speck (2018) is also a part of Gehl's (2010) discussion on cities for the people. Sustainable cities achieve the third criteria through green mobility, such as walking, biking, or taking public transportation. These modes of transport positively affect the economy and environment, reduce resource consumption, limit emissions, and decrease noise level.

The last criteria by Gehl (2010), a healthy city integrates health policy with city planning. Having opportunities to walk within the planning blueprints results in society's acceptability for walking while shifting away from automobiles. Compact and mixed-use neighborhoods can achieve multiple short trips within a walkable distance. Each of the four criteria are interconnected and serve as a goal for creating a livable city and creative city. Density in the city also brings together talent, knowledge, capital, and other assets required for entrepreneurship and innovation (Florida et al., 2020). It also favors knowledge spillover through networks as concluded in a study of startup activity in the cities of Pakistan. This agglomeration of economies makes urban environments ideal for entrepreneurship, innovation, job opportunities and growth (Iftikhar et al., 2020; Iftikhar & Ahmad, 2020).

There is extant empirical evidence for urban clustering of high-tech startups and concentration of venture capital investment in dense urban neighborhoods of metropolitan cities around the globe. Downtown not only favors startups but also benefits from their innovation. Urbanism has inspired the startup sector to innovate new streams such as ride hailing, co-living, co-working, real estate technology, construction technology, and smart city technology (Florida et al., 2020).

In the case of Pakistan, Haque (2015) discusses the dysfunctionality of cities in Pakistan whereby urban planners have adopted a garden city approach since the early year's post-independence. The master plan of Islamabad is the epitome of low-density suburban development without a downtown. Up until the 1960s, cities had a clearly visible downtown development. Mixed-use and high-density centers along with the historic core in Rawalpindi, Lahore, and Faisalabad etc. are an example of this. The 1960s garden city paradigm started providing housing on the outskirts of the city. Public transport

provision is almost impossible with horizontal expansion coupled with lack of apprehension from the city development authorities. City centers, which usually had a good mix of functions, now do not receive the due maintenance and management. Instead of being vibrant centers, they represent urban chaos and poorly managed urban infrastructure (Haque, 2015).

Congestion relief tactics such as widening roads and building flyovers are a flawed strategy. Despite the failure, the approach persists. Loss of public spaces, inefficient walking and cycling infrastructure, energy intensive mobility, and deteriorating air quality index with vehicular emissions hinder creating walkable, safe, healthy, and lively cities (Haque, 2015). A recent report for the air quality of Peshawar, the third most polluted city in Pakistan and 9th most polluted in the world, provides evidence of the pollutants exceeding the safety standard by 4-5 times. Transport, industry, domestic fuel-usage, municipal waste burning and dust are the primary sources of pollutants. The number of registered vehicles in Peshawar rose by 85% between 2012-2020. A higher percentage was of motorbikes, which saw 168.8% increase in their number. This trend is consistent with other major urban centers of Pakistan. It is important to understand the role of cities and exactly what hinders their path towards prosperous urbanization.

Pakistan has a central governance system without an empowered local government. The city administration which runs the system, is itself fragmented into administrative districts and cantonments (Haque, 2015). Urbanization is also inhibited by the lack of marketability of large parts of the city's land. Government and military institutions compensate their officials with housing and land. The opportunity cost of this form of housing is large. Defense Housing Authority (DHA) has become an example of a public sector land development company. Housing societies like DHA are increasing suburbanization at the cost of city centers. Instead, the community, social interaction and commerce needs to be at the center of urban design. This will enable cities to become engines of growth (Haque, 2015).

Pakistan should capitalize on its urbanization with sustainable urban management principles. Haseeb et al. (2019) discusses four areas of improvement. Firstly, there is a need to decentralize and empower local governments. Secondly, public policy should attract, enable, and empower small and medium size enterprises. Thirdly, smart urban

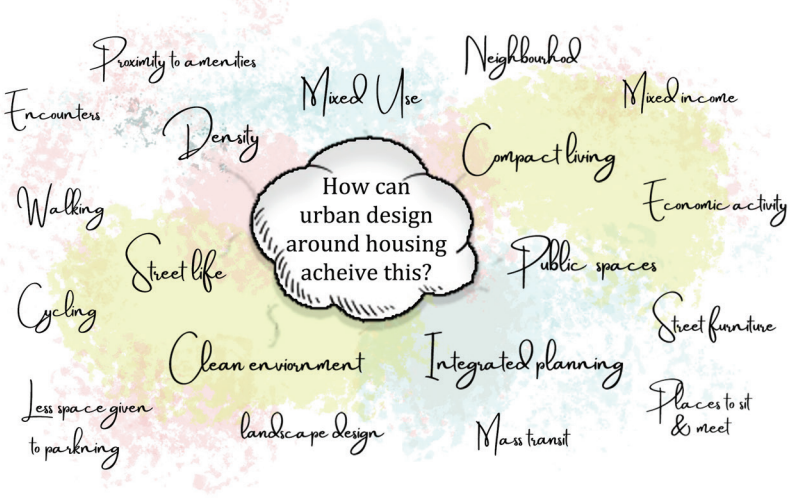
planning is required for better functionality. Lastly, facilitate collective action among people, firms, and institutions. In this review, we have discussed what an urban design should achieve, the challenges it faces in Pakistan, and how it can be accomplished. We have summarized the approaches for cities to benefit people, to be walkable, balanced with nature, and become engines of economic growth. Most approaches overlap, with one aspect leading to another. We placed the framework of the leading authors in columns, as shown in figure 5.1. The sequence of keywords in each column is such that it connects horizontally with the adjacent framework.

We have developed our conceptual framework for a 'balanced yet growing city' through six parameters: lively, walkable, inclusive, healthy, safe and growth drivers. Figure 5.1 also includes a word cloud to enlist the approaches that were identified in literature as key components of successful urban design. The six parameters of analysis are further broken down into their indicators in table 5.1. These indicators are also derived from the discussion of literature review and serve as an outline of the qualitative analysis. We have selectively prioritized the indicators, which relate to neighborhoods and urban design around housing.

What should the **urban design of cities** be like?

Figure 5.1: Conceptual Framework for Urban Design

Cities for People **Jan Gehl**	Walkable City **Jeff Speck**	The Well-Tempered City **J. F. P. Rose**	Happy City **C. Montgomery**	Cities as Engines of Growth[1] **Nadeem ul Haque**
human dimension	**Useful**	**Coherence**	built environment	land
senses	mixed-use		urban design	**Governance**
scale		integrated		reforms
Lively	**Interesting**		scale	Infrastructure
		Community	**Social Interaction**	**Energetic youth**
walking	pedestrians			
cycling	transit		conviviality	**Community**
Sustainable		**Circularity**		mixed-use
eye-level	public spaces	sustainability	diversity	competitive
			mixed-use	**Vibrant Markets**
Safe	**Safe**	energy conservation		entrepreneurship
staying			streets	
	interactive	**Resilience**		innovation
meeting			walkability	
Healthy	**Comfortable**	physcial ecology	**Healthy**	agglomeration
life				**Creative Cities**
	green	**Compassion**	quality of life	walkability
(public) space				**Quality of life**
Lively	**Walkable**	**Inclusive**	**Healthy**	**Safe** **Growth Drivers**



Source: Author's own illustration

Table 5.1: Indicators for conceptual framework

Lively	Walkable	Inclusive	Healthy	Safe	Drivers of growth
Are there sidewalk kiosks for economic activity in the street?	Do people walk for basic requirements such as grocery?	How many diverse types of income group can rent/own a house in the neighborhood?	Are there opportunities for walking and cycling?	Is it safe to walk at all times of the day, for any gender?	Are there formal commercial areas in the neighborhood?
Does the street furniture allow interaction in public space?	Do people walk to the public transport stop if there is one?	How many different housing typologies co-exist in a neighborhood?	Are there green spaces?	Is there a culture of walking?	Is there informal economic activity on the street such as kiosks and street vendors?
What activities are there in parks and public spaces?	Do people walk for recreation or until destinations such as parks?		What is the Air Quality Index (AQI) of the area/city?	Do children play in the street and parks, unsupervised?	Are there community center, recreational places, square, plazas, grounds etc.?
What is the level of interaction among neighbors?	Is the infrastructure suitable for walking?		Is solid waste being recycled?		

Source: Authors (2023)

5.3 URBAN DESIGN: IS IT LIVELY, WALKABLE, INCLUSIVE, HEALTHY, SAFE AND DRIVING GROWTH?

This section analyzes the urban design around the five housing typologies found in the cities of Pakistan. The five typologies are visualized in figure 5.3 showing the housing form, street layout and planning pertaining to each typology. We discuss each typology under the following metric from our conceptual framework: lively, walkability, inclusive, healthy, safety, and growth driver.

5.3.1 Lively

A neighborhood becomes lively with activity. Literature review identified community interactions to be higher in compact living. Different housing typologies have different densities, levels of compactness, and lifestyles. We determine the liveliness around a housing typology by identifying urban design features. Does street furniture activate the public space? Do sidewalk kiosks generate economic activity? What is the use of parks and public spaces? What is the level of neighborhood interaction like?

In the case of detached dwellings, there are two locations. Detached dwellings are found either in the wealthy neighborhoods of the urban core or in suburban housing societies. Dwellings in the urban center enjoy proximity to the vibrant character of the city, well connected with amenities and infrastructure. While the residential streets are not filled with activity, the neighborhood is near commercial and recreation areas. Most households own a car and prefer to drive even to the nearest destinations. Therefore, the nearest commercial zones develop parking lots instead of sidewalks and public squares for their visitors (Figure 5.2).

The digital age has further shifted children from the street to the virtual realm. Since there are few children playing out on the street, the streets lack vibrant sight and sounds. The wealthy residents in detached dwellings own sufficient digital gadgets to keep children indoors. Most housing societies with higher-income neighborhoods also do not allow street vendors. Any sidewalk or street activity remains to a minimum in wealthy neighborhoods of detached dwellings.

Even though interaction between neighbors enhances the quality of life around housing, residents of bungalows live in their own homes. Open spaces like lawns, terraces, and rooftops are part of every house. There is also little chance that people from one household will communicate via open spaces. Hence, people only interact when they decide to meet each other. Chance encounters and informal conversations are rare due to the indoor lifestyle and the low trend of pedestrians in the streets. Detached dwellings have a garage in their boundary. People are already in their cars when they leave their gates, minimizing the chance of encounters.

Since most bungalow streets are quite wide, space is not a problem. A particular street in the sector of f-11 in Islamabad is more than 20ft wide excluding the exterior lawn and driveway of each house. Detached dwellings developed in housing societies on the outskirts have similar lifestyle trends.

Figure 5.2: Lack of Sidewalk

Left: Residential Street in E-11 sector of Islamabad; Right: Lack of sidewalk in markaz of E-11 sector in Islamabad;

Source: Zameen.com

In comparison to detached dwellings, attached dwellings do not enjoy the benefit of extensive open space within their boundary; hence, they make use of the street as their outdoor space. Children from different households play and interact in the street or any adjacent playground. Often parents are compelled to keep an eye on their children by being in the same outside space. The activity and density also attract street vendors such as ice cream sellers, corn sellers, etc.

The neighborhood of attached dwellings can contain a larger number of households as compared to detached dwellings. For example, a one kanal residence is equivalent to four houses of five marla each. Neighborhoods with attached dwellings have the benefit of density. Commercial activity picks up pace more quickly as demand is driven by density itself.

Figure 5.3: Housing Typologies

Source: Developed by authors. Images from real estate listings at zameen.com, tbhpak.com, pakmanor.com

Density also works well around mid-rise apartments. While midrise apartments were the most prevalent in Karachi, now every urbanizing city in Pakistan has mid-rise apartments springing up on commercial boulevards. Lower income people find affordable housing in the commercial plazas, which have developed a couple of stories for housing the labor force. Middle to higher middle-income groups also find their housing solutions by the private sector. Developers build a range of apartments for higher profit. These are built within the city as well as part of housing societies on the outskirts.

Before the private sector, the government was the only supplier of mid-rise apartments for employee housing. Government employee housing developed apartment complexes with green courtyards and open fields around them. This form of complex enables community development in the open public space where neighbors interact. Since every household is associated with a governmental department, it is easier to build trust. Interaction with the neighbors, active communal courtyard and street furniture makes the mid-rise apartment typology lively.

However, there is no uniform description of the apartments built by the private sector. Well-established private developers have built apartment complexes as part of housing societies. Defense Housing Authority and Bahria town are the leading examples. The apartments do meet a minimum standard for the functionality of the buildings and maintain criteria of outdoor communal space. These apartments are however only affordable for higher middle-income groups.

Real estate developers have also built standalone apartment buildings wherever regulations permit in the city as well as along highways leading toward peri-urban societies. While these apartments do consider functional requirements such as parking, there is no consideration given to community development and public space. Residents already live in confined spaces in apartments. An apartment building without access to communal amenities, public space or a park are not contributing to lively living.

Figure 5.4: Al-Habib Flats, Clifton, Karachi

Source: Zameen.com

Figure 5.5: Gulshan-e-Jinnah Apartments, F-5, Islamabad

Source: Author's own illustration

Although the analysis for high-rise apartments is limited as it is still a new and limited typology in Pakistan. High risers can create a lively environment within the communal part of the building. By promoting densification and agglomeration, typology is much favored in the discussion of economic growth of the city.

Figure 5.6: West Wind Apartments, Clifton, Karachi

Source: Zameen.com

The informal typology under discussion is of slums. It is ironic to say that the most unplanned typology is the liveliest. While there is no permanent street furniture, the slum dwellers utilize their outdoor space with interventions.

Housing is irregular with a mix of various construction types. There is a lack of infrastructure for services, even as basic as water pipes. People fill their bottles and buckets from a public water tap. This activates the public spaces, fosters communal interaction and sharing of resources. The slum dwellers own their space and find ways to live through their situation. Their strength is their social capital. Neighbors interact and support each other. Some people also find their means or earnings by setting up corner shops, utility stores, etc. in their own neighborhood.

Figure 5.7: Changrabad, Peshawar

Source: Author's own illustration

Figure 5.8: Street view of Changrabad, Peshawar

Source: Author's own illustration

5.3.2 Walkability

A neighborhood must be walkable and allow access to basic daily requirements such as groceries, medicine, etc. This walkability can also be assessed based on how close a public transport stop is to the neighborhood, whether people are able to walk to access recreation, and if the infrastructure is suitable for walking. We can assume that well-developed infrastructure promotes walkability but let us analyze factors in the discussion below.

The wide streets in neighborhoods with bungalows do allow enough space for a leisure walk. However, the horizontally expanded individual use housing makes walking to a particular destination time strenuous. Short trips even to a grocery store are reliant on a vehicle. Markets also take time to develop in housing societies due to low density. People residing in these neighborhoods spend longer travel time to work, education, and recreational opportunities, thus spending less time in the public space of their neighborhood.

Moreover, multi modal mobility is completely lacking from all the cities in Pakistan. Public transport is not feasible for low-density neighborhoods, nor is it given consideration. When housing is only provided in the form of single-family homes, distant from the city center- people will be bound to opt for vehicles.

Figure 5.9: A Commercial Road in Lahore

Source: Zameen.com

Walkability increases in neighborhoods where short trips are possible at least for the necessities. These short trips are possible in compact and dense neighborhoods only. The density also attracts commercial development to pick pace hence bringing essential destinations closer to the residence. Thus, density and compactness shape the behavior of people.

Attached dwellings are peculiar to dense neighbor in historic inner city areas, and their surrounding development. Many times, children are walking after being dropped by a

school van. People meet and greet each other during encounters while walking. This interaction nurtures community ties. Street furniture can facilitate interaction; however, it lacks in the public space due to space limitation.

Historic city centers with their surrounding neighborhoods are also mixed-use. Residents can walk to multiple destinations such as a public transport stop, grocery, or a utility store. Congestion is, however, a challenge with the rising population and the trend to own vehicles. The streets of inner city neighborhoods are now filled with vehicles, especially two wheeler motorbikes.

Figure 5.10: Inner City of Multan

Source: atta1997 at localguidesconnect.com

On the other hand, newly developed housing societies with attached dwellings do not enjoy the benefit of mixed use and commercial activity. Located on the outskirts of the city, these societies are not easily accessible by public transportation. Markets and commercial activity take time to develop. Society regulation also restricts the mix up of residential and commercial zones. It is not possible that a small grocery or coffee shop can spring up on the corner of a street. Figure 5.11 shows a proposal of attached housing in the outskirts of the city, while figure 5.12 is the ground reality of how it will look until the entire sector develops over decades.

Figure 5.11: Proposal for Spanish Villas (5 marla) in B-17, Islamabad by Private Real Estate Developers

Source: manahilestate.com

Figure 5.12: A House for Sale in B-17 Islamabad

Source: Zameen.com

It is worth discussing the walkability in neighborhoods with mid-rise apartment buildings. Mid-rise apartment buildings cover less footprint in city planning. They are an efficient strategy towards densification and development of compact housing. However, walkability depends on the neighborhood in which the building is located. An apartment building on the outskirts brings back all the flaws of peri-urban development, whereas an apartment building in a dense urban core has the advantage of location enabling walkability to various destinations.

Walkability in high-end apartments is usually not a factor in consideration. Most residents will own vehicles hence parking floors are made. While Centaurus mall in Islamabad provides high-end apartments in a central location of the city, Bahria icon tower in Karachi is inspired by the Dubai model of providing views. Like mid-rise apartments, high-rise apartments can meet the needs of the masses if they are in the city or connected to a transport route.

While it is a challenge to promote walkability in formal housing typologies, the most common mode of mobility for slum dwellers is walking. They do not own vehicles. There could be taxi drivers among the slum dwellers, but they do not always own taxis. Children and men in each household do make use of bicycles. Men often go to work using their bicycles. Households, who can sustain a regular income, save enough to buy a motorbike. However, most of the inhabitants rely on public transport. All the residents use multiple modes to reach their destination. Slum-dwellers usually find work where they get housing or vice versa.

Figure 5.13: People in the Streets of Lyari, Karachi

Source: Saeed Shah MCT picture in theguardian.com

5.3.3 Inclusivity

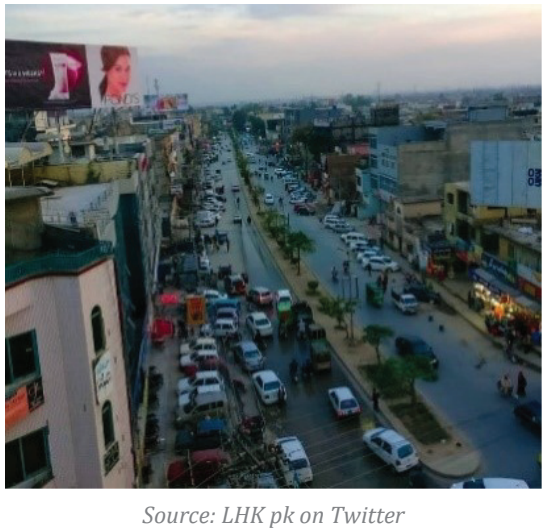
Lively neighborhoods are inclusive. We identified in the literature review that housing which is receptive to diverse and mixed-income groups creates inclusive neighborhoods. This can be assessed based on how many diverse types of income groups can rent/own a

house in the neighborhood, and how many different housing typologies are able to co-exist in a neighborhood.

Previously discussed, detached dwellings are found in urban core of some cities and housing societies. Older developments in the urban core like Gulistan Colony in Faisalabad, Johar town in Lahore, have mixed plot sizes hence they are inclusive. Some of the main roads have commercial activity as well as apartments built by the private sector. Some streets have detached dwellings, and some have attached. This allows for people from various income brackets to live in the same neighborhood. Johar town in Lahore is an active neighborhood with connections to public transport as well as commercial activity. Hospitals, schools, and colleges fill up the neighborhood and qualify it as a mixed-use development. There are people living in bungalows as well as a single bedroom apartment. The neighborhood has evolved over a period of decades and is not under one private developer.

On the other hand, detached dwellings in the new housing societies are not mixed with other residential typologies. Developers do provide housing of many sizes, but usually these typologies are distinctly apart. Regulations do not allow mixing commercial activity in residential zones, which defeats walkability.

Figure 5.14: A Commercial Road in Satellite Town, Rawalpindi



Source: LHK pk on Twitter

Let us take another example of Satellite town in Rawalpindi, which is a mixed income neighborhood with detached bungalows as well as smaller plots of attached dwellings. The neighborhood is centrally located in the city, categorized into various blocks. The main circulation arteries, i.e., the double roads, are mixed-use with commercial and residential activity in the form of apartments. Commercial market is a dense economic center of Rawalpindi located in satellite town. As the satellite town hosts multiple housing typologies and income groups, all the people benefit from the proximity to any commercial, infrastructural and amenity development in the area.

The scale and affordability of attached dwellings suits the needs of a large middle-income population either through family ownership or through rentals. They are either occupied by single or multiple households such that one household lives per floor. In extreme overcrowded conditions, often one household occupies only one room in the dwelling, living together as part of a joint family.

Attached dwellings are also affordable when provided on the outskirts; however, the travel costs add to the expenditure making them less inclusive. With housing shortage, congestion and overcrowding in urban centers, middle-income people are moving to the outskirts by building their own houses or renting them. Those unable to move to a new house stay in overcrowded situations in their family homes. In general, attached dwellings provide a scale of living, which is affordable for multiple stages of career and family.

Inclusivity within an apartment complex is a challenge. All apartments constructed in Pakistan have uniformity in the type of income group they are attracting. It is rare to see a mixed income group in one block. If a building is for a luxury apartment, it will not have any affordable housing units. Many apartments are still using the number of bedrooms as their selling point. Hence, the supply of apartments also provides housing for families with less consideration given to studio apartments.

On the contrary, slum dwellers are the poorest of society who cannot afford the housing market. They are excluded from the formal housing stock in the city. Slums need not to be inclusive as they are not a permanent state of housing. They are a representation of the ones excluded from the formal housing market. There is insecurity of tenure, yet they continue to improve their dwellings on their own.

5.3.4 Health & Safety

A neighborhood becomes healthy when it allows walking, it is lively, has active green spaces and it is clean. As we have discussed the walking and street character of neighborhoods with detached dwellings, we know that they fall short in being healthy. The ratio of green in such neighborhoods is comparatively more as every house has an interior or exterior lawn. Public parks are also developed but their usage remains low. In terms of safety, a neighborhood must have a culture of walking which allows visibility of men, women, and children.

High-income neighborhoods do enjoy the benefit of adequate service delivery especially in terms of waste collection. Where the waste is dumped in the city is a different thing. However, there is more to the picture than just clean streets. Living on a large footprint, where every household owns one or more vehicles adds to the carbon footprint. The residents do not use public transport when each individual travels in private cars. The long journey from suburban living to the office, school or university and recreational activity emits pollutants deteriorating the air quality of the city. The number of air conditioners per house is also more as compared to any middle-income household. Thus, detached dwellings contribute towards an unsustainable living with a higher carbon footprint.

Housing societies mostly promote safe living by restricting access to the neighborhood, ensuring surveillance through CCTV installation and appointment of street guards. Regardless of these measures, activity on the street remains less.

A sustainable and inclusive way to enhance safety is by having more 'eyes on the street.' While precautionary measures are needed, safety is assured once the fear of being on the street is less. The fear can be reduced if the streets are more active, with familiar people around us. For this purpose, density in residential neighborhoods comes into play. Density brings people together, allows more people to share public space and develop community ties. This is not the case in higher income neighborhoods with detached dwellings, making them less safe.

Figure 5.15: Street Cricket

Source: Saad Saeed in cricketmonthly.com

Compact neighborhoods with mixed use activities encourage walking and cycling within the neighborhood. Amidst the density, children transform the streets into playing fields. As dense neighborhoods have evolved with weak urban management, they lack green spaces, parks and playing fields. The mobility and activity make the streets healthy. However, the green cover around attached dwellings is less. Cleanliness is also often compromised as street activity increases. Density leads to unhygienic space in case of weak service delivery and lack of ownership among residents.

Streets around housing are safe when women and children are seen in the streets. Safety increases with more eyes on the street, familiarity, and trust within the community. Compact neighborhoods have strong community ties, especially in the urban centers. There are more chance encounters among residents as they use the public realm more often. Thus, there is less fear of being in the street in urban centers with attached dwellings. One thing which is now becoming a challenge for safe streets is the proliferation of vehicles, specifically motorbikes. Driving at high speeds within the neighborhood discourages some people from letting children play on the streets. Moreover, the general concern of crime in the city also takes over street activities in some areas.

Figure 5.16: Inner City Streets in Rawalpindi

Source: Author's

However, one must be cognizant of the fact that attached dwellings are a broad category. Talking about attached dwellings in walled city of Lahore and Peshawar is different as compared to the ones in parts of Islamabad and new housing societies. Hence, we can only highlight the challenges of density but not generalize the state for all cities.

The health and safety criteria for apartments are different as compared to what it was for dwellings in streets and neighborhood. The health and safety standard of an apartment building depends on the construction quality, installation of services, maintenance, and management over a period of years.

Karachi has a high number of apartment blocks built from the 70s. Many apartment buildings are in deteriorating condition. Safety is not only harmed due to physical condition, but it is also affected by who starts residing as a neighbor in the buildings. While apartments provide an affordable solution to own and rent, the upkeep of the building is a key challenge.

Health and safety standards again depend on the maintenance and upkeep of the buildings. In terms of urban design, high risers must assess their surroundings in terms of green spaces, wind tunnel effect and sun orientation. Hence, any developer involved in the construction of high risers must meet the building's standards. Development authorities must ensure the implementation of these regulations for sustainable buildings.

Figure 5.17: Al-Quddus Apartments, Gushan-e-Iqbal, Karachi

Source: ilaan.com

Health and safety standards are compromised in slums since basic services infrastructure is not provided. Open drains, broken streets and muddy grounds are the physical attributes of their environment. Not every slum has a solid waste management system in place. While some slums have developed permanent structures laying infrastructure as well, many face the challenges of service delivery.

Figure 5.18: Slum Street during a Heatwave in Karachi

Source: Amar Guriro in thethirdpole.net

5.3.5 Growth Drivers

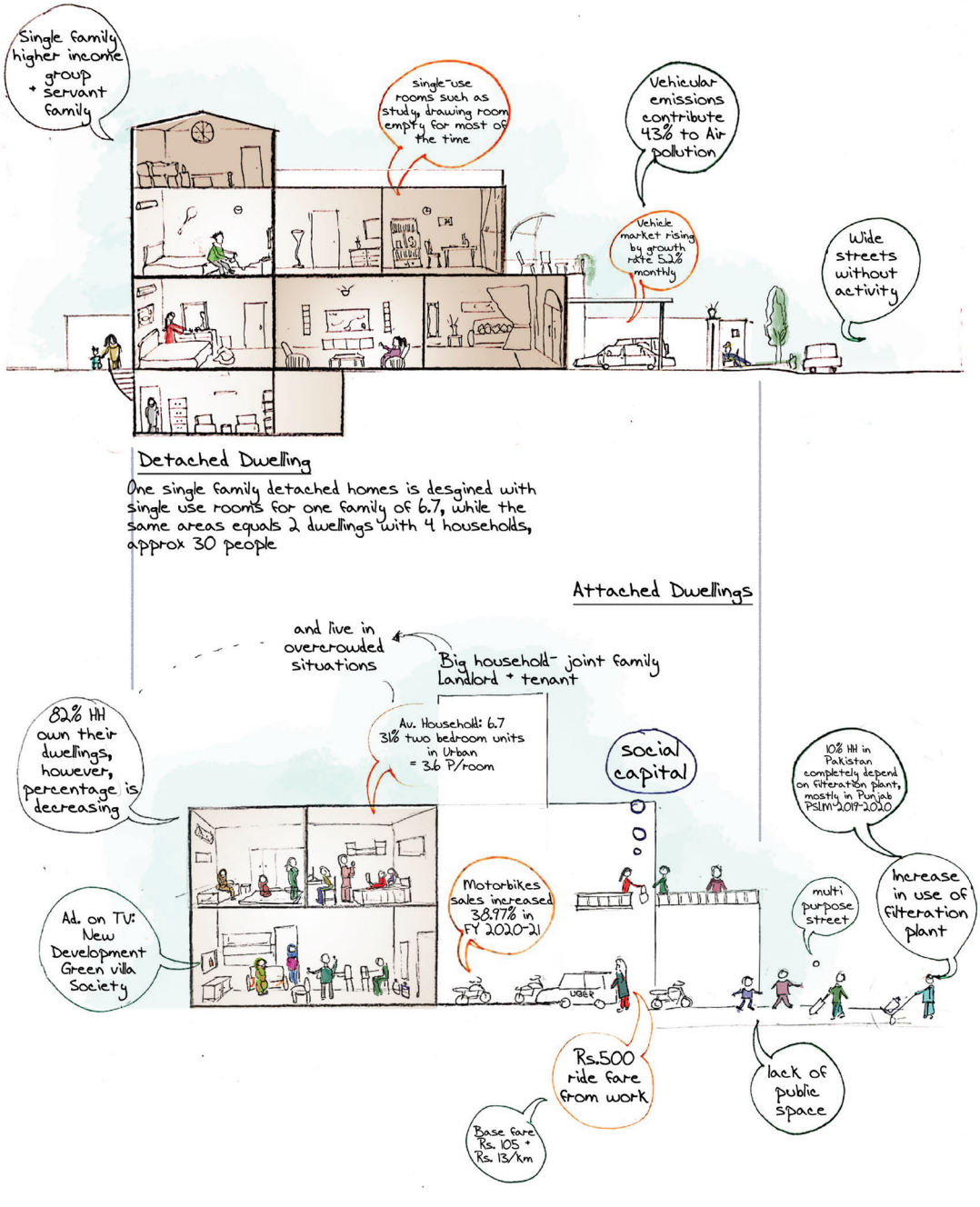
A neighborhood can be a driver of growth when it is lively, walkable, inclusive, hence it must include all the above-mentioned criteria. Only then, it will attract the younger generation to live in it. A neighborhood needs to allow mixed-use activity, density, connectivity to public transport, and vibrant public spaces. Commercial development picks up pace when these factors are in place. The development then attracts jobs and entrepreneurship, whether it be through formal commercial areas or informal economic activity on the streets through kiosks and street vendors.

All these ingredients are lacking in the new housing societies providing detached and attached dwellings. They defy the principles of urban agglomeration and create a burden on the environment. Longer travel times, road congestion, higher fuel consumption and greenhouse gas emissions are the outcomes of such neighborhoods, burdening the economy.

The physical attributes of old neighborhoods with attached dwellings – compact, dense, mixed-use – lead to the benefits of agglomeration. Agglomeration creates matching, sharing, and learning of skills and resources. Density accelerates the development of commercial areas, i.e., formal economic activity. Corner shops, street vendors and kiosks activate the public spaces. The urban environment around the attached dwelling typology is conducive to economic activity and growth in the city.

However, the neighborhoods have often compromised maintenance and up-keep of parks, playing ground, public spaces, recreation areas, cinemas, and community centers. The social capital among the residents is strong despite this limitation. The urban challenges can be reduced to a great degree with a better foresight from urban managers.

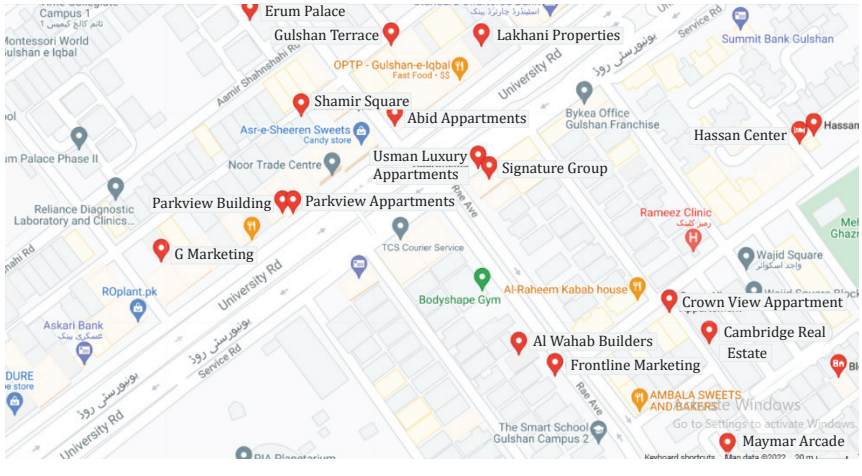
Figure 5.19: Socio-economic Comparison of Lifestyle in Detached and Attached Dwelling



Source: Author's own illustration

Mid-rise apartment living also contributes towards density. It favors agglomeration only if provided in an adequate location, with linkage to the public transport network. Having apartments of varying sizes to appeal to all population groups can also spur growth. Studio apartments in the city center can provide affordable living for young professionals. If the housing market starts absorbing the youth, they will become more mobile for income generating activities. Densification also leads to development of commercial activity around apartment living. Figure 5.20 shows an example of University Road in Karachi. It is lined with numerous apartments as well as eateries, retail, gyms, banks, courier services, clinic etc. There are hostels in Satellite town, Rawalpindi in a mid-rise apartment style building providing affordable living to young professionals and students.

Figure 5.20: Location Map of Apartments with Surrounding Activity in University Road, Karachi



Source: Google Earth (online)

In contrast to formal housing, much of the informal economy operates from slums. Slums inhabitants include the informal workers in the city who are running kiosks, doing labor work, working as street vendors, drivers, guard, and house help etc. These workers are the backbone of the informal economy, which keeps the engine running for a city. However, slum dwellers lack high value skills and education to improve their economic conditions.

Slum development is illegal hence there is no guarantee of public amenities such as schools, clinics, public parks etc. Small-scale development takes place with the assistance from local or international NGOs. The community also takes part in improving their settlement. Slum upgradation policies have been introduced in ad-hoc strategies. A more coherent and stronger action is required to integrate slums and slum dwellers in the economic growth of cities.

5.3.6 International Case Studies of Cities

This section presents case studies of cities and neighborhoods with communities living in their urban design. We analyze what works in each case and what does not. Each example is taken from developing cities to draw parallels between their urban challenges with cities in Pakistan.

Rio de Janeiro, Brazil

This case study explores the inner-city urban design of Rio de Janeiro, Brazil. It is interesting to see how the urban design of the inner city has been shaped by a myriad of factors. While city planning in Rio has been tumultuous, owing to the political history of the country, the democratic structures during the mid-eighties gave power to local political structures. Hence, change in the role of the public sector was pertinent to bring the change in the urban center of Rio de Janeiro.

Del Rio (1997) discussed the amendments in the constitution that enabled the local government to take control of urban development. The amendments also aimed at ensuring that the greater social interests take precedence over individual ones. Community participation in government decisions was made mandatory. The presence of community leaders in city councils and leftist parties in municipal councils ensured that urban development takes place in accordance with community needs. Community participation played a significant role in shaping urban design. An example of this is the successful "Projeto Corredor Cultural." A handful of city officials in the planning department launched it through the planning department. A strategy was for the preservation of the historic parts of the city center through changes in the zoning and building regulations. The regulations were targeted towards preserving the historic value

of the buildings, while also ensuring their significance within the public realm. The project also led to the design and renovation of public areas, pedestrian pathways, new pocket plazas, and urban furniture. The government in coordination with the public executed the project. The community took ownership of the spaces, which is essential for urban space's longevity.

The effects of this constitutional amendment brought in the 1970s are still felt today. It began an era of municipal public policies aimed at protecting the built environment. The policies paved the way for multiple projects in the following decades. As many as 30 years after launching, the Technical Office continues to serve as a regulatory and planning instrument in the business area. The success of the amendment lies in integration of a diverse group of stakeholders for the benefit of the historic city center. Various economic and commercial revitalization projects have been conducted to date along with the historic reevaluation of decaying areas. This has also kept the attraction for tourists alive. As an indirect consequence, there has been rehabilitation of residential use. Residents have transformed parts of their dwellings into cafés, restaurants, or shops to focus on the tourist industry. This was a democratically agreed decision (de Alcantara, 2010).

Contrarily, the city has been less successful in addressing its housing woes. Since land ownership governs housing choice in Brazil, upper-middle income groups tend to avoid inner-city housing. They are attracted to high scale residential districts with access to beaches, as well as landscaped areas and shopping malls. Zoning regulations also prohibit the development of new housing downtown. This makes the inner-city less attractive for the citizens except for only the middle-income class residing in the areas.

Figure 5.21: House on Rua da Constitution with Regente Feijó (Saara) before and after the Performance of the Cultural Corridor

Note the restoration of the original façade with the removal of the aluminum panel that hid its formal and aesthetic attributes;

Source: de Alcantara (2010)

Figure 5.22: Cultural Event of Music and Dance at Rua do Lavradio.

An initiative of local merchants with the support of the City Hall, the event represents the spirit of the Cultural Corridor;

Source: de Alcantara (2010)

Sultanpur Lodhi, Punjab, India

Among other cities of India, the unique aspect of Sultanpur Lodhi is the historical and cultural significance it possesses spatially and symbolically. The city has grown organically over time, parallel to the water source - the Kali Bein River. Subsequently, the city's development has been in the direction of available land for agriculture.
Over time, although there has been no overt government or policy interventions. The city has developed in a way that closely enmeshes its historical identity with its spatial elements. For example, buildings such as the "Quila Sarai" are used as police stations or for residential purposes. Similarly, other old buildings are used for commercial and residential purposes. This form of adaptive reuse maintains the historical identity of the city, an integral component of its modern development.

Similarly, religion plays a role in the city's urban design as well. Gurdwara, Mosque and Temples have vacant land used for congregational purposes but also as parking space, and as a ground for festivals and political rallies. Community-based living is key to this form of urban development. Houses have been developed in a way that gives extensive space to courtyards and lobbies, allowing them to be used for both commercial and non-commercial activities.

Nature coupled with diverse architecture styles, neutralizes the urbanity of the city. In addition to concentrated residential urban areas, commercial patches are visible throughout town. The city's commercial areas are integrated with residential areas, hence creating high walkability. The "narrow street circulation" and "low rise-high density development" have allowed the city's urban design to be vibrant and walkable. Land use regulations have not restricted the mixed-use evolutions over time (Sharma, 2018). Figure 5.24 shows a map, cross-section, and pictures from a central mixed-use street in the city.

Figure 5.23: Map of the Street View of Commercial/Residential Stretch and Corresponding Building Heights

Source: Sharma (2018)

Nagpur, India

Nagpur city, characterized by forest cover and vast agricultural land, has developed in a way that main commercial areas are concentrated in the center of the city while some sub-centers are scattered across the city. Most of the population is concentrated near the city center; however, the extended development of the city and its infrastructure is now developing a tendency in people to move towards the peripheral areas.

The growth of the city is taking the shape of residential sprawl, aggressively encroaching on the open green spaces and peripheral land. It has increased the travel distance from the city center. This form of development has taken place under the Nagpur Municipal Corporation, leading to a low-density sprawl with "almost 40% wards which have a density below 150 person per hectare" (Kotharkar et al., 2014, p.4268).

The city is left with little land for recreational and commercial purposes, unevenly distributed across West and East Nagpur. Since the East part of the city has a higher density, it has a higher pressure to sustain the population as compared to the West part of the city. The increasing car ownership and the low "road length per person" trend indicates further congestion and disruption in the city (Kotharkar et al.,2014, p.4268).

This is also indicative of the poor transport infrastructure present in the city, which hinders its sustainable growth.

Despite possessing the characteristics of a compact city, including mixed land use and high density, the progressive dispersion of the city threatens sustainable urban development.

Figure 5.24: 2D and 3D Representation of Spatial Distribution of Population for Nagpur City

Darabad River Valley, Tehran, Iran

This case study on Darabad River Valley, North of Tehran, is significant because it traces how sustainable urban design of the valley was disrupted during the modernization process, making the valley environmentally unsustainable over time.

Even though the river valley had "high quality of potable water, good subsoil, and rich green areas," it could not survive the influx of people as it became more popular (Pourjafar and Pourjafar, 2016, p.2062). The increasing population demands led to encroachments, unplanned growth, and unauthorized buildings. These eventually transformed the river valley into an urban drain with the riversides being used for garbage disposal. Many of these issues have existed despite the presence of local governments. As a result, development in the valley took a downside and the housing

projects in the valley have been incompatible with its ecological needs. The harmony that existed in manmade and natural environments during the pre-industrial times in the valley ceases to exist anymore. Pourjafar and Pourjafar (2016) have suggested that an ecologically sensitive conscious design approach should be adopted for regeneration of the valley.

The valley should be revived as a recreational zone. The soil can support plantations and help to rebuild its green cover. It will become a green belt for improving the microclimate of Tehran. Any development plan should consider safety and security from floods, earthquakes, and landslides. Local people should be educated about respecting their environment. A sustainable city must take care of its valuable resources.

Transit Oriented Development in Delhi and Ahmedabad

Since the past 60 years, urbanization has led to an increased footprint in the city of Delhi, capital city of India; spreading up to more than 1500 sq. km. Usage of automobiles has accompanied the urban growth. The government started to invest a great deal in Mass Rapid Transit systems in the 1990s after realizing the grave problem of the diminishing air quality and traffic congestion. They moved towards a developmental pattern of Transit-oriented developmental Policies in cities like Noida, Gurgaon, and adjacent neighborhoods.

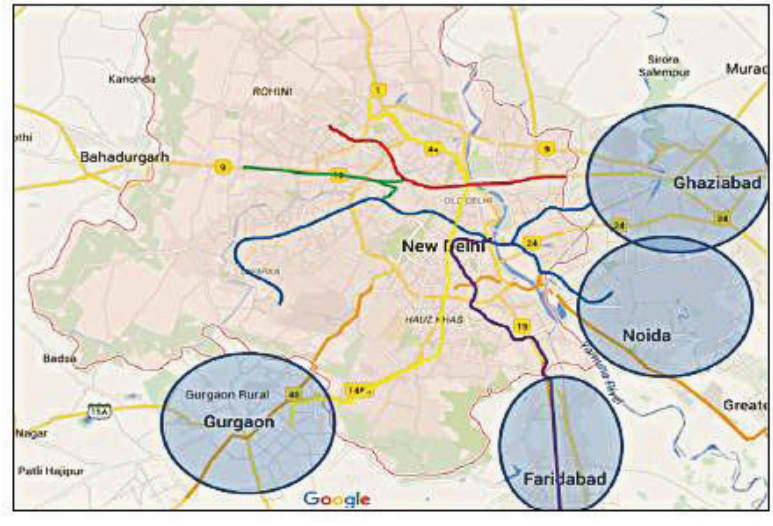
From 2015 onwards, the planning agency (Delhi Development Authority) design an aggressive Transit-Oriented Policy. It was a conscious attempt to reorient the structure of the transit facilities catering to the rising population burst and urbanization. Regulations under transit-oriented development contained several amendments for a sustainable urban transit system. These policies include making open spaces mandatory for public developmental projects of more than 4 hectares; parking reforms regulated under Traffic Impact Assessment; enforcing mixed land-use with at least 30% residential, 20% commercial and instructional zone allocated in each development zone, promoting inclusivity with 15% of FAR dedicated for low-income residents, etc.

The private sector warmly welcomed the policies and won the bids for the TOD projects such as the Khyber Pass Metro Depot tender won by Parsvanatha with the government

giving them 99-year long-term property developmental rights. The locals have also benefitted and greeted the policy as it offers them an affordable and quality transportation option.

When a public sector regularized transit plan came into action, the local's environmental footprint decreased. An example of this is the fact that with the advent of the Metro corridor was able to keep 3.4 lakh private vehicles off the road in 2014. However, the locals became critical as soon as the facilities started to degrade. Overall, it is expected that the effective implementation of the Transit Oriented Development policy will curtail highway-driven urban transit flooding in the areas within city boundaries.

Figure 5.25: Delhi Metro Network as of June 2016



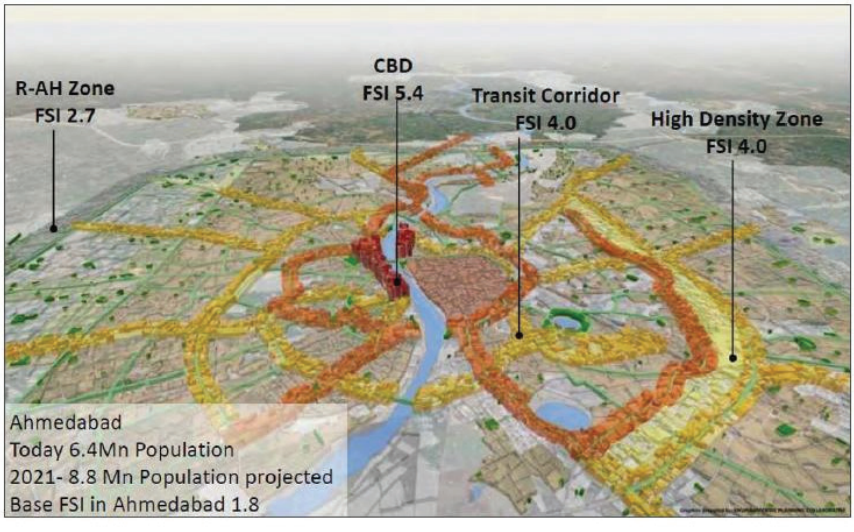
Source: NIUA

Ahmedabad signifies a different approach to the TOD policy. An incremental and comprehensive approach in public transport was used after observing the decline in public transit usage. Ahmedabad introduced the "Janmarg" Rapid Transit system covering more than 88 km. The Bus Rapid Transit System (BRTS) increased the number of passengers on public transport from 7500 to 17500. This shows that the intervention positively affected the local population.

In addition to the BRTS, several governmental policies were redesigned, and amendments were made for TOD. Intense development zones were defined as 200m on both sides of the BRTS. BRTS routes and its expansion also influenced housing policies and development zones. Proposals were introduced to form an intersectional node to connect the people living in slums with the BRTS zones. Policies also concerned development of BIKE-Parking and limited parking in pedestrian areas with by-laws from the government. However, there were some concerns from the local communities. Slums developmental projects shifted the lower middle class away from the city center as far as 16.5km in towns such as Gota, Shastri Nagar increasing their commute time drastically and complications in land acquisition made the locals go through several legislative hurdles.

The developmental plan contained mixed land use, high densities, grid-based circulation, and other impactful policies through public-private partnerships such as the successful partnership for SMART city solution. The proposals benefit the private sector by improving workers' commute and lowering their costs. The progress of the city's Central Business district by the private sector is affirmative when business developmental models are integrated in the city plans.

Figure 5.26: Ahmedabad Development Plan 2021



Source: NIUA

The case study of Rio de Janeiro, Brazil and Sultanpur Lodhi, India reflects upon what attributes of a city are favorable for sustainable urban design. The case studies also identified the need for community participation and involvement in the process. While Sutlanpur is an example of how people themselves evolved their city, Rio de Janeiro presents a case of state involvement. The project of conserving and developing the urban center was brought under the regulations with effective governance.

The case studies of Nagpur in India and Darabad river valley in Iran discussed the unmet challenges of the regions. They highlight what does not work and there is much to be improved. Appropriate policy intervention can ensure that the urban design of these cities facilitates their unique needs while also remaining cognizant of their history and culture. The case study on Darabad Valley in Tehran paints a bleak portrayal of urban development. It is a reminder of what could become of Pakistan's cities if their growth remains unchecked by the government and does not account for citizen's needs.

5.3.7 How to Shift the Trend

The housing analysis revealed inequitable distribution of the housing stock creating a demand gap. The housing supply trends have not only failed to meet the housing need but also drastically changed the urban design of cities. Urban sprawl, compared across three decades, for thirteen cities in Pakistan gives evidence of an unsustainable horizontal expansion.

Analysis of housing typologies revealed how compromised urban design is in terms of liveliness, walkability, inclusivity, health, safety and driving growth. Detached dwellings are provided in low-density housing societies. The streets lack a lively character with individual use neighborhoods. On the other hand, dense living in attached dwellings is more vibrant, mixed-use, and walkable. Mid-rise apartments, when carefully designed as complexes, provide a communal outdoor space and aid in building social ties among the residents as well as covering a much less footprint. However, the location of newly developed standalone apartment buildings presents significant challenges. If developed on the outskirts of the city, the buildings lack connectivity to the city, and experience all the disadvantages of a suburb. Conversely, when developed in city centers, the apartment buildings must consider access to open green spaces. Same consideration will follow for

high-rise apartments as they pick place in the country, especially in Karachi. Slums are unplanned settlements showing the failure of housing supply to meet the needs of the lowest income group. Slums are undesired yet they are lively, walkable, and mixed-use with economic activity. Health and safety are compromised but the social capital of the community holds them together. Knowing each typology allows us to determine what practices should be discontinued and what should be pursued.

While previous actions cannot be reversed, there is a need to shift the trend of housing supply. To do that, we first need to understand the demand and demography of our country. The needs of a student living in a different city than their hometown differ from the needs of a 60-year-old retiree. More women are entering the workforce, yet they face challenges in finding housing, and commuting long distances between their house and office. Higher income households can afford to have multiple vehicles per family. In contrast, the middle class struggles with a shared vehicle or no vehicle at all. Unfortunately, most of the middle-class families are either living in congested urban areas or find housing on the outskirts of the city. Almost 25% of the population in the urban areas falls in the age group of 10-19 years (Pakistan Bureau of Statistics, 2017). The cities need to provide opportunities to their youth with socio-economic mobility. Unaffordable housing, increased travel times and transport expenditure with weak community ties is not going to stabilize the urbanizing cities.

There is a need to contextualize the housing solutions with the needs of the people. Housing is not just a dwelling but also an urban environment with economic potential, social connections, and environmental impact. We need to study people's lives at various stages. Every stage has a different requirement. Housing should not be a static unit for a lifetime. We need to develop a housing ladder for different segments of our population.

Two strategies are proposed considering the needs of people and urban challenges identified in the analysis. They include densification and urban regeneration. Both the strategies must be adopted simultaneously. Density is the key to addressing sprawl, but urban regeneration is the key to making our cities lively, walkable, safe, and healthy to drive growth.

Densification

"What are the proper densities for city dwellings? The answer to this is something like the answer Lincoln gave to the question, 'How long should a man's legs be?' Long enough to reach the ground, Lincoln said. Just so, proper city dwelling densities are a matter of performance. They cannot be based on abstractions about the quantities of land that ideally should be allotted to so-and-so many people (living in some docile, imaginary society). Densities are too low, or too high, when they frustrate city diversity instead of abetting it. We ought to look at densities in much the same way as we look at calories and vitamins. Right amounts are right amounts because of how they perform. And what is right differs in specific instances" – Quoted from Jane Jacobs, "The Death and Life of Great American Cities."

Density is an important indicator and parameter for planning human settlements. It is stated as population per unit of land. This value is useful at the scale of cities' administrations who need to allocate public resources for service delivery in particular neighborhoods. Housing typologies can be understood better with the measure of dwellings/ units per hectare. The value of housing units/hectare will be low if the neighborhood consists of single-family homes, as compared to a unit hectare of apartment complexes. This metric is commonly used in developments with units of uniform size and lower density. For in-depth study of housing, the number of habitable rooms per hectare is appropriate. This is a useful indicator in medium to high-density areas with dwellings of many sizes. Census data collects this information hence can produce an analysis of neighborhoods with micro data. The value assesses the risk of crowded housing, type of housing available and living conditions (Acioly & Davidson, 1996; W B Council, 2000). We need to develop a housing policy, which makes use of all these measures to plan densification.

Densification plays a critical role in the planning, design, and policymaking of urban environments for efficiency in urban management. It leads to better use of land and natural resources, infrastructure, human and financial resources. Researchers who support high density argue that concentration of people and activities maximizes the use of public investment in infrastructure, services, and transportation. Contemporary literature widely criticizes low-density for increasing the cost of land, infrastructure, and services, and limiting social interactions. Nevertheless, city developments should not

overlook the risks associated with high density; overloading infrastructure and services and crowding in human dwellings causing pressure on residential spaces.

Crowding, an indicator of unhealthy density, is strongly associated with the argument that density should be designed. If unplanned, it results in crowding, where there is an unequal share of resources. Acioly and Davidson (1996) argue that negative externalities are more if overcrowding and densification are an outcome of constrained land and housing market, rather than being a planning decision.

Density when managed positively influences the economy of the city, social fabric, and environmental consequences. It also favors the principles of agglomeration; matching, sharing, and learning which drives economic growth in a sustainable way. As people live closer to each other, social cohesion increases with more 'eyes on the street' and frequent encounters with neighbors in public spaces. Density and compact living characterize walkable neighborhoods. Public transport can be successful in compact neighborhoods. Moreover, a smaller footprint of the built environment gives more room for green fields around the city required to balance the air quality. Hence, density is directly correlated with urban expansion, vehicular usage, housing typologies, public transportation, and the availability of recreational facilities. The balance of these characteristics leads towards equitable neighborhoods providing diverse housing and transport options relevant to consumer demands.

Acioly & Davidson (1996) have pointed out factors that shape density. These factors are planning and zoning regulation, transport system, housing market demand, land market, cultural acceptance, building design, costs and building standards. While these factors shape density, they directly or indirectly also affect its efficiency. Speculation in the land market goes against densification. Hasan and Arif (2018) argue that urban land reform should be conducted to avoid speculation. The reform should include the following:

- A heavy non-utilization fee on vacant land and property
- An urban land ceiling act under which no one individual can own more than 500 square meters of urban land.
- No settlement (whether for the poor or for the rich) should have a density of

fewer than 420 persons per hectare.

- No person should be provided a second loan for the purchase of a home.
- The existing laws such as the High-Density Board Act (2014) should be made subservient to an urban design plan.

Housing at low-density (often only 80 people per hectare) for the middle class and the wealthy is consuming land without including affordable low-income housing. Unregulated real estate is flourishing in the country, with many agents in the real estate industry purchasing and building only for profit. Speculation delays the property to be available for housing. Pakistan is home to many vacant properties that have sat vacant for more than two decades. Karachi has over 300,000 vacant plots and 68,000 apartments. Moreover, land occupied on the urban fringes through the creation of gated communities lead to a loss of forests, orchards, rich agricultural lands, and drainage systems leading to an ecological disaster. Densification is the need of hours to rectify the socio-economic and environmental damage done by housing supply (Hasan and Arif, 2018).

New development should only be permitted if they meet the densification and mixed-use criteria and inclusive housing policies that guarantee affordable housing solutions in urban land should be adopted. Khan et al. (2019) have discussed Waqf Cooperative Housing Model (WCHM). The model creates a constructive collaboration between Waqf and development cooperatives. This will enable mixing of different income groups and minimize the creation of urban slums. Another approach is 'Co housing.' It is a cluster of housing units with private as well as shared spaces. The shared spaces could also include sharing facilities like laundry and cooking. The idea builds up from the joint family system embedded in our social structure (Graana, 2022). Individually designed units can overcome overcrowding yet sharing facilities can keep the costs low. Chawl tenements in western India are a similar typology of sharing resources; however, they are mostly associated with poverty due to neglect. Mixing of various typologies will improve inclusivity in the densification process.

The mid-rise apartment has the ideal density among the five typologies examined. They provide a quick fixed densification solution to our cities without any further horizontal expansions. Mid-rise apartments should be constructed in the housing societies to raise

their density. Ideally, these apartments should be allowed in city centers. Where required, building regulations should be amended to allow apartment buildings with various scales of apartments such as studios, as well as 3 bed apartments. Housing should be contiguous and develop along the core of the city. The case study of Sultanpur Lodhi in India gives an example of adaptive re-use of buildings and a modest development while retaining the character of its streets in the presence of flexible land-use and building regulations.

Urban design can only take shape when the ingredients are right i.e., compact urban planning, mixed housing typologies, mixed uses, mixed-income group with a high-coverage public transport network. In addition to densification, urban regeneration strategies are required to solve localized problems of neighborhoods and city centers.

Urban Regeneration

Pre-partition city centers and their surroundings are in prime urban areas but are exposed to urban externalities. For this purpose, we propose urban regeneration to revive the livability of these neighborhoods. Urban regeneration is a strategic plan to tackle the issues of decline and urban decay. Regeneration targets underused and underutilized land. It also presents solutions for distressed and decaying urban areas as they weaken the city's image, livability, and productivity.

Most global cities are revitalizing neighborhoods through regeneration plans, but Pakistan remains stuck in a colonial legacy of master plans, which are alienated to the challenges in urban domain. The governance framework is also weak with ineffective devolution of power to cities. Cities in the global north develop strategic frameworks. The frameworks adopt a multi-sectoral, localized, and multi-agency partnership approach. Thus far, we have also highlighted interdependence of social, economic, and environmental aspects of cities on housing and urban areas. Thus, a strategic framework at the urban level should explore the integration policies (as in another chapter of this book). The framework can set objectives to meet environmental, social, and economic goals via adequate planning and housing.

Figure 5.27: Cheonggye Stream Regeneration

Left: Three pillars left from the Cheonggye Overpass as a reminder of the stream's past.
Right: Seoul's Cheonggye Stream Today

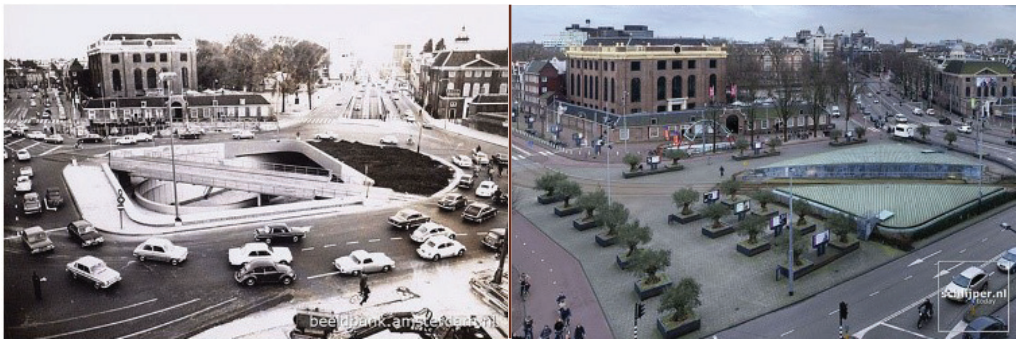
Source: Khalaj et. al. (2020)

Urban regeneration needs to address multiple issues in Pakistani cities to shape livable cities through urban design. First, it needs to address the alienating physical form of cities by changing the approach towards transport planning. The cities are experiencing unsustainable and resource exhaustive infrastructure development. Construction of signal-free corridors, flyovers and underpasses only meets the need of car-centric housing development. The social, cultural, and economic dimension is lost in this approach. Cities in the global north followed this approach in the 1960s and were hit by the consequences in the successive decades. The twenty first century is about removing the freeways. Khalaj et al. (2020) discuss that transport planning needs to radically shift its approach towards a sustainable model. The research documented freeway removal projects -projects from mega cities such as Seoul have set examples but the number of cities adopting this change is still quite less. 50 kilometers of freeways have been removed in the United States, and about 30 kilometers elsewhere. Many cities are creating policies for public transport and human scale urban design, but these are done parallel to the freeways. Europe takes the lead in how it has transformed the urban scene; the car centric cities are now dominated by bicycle and pedestrian infrastructure.

There is a need for a public and an active transport network for a more human-scale development. The cities have lost their public spaces and green cover, with no space for kiosks and sidewalk ballet, as termed by Jane Jacobs, in our streets. Multi-modal transport network can best meet the needs of all income groups. This will require the public

transport system to increase its coverage with more buses in the city. Bicycle and pedestrian infrastructure need to be revamped and integrated at a neighborhood scale. Secondly, urban regeneration needs to unlock the dead capital in the downtown of cities.

Figure 5.28: Infrastructure cCanges in Amsterdam during the 1990



Source: Amsterdam Archives in beeldbank.amsterdam.nl & Thomas Schlijper

Figure 5.29: Sidewalk in Bengaluru, Redesigned into a Wide, Continuous, Protected Sidewalk with Fixed Bollards to Prevent Motor Vehicles from Encroaching onto the Pedestrian Space

Source: Photo by Jana Urban Space (India) in thecityfix.com

Haque (2021) argues that cities in Pakistan are stuck in the colonial construct. Colonial centers are in busy downtowns. The public sector in Lahore owns over 10,000 acres of prime commercial land. This land can be used for value creating and employment gains. Haque (2021) has given value calculation only for the five GORs, which represent about 4000 acres of land. Thirty-five mixed-use high-rise buildings can be constructed with green space, with each building costing $500 million, requiring a total investment of $17.5 billion. This will generate employment for 5000 per building with a total employment capacity of 350,000-500,000 during construction. A similar number of people will be employed from the commercial activities once operational at an average height of 35 floors. Public-private partnerships can be established on a build-down-operate-transfer mode. This type of contract compels quick construction and returns. Cities may be able to earn maximum revenue in this manner over a longer period. (Haque, 2021, p.52). In this approach, urban regeneration coincides with the densification strategy. It can also meet the housing backlog by provision of housing for high risers. The benefit is the central location. However, policies need to consider how affordable living in this proposal will be.

The first two challenges aimed for improvement in the planning and design of urban centers and the city. Urban regeneration needs to address the third challenge of interventions within the neighborhood. As discussed in the analysis of attached dwellings, middle-income neighborhoods in the urban center already have the demand of walking and economic activity within their streets. However, the streetscapes are deteriorating without adequate street furniture. On-site parking and congestion have further depreciated the streets. Authorities blame the kiosks for encroaching on the sidewalk, while failing to do not consider how much space parked vehicles take in the commercial areas. We need to give priority to the people in the streets by creating pedestrian friendly spaces and blocking cars. No-car days should be initiated to stir behavior change among people. Paid parking can further discourage the comfort of a car for short distances. Commercial areas should be pedestrianized with street furniture allowing people to remain in the space for long. Pedestrian crossings, low curbs, and ramps with safety standards must be considered in the urban design of streets and public spaces.

An example of regeneration plans at the neighborhood scale is from Bengaluru, India. It shows how the street can be transformed into a safe and walkable space prioritizing the pedestrian. There are numerous examples from all over the world where intervention in

urban design is used to make streets pedestrian friendly.

Urban regeneration in neighborhoods of low-density housing societies will take a different approach. The neighborhoods can become walkable and lively by introducing small coffee shops, café, kiosks, and corner shops in the streets. Societies need to deregulate and allow mixing of economic activity. The addition of mixed use and mid-rise buildings in the housing societies will also enhance their potential and attract investment. Urban design can make cities lively, walkable, and inclusive. However, cities in Pakistan require drastic regeneration strategies to bring the required changes. Urban regeneration plans require involvement of multiple stakeholders, from the government to the local community. City planners should facilitate this collaboration and enable participatory planning within the communities. The case study of Rio de Janeiro Reviving revealed how constitutional changes in Brazil brought the government and local people together for the conservation and development of their historic city center. Historic city centers and their surrounding urban areas require the same approach in their urban regeneration plans.

5.4 CONCLUSION

The chapter has discussed how housing typologies are changing the form of cities in Pakistan and hence its urban design. The cities should be lively, walkable, inclusive, safe, and healthy and drive economic growth. The housing supply trend is negatively affecting each of these factors.

A deeper analysis of five housing typologies helped us identify what hinders the livability and functionality of a city. The housing typologies discussed were detached dwellings, attached dwellings, mid-rise apartments, high-rise apartments, and slums in the context of Pakistan. While the most bottom-up and informal approach of housing was slums, it is ironic how the settlements are lively, walkable, and driving growth. Slums also hold strong social capital as their asset. Attached dwellings were found to balance most of the factors in their urban design. However, attached dwellings in the city center are subject to overcrossing and neglect. On the other hand, attached dwellings in the peri-urban housing societies face the negative consequence of sprawl. Location pros and cons are the same for mid-rise apartments as well as high-rise apartments when the latter pick pace in the country.

To address these challenges, we have given recommendations for densification and urban regeneration. Densification is necessary to tackle the low-rise sprawl. Land reforms are also required to address the speculative practices in the market. There should be a complete ban on low-rise housing societies. A regulatory framework for real estate must come into effect. Inclusionary housing policies for affordable living should be a part of every new development. Housing should be contiguous and be developed along with the urban core. Mid-rise apartments are the ideal typology to achieve densification and the criteria of urban design. Further mixing of typologies should also be considered as part of densification strategy. This will create more inclusivity towards the needs of various segments of the population.

Urban regeneration on the other hand can address three challenges. First, it needs to overhaul the streetscape of the city by encouraging multimodal mobility. The city is becoming devoid of human friendly public spaces and green areas owing to the construction of highways. This strategy will depend on and integrate with mobility planning of the city. The planning should discourage car use and introduce public transport. Dense housing in proximity will make public transport feasible. Secondly, urban regeneration needs to propel dense projects in city centers. Vast land is underutilized in ideal locations. Thirdly, neighborhood level regeneration is required to make the streets walkable, lively, safer, and pedestrian friendly. The strategy will differ in historic centers, dense neighborhoods, and low-density housing society to address issues of each.

Our cities should develop a vision to address their urban challenges. Planning and zoning regulations will then be according to this vision. Regulations should be adaptable and reviewed regularly, based on city data. Urban planners have failed to execute their master plans over the past decades. Urban plans have also failed to integrate with transport planning and housing policy. Inequalities arise in the neighborhoods where transportation networks are not well connected, burdening marginalized groups. Housing policy should enable upward mobility in the housing ladder with a variation in housing typology and tenure options - meeting the needs of various demographics.

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RETHINKING HOUSING POLICY: ENABLING OR DISABLING THE HOUSING AGENDA?

Ali Salman

Each successive government in Pakistan has made housing as one of the cornerstones of their manifestos and policies. The predecessor PMLN government announced the building of 500,000 affordable homes during its tenure. The present PTI government has announced building 5 million affordable homes during its tenure. Given these ambitious targets, this essay reviews the role of the state particularly in the urban housing sector with a historical perspective. The essay also brings in some international examples and best practices. Focusing on the current housing regime, the essay discusses institutional arrangements, growth and challenges while outlining some recommendations. The broad question that this essay seeks to answer is: do we need more housing or a better policy?

6.1 CONTEXT: HOUSING & POPULATION IN PAKISTAN

6.1.1 Are We Short of Houses?

The foundation of a good policy is correct diagnosis of the problem. Let us start by revisiting housing and population numbers. In the case of housing debate, the commonly referred "problem" as shortage of houses is deeply problematic. A commonly referred statistic is that Pakistan has a backlog of 10-12 million houses and each year, there is an addition of 400,000-500,000 houses in this backlog due to constant under-supply.

At the simplest level, this diagnosis does not differentiate between "need" and "demand." If the lack of a specific number of houses is assumed to be a problem, then the obvious policy goal will be to construct more houses, to meet the "shortfall." This should not be

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surprising that each successive government has announced construction of new houses as a policy goal.

PIDE Viewpoint (No. 36: 2022) titled "The Assumed Shortage of Housing in Pakistan" has challenged this notion of a significant housing shortage using congestion, ownership and family structure patterns in Pakistan based on PSLM 2019-20. It estimates that based on the congestion, latent demand of housing in Pakistan is no more than 4.37 million, including 1.33 million housing units in urban areas. Obviously, this does not necessarily mean that there is a demand- backed up with purchasing power and suitability of location- but rather a need.

Pakistan has a total number of 32.18 million housing units as of 2017. As shown in Table 6.1, the country built 6.7 million housing units between 1981 and 1998 and 12.7 million housing units in about 19 years between 1998 and 2017 which are delivered by the private sector. Thus, during the last two decades, the speed of construction of homes has almost doubled. It is also notable that the growth in the housing stock in the rural areas was almost 52%- over 19 years- whereas in the urban areas, this growth was 102%, almost 5% per year on average. Higher growth in cities should not be surprising given increased income, demand, and housing finance.

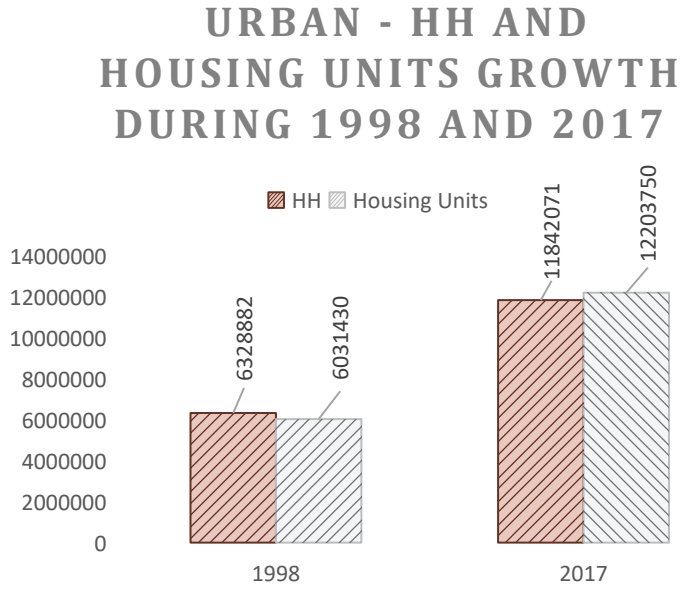
Table 6.1: Growth in Housing Units

Housing Units Distribution									
	Census 1981 (million)			Census 1998 (million)			Census 2017 (million)		
Province	Overall	Urban	Rural	Overall	Urban	Rural	Overall	Urban	Rural
Punjab	7.53	1.96	5.57	10.5	3.2	7.33	17.1	6.4	10.68
Sindh	2.78	1.22	1.56	5.02	2.17	2.85	8.57	4.38	4.18
KP	1.61	0.23	1.38	2.21	0.36	1.84	3.8	0.7	4.1
Balochistan	0.59	0.09	0.5	0.97	0.19	0.77	1.7	0.4	4.1
Total	**12.51**	**3.5**	**9.01**	**19.21**	**6.03**	**13.18**	**32.18**	**12.2**	**19.98**

Source: Pakistan Bureau of Statistics (various years)

Is this growth in the housing stock consistent with the population growth, particularly in urban areas? According to 1998 census, the number of Pakistan's urban households was 6.32 million (based on the average household size of 6.8) and number of housing units was 6.03 million. It means that the number of housing units was almost matching the number of households. In 2017, urban households jumped to 11.84 million (based on the average household size of 6.39) and number of housing units surpassed it to 12.20 million. This is shown in Figure 6.1. The number of housing units is now more than the number of households at least in the Urban Pakistan suggesting a surplus.

Figure 6.1: Urban Households & Housing Units



Source: Pakistan Bureau of Statistics

This gross surplus has several problems. One of the basis ones is that it hides the congestion issue, that PIDE (36: 2022) has highlighted. In cities, millions of people live in congested and crowded houses who deserve decent living conditions. This gross surplus also hides the distributional impact of the housing stock. A surplus does not necessarily imply that every household owns a house. It may simply mean that while some may have more than one house, many do not have it at all. For that, one needs to check with the available survey of home ownership. Fortunately, we have it in the form of Pakistan Social

and Living Standards Measurement, known as PSLM. PSLM 2019-20 suggests that Pakistan has a prominent level of home ownership at 82% which is higher in rural areas at 90% and lower at 70% in urban areas.

Given the living patterns, this difference between urban and rural home ownership is intuitive. Land, which is the major determinant in the price of a house is significantly cheaper in rural areas and availability of cheap or free labor in our villages facilitate home ownership. This explains that as far as the number of housing units and home ownership is concerned, the problem in cities is much more severe than in rural areas.

Table 6.2: Home Ownership in Pakistan (PSLM 2019-2020)

	Own	Rent	Free	Subsidized Rent	Total
Pakistan	**81.78**	**10.38**	**7**	**0.85**	**100**
Urban	70.13	22.04	6.19	1.64	100
Rural	89.12	3.02	7.51	0.35	100
Punjab	**83.62**	**9.07**	**6.71**	**0.59**	**100**
Urban	72.73	18.96	7.07	1.24	100
Rural	90.25	3.06	6.49	0.2	100
Sindh	**75.99**	**15.32**	**7.56**	**1.13**	**100**
Urban	66.64	26.1	5.37	1.9	100
Rural	87.59	1.96	10.27	0.18	100
KP	**85.06**	**6.85**	**7.05**	**1.03**	**100**
Urban	70.46	23	4.89	1.66	100
Rural	87.82	3.81	7.46	0.91	100
Baluchistan	**82.93**	**8.64**	**6.95**	**1.48**	**100**
Urban	68.8	22.54	4.22	4.44	100
Rural	88.19	3.46	7.97	0.37	100

Source: PSLM (2019-2020)

This is not to suggest that Pakistan does not have a housing problem. But the problem of housing is of a completely different nature. The housing problem has different dimensions- to begin with, the mismatch between purchasing power of median household and the price of a small house in an accessible location closer to one's place of work. The availability and price of land has become too high and unaffordable. A closer look at the issue of the cost of housing, regardless of payment plan, can reveal that the major driver is the cost of land itself. In fact, as much as 80% of the price of an urban house can be attributed to the land and costs associated with land acquisition.

The other dimension is that of location. Just building several housing units, as has been done under various publicly funded housing projects, does not solve location problems. If a person is working in a factory as a laborer in, say, the industrial area of Islamabad, he cannot find a decent living option on his own in the vicinity of his workplace, though he may still have a house of his own in a far-flung area. People want to live closer to their places of work, with accessibility to amenities like schools, hospitals, and business hubs.

Another dimension is that of housing infrastructure- access to sanitation, sewerage, electricity, gas, water, and public transport. As per the PSLM data (2019-20), the percentage of total households having access to Tap Water in Pakistan has reduced from 27% (2014-15) to 22.34% (2019-20). Only 9.8% of households have access to filtration plants. 30.01% rely on motor pumps as a source of drinking water and 3.35 % of the households still dig wells for catering their water needs. Moreover, 10% of the total households do not have toilets in their houses. Adding to that, 48.24% use gas for cooking purposes while 40.91% still adopt traditional methods of cooking i.e., using wood sticks.

6.1.2 Slums

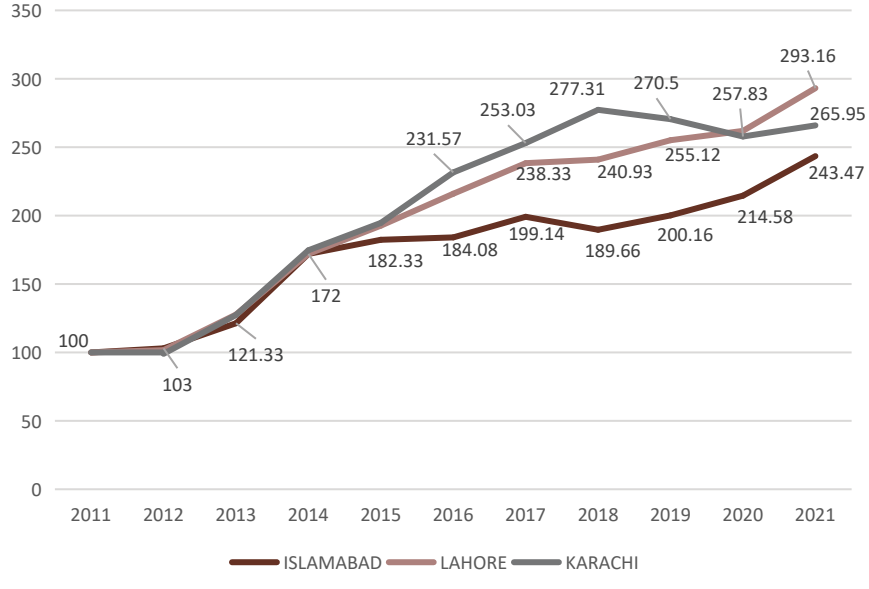
Providing decent accommodation to the people who have moved to cities for livelihoods and have built slums or *katchi abadis* is a major challenge for policy. According to various estimates, as much as 40-45% of Pakistan's urban population (5 million households) lives in slums- in Karachi and Lahore, though this ratio is on a decline. Slums usually develop in the form of clusters of informal developments. Most of them have followed an incremental approach to development- i.e., occupation of land, followed by gradual construction of houses followed by a low quality infrastructure development to meet their own needs.

However, it should not lead to the conclusion that all slums are equally poor for living. In Orangi, one of the largest slums in the world, 90% of houses have access to streets and sanitation.

6.1.3 Price Trend

It should not be surprising that prices of residential prices in our cities have been rising given the limited supply of land and restricted rules. Over the last 10 years, the price of residential property in Karachi rose by 166%, in Islamabad by 143% and in Lahore by 193%. Figure 6.2 shows the trend. It is obvious that the corresponding rise in income has not matched with this increase. Though per capita income is not a particularly helpful metric always, Pakistan's per capita income was PKR 104,252 in 2011, which has gone up to PKR 225,150 in 2021. Thus, income has risen by 116%, which is significantly less than the rise in property prices. However, it is like a phenomenon in many countries. House prices- and home ownership- have made a significant contribution to inequality.

Figure 6.2: Index of Residential Property



Source: Zameen.com

6.1.4 Future Demand

Over the next 20 years, the annual urban population is expected to increase by 1.55 million per year or around 258,000 households at 6 individuals per household which will progressively increase to 1.85 million and 308,453 households over 10 years. If we assume that each household will need one housing unit, these numbers also correspond to the need of housing units. Let us not forget that while this is a total need, a huge portion will be met through self-funding without the need for any policy intervention. If we assume that the current level of 70% of urban residents can afford home ownership, then the "unmet demand" will not be more than 77,430 housing units in the first year. Even if we account for increasing level of land prices, and correspondingly disproportionate rise in the income, the "policy" will not need to deliver more than 100,000 units per year, under the constraints of location and housing infrastructure. This projection is calculated as in Table 6.3.

This demand in the future should be considered along with the backlog of an estimated 1.33 million housing units in urban areas. As this backlog is estimated based on congestion, this author takes the view that all of it can be attributed to the low to low-middle income segments. Thus, to begin with, the government and private sector should be looking at the missing market for 1,200,000 homes across urban Pakistan. This does not have to be in the form of government constructed buildings. Government guarantee can be an equally, if not more, effective policy tool. This is time to review policy.

Table 6.3: Urban Housing Need

	Urban Pop growth 2%	Annual Addition	Additional HH Need	Estimated demand for policy intervention
Year	**million**	**million**	**ave= 6/HH**	**30%**
2020	77.43			
2021	78.98	1.55	258,100	77,430
2022	80.56	1.58	263,262	78,979
2023	82.17	1.61	268,527	80,558
2024	83.81	1.64	273,898	82,169

2025	85.49	1.68	279,376	83,813
2026	87.20	1.71	284,963	85,489
2027	88.94	1.74	290,663	87,199
2028	90.72	1.78	296,476	88,943
2029	92.54	1.81	302,405	90,722
2030	94.39	1.85	308,453	92,536

Source: Author's Estimates (2023)

6.2 HOUSING POLICY TOOLS

The government has a range of tools in the name of a housing policy. It includes building and planning standards, zoning, housing finance, housing legislation, subsidies, and housing projects. Housing projects i.e., designing and building of houses is just one tool, which in the case of Pakistan's case has been excessively used, as above review suggests. Housing finance has begun to play a larger role in recent years with government's fiscal support and mandatory lending target to commercial banks, which will be discussed later. However, two important tools of housing policy- zoning and building and construction standards have not been used effectively. Pakistan has only recently allowed some relaxation in building heights in Lahore and Islamabad. The government continues to occupy primary urban land in the form of undeveloped land ownership, significantly under-utilized usage of land and restriction development for government employees only.

6.3 PRIME MINISTER CONSTRUCTION PACKAGE

The government has announced the Prime Minister Construction Package with a range of fiscal, financial, and monetary measures in April 2019. These include facility of non-disclosure of income source, a fixed tax regime till 31st December 2021, 90% slash in tax for Naya Pakistan Housing Program constructions, withholding tax waived off for all construction companies/services – except those involved in steel and cement-related ventures, subsidy of PKR 36 billion, exemptions from Section 111 of Income Tax Ordinance, and Rs 330 billion lending by commercial banks through mandatory targets.

The absence of foreclosure laws has always been quoted as a significant institutional barrier to the spread of mortgage financing in Pakistan. One notable institutional

development which took place in the last couple of years is the passage of foreclosure laws which should have added the comfort level in banks to increase their lending for the housing sector.

Incentives matter. The Prime Minister's Construction Package defined the following criteria to be included in the amnesty scheme.

- **Criterion 1:** For construction of a building, completion is defined as a grey structure to be complete.
- **Criterion 2**: For housing society, completion is defined as 50% of the plots sold and of the sold plots, buyers should have paid 40% of purchase price of plots.
- **Criterion 3**: For buyers of units in these projects, no questions asked about source of funds if full payment for purchase made by Sep 30, 2022.
- **Criterion 4**: Those who already own housing units can sell the housing units without paying capital gains tax on them.

Criteria 2 and 3 will cause a further encouragement of the plot culture, without directly contributing to the housing and construction sectors. While it is a useful saving tool for many, proliferation of plots for savings, investment and profit-taking directly increases the price of land, which is the most significant cost input for houses. Similarly, any subsidies and exemptions, as have been made available currently, are likely to keep the construction sector inefficient.

6.4 CURRENT TRENDS

As almost three years have passed since the announcement of the package, and more time since announcement of Naya Pakistan Housing Program, it is worthwhile to look back. Some trends are visible.

- As per the website zameen.com, land/house prices have appreciated significantly. For example, from July 2020 till December 2021, the average plot price in Lahore and Islamabad rose by 60%, whereas in the case of Karachi, this rise was a more moderate at 25%. The general price escalation has hit everyone-

including the low-middle income segments- and further distanced from their dream of home ownership with their own capital.

- Mortgage finance has increased by 25% in the three years since 2018, however it is increasing at a much slower rate- during 2015 and 2018, it grew more than 100%.
- The disbursements for *Mera Pakistan Mera Ghar* have picked up, and Rs. 38 billion have been disbursed. It is not reported how many applicants benefited; however, it is safe to say that the number ranges between 7,500 to 12,500 based on the average loan size.
- 1083 projects worth Rs. 342 billion have been registered with FBR under the Amnesty scheme. These are pre-dominantly by elite developers.
- 45,000 low-cost housing units under construction under NAPHDA meant for the low-income groups.
- 210 proposals for construction of 3 million housing units received, out of which 48 proposals for construction of 70,000 units have been short-listed.

It is possible that the Amnesty Scheme and mandatory lending of 5% for housing and construction finance has led to an unusual flow of capital leading to an increase in construction activity. Thanks to Amnesty and growing remittance, this was met by demand of high end residential and non-residential projects, which has led to a price escalation of major inputs- land and inputs like steel and cement. It can happen because of misallocation of capital, which is usually the consequence of 'elite capture' in the decision making (Khizar, 2021). Khizar notes the trend of land hoarding culture because of this scheme which has made the dream of owning a house by the middle class farther. Furthermore, while the government will be directly providing or subsidizing the bottom low-income, the urban middle income groups (40% of our population and likely to buy 5 to 10 Marla house) is likely to suffer more.

6.5 FAST FORWARD TO NAPHDA

Given the prominence of its promise of building 5 affordable million homes, the PTI government has developed an institutional framework with a multi-pronged strategy to

follow this ambitious target. The central institution is Naya Pakistan Housing and Development Authority (NAPHDA), which has been enacted "for the purposes of planning, development, construction and management of real estate development schemes and projects, including housing and matters connected therewith and… to carry out refurbishment, uplift or establishment and maintenance of infrastructure, roads etc. and the performance of other civic and municipal ventures or tasks." An Act was passed in 2019 to provide legal cover the mandate and operations of Naya Pakistan Housing and Development Authority (NAPHDA).

According to its website, NAPHDA seeks to develop quality housing at affordable price for low to medium income groups in urban, peri-urban, and rural areas through a mix of housing units for various income groups and will foster social cohesion. NAPHDA has broken down the target of 5 million housing units into 2 million units in urban areas, 1 million in peri-urban areas and 2 million in rural areas. It aims at developing mega housing colonies in all cities following demand pattern. It claims to give due importance to the location of these projects, which should be closer to the workplace of residents. Another feature is emphasis on mixed use wherein blocks will be allocated for low to middle income segments, high end segment, commercial and public amenities.

NAPHDA aims to give housing units to the low-income segment with a subsidy and to the middle-income segments on an actual cost basis. While NAPHDA claims to develop a model of public-private partnership, it calls for introducing price ceiling. It says that the government's noble intent of providing housing to the underserved at affordable price can only be realized by adopting all measures to limit / cap the price of houses for low / medium income members.

It hopes to cap the price by controlling the cost of construction and by offering subsidies to developers and the public. The intent to control prices of construction and its outputs may serve as a popular slogan but, this intent only hampers economic activity. Government should not be concerned about controlling the prices, rather it should be concerned with ensuring competition. Thus, if there is a credible case of collusion between, for example, manufacturers of steel or cement, the government, through Competition Commission of Pakistan, should step in and institute formal inquiries and other punitive actions as may be sanctioned by the law.

The policies of price ceiling will encourage hoarding of inputs, black marketing, and suppression of supply, thus eventually leading to shortage and subsequently steep rise in the prices. The trend of price escalation in the real estate market may have roots in the policy itself. One argument is that an increase in the supply of capital induced by an attractive amnesty scheme has jacked up the prices pulled by higher demands. As the supply of new residential properties will take considerable time, the increase in demand for existing properties has caused a price hike. Thus, the amnesty scheme might have functioned as a perverse incentive.

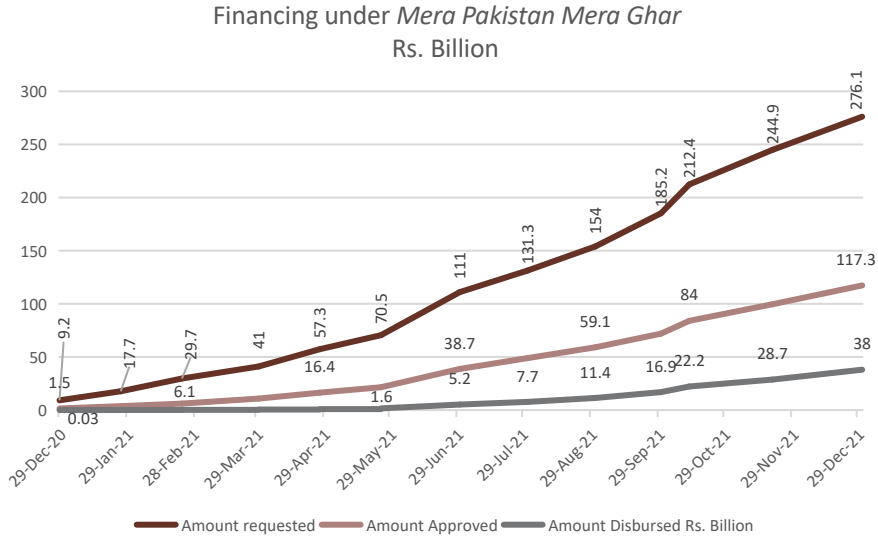
NAPHDA has also assumed the role of town planning, land procurement and infrastructure development. There is an inherent risk of institutional miscoordination. Town planning is the mandate of local governments, thus the role of NAPHDA will be limited only to the lands it will procure. The government may allocate resources to invest in the systems and capacity of local town planning and administrative agencies.

One positive feature of the current institutional set up is the formation of the National Coordination Committee on Housing, Construction and Development, which meets frequently. This Committee has cross-ministerial membership as well as from the private sector. These meetings are chaired by the Prime Minister and have been useful in flagging delays and speeding up completion of projects under various federal government bodies. In a recent meeting, it was highlighted that ten projects of the Federal Government Housing Authority (FGHA) are facing delay, but now with the revival of work on 38,637 new housing units will be built at an approximate cost of Rs. 120.21 billion. Similarly, work on three projects of the Pakistan Housing Authority (PHA) Foundation, which were facing delay was also being restored and because of which 5,372 housing units will be constructed at an estimated cost of Rs. 27.86 billion. These are not new projects or fresh funding but just indicate stalemate in the implementation of some pre-approved projects.

Coming back to NAPHDA as it is responsible for procurement of land on commercial terms, it will have significant fiscal implications for the federal government as the resources to procure land will come from the federal budget. Given fiscal limitations and other priorities, it is doubtful if the government will be able to allocate substantial resources except for some projects.

Figure 6.3 is encouraging as it shows that the loans applied under the *Mera Pakistan Mera Ghar* scheme have gone significantly up from Rs. 9.2 billion to Rs. 276.1 billion, though the approval percentage is 40%. Out of the approved loans of 117 billion so far, Rs. 38 billion have been disbursed as of December 2021. If we assume that the average loan size is 3 million, then it implies 12,666 housing units and if we assume that the average loan size is 5 million, then housing units under development will be 7,600 units. While this is an improvement over the last two years, this is the result of the significant push from the top as well as mandatory lending targets set by the central bank.

Figure 6.3: Financing under Mera Pakistan Mera Ghar



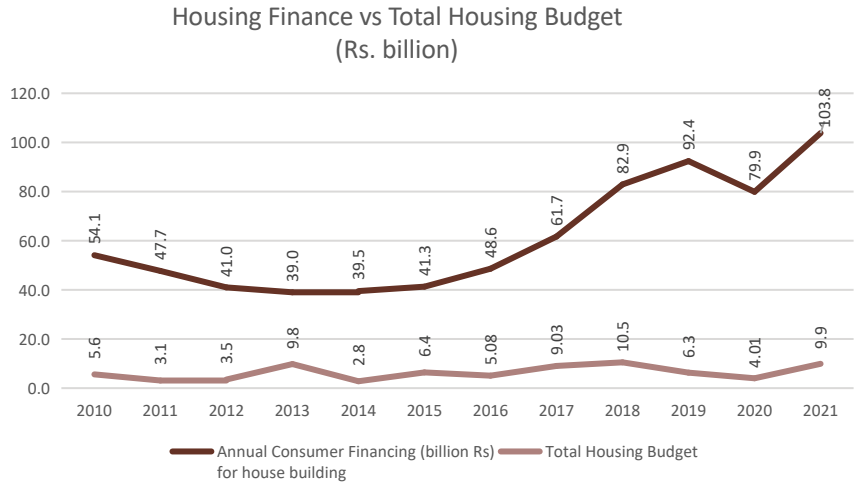
Source: State Bank of Pakistan

6.6 HOUSING FINANCE

The borrowing by individuals for the construction of residential housing has been on an upward trajectory since 2014 except for the year 2020 when residential construction activities were slowed down due to pandemic enforced lockdowns in the country and subsequent supply chain disruptions. Another factor that resulted in the slowdown in borrowing was an increase in the policy rate to the highest ever 13.25 percent in the fiscal

year 2020, which increased the cost of borrowing due to the stabilization policy being pursued in the country for the curtailment of current account deficit. Figure 6.4 shows the trend of housing finance through banking channel and housing budget by the federal government. As the State Bank has declared it mandatory for the commercial banks to allocate 5% of their lending for the housing sector, this will also help in achieving the government's targets. As evident from the figure 6.3, housing finance has increased over the last few years. It may be of interest to note that the housing finance increased by almost 100% between 2015 and 2018 and only by 25% during 2018 and 2021. On the other hand, the public spending on housing, as far as the federal government is concerned, has flattened as it currently stands at the level of 2013. It implies that in real terms, the government spending on housing has declined.

Figure 6.4: Expansion of Housing Finance in Pakistan



Source: Annual Report-State of Pakistan's Economy (2022); Revised Federal Budget (2022)

Successive governments in Pakistan have adopted a range of policy tools to supporting housing and construction. This section suggests that despite the allocation of significant resources in the past, the housing problem, especially in the case of market failure, has only grown. The housing stock has grown in the country not due to policy, but despite it. It is not the first time that Pakistan saw an amnesty scheme, however linking it with construction investment has been tried now. It has been supplemented with

concessionary finance and mandatory lending. A central empowered institution, NAPHDA is also set up to help realize the dream of building 5 million homes. It should be acknowledged that this has helped in improved coordination across various government departments, but benefits are still largely restricted to government employees. Also, most of the beneficiaries from the Prime Minister's Construction Package are elite developers, their investors, and customers. The need of low-income households is quite distinct, and they need access to cheap land to construct their own home, which has been restrained due to policy and its capture by elite developers. Pakistan is not unique in facing these problems in urban housing. Let us now turn to some international examples and best practices.

6.7 INTERNATIONAL EXAMPLES ON HOUSING PROGRAMS

Affordable housing has been a major global issue. According to a survey led by Lincoln Institute of Land Policy (LILP) in 2019, out of a sample of 200 cities globally, 90% have become unaffordable to live in (Jason, 2019). Although housing crisis is mostly prevalent in countries with rapid population growth, falling incomes and rising land prices; house prices in developed countries like the US, New Zealand, and UK have risen by 11%, 22% and 40% (Bicester and Rhinebeck, 2021). As a result, home ownership has declined worldwide. The government stimulus packages for the housing sector have been short-term and unsustainable. Yet there are countries where the governments successfully pulled off housing policies, and there are countries that failed to set any global examples. The following table 6.4 gives a summary of housing policies adopted by a few countries.

Table 6.4: Housing Policies Adopted Internationally.

Country	Schemes	Population	Backlog
Malaysia	• 100% financing for people with income less than RM 500 • Public low-cost housing programmes • 63.9% plan success	32.4m	1.2m units

Indonesia	• Financial Service Authority subsidized mortgages • In 2013, 87,765 housing units were built through Housing Finance Liquidity Facility. • 200 low-cost residential towers built in 5 years	273.5m	11.8m units
Thailand	• Government and private developers' partnership • 430,000 housing units built under NHA. • Housing loans and infrastructure subsidies for the low-income	69.8m	(1.3m) There is a surplus.
Chile	• Rental subsidy programme • Subsidized housing rent	19.12m	1.2m
Singapore	• Housing and Development Board • Conversion of Central Provident Fund into Housing Provident Fund • Land auctions for middle-upper class.	5.686m	1m

Source: Developed by Author (2023) through Literature Review

6.7.1 Malaysia

Malaysia has introduced several governments, private and private-public partnerships housing schemes including:

- BSN My Home (Youth Housing Scheme) Source: Bank Simpanan Nasional.
- Rent-to-Own-Scheme (RTO)
- Residensi Wilayah (RUMAWIP)
- Rumah Selangorku (RSKU)

- Youth Transit Housing (MyTransit)
- Perumahan Rakyat 1 Malaysia (PR1MA)
- Skim Perumahan Mampu Milik Swasta (MyHome)

It divides its citizens into following income groups:

Table 6.5: Citizen Groups

T20 –Top 20%	**Upper Class**	**<= RM 9,620**
M40 – Middle 40%	Middle Class	RM 4,361 – RM 9,619
B40 – Bottom 40%	Low-income Group	>= RM 4,360

Source: Developed by Author (2023) through Literature Review

For anybody falling under the M40 and B40 category, owning a house might be difficult for them. However, they would be able to avail themselves of housing schemes like My Own Housing Scheme, Rent to Own, Youth Transit Housing and others that facilitate low- and middle-income groups to purchase their own house through 100% bank financing. Under a few schemes, 30% of which would be guaranteed by the government. Although there are several other government private partnership housing programs in Malaysia, but home ownership remains an issue because of the rising land and raw material prices. Based on market research, most housing units' price vary between RM 500,000 to RM 1.5 million. Whereas residential units which are affordable i.e., below RM 500,000, mostly lie in the peripheries of main cities. Malaysia is still facing a shortage of 1 million affordable housing units (Wahab, 2020).

6.7.2 Indonesia

With a huge population, Indonesia is facing a housing backlog of 11.8 million units and the government, as per the data of 2013, needs to add about 920,000 housing units every year to address the backlog issue. Out of which both the government and private sector collectively add 200,000 housing units every year. Indonesia therefore has about 370,000 housing units shortage each year. Due to the increase in the middle-income group, construction sector has become the fastest growing sector of the Indonesian economy. After the Asian crisis of 1997, Indonesia took few initiatives to boost the economy.

In 2014, the financial Service Authority promoted the use of mortgages, as per Bank of Indonesia, 72.2% real estate transactions were made through mortgages i.e., approximately $ 25 billion. The government provided subsidies to banks dispensing mortgages, due to which, 87,765 housing units were built in 2013. Despite the availability of mortgage financing, housing issue in Indonesia remained a problem. According to the Ministry of National Development Planning Indonesia, 400,000 formal housing units are developed each year whereas, the number of households in the country increase by 700,000 (Tariq, et al., 2018).

6.7.3 Thailand

As per the 2010 housing census, Thailand had one of the highest rates of home ownership worldwide i.e., 81%. With 20.3 million households in Thailand, the country had 21.6 million housing units. This means that the country had an excess supply of 1.3 million housing units (Tariq, et al., 2018). The government and private developers have played an efficient role in making the housing sector affordable for middle and low-income groups. In this case, the National Housing Authority (NHA) and the Community Organizations Development Institute (CODI) have frequently promoted affordable housing for the low-income group in Thailand and was able to construct 430,000 housing units.

NHA also subsidized low-cost housing projects under which housing loans and infrastructure subsidies were provided. Such schemes were practiced in 69 out of 76 provinces of the country. According to the 2010 population census data, 12% population of Thailand reside in rental housing hence, most of the banks provide financing to construction companies for the construction of rental apartments.

6.7.4 Chile

Chile currently faces a housing deficit of 1,200,000 units. Housing is not considered as a right under the Chilean government. Therefore, social housing is not popular in the urban areas of Chile. Deregulation in 1979 under the 'Enabling Markets Housing Approach' has given total land control to the markets and the government acts as an enabler and facilitator to the private sector. However, prices of property have been rising, making it difficult for the poor to afford land purchase and housing construction. The Chilean Model of housing sector was well delivered and adopted by other countries as well. This housing

model is divided into three phases.

In the first 11 years, reforms were made in the banking sector. Housing subsidies were introduced. However, the private sector engaged in providing housing for the upper-middle class because of which the low income remained deprived, and the housing shortage continued to grow. In the second phase that lasted till 2001, government intervention in the housing sector started because of the 1985 earthquake that led to a huge housing deficit. More resources were allocated to subsidies and house designing and hence the private sector was attracted to the social housing market. The third phase includes the implementation of the enabling markets housing policy. Despite the success of the policy, only 25% of the resources were allocated to those living in extreme poverty (Navarro, 2005).

6.7.5 Singapore

Back in colonial times the country faced a huge housing deficit. A Housing and Development Board was established in Singapore to provide decent and well-equipped homes. The idea was to develop the slums as well as the urban areas. After the Land Acquisition Act, 90% of the land is owned and controlled by the government in the country. 81% of the population in Singapore lives in flats constructed under the Housing and Development Board (HDB) and these flats constitute 73% of the total housing stock in the country. To make housing affordable for low-income families, the government proposed two policies. Firstly, in 1968, it converted the Provident fund into a compulsory Housing Provident Fund. These savings were then used as mortgage payments or down payments for the purchase of HDB flats. This policy led to an increase in home ownership in the country. In 2016, about 90% of the population owned their own house (Phang and Helble, 2016). Secondly, the country decreased interest rates – which did not work quite well since the borrowers could not afford a 20% deposit.

As soon as the beneficiaries of the HDB scheme met all the requirements of the scheme, their home ownership was guaranteed, which was legally protected by the State. Also, projects like HDB were inclusive of public utilities like education, and commercial services. For the upper-middle income housing, the government increased the housing supply through land auctions for private housing. Following these policies, Singapore

exceeded the target and had an excess of housing units.

These international examples suggest that there are different models and paths to improve living conditions and housing stock as well as stock. Except for Chile, what is common in all these examples is the provision of vertical structures and residential accommodation for the low-income segments in the cities. People living in slums who play an integral role in economic development were provided decent living conditions. If their income can allow, they do contribute towards mortgage payments, but in case of very low-income, the government intervenes and provides for housing which can be both owned and rented solutions. Excessive government intervention may result in inefficient allocation of capital, which in the case of Thailand can be observed in the form of a surplus of housing stock.

6.8 CONCLUSION: WHAT SHOULD BE THE POLICY?

Policy should follow problem. The problem is not a lack of housing units and any policy which becomes chasing a target will be ceased as a policy. Therefore, the target of constructing a given number of houses is misplaced and has exacerbated the problem. It is a target influenced by developers or by political ambition or both and not by demand. The problem of housing in Pakistan has three dimensions: land, location, and infrastructure. Owning a house in a city for a median wage earner is becoming harder largely because of how we allocate, design, and use land. Subsidy in mortgage financing can only partially resolve this but cannot overcome the land price problem without serious fiscal risks. As the most rewarding and attractive jobs and opportunities are in cities, residential options should also be closer to places of work. Finally, the quality of housing infrastructure such as access to water, sanitation and public transport is still a major problem. A good housing policy should address housing holistically with these three dimensions and should not focus on affordability or development. Pakistan does not need more houses; it needs a good policy. By conducting research on income, location, and infrastructure, can alter the direction of housing policy significantly. Instead of following an imaginary number of houses, the housing policy can aim at resolving the cost, location, and infrastructure- critical elements of decent living.

Following the problem, the policy itself should be three dimensional. It should define measures to drastically alter our use of land by allowing vertical and intensive use and by reducing government footprint in the land ownership. A good housing policy should contain mechanisms to deflate land prices as a central pivot through its efficient usage. Rationalized land prices will help increase affordability to a great degree. The housing policy should provide for research about housing demands by identifying clusters of occupation and by determining the housing needs of population in those clusters. The housing policy should also ensure provision of decent infrastructure including water, sanitation, and waste management. To put it simplistically, a good housing policy is a good land use policy.

The housing issue has both demand dimension- the low income as compared with the rising prices- and a supply dimension- the restricted supply of land and other building regulations. Taking a cue from Carmelo (2019), who has written extensively on Malaysian property markets, I take this view that the housing issues in Pakistan are driven by supply-side constraints, whereas the government's efforts have focused on demand side management. It can be argued that the government's preference to work on demand management through subsidies in mortgage structure and tax concessions has exacerbated the housing problem. It is acknowledged that the governments in Pakistan have started paying attention to supply side constraints as observed through relaxation of building heights in Islamabad and Lahore. However, the housing policy and allocation of resources needs a major reset.

6.9 POLICY RECOMMENDATIONS

Some specific recommendations may be considered, which follow:

1. Relax rules to increase density of city centers and better use of government lands in the prime urban locations.
2. Impose tax on unutilized land parcels/plots to discourage land hoarding.
3. Introduce rules to encourage hand-over of completed units to customers instead of plots by leveraging bank financing.

4. Review Amnesty Scheme to discourage plot culture and do not extend the scheme.
5. Aggregate demand by collating information about demand of housing in cities and share it with pre-screened developers.
6. Re-engineer planning and approval processes to allow fast track processing of applications by developers. Reduce the time from a maximum of 36 months to 6 months.
7. Develop a mechanism to certify or grade developers, especially developers working in the affordable housing segment.
8. Withdraw or minimize any special incentives including subsidy on mortgage financing.
9. Withdraw fixed tax scheme and any tax concessions for developers and encourage a low-rate, broad based flat income tax for all.
10. Minimize government ownership of land including cantonments.
11. Stop allocation of plots by the government on discretionary basis.
12. Increase emphasis on guaranteed rental housing, including rent to own housing schemes.

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CALL FOR A SHIFT IN INTELLECTUAL STANDPOINT: FROM POSITIVIST RATIONALISM TO ADAPTIVE ACTION

Muhammad Shafaat Nawaz

7.1 LET US STEP BACK!

This book has reflected upon the housing sector dynamics and policies in Pakistan. A review of demographics proved the significance of the issue particularly in cities and the trends of urbanization. The balance of housing demand and supply has been analyzed through a critical approach. Government directed housing programs of varying scales have also been analyzed and their policy gaps identified. The comprehensive record of enacted housing regulations offered in this book highlights how policies have been translated into rules and regulations over time.

This book critiques, as asserted in previous chapters, that the core of the housing problem in Pakistan is not the lack of land supply for housing but the affordability. Hence it is urged that the policy approach be shifted to address the real problem. This book calls for a shift in the policy towards the affordability of housing to that specific, essentially the lowest, income group which is currently deprived of it not because there are no houses in the market but because there is no affordable housing in the market (see past chapters for the detailed arguments).

This is exactly why book chapters on real estate market and housing finance reflect upon the current practices asserting how the current system continues to deprive the lowest income group of affordable housing. Multiple interlinked factors of this phenomenon have been discussed in previous chapters at length. This chapter takes a more intellectual

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project of reflexivity, as urged by (Kincheloe & Tobin, 2009), of the housing sector in Pakistan and urges the readers to step back a little and think: how do we explain the theoretical grounds of housing policies in Pakistan? Why have we crafted our agenda in this way and not in any other way? Why have our housing programs looked highly similar despite temporal and political variations? On these grounds, this chapter addresses a crispy question: What were we thinking?

Before answering these questions, I clarify why these questions are important in the first place and, as Friedmann (2003) asserts, why investigate theory at all. So let us take a little detour and discuss why an intellectual standpoint is important in the first place. Luckily, the explanation is found in recent history. Most of the twentieth century account is ripe with the biggest conflicts in human history both in the forms of world wars and the cold war. Newly formed nation states and confederations sought to link with ideologies of capitalism or socialism. The decision of joining either of the two standpoints, which most of the world countries did, determined each country's policies, institutions, regulations, economic structures, and hence the lives of its people. So onerous is the impact of intellectual standpoint. Likewise, analysis of our intellectual genealogy is paramount to understand the roots of our housing policies.

To trace the intellectual foundations of our policies, this chapter identifies the tools that our policies have been utilizing and that have been mentioned in previous chapters in large part. Identified tools are then traced back to the theoretical debates to find which theories generated these tools. It is important also to realize that identifying a particular philosophical legacy is only the first aim of this chapter. Once identified, the main purpose of the chapter will be the analysis of the identified theories with respect to their strengths and limitations. And that is when this chapter will conclude by proposing a shift in the intellectual standpoint which would transform the way we devise our policies.

7.2 TRACING THE INTELLECTUAL ROOTS OF PAKISTANI HOUSING POLICY

Housing programs have been crafted many times in the history of Pakistan for which previous chapters offered a comparative analysis. Pakistan's housing policy, therefore, has these many episodes. Yet all these versions are shaped by similar tools that have been

persistently used over decades. Identifying the tools and tracing their intellectual legacy will clarify the roots of our housing policy.

A trail through the past housing policies suggests that each policy set its foundations on the premise that the policy was sought to balance the demand and supply of housing in the country (or policy scale). This path required finding the data on the housing sector by enlisting the number of housing units available at the time of policy making and the required number of houses per population and household standards. No housing policy in Pakistan missed on using these tools to set its grounds.

Most housing policies then stipulated the past trends to forecast the future needs in the housing sector. Hence another prevalent tool of housing policy is future prediction in the housing sector that requires immediate action through the policy. Moreover, use of this tool generated another imperative outcome: the decision makers now had a measurable target to achieve through their policies and actions. This measurable target was clarified even more in sophisticated policy documents by categorizing and classifying it. An example of the categories present in most policy documents is the spatial scale: urban housing, rural housing etc. or the ownership status: owned, rented, other etc.

The strength of housing policy has also been harnessed often through use of documentation and mapping of the current conditions in the housing sector. While the documentation offered the spatial and non-spatial record of the housing provision at the time of policy preparation, the mapping generated spatial dynamics highlighting areas of housing privilege versus chaos. Use of these tools aimed to guide the decision makers choose suitable areas for housing development, uplift, renewal and so forth, at least in the policy. These tools further highlighted areas where housing complied with the rules and regulations against those that did not. Accordingly, the decision makers used these tools to craft by-laws following the policy.

Housing policy has also persistently reflected upon the land records and transactions to ensure the creation of a legible market. Use of this tool has continued to grow in maturity as various land records have been consolidated and legal land ownership patterns have been formalized through intricate networks that harness this formality. An example of such a network is the link created between money borrowing opportunities in the banks

and the government issued property letter. Such networks therefore harness the prevalence of formal land transactions.

Infrastructure is an essential component of the housing provision and therefore housing policies in Pakistan often documented and mapped it. An invisible yet cardinal network of this infrastructure is imagined as the lifeline of housing provision. Inter-linkages of various infrastructural and utility lines with the housing provision are therefore another tool of the housing policy that imagined a machine-like structure of the sector. All parts of the system are required to work together in this sector and each part is so important that the structure would collapse if any of the parts went bad.

As such, housing policies in Pakistan have been persistently using these tools for the situational analysis of the housing sector. Looking through the literature helps one identify where these tools emerged from: Clarke, Friese, and Washburn (2015, 95) assert that the roots of situational analysis lie in Chicago School of human ecology which was theorized by Robert E. Park (1864 –1944) and Ernest W. Burgess (1896–1966) along with others. The Chicago School studied social phenomena using a positivist methodology to explain the spatial configuration of the city (Hess, 2001, pp. 70–78).

The use of positivism to study a social phenomenon like housing meant an underlying belief that the issue of housing was like a mathematical problem that could be solved through the proper calculations. This belief emerged from the empirical philosophy of David Hume (1711-1776), the positivist tenets of Auguste Comte (1798-1857), and the utilitarianism of John Stuart Mill (1806-1893); all of them asserted that social science should be limited to factual data as the source of public policy and social practice (Christians, 2018, pp. 146–147). The tenets of positivism were extended in the twentieth century for example, pragmatism by Charles Sanders Peirce (1839-1914), functionalism by William James (1842-1910), and instrumentalism by John Dewey (1859-1952) all operating on the premise that something is meaningful if and only if it is verifiable empirically (Kincheloe & Tobin, 2009, p. 516).

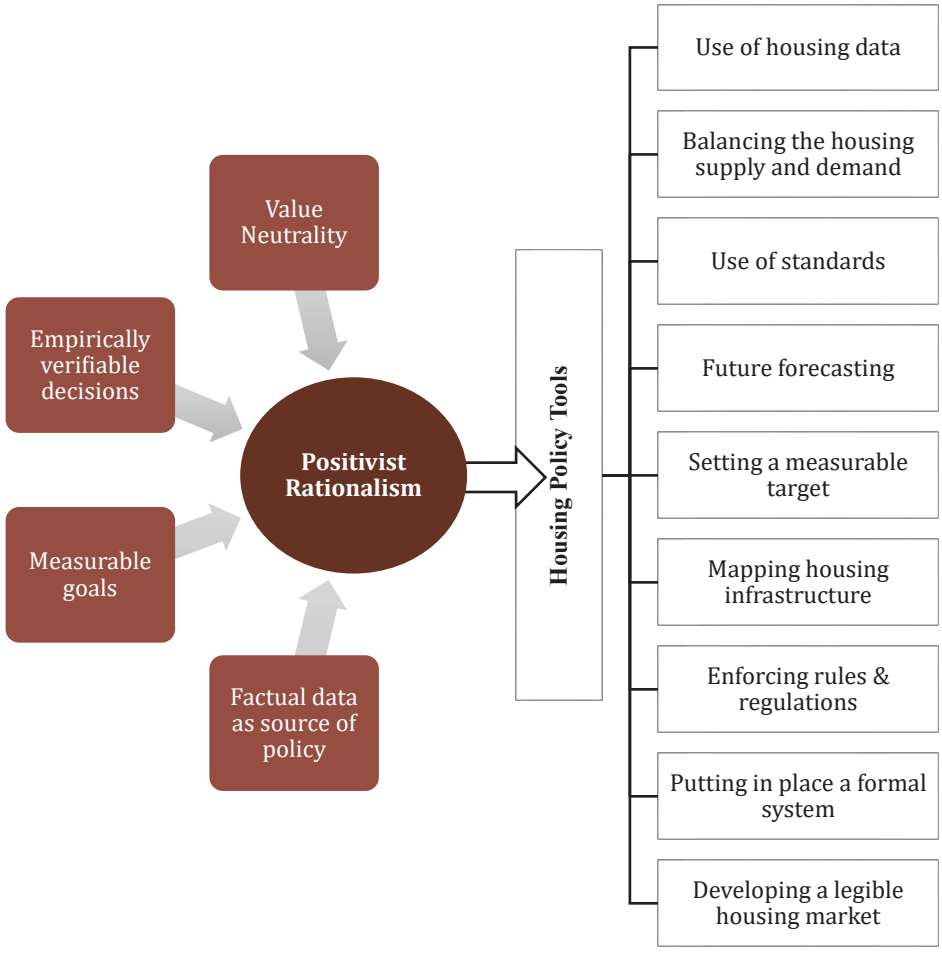
This theoretical root of Pakistani housing policy in positivism explains why our housing policy has been using tools like housing data on supply and demand, future forecasting and setting a measurable goal, use of housing standards, and so on. The mathematical

centrality and essentiality of the housing policies, therefore, owes to positivism. Its application and prevalence in Pakistani policy is ensured by a formal system and associated rules and regulations that emerge from a related theory: rationalism.

Modern rationality built on eighteenth century philosophers like Immanuel Kant (1724-1804) and Georg Wilhelm Friedrich Hegel (1770-1831) who inaugurated the renaissance period by going back to Greek civilization wherein the man was defined as logical and rational. Rationality in civilization considered that humankind and the universe were made of laws. And one could gain control by discovering its laws. Most of its tenets in the spatial context were theorized by Walter Gropius (1883-1969) and Le Corbusier (1887-1965) alongside other members of Congrès Internationaux d'Architecture Moderne (CIAM) in the interwar period (Scott, 2016). The idea of zoning land uses and housing types emerged from these theories and gave birth to the associated rules and regulations for the building line, height, floor area ratio, and so forth (Willis, 1986). As such, an issue like housing became a concern of scientific management when seen thorough the lenses of positivist rationalism (Healey, 2009). Though most of these theories emerged in the USA and Western Europe, their prevalence in other parts of the world is equally evident and well documented (for example see its application in Chicago, USA and Shanghai, China as documented by Wang and Hoch (2013); in India as noted by Shaw (2009); in Brazil as noted by Batista et al. (2006); in Pakistan as noted by Mahsud (2008); and Watson's (2009) reflections on clash in rationalities from the Global South).

This reflexivity on Pakistani housing policies thus guides us that all episodes of the policy were guided by certain intellectual standpoint: positivist rationalism. Whether policy makers realized it or not, they were trained in this paradigm through existing academic and professional structures. Therefore, their policy making tools emerged from the underlying philosophy summarized in figure 7.1.

Figure 7.1: Policy Tools Originated from Positivist Rationalism



Source: Author's own illustration

7.3 THE COST PAID WHILE PRACTICING THE PARADIGM OF POSITIVIST RATIONALISM

The use of positivist rationalism brought many advantages to the humans of today who are beneficiaries of that process in countless ways. But that does not mean that this process did not come at a cost. While the use of this intellectual standpoint provided humans with more control over their decisions, production rates of services and goods,

increased ability to lay down the infrastructure, and tame the nature to their advantage; the power of control that came with this approach concentrated with those who exercised it. These have been the power centers in today's democratic governments and their bureaucracies because, as Flyvbjerg (1998) asserted, positivist rationalism is a tool used for harnessing power.

As such, this approach remains entirely government-sanctioned within and exclusivist assertion of positivism (Wright, 2006, p. 800). The approach, therefore, makes the state the central piece for policy making and leading at the top of the decision hierarchy. This standpoint has given birth to a rigid bureaucracy in a 'government of paper' in Pakistan which is documented by Hull (2012) at length when he asserts that the value of everything and anything in Pakistani government comes from the decisions made on paper (of office files or official letters). Such government aspires to control the housing sector, or any policy domain for that matter, through documentation, formalization, and procedures as already documented in this chapter.

At the onset of positivist rationalism is the over emphasis on numbers and the forced application of the decisions informed by these numbers. The policy documents and plans prepared through such approach are treated as biblical with no room of compromise (Scott, 1998). Therefore, the approach is inflexible to transform though it continues to reshape with time but does not allow room for redefining the problem. For example, the approach continues to embrace the sophistication of mathematical tools and use of technologies like computer software and remote sensing technologies but does not admit to the possibility of failure given its weak premises and uncontested, top-down government control. This approach, in fact, sees government as the leader in Arnstein's (1969) participatory ladder.

Due to the power structure and associated rigid control that positivist rationalism entails in Pakistan housing policies, there are many kinds of costs that public must pay because of limitations of this approach as summarized in Figure 7.2. Positivist rationalism is the dominant trait in policy making. It is particularly important here to realize that the fact-based situational analysis put forth through this approach is not the reality itself but is a way of looking at it. As such, it is a reduction of reality. And the problem occurs when this reduced system is imposed on human beings with the proviso that the cases that do

not confirm to these theorems are deemed abnormal and deviant.

This approach tends to categorize the housing in the binaries of planned versus unplanned; legal versus illegal; legible versus illegible (see Smith's (2007) paper wherein he reflects on this dilemma). Accordingly, the approach classifies a large part of Pakistani people and their built housing either as unplanned, or illegal or illegible. Such categorization prevents the masses from pursuing social mobility because the above mentioned 'government of paper' limits their agency.

The consequent action of this categorization leads the policy to one of the following decisions: the policy either ignores those housing areas that are unplanned, thus leaving them for decay without any help (for example see Haroon et al. (2019) who noted the ongoing decay of housing that is otherwise a heritage); or the policy adopts a corrective behavior aiming to identify the segments in society that need to be amended because it classifies them as illegal or illegible, and therefore the policy exercises a disciplinary power of fixing people in time and space (please see Parnell and Robinson (2012) who assert that the emerging theories contend this approach). Such corrective behavior aims to design a new society on an imaginary and utopian clean slate by removing all that is present and is unwanted by it. The legacy of such attitude hails from Haussmann's grandiose public works program in Paris that envisaged and attempted social engineering through grand infrastructural projects (Hall, 2014; Lang, 2017).

The positivist rationalism that guides Pakistani housing policy has consistently failed throughout the world whether economic (socialism), social (radicalism), racial (slavery), or else. It is important to note that such control takes a bureaucratic form in Pakistan (Hull, 2012). Further, the approach continues to impose standards for determining what is correct and incorrect while these standards are usually borrowed from Western countries, are not indigenous, and may not even be suitable in another context (for example see how Radkau (2008) reflects on the mistakes committed while imitating a foreign tool without reflexivity). Further, the rules that are created through these standards see the conventional Pakistani context as "other" in Said's (1978) words meaning that this viewpoint abstracts the Pakistani society the way it is seen from the West. This is exactly why housing produced in Pakistan through this approach is remarkably like housing in Western countries but astonishingly different from the

housing conventionally produced in Pakistan.

When housing policy uses the positivist paradigm, it aims to put order in chaos. Mathematics, in its contribution to the paradigm, then tries to neglect all subjective elements and asserts objectivity as the only valid component. The measurement became so important for the paradigm that even the goal setting became something measurable. As such, rational planning legitimizes itself and then illegitimates all other forms of knowledge (Santos, 1992).

The inability of positivist rationalism to recognize or incorporate knowledge created outside its paradigm sharply limits its utility (Brenner, 2009; James, 2005). One dominant example is of agriculture in which monoculture, hybrids, fertilizers, pesticides, and capital intensiveness has replaced polyculture, diversity, crop rotation, mixed cropping, relay cropping, shallow cultivation and slash-and-burn to apparently do away with the problems of the latter but have generated new and graver problems in return (Radkau, 2008). A similar replication in housing has limited the ability of our policy makers to read through the conventional housing forms and grasp its wisdoms (please see Hakim (2008) paper as an example of learning wisdoms from traditional built environment). Thus, the approach and consequent housing policy continues to suppress, ignore, reject, and underestimate the agency of Pakistani people because it does not embrace their lens or wisdom.

Figure 7.2: Limitations of Positivist Rationalism

A corrective approach

- The current approach tends to find segments that need to be amended
- Government uses disciplinary power to fix people in time and space

Aspirations to control

- Government focuses on documentations and fails to recognize those that do not make it to official documents
- Formal processes ignore those segments of society that are unable to enter the formal system
- Established procedures limit the prevalence of people-driven innovative arrangements

Fetish for standards

- Current policy sets universal standards without any regard to the context
- Standards are usually borrowed from other countries and are rarely indigenized
- Rigid standards limit the adaptive solutions that people innovate otherwise

Over-emphasis on entity over process

- Current policy continues to stress required number of houses
- The process through which people conventionally find shelter is ignored

Inflexibility in the redefinition of the problem

- Current policy aims to a find positivist solution to the defined problem
- The policy is inflexible and prevents to redefine the problem which scholars have repeatedly pointed out: the issue is not the lack of houses in the formal market but of unavailability of affordable ones

Seeing like a State

- Current policy continues to see the housing issue like a state
- When seen as an exclusive government task, policy fails to recognize the stakes of the people
- Policy suppresses, ignores, rejects, and underestimates the agency of the masses by not embracing their lens/standpoint

Hierarchy instead of reciprocity

- Current policy views the housing sector as a hierarchical process with government at the top of it
- Collaborative action and adaptive learning are seldom included in the policy

Source: Author's own illustration

7.4 LET US THINK OTHERWISE TO ACT DIFFERENTLY!

This chapter's critique of positivist rationalism is not the first. Rather, the critique of the paradigm started exactly at the point of its theorization. The tenets of the paradigm have been criticized by the scholars of the Frankfurt School associated with the works of Theodor Adorno (1903-1969) and Max Horkheimer (1895-1973). Spatial studies found use of the critical theory of the Frankfurt School starting Walter Benjamin's (1892-1940) Paris sketches (Brenner, 2009, p. 205), highlight how policy actions under this paradigm lead to many failures.

However, the government-sanctioned positivist rationalism became prevalent while the critique remained limited to academic debates. Positivist rationalism was given platforms, institutions, funding, and power while the critique was ignored because it challenged power. The paradigm of positivist rationalism got popular around the globe because the international agencies adopted it as an agenda to reshape the world by emulating Western Europe and North America (Weiner & Huntington, 1987, p. 6) hence re-culturizing the rest of the world (Norgaard, 1994, p. 5). The developing world, and Pakistan for that matter, therefore imitated the paradigm but results have never served the people. Therefore, it is again time to rethink starting with the theories that critiqued the dominant paradigm.

There is an important caveat in this regard: the paradigm has a capacity to reconfigure itself with time. So, one might fall into the trap that the paradigm has already shifted because the tools to study situational analysis have been updated and the policy has started focusing on various kinds of issues. But one must be aware that these upgrades in the paradigm are ingrained in post-positivism (Allmendinger, 2002) and post-rationalism (Pojani & Stead, 2016). While a city's ability to evolve was embraced, the paradigm merely upgraded from positivism to post-positivism as asserted by Phillips (2004) and took on the agenda of cybernetics premise to mathematize myriad of connections and roles in a city in a simulation model to help forecast the future with increased accuracy (McLoughlin, 2017, pp. 357–374). The newer version of the paradigm still views the state as far smarter than it really is and regards the subjects as far more stupid than they really are.

Hence, even these upgraded versions share the original premise that the problem has its solution through rational decisions. As such, the new versions still miss the opportunity to link the problem with its root in another cause. And this paradigm fails to accept that it generates unfamiliar problems itself. For example, past chapters in this book asserted that affordability is the issue at stake; and yet this issue of unaffordability is created by this paradigm because it raises prices through its tools.

Therefore, the rethinking called for in this chapter is not for upgrades in the paradigm of positivist rationalism but is a shift in the approach towards adaptive action (figure 7.3). Bluntly, the criticism on the approach of positivist rationalism has been put forth in clearly bitter yet honest words: "the best service development professionals can now render to developing countries is for most of us to fade away quietly and allow the era of externally provided development assistance to come to a close" (Dichter, 2002, p. 294). And similarly, Ward (2006) clarifies how rationalism entails oppression and control: it gets its colonizing power through the premise of impersonality which excludes social, cultural or personal dimensions of reality and takes on all the power to define the reality through a position of scientific neutrality.

The suggested alternative of adaptive action therefore embraces the position and subjectivity. While the rational prediction of the future often proves fallacious due to the complexities not considered within rational models (Black, 1990), the adaptive action does not aim at controlling the future. This is so because while the exact sciences create laboratory situations that allow them to 'control' reality, the social sciences deal with subjects that cannot be framed in the ways the objects of physics and chemistry, for instance, can be framed. Accordingly, while the dominant paradigm of positivist rationalism fails to identify the process and aims at entity (like a house), the adaptive action calls to become a part of the process of housing development alongside people who build it through their agency.

The alternative of adaptive action calls 'or a limited state presence in the private sphere because on claims that state involvement limits public agency (for example, see Kiang (1994) who explains the birth of a public generated commercial street when state control lessened). The adaptive action urges reduced state control also because the housing market in Pakistan, most of which is informal housing, is too complex to be controlled by

state agencies on which public funds are invested in an abyss. Therefore, instead of controlling the housing market, the adaptive action suggests that the state accepts the mechanism already present in indigenous societies and facilitate wherever it can through harnessing public agency.

Figure 7.3: What it Means to Shift from Positivist Rationalism to Adaptive Action

Source: Author's own illustration

Such shift in the intellectual standpoint will free the housing policy in Pakistan from the strict paradigm of rationality (Alexander, 1984) and put the decision makers in what Beauregard (2017) called a post-modern abyss of a government that embraces its limitations and rather becomes a partner with the public in the process of housing. The approach will therefore possibly generate results that have been, as quoted already in previous chapters, suggested by theorists of public life like Jane Jacobs who, unlike modernist convention, look the at social fabric of the city and called for revival of an active street with mixed uses (Jacobs, 1961); Jan Gehl who studies the public life amidst buildings (Gehl, 2011; Gehl & Svarre, 2013); and Emily Talen who proposed the idea of revisiting standard-making to value social life (Lee & Talen, 2018; Talen, 2002).

The alternative standpoint of adaptive action calls for the assimilation of the system to the people's wisdom and not otherwise. This is a shift from the positivist rationalism that seeks to replicate the lab experiments to the social issue of housing. This proposal is for reciprocal intervention and learning wherein the housing sector and people's action continue to evolve and so does the government role. Adaptive action realizes that preconceived models of positivist rationalism (some of which Vale (2006) discussed) fail in reality because people driven actions continue to prevail as in case of incremental housing (Van Noorloos et al., 2020).

Finally, the overarching message of this book can be summarized at the end of this chapter by re-asserting that Pakistani housing policy has long subscribed to the same theoretical philosophy and has failed. It is now time to rethink and embrace an alternative standpoint. While the previous approach has been affirming the methodology of deductive reasoning on preconceived theory, the new approach called for inductive methodology to learn from Pakistani people by making room for subjectivity and embracing context specific housing ideas (source like Nowell and Albrecht (2019) and Creswell and Creswell (2018) may be consulted for an understanding of inductive and deductive reasoning). With this paradigm shift, even the tools that are used in the prevailing paradigm will have a different impact (for example see Pojani and Stead (2016) for explanation of how mapping takes a different agency when seen from a post-rational perspective).

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CONCLUSION

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Increasing population and expanding cities in Pakistan, though appearing at the outset, could become an opportunity (Jabeen et al., 2015). Cities are the locus of interplay among actors that shape the housing market. But these are also the places where housing demand is intense and hence an opportunity for innovation. Capitalizing on the economies of scale that cities produce (Glaeser, 2012), Pakistan's housing market can be used as a catalyst to harness economic cycle.

Housing is a market in Pakistan, and housing challenges are financial challenges. This book has provided history of housing programs in Pakistan to show that housing is at the center of Pakistan's political economy. Our opinion resonates with Aalbers (2017) who explained how state structure was the driver of financializing the housing market in different countries. This power of the state is overwhelming in Pakistan. The policies, regulations, and programs devised in such a political economy make housing a commodity. This commodification often causes issues of speculated land prices and unequal distribution of housing supply.

The profit attached to the housing markets attracts multiple actors such as developers, agents, landlords, homeowners, and tenants. In everyday housing market of Pakistan, one can observe how housing is seen as a symbol of financial security, investment, and profit. But the less privileged Pakistanis are seldom given agency. In such a setting, they continue struggling to keep roof over their head. Their methods are negotiating amid multiple forces and offering ideas for housing solutions. These solutions must be found through research at the margin of politics, economy, housing, and sociology, such as Desmond (2017) and Perlman (2011).

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While the political economy shapes Pakistan's housing challenge in many ways, the relationship holds equally true in the opposite direction. Actors of the political economy are affected housing is configured. This book has offered many policy analyses to highlight how the issue of housing was politicized in the country. The issues of taxation, subsidies, planning, and maintenance of housing provide arena for the political economy to play its role (Baig et al., 2020).

Sections and corresponding chapters in this book have elaborated on the details of the housing challenge in Pakistan. While each chapter concluded with its own way forward suggestions, this chapter is a crisp summary of the suggestions that have been introduced in the book. Concise suggestions in this chapter, therefore, are derived from the previous chapters. Explanation for any of the points in this chapter can be referred to in the previous chapters.

8.1 APPREHEND THE ISSUES OF CURRENT HOUSING PHENOMENA

Current urban housing provision is skewed towards serving high income suburban developments. Resultantly, only 1% of housing units developed annually cater to 68% of the population earning up to PKR 30,000 per month, in contrast to 56% of housing units for 12% population earning PKR 100,0s00 and above (Shaikh, 2018). Therefore, a policy gap is identified in this respect to harness a framework of housing supply proportionate to the percentage of population in each income group.

While Pakistan's urbanization rate is the fastest among the South Asian countries and is still increasing, there is an estimate that 50% of Pakistan's population will be living in cities in less than a decade. This implies that the largest share of housing demand in the coming year is expected in urban housing in Pakistan. Hence, urban housing deserves the most immediate attention of the policy makers.

Current regulations do little to discourage land speculation, and this phenomenon leads to increased investments in creation of land parcels that are unaffordable to most of the population. Policy makers should discourage land speculation by imposing high fees and taxes. Long and cumbersome legal procedures in the housing market add to the cost of formal housing. Policy makers should ease the production of formal housing by producing

time sensitive rapid procedures.

Formal housing, like that of approved housing schemes, is far more expensive than the informal housing of the *katchi abadis* or unapproved land subdivisions. Lower income groups, with immediate housing needs, cannot afford a house in formal housing. Current policy discourages informal housing by discontinuing utilities and legal privileges. This policy adds to the misery of the lower income group.

Housing finance is extremely low in the country offering only 48% loan to value (LTV) ratio (Khalil & Nadeem, 2019). This makes housing accessibility difficult even for the middle-income class. Policy makers should increase total finance allocation to this sector while ensuring that LTC ratio is increased. Multiple government agencies with their own legal frameworks and often contradictory areal authorities make a confounding sector for housing provision.

Current pattern of housing access in Pakistan is individualistic wherein one gains a housing through the finances in personal savings or through credit which requires collateral. Yet most of the population does not have such savings or a job or collateral to access credit. This deprives large proportion of population from access to the housing market (Hasan & Arif, 2018).

The suburban housing schemes with zoning of land uses makes even the smallest trip car dependent. Therefore, current housing patterns are intensifying traffic density thus adding to many challenges for the city. There is an immediate need for harnessing alternate housing designs with mixed uses so pedestrians can be accommodated.

8.2 REDEFINE THE HOUSING CHALLENGE

While many official as well as political numbers of housing statistics report a housing backlog of more than 10 million houses, some insightful scholars have challenged the notion. It is, therefore, recommended that the housing backlog numbers be revisited and reported per classifications of the income groups.

While the current housing backlog is simply calculated through the cumulative demographics, current number of houses, and the household size; it is suggested that the

housing backlog be calculated based on the number of houses available to each income group and the houses required to each income group.

Housing challenges in Pakistan is not the availability of land parcels. There are more land parcels in the market than the demand, thus leading to land speculation (Gul et al., 2018). The challenge is the affordability of the land parcels for the lower income group who face acute housing shortage.

Current policy fails to look at housing as a process and treats house as a product. Therefore, the policy fails to recognize that housing and its accessibility to the residents is a phenomenon in which different income groups continue to experience a social upheaval. This means that each income group enters the type of housing that they can easily access and then, through their years of work and social upheaval, they get access to the next level of housing. Thus, the current policy needs to make sure that the lowest income group enters the housing market through a certain way. Once that group entered the market, they would naturally grow towards the next housing opportunities thus leaving the space for the new incomers in the previous market.

Lower income groups informally densify the already built-up areas of the Pakistani cities. While the current policy discourages these interventions, this phenomenon nevertheless exhibits a market demand for infill developments and medium-rise housing should it be affordable. The urban fabric of housing provision in Pakistani cities over the last few decades has caused exclusion and increased segregation due to the making of gated communities (Benjamin, 2012; Roitman & Phelps, 2011). The development sector in Pakistan, while primely focusing on the profits from individual houses, has failed to attract investments in public life. An extrovert culture has, therefore, been limited to indoors due to this urban morphology of private spaces.

8.3 MODIFY THE REGULATIONS

Current limits of the floor area ration (FAR) on the residential plots in Pakistani cities limit the opportunity of mid-rise constructions on otherwise extremely expensive land parcels. Policy makers can increase these limits to allow dense constructions in serviced parts of the cities to meet housing provision gap through such infill development. Housing

regulations for the building control miss many customary housing typologies. While the current regulations call for the making of houses with mandatory open spaces on the sides, the customary central courtyard typology is automatically put out of the formal mechanism. Likewise, the bazaar structures with shops on the ground floor with residences on upper floors is also another missed typology. The pertinent housing regulations should be revised to accommodate the customary housing typologies in the formal sector.

The formal housing sector has such high housing standards that the resulting houses are too expensive to be affordable. The policy makers should relax such standards for the low-cost housing schemes. These standards could decrease the minimum street width requirement or allow more commercial spaces and so forth. Current policy does not tap the opportunity of incremental housing as a potential low-income housing provision. It is recommended that the policy should actively recognize incremental housing as a solution and promote it not only in the house as a product but rather housing as a process with incrementally developing services.

New housing schemes should be granted approvals (regardless of their public or private nature) only if they specified in advance the income group(s) that they would target. Upon approvals and their launch, they should be mandated, by law, for the audit at the project completion stage to ensure that they filled the residential gap for the income group that they promised. Policy makers should devise regulations for discouraging housing schemes exclusively for one income group. Rather, a mixed income-groups housing scheme should be mandated by law with a proportionate number of plots for each income group.

Current rules and regulations make formal housing so constrained that even the houses in formal housing schemes have many violations of law, let alone the houses of unapproved schemes. It is suggested that policy makers should embrace people driven innovative solutions in the housing and give them lawful recognition.

8.4 CHANGE THE APPROACH TOWARDS HOUSING CHALLENGE

Importance of housing as a basic human right should be harnessed at the prime constitutional level in Pakistan. Instead of the current standing where one cannot be deprived of housing, the suggested constitutional clause should mandate everyone's access to shelter. While the national housing policy 2001 envisaged to address the multi-faceted challenges of housing provision, practical impacts were negligible due to the subsequent lack of synchronization in the provincial governments after the 18th amendment (in the constitution of Pakistan).

The current housing backlog is for the lowest income group. Multiple government programs aimed to supply this demand gap but failed. This acute housing shortage for the lower income population has another side of over-supply of housing units for the rich. The policy gap is at the market that could target lower income housing. Hence policy makers need to encourage those investors who produce low-cost houses. These encouragements could be through relaxation of official regulations and fees as well as through tax exemptions and subsidies. Huge public land parcels in Pakistani cities (Shaikh, 2018; Siddiqa, 2016) can be a potential solution of affordable housing production. However, the development on these land parcels must be directed towards production of low-income housing instead of current posh housing development.

While new housing schemes are being constructed on the margins of the existing Pakistani cities, prime rich agricultural land is being converted to the land parcels which only adds to the land speculation. In this regard, it is suggested that the new policy makers should restrict the making of new housing constructions in this rich agricultural land if they are only to be added to the land parcels without real construction of the houses. Therefore, the policy makers should sure the approval of only those housing development schemes in the new areas which are ensured to be constructed only for the lowest income group.

While multiple studies have persistently documented that the major portion of the housing in Pakistan, especially in urban areas, comprise informal housing (Hasan & Arif, 2018; Yuen & Choi, 2012); the policy makers should consider strengthening the informal institutions by making sure that it fills the housing backlog because the formal

institutions have already failed to do so. This change of approach towards informal institutions would also provide an opportunity to ensure that the housing provision through these mechanisms is up to the mark.

The policy for enhancing urban design of built-up areas is almost non-existing in Pakistani cities. This leaves the previously developed city areas unmanaged with lacking civic services. The resulting decreased quality of life pushes people away from those areas and to the gated communities if affordable. The attrition of historic urban fabric (Haroon et al., 2019) should be rejuvenated as done in some pilot projects (Salman et al., 2018) to provide quality life experience in older parts of the towns.

While Pakistanis face the challenge of housing and its affordability, the fact check that almost 80% of the house price in the formal market is the land price helps crack this hard nut. Affordability will simply be ensured once the land prices are reduced and that would happen putting a cap to the profit margins of the housing scheme developers (both the government and the private). Pakistani governments have introduced amnesty schemes in the real estate sector multiple times. These schemes, however, only added to the land prices of the housing plots and the land speculation. Those will money from other means invested in plots, exempted themselves from the tax bindings, and then hoarded those plots for selling at increased prices in future. Such amnesty schemes should be discontinued for good, never to return.

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