

# Land contestation in Karachi and the impact on housing and urban development

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**ABSTRACT** Karachi is one of the world's fastest growing large cities. This paper describes the complex processes by which land is (formally and informally) made available for housing (and for commercial development), as well as who benefits – and how the low-income majority of Karachi citizens lose out. It also describes what underpins this – especially the political complications in a city that has grown so rapidly, has had fundamental changes in its ethnic composition (and thus also in its politics) and has attracted so many illegal immigrants. The paper describes the changes in formal and informal land markets over the last 50 years and the changing responses by government agencies to housing (and land for housing) issues. Also explored are the connections among land, housing and transport (which include different processes of densification) and the complex politics involved. The paper ends with recommendations for land titling, for changes in transport policies, for better use of land already owned by government agencies, for cross-political party agreement on how to address serious security issues (that are leading to loss of investment) and for increased political effectiveness of Karachi's active civil society organizations.

**KEYWORDS** civil society / housing / Karachi / land acquisitions / land rights / migration / urban density / urban development

## I. BACKGROUND

Pakistan is a federation of four provinces. Sindh is the south-eastern province and Karachi is its capital. According to results of the pre-census house count conducted in 2011, it is among the fastest growing megacities in the world – and perhaps the fastest growing if measured by the annual increment in the population.<sup>(1)</sup> It is Pakistan's largest city and its only port. Its estimated 2010 population of 15.4 million is projected to reach 18.04 million by 2015.<sup>(2)</sup> 9 per cent of Pakistan's total population and 24 per cent of the country's urban population live in Karachi. The city also generates 15 per cent of national GDP, 25 per cent of the revenues and 62 per cent of income tax.<sup>(3)</sup> There are also powerful federal land-owning interests in the city in the form of the Karachi Port Trust, Port Qasim, customs, Civil Aviation Authority, railways and the armed forces and their various industrial and real estate activities.

Karachi's relationship with the rest of Sindh is complex. The city contains 62 per cent of Sindh's urban population and 30 per cent of its total population. By contrast, the country's second largest city, Lahore,

**BOX 1**  
**Abbreviations used in this paper**

BoR	Board of Revenue
CDGK	City District Government Karachi
DHA	Defence Housing Authority
KAIRP	Katchi Abadi Improvement and Regularisation Programme
KDA	Karachi Development Authority
KSDP	Karachi Strategic Development Plan 2020
KTC	Karachi Transport Corporation
MPGO	Master Plan Group of Offices
MQM	Mutahida Quomi Movement
NATO	North Atlantic Treaty Organization
OPP	Orangi Pilot Project
PPP	Pakistan Peoples Party
Rs	Pakistani rupees
SBCA	Sindh Building Control Authority
URC	Urban Resource Centre

capital of Punjab Province, contains only 7 per cent of Punjab's total population.<sup>(4)</sup> Karachi's large-scale industrial sector employs 71.6 per cent of the total industrial labour force in Sindh; the city produces 74.8 per cent of the province's total industrial output and contains 78 per cent of its formal private sector jobs.<sup>(5)</sup>

Before the partition of India that accompanied the creation of Pakistan, 61 per cent of Karachi's population was Sindhi speaking and only 6 per cent was Urdu/Hindi speaking. However, because of the migration of 600,000 Urdu speakers from India between 1947 and 1951, all this changed. Pushto speakers from the north-west and other ethnic groups from other parts of Pakistan and India have also continuously migrated in since the 1950s. By 1998, the census estimated the number of Urdu speakers in the city at 48.5 per cent and Sindhi speakers had decreased to 7.2 per cent.<sup>(6)</sup> This makes Karachi the non-Sindhi speaking capital of a predominantly Sindhi speaking province. This is a cause of a major political conflict between the Mutahida Quomi Movement (MQM), which represents the Urdu speaking population, and the Pakistan Peoples Party (PPP), which represents the Sindhi speaking majority in the province. This conflict expresses itself in disagreement on the form of local government for Sindh and on the control of the city's immense resources. As a result of this conflict, the local governance system has been altered four times in the last four years and there is still no consensus in sight. This has damaged the institutions of governance, which have also been politicized.<sup>(7)</sup>

The Pushto speaking population, estimated to make up 13 per cent of Karachi's population, also has powerful political interests since its members control intra-city, inter-city and cargo-related transport activity. They also finance formal and informal real estate development in the city. Consequently, there is a battle for turf among the MQM, the PPP and the political parties and groups representing the Pushto speaking population. This has led to ethnic violence and targeted killings of real estate developers and political workers.<sup>(8)</sup>

1. Cox, W (2012), "World Urban Areas Population and Density: A 2012 Update", *New Geography*, 5 March.

2. There have been no definite population figures for Karachi since the 1998 census. Figures for 2010 and 2015 are projections made in 2007, but floods in 2010 and 2011, military action against militancy on the Afghan border and economic pressures since then have increased migration substantially. Therefore there may be some variation in population figures. The figures used in this paper come from a combination of census data, a pre-census household survey and government projections.

3. MPGO (2007), *Karachi Strategic Development Plan 2020*, CDGK.

4. Government of Pakistan, *Population Census Report 1998*, Islamabad.

5. See reference 3.

6. Government of Pakistan (1941, 1951, 1998), *Population Census Reports*, Islamabad.

7. Hasan, A, A Noman, M Raza, A Sadiq, S Ahmed and M B Sarwar (2013), *Land Ownership, Control and Contestation in Karachi and its Implications for Low Income Housing*, International Institute for Environment and Development, UK.

8. See reference 7.

The Afghan War has also contributed to destabilizing Karachi. The city has remained the centre for supplying arms, ammunitions and food, first to the anti-Soviet *jihad* in the 1980s, then to the *jihadists* in the war of attrition in Afghanistan in the 1990s, and now to North Atlantic Treaty Organization (NATO) troops in their fight against the Taliban. As a result of this involvement, the city has become the headquarters of rival interests in the Afghan conflict. In addition, a war economy, supported by drugs, arms and the provision of supplies to the NATO troops in Afghanistan, has developed in the city.

Migration to Karachi during the last decade has continued for a variety of reasons. The anti-Taliban army action in the north-west has been responsible for the migration of many more Pushto speakers, who have migrated for safety to their relations in Karachi. Taliban fighters have also migrated and established their bases in the city's peripheral low-income settlements. This has led to further targeted killings of pro-liberal anti-Taliban activists and political workers.

According to the National Aliens Registration Authority (NARA) of the government of Pakistan, Karachi has over 1.7 million illegal immigrants.<sup>(9)</sup> Most of these are Bangladeshi (economic migrants), Muslims from Burma (political refugees) and Afghans displaced by the war in their country.

As a result of the security problems created by this situation, investment in Karachi has diminished and a large number of industries have relocated to other areas of Pakistan and also to other countries such as Bangladesh. Meanwhile, the absence of an agreed local government structure for the city compounds many of its security-related issues.

## II. CHANGING LAND OWNERSHIP AND CONTROL SINCE 1947

In 1947, at the time of partition, the built-up area of Karachi was just above 100 square kilometres. Today its metropolitan area covers 3,527 square kilometres. Before partition, land ownership and control were determined by the British land settlements of the 19<sup>th</sup> century. All land belonged to the government of Sindh, which had given large parcels of land to the Karachi Port Trust, the Civil Aviation Authority, the railways and the army cantonments exclusively for use of their functions. The pre-British properties had freehold ownership; all other urban properties had a 99-year lease. Agricultural properties in the Karachi district also had freehold ownership. The rest of the land in the district was vested with the provincial Board of Revenue (BoR) and was used as pasture land by the 4,000-plus small *goths* or villages that were scattered all over it.

The agricultural areas of the Karachi district consisted of the Malir Oasis, irrigated by wells from the seasonal Malir River, as well as lands along the Lyari River, a seasonal stream with adjacent wells for irrigation. In both cases, the water extracted was from the rain-fed aquifer.

Karachi's expansion, both formal and informal, has taken place on the Board of Revenue lands and on a major part of the irrigated farms. As a result, the rural economy of the Karachi district has been devastated and much of the pasture land has become a desert. Over 60 billion cubic feet of sand and gravel have been illegally removed from the seasonal rivers and streams since 1947 to be used as aggregate for concrete for the building industry. This means that rainwater run-off cannot be controlled and aquifers cannot be recharged.<sup>(10)</sup> The social indicators and physical

9. Masoor, Hasan (2013), "221 Illegal aliens registered in two month drive", *Dawn*, 17 December.

10. *Dawn* (2009), "Karachi's rural economy", 17 August, available at <http://www.dawn.com/news/967399/karachi-s-rural-economy>.

conditions of the rural population and its settlements are far below those of the low-income urban informal settlements in the Karachi region.<sup>(11)</sup>

Owing to the expansion of the city and the rules and regulations developed over time for converting rural land to urban, the land ownership and control patterns have changed significantly. The City District Government Karachi (CDGK), created in 2001, directly controls 30.9 per cent of the land in the city, as well as the 1.9 per cent of land allocated to civilian cooperative housing societies. Another 20.7 per cent is allocated for national parks. The rest of the land is controlled by federal agencies, including the military cantonment boards and the Defence Housing Authority, all of which have their own development programmes, building byelaws and zoning regulations, while the city government has its own plans and regulatory institutions. There is no coordination among these different agencies for planning purposes except for dealing with issues related to utilities. The city government, by virtue of being governed by an elected council, is more influenced by community and citizen concerns than the federal agencies.<sup>(12)</sup>

### III. EVOLUTION OVER TIME

With the 1947 migration, 600,000 migrants had to be housed. Many of them occupied the houses vacated by departing Hindus and Sikhs, most of whom came from the merchant and trading communities. They had lived in lavish homes and beautiful neighbourhoods in what is today Karachi's inner city. Houses formerly inhabited by a single rich Hindu family became occupied by numerous poor Muslim families. To accommodate this increase in population, additional floors were built in concrete over beautiful stone buildings. Many community buildings were also occupied and converted into homes.<sup>(13)</sup>

Also located in the old city were cargo terminals, the port and the inter-city railway network. Wholesale markets and small manufacturing units were also within the old city but formed no more than 3 per cent of its area. As Karachi grew, these markets and manufacturing units and their related warehousing also expanded. In the process, a growing population of male-only working class migrants moved in to serve these facilities. Most of the two-and three-storey homes were pulled down and replaced by buildings with warehousing and commercial and industrial activities on the ground floor, with workers' accommodation on the five to six floors above. These developments meant a large increase in the number of heavy vehicles moving through the narrow lanes of the inner city, resulting in further degradation and traffic congestion. As a result of this degradation, much of the better-off population of the old city relocated to new housing schemes developed by the Cantonment Boards and the Karachi Development Authority (KDA). Very few old neighbourhoods survive in the old city and where they do, it is in a very hostile environment.<sup>(14)</sup>

Another result of the migration of 1947 was the unorganized invasions of Board of Revenue land on the then periphery of the city.<sup>(15)</sup> As the state reasserted itself, these invasions were halted, and some of the invaded areas were vacated. But inhabitants with political power stayed on and the land they occupied has been regularized, with the result that they have become owners of valuable properties, where high-rise apartments are now being built.

11. Anwar, Farhan (2013a), *People and the Land: Rural Karachi: A Case Study*, Affiliated Network for Social Accountability, South Asia Region.

12. See reference 7; also see reference 3.

13. Cheema, Y (2008), *The Historic Quarters of Karachi*, Oxford University Press, Pakistan.

14. See reference 13.

15. Nientied, P, E Meijer and J V der Linden (1982), *Karachi squatter settlement upgrading: improvement and displacement?*, Amsterdam Free University, Amsterdam.

The demand for land for shelter remained when the invasions were stopped, and in the 1950s a new phenomenon emerged. This was a joint venture among government officials, police and middlemen to informally occupy BoR land and convert it into plots, which were then sold at affordable prices to the homeless residents of the city. The majority of Karachiites live in the settlements, known as *katchi abadis*, that were developed through this process.<sup>(16)</sup>

16. For details of the process, see Hasan, A (2000), *Housing for the poor*, City Press, Karachi.

### a. The response of the state

The state responded to the crisis presented by large numbers of migrants by creating the Karachi Improvement Trust in 1951, which was responsible for providing basic services and infrastructure in “colonies” (settlements) and neighbourhoods developed for the refugees under the overall supervision of the Ministry of Rehabilitation and Resettlement. The Trust was upgraded in 1957 into the Karachi Development Authority, which had a mandate to plan, develop and allocate (not only for the refugees but for the expansion of the city as a whole) various types and sizes of plots in the city from land acquired from BoR. Criteria for allotting such plots were also developed, but a sizeable number were earmarked for the defence establishment and others were left to the discretion of bureaucrats and politicians. It is claimed that these powers were grossly misused.<sup>(17)</sup> The KDA process is described in Figure 1 (KDA requests BoR; BoR notifies for conversion, removes encumbrances and hands over to KDA; KDA plans, ballots and transfers to individuals).

17. For details of the process, see reference 7.

The costs of these plots were kept at far below market prices and as a result many of them, in the absence of a non-utilization fee, were held for speculation and remained vacant for considerable periods of time. In spite of the low cost, lower-income groups found the schemes unaffordable compared to the *katchi abadis* (informal settlements) developed by middlemen. The process of acquiring them was also long and cumbersome, and the lower-income groups felt they were viewed by government officials with suspicion and hostility.<sup>(18)</sup>

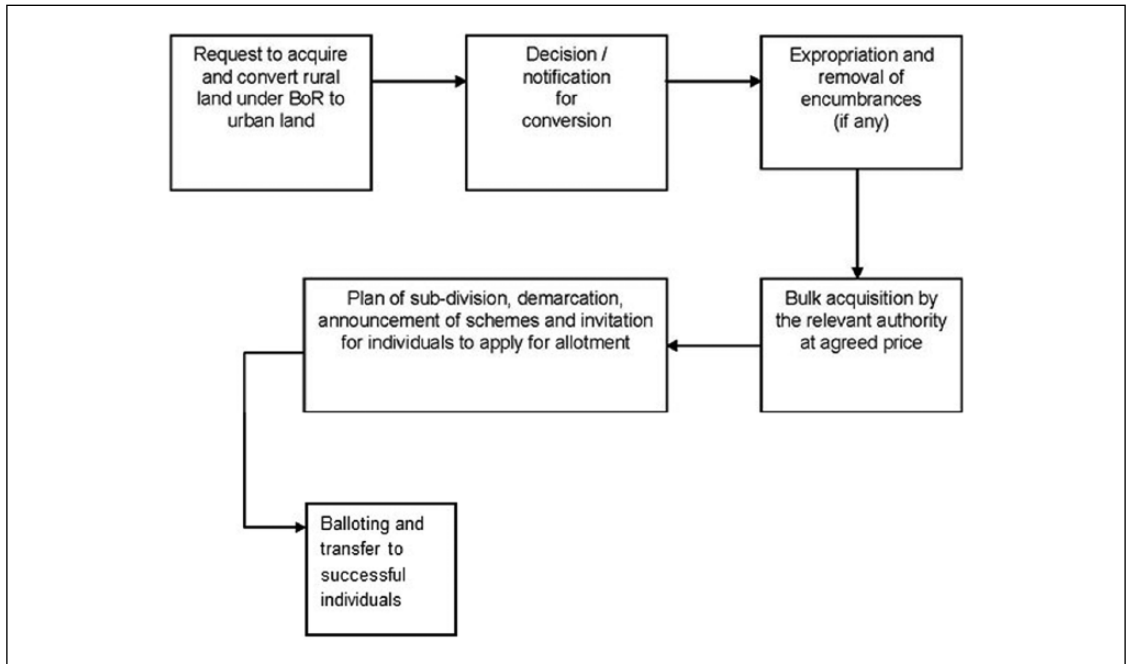
18. See reference 16.

One of the earliest attempts at re-housing the migrant population was through the creation of cooperative housing societies in the 1950s. However, the housing societies over time decided to relax their rules and open their properties to the market so as to benefit their members. This has made a mockery of the original concept of promoting cooperatives.

One of the important developments in Karachi was the creation of the Defence Housing Authority (DHA), which began as the Pakistan Defence Officers Housing Society in 1960. The DHA consists of 3,530 hectares of land and is the most elite area of the city. It contains luxury apartments and homes, schools, colleges, clubs, posh shopping centres with designer boutiques, and five- and six-star hotels. The heads of the governing body and the executive board of the authority are Pakistan Army officers. The DHA controls more than 5 per cent of the metropolitan area of the city, and is the most secure and safe area in the city, attracting rich and middle class families from other parts of the city, and further dividing the city into rich and poor areas. The DHA also holds about 18 kilometres of coastline and creeks, the nearest coastal areas to the city.<sup>(19)</sup>

19. See reference 7.

The government also made a number of attempts at providing housing through its many master plans. A very important attempt was made



**FIGURE 1**  
Transformation of rural land to urban land

SOURCE: Hasan, A, A Noman, M Raza, A Sadiq, S Ahmed and M B Sarwar (2013), *Land Ownership, Control and Contestation in Karachi and its Implications for Low Income Housing*, International Institute for Environment and Development, UK.

under the Greater Karachi Resettlement Plan in 1958. The government appointed the famous Greek planner Doxiadis as consultant. Two satellite towns, North Karachi and Landhi-Korangi, were developed at 25 to 30 kilometres from the city centre and the plan was to resettle the refugees in these towns. The planned industrial areas in these satellites were expected to provide the refugees with jobs. However, the industries did not materialize for many years and after 10,000 houses were constructed, the plan was terminated.

The Doxiadis Plan turned a high density, multi-ethnic and multi-class city into a low density sprawl, potentially divided by ethnicity and class. It also created immense transport problems, with regard to both time and cost, for those who worked in the city centre while living in the satellite towns, as a result of which they became poorer. *Katchi abadis* developed over time on the junctions of the roads linking the city to the satellites and the natural drainage channels.<sup>(20)</sup>

Another attempt was made through the Karachi Development Plan (1975–85), when 110,000 sites and service plots were developed, ostensibly for low-income groups. In addition, 1,040 hectares were developed as sites and service plots through cooperative societies. These too were of little benefit to the urban poor owing to the extremely slow pace of development, encroachments onto the site (often by armed

20. See reference 7.

21. See reference 7.

22. MPGO (1989), *Karachi Development Plan 2000*, KDA, Karachi.

23. Worked out by the author from Sindh Katchi Abadi Authority documents.

gangs), opportunities for speculation and the fraudulent relocation of land parcels.<sup>(21)</sup> The Karachi Development Plan 2000 (prepared in the late 1980s) recommended that no new residential development take place until the 300,000-plus empty plots developed under the earlier plans were occupied. The plan never became law and its provisions were violated by both the formal and informal sectors.<sup>(22)</sup>

By 1978, the *katchi abadis* of Karachi had a population of two million or 55 per cent of the city's population. It was at this stage that the Katchi Abadi Act of 1978 was enacted. It aimed at regularizing all *katchi abadis* existing before the date of enactment, provided they had a minimum of 40 housing units and were not on "ecologically unsafe land". The beneficiaries were to pay a small lease charge that was well below the market value of the land. To oversee the process, the Sindh Katchi Abadi Authority (SKAA) was created. As a result of this initiative, 89 per cent of *katchi abadis* were marked for regularization<sup>(23)</sup> and the cut-off date for regularization was extended to 20 December 1997.

#### IV. THE SITUATION TODAY

As a result of the Sindh Local Government Ordinance 2001, the old colonial system of local government was replaced by a three-tier decentralized system in the province, and an elected city council was created and headed by an indirectly elected mayor (elected by city councillors). The Karachi Development Authority, along with all its departments, was absorbed into the CDGK. Work on the Karachi Strategic Development Plan (KSDP) 2020 was commenced and the plan was approved by the city council in 2006.

The plan vision was about making Karachi a "world class" city. It aimed at creating residential and commercial development through urban renewal and high- and medium-rise development. New financial districts were also proposed on the Northern Bypass and along a road that cuts through mangrove marshes. The lands opened by the construction of the Northern Bypass soon became a battle for turf among the MQM, the PPP and the Awami National Party (ANP), representing the Pushto speaking population. Objections have also been raised by environmentalists (for ecological reasons) to the development on the mangrove marshes.

Owing to these conflicts and to an unclear and constantly changing local government structure, none of the provisions of the plan have been implemented. However, large-scale investments have been made for construction of signal-free roads, flyovers and underpasses, which are considered to be "investment-friendly infrastructure". These investments have not improved traffic conditions in rush hour and have considerably increased the number of fatal accidents, especially of pedestrians and motorcyclists.<sup>(24)</sup>

The "world class" city vision for Karachi coincided with the emergence of a strong neo-liberal lobby in the federal and provincial cabinets. As a result, a massive coastal development programme consisting of high-end apartments, hotels, marinas and commercial plazas was initiated. It was resisted by fishermen's organizations, environmentalists, important citizens from the elite of the city and civil society groups, which argued that the beaches would be lost to the people of Karachi as places of recreation and entertainment. The proposals have been shelved, at least

24. <http://www.roadsafety.pk>.

for the time being. While this opposition was being voiced, the KSDP 2020 was being developed and citizen concerns were taken into account. However, the provisions of the KSDP apply only to those coastal areas that come under the jurisdiction of the CDGK and not those coastal areas that come under the control of the Karachi Port Trust and the cantonment boards.<sup>(25)</sup>

Since little progress has been made on the provisions of the KSDP 2020, requirements for the expanding commercial activities of the city are not being met. The CDGK has responded by commercializing the residential areas along the 17 major arteries of the city, thereby increasing their floor to area ratios. In the process, the CDGK and the Sindh Building Control Authority generate considerable revenue.<sup>(26)</sup> A number of court cases by residents who opposed this move have also been filed in the Sindh High Court<sup>(27)</sup> and there have been objections to it from professional bodies as well.

With globalization and liberalization, Pakistan's textile industry has benefited. To respond to global demand, looms have been set up to produce yarn that can be processed further in formal sector factories. To save on labour and related transport costs, these looms have not been set up in industrial zones but in low-income settlements, where local people are employed. This is an undocumented development and also applies to the leather industry. The labour is employed on a 15-day renewable system. The factories lack proper light along with ventilation and safety safeguards, and do not follow the building regulations of the Sindh Building Control Authority.<sup>(28)</sup>

In violation of court judgements, a large number of amenity plots have been occupied and developed commercially.<sup>(29)</sup> These plots include playgrounds, parks, and areas allocated for social infrastructure. The armed forces, politicians, city government officials, and the national and international corporate sector are all involved in this illegal activity.

## a. Housing

The Karachi housing demand is estimated at 80,000 new units per year. The formal sector supplies about 32,000 housing units and an additional 32,000 are built in *katchi abadis*.<sup>(30)</sup> Meanwhile, 75.5 per cent of Karachiites are classified as poor and as such they constitute the majority of the unmet demand.<sup>(31)</sup> The result has been the continuous expansion of *katchi abadis*.

The absence of provision for the poor is also reflected in residential land usage. Karachi's total residential area is 36 per cent of the total area of the district. 74 per cent of it is developed formally for 38 per cent of the population while 22 per cent is developed informally for 62.2 per cent of the population. 88 per cent of the housing stock is located on plots of 120 square yards or less, while houses on 400 to 2,000 square yards constitute only 2 per cent of the housing stock. The figures indicate inequities that add to Karachi's class and ethnic conflict.<sup>(32)</sup>

The government policy on housing is all about accessing the market. To make that possible, the government has transformed the former Housing Building Finance Corporation into a private company and has liberalized the loan process in terms of both procedures and better packages. As a result of these reforms, housing finance availability

25. For details, see Hasan, A (2008), "Coastal Development and the KSDP provisions", *Dawn* October, 2008

26. Anwar, Farhan (2013b), *Land-use Planning for Unsustainable Growth: Assessing the Policy to Implementation Cycles*, Shehri-Citizens for a Better Environment, Karachi.

27. See reference 26.

28. Hasan, A and M Raza, ongoing study.

29. Shehri website: <http://www.shehri.org>.

30. Author's calculation from Sindh Building Control Authority and CDGK data.

31. See reference 3.

32. See reference 3.



33. *Dawn* (2004).

34. See reference 3.

35. See reference 7.

36. See reference 7.

37. See reference 7.

38. See reference 7.

39. Ghous, Khalida, Nadeem Ahmed, Rabia Sidat and Tabinda Areeb (2012), *Gender Dimensions of Development Induced Displacement and Resettlement: A Case of Lyari Expressway in Karachi*, Social Policy and Development Centre, Karachi; also Urban Resource Centre (2004),

increased by 400 per cent to Pakistani rupees (Rs) 3.5 billion (US\$ 33 million) in 2003.<sup>(33)</sup> Other housing-related provisions of the KSDP 2020 include strengthening the Katchi Abadi Improvement and Regularisation Programme (KAIRP); converting sites for single-storey unit houses into apartment complexes; and, as mentioned earlier, commercializing the main arteries of the city.<sup>(34)</sup> Except for KAIRP, none of the proposals will provide housing to the urban poor.

In spite of these changes, housing finance does not reach the poor because they have no collateral and/or formal sector jobs (72 per cent of Karachiites work in the informal sector) to be able to fulfil loan conditions or afford the high rates of interest.<sup>(35)</sup>

Meanwhile, the CDGK is continuing to develop residential and commercial schemes that are purchased by the formal sector developers from the Sindh Building Control Authority. Developers claim that to get building and utility connection approvals and bridge financing from the House Building Finance Company, they have to pay large sums as bribes to officials. This increases costs by about 25 per cent and this cost is passed on to the purchasers. There are a lot of hidden costs as well that the purchasers discover after entering into agreement with the developers.<sup>(36)</sup>

Because of the informal procedures involved in the formal building sector, the old developers, who were professional engineers and managers, have been replaced by operators whose origins and sources of money are dubious. They have close relations with political parties and the disputes over land-related transactions among the builders, estate agents, political patrons and government officials are settled through money, connections, police patronage, and even killing and making an example of the opponent.<sup>(37)</sup>

Karachi's conflicts and the "informalization" of the formal sector in housing and development have created a number of problems for citizens who wish to buy, sell or rent accommodation. They are not sure whether or not they are being defrauded and whether or not the schemes they are investing in are legal. They are cautious about renting their apartments to people who are not of their own ethnicity and/or religion and increasingly prefer to live in the neighbourhoods of their own ethnic or religious community.<sup>(38)</sup> This has created a sense of xenophobia that is dividing the city along class and ethnic lines. Owing to these security-related concerns, those who can afford it prefer to live in the cantonment areas, where land records and transactions are properly maintained and the related laws are strictly followed.

As a result of pressure from civil society and community organizations, the Sindh government has made a decision that there will be no evictions without compensation or relocation except to settlements which contain both social and physical infrastructure (a policy that applies only to the areas governed by the CDGK). The relocation projects developed so far are far from the city centre and important work areas. Studies show that as a result of relocation, communities become poorer in both economic and social terms.<sup>(39)</sup>

In addition to these land-related socioeconomic issues, the disposal of sewage is an important concern. Karachi generates over 500 million gallons of sewage per day, of which 400 million go untreated into the sea, adversely affecting marine life and the livelihoods of fishermen communities. Fishermen's associations are constantly pointing this out and agitating for appropriate development projects and rehabilitation of marine habitats.<sup>(40)</sup>

Karachi has also started to flood more frequently since the mid-1980s and especially during the last decade. There is no evidence to date to suggest that this is because of a change in rainfall patterns. Research has established that it is related to drainage encroachments of three kinds: encroachments on outfalls to the sea by elite housing schemes; encroachments by informal settlements on the natural drainage channels, considerably reducing their width; and encroachments by recent development schemes, formal and informal, upon the natural drainage channels on the periphery of Karachi. As a result, water drains very slowly to the sea and also floods those areas where the drainage channels have disappeared.<sup>(41)</sup>

## V. THE DENSIFICATION–TRANSPORT LINK

Until 1971, Karachi's transport system consisted of a tramway and large buses operated both by private sector companies and by the Karachi Transport Corporation (KTC), a public sector organization. Together these transport systems were unable to cater to the needs of Karachi's expanding population. In addition, the KTC was running at a loss and so it was privatized in 1996. To address the transport issue, the government permitted the introduction of individually owned minibuses, purchased through loans from investors. The investors and the operators (who eventually become owners after paying off heavy interest loans) are referred to as the "transport mafia" by Karachiites.<sup>(42)</sup> At present, over 15,000 minibuses operate in the city.

Karachi's transport issues have been intensively studied and various schemes involving all forms of transport have been proposed. However, the proposals have never been implemented. It is claimed that this is due to lack of political will and opposition from the "transport mafia".<sup>(43)</sup> Because of the rising cost of fuel, transport can no longer be a profitable business unless fares are increased. The government cannot permit such an increase because it would be unaffordable to commuters. As a result, there has been a decrease in the number of vehicles over the last decade while the commuting public has increased.<sup>(44)</sup> As a result, travelling has become uncomfortable, time-consuming and expensive (costs have more than doubled in the last seven years).

Living on the periphery (where the only land affordable to the poor is located) now means additional costs in transportation, time and discomfort. It also means that women who look after families cannot work, children cannot go to proper schools and fathers leave early in the morning and return late at night. It has become cheaper and more convenient to rent in the city rather than owning a home on the periphery. Also, land and construction prices have increased relative to incomes since the early 1990s.<sup>(45)</sup> This is leading to the densification of inner city informal settlements.

There are three processes of densification. The first involves families building upward incrementally, often the result of the wish to keep at least one son and his family with them. The second process is simply an increase in the number of persons per apartment. A study of an apartment complex shows that between 1974 (when the apartments were built) and 2010, the number of persons per room increased from 5–6 to 10–15 due to the growth in the number of family members and the absence of affordable

*Livelihood Substitution*, Ushba Publishing International, Karachi.

40. See the websites of the Orangi Pilot Project (OPP) (<http://www.oppinstitutions.org>) and Pakistan Fisherfolk Forum (<http://www.pff.org.pk>).

41. For details, see the OPP website: <http://www.oppinstitutions.org>.

42. Ismail, Aquila (2002), *Transport*, City Press, Karachi.

43. *Express Tribune* (2013), "Off the roads: Qingqis banned across the city", 10 October.

44. *Dawn* (2008), "Public transport situation worsening in Karachi", 30 September, available at <http://www.dawn.com/news/970556/public-transport-situation-worsening-in-karachi>.

45. For details of the increase, see Hasan, A (2008), *Housing security and related issues: the case of Karachi*, Unpublished paper, October, UN-Habitat.

46. Hasan, A, A Sadiq and S Ahmed (2010), *Planning for high density in low-income areas: a case study from Karachi*, International Institute for Environment and Development, UK.

47. See reference 46.

48. See reference 46; also see reference 45 for a comparison of the 1981 and 1998 censuses.

49. See reference 46.

50. See reference 7.

51. See reference 7.

52. Khurshid, Jamal (2013), "Qingqi Rickshaws with permits free to ply but not on the main roads", *The News International*, 12 October.

housing alternatives.<sup>(46)</sup> The third process involves the conversion of small single- or double-storey houses into 4- to 10-storey apartment blocks. Here, a developer buys the plot of land on which the house stands, builds an apartment block and, in addition to paying for the land, gives the owner one or two apartments free of cost. Most of these apartments are two-room affairs and are rented out through the *pugri* system. A *pugri* of Rs 700,000 (US\$ 775) to Rs 750,000 (US\$ 834) is demanded, after which the rent for the apartment is reduced to Rs 200 (US\$ 2.3) per month. Without *pugri*, the rent is Rs 3,000 (US\$ 34) per month. In either case, an increase of 5 per cent per year in rent is agreed upon. In this way, the developer recovers more than 100 per cent of the costs and at the same time establishes an income. This sort of development is carried out in most cases without formal approval from the building control authorities and it follows no building byelaws and zoning regulations.<sup>(47)</sup> Most of these buildings will simply collapse in an earthquake.

Case studies of settlements in the inner city areas of Karachi and previously peripheral areas show that their densities increased from 600 persons per hectare to 4,000 persons per hectare and from 200 persons per hectare to 1,195 persons per hectare respectively. In the case of the inner city settlements, the high densities have created a number of physical and social problems. The number of persons per room sometimes exceeds 10. There is no private space for newlywed couples. Where high-rises are being developed children cannot be supervised, so they form gangs and take drugs.<sup>(48)</sup>

As a result of affordability issues and the processes described above, the housing units being developed are becoming smaller and smaller. The high-rise buildings have no lifts, which has an adverse effect on children, old persons and family relations. The number of shared toilets and kitchens is increasing. Such high densities can be achieved without adverse physical and social conditions if properly planned.<sup>(49)</sup>

As a result of the densification through the investor supported process in the inner city areas and the high cost of acquiring land and building a house, the number of rentals is increasing sharply and will probably continue to increase in the future. Research establishes that tenants are the most vulnerable of all groups in the housing drama. Many live in extremely cramped conditions with five to seven family members in a room. Surveys show that they cannot feed themselves and their families if they have to pay for both rent and transport. With their low incomes they have no prospect of owning a house at any time in their lives.<sup>(50)</sup> Some tenants surveyed could afford a home in an informal settlement but were not willing to because of the insecurity of tenure or because living in an informal settlement would damage their dignity. Rent laws in Pakistan are very pro-tenant, but do not apply in low-income settlements where musclemen and dons are the owners and arrangements are informal.<sup>(51)</sup>

Meanwhile, the informal sector has responded to the transport crisis in Karachi. Previously, there were about 20,000 three-wheelers known as "rickshaws" that carried three persons each. In the last four years over 40,000 three-wheelers, carrying six passengers each and known as Qingqis, have been added to the city. Their annual turnover is estimated at Rs 8.64 billion (US\$ 81.5 million) per year.<sup>(52)</sup> The Qingqis are cheaper, more comfortable and more easily available than the minibuses.<sup>(53)</sup> The transporters are against the Qingqis because they take away business from the transporters; the police are opposed to them because they create

congestion. In October 2013, the government banned the plying of Qingqis<sup>(54)</sup> but this ban was overturned by the Sindh High Court.<sup>(55)</sup>

The public has also responded to the crisis by purchasing motorbikes and the market has responded by providing them on hire purchase. In 1990, there were 450,000 motorbikes in Karachi; in 2004, there were 500,000;<sup>(56)</sup> and in 2010, there were over one million. Studies show that Karachiites, both male and female, have a preference for motorbikes since, apart from the initial capital investment, they are cheaper, faster and more flexible than public transport.<sup>(57)</sup>

Two issues stand out very clearly. One is the relationship among transport, its cost and nature, and location for housing. The second is that, in the absence of subsidies, means of transportation that are alternatives to the conventional transport system are available. Should they be promoted?

## VI. ISSUES

As noted, the reported pre-census preliminary results based on house counts show Karachi to be the fastest growing large city in the world. Between 1998 and 2011, it grew from 9.8 million to 21.2 million (115 per cent). No metropolitan region in the world has ever grown so much in so short a time. The results indicate that Karachi's urban area has a population of approximately 19.5 million. The city has an average density of approximately 24,000 per square kilometre, making it among the world's most dense megacities. The nature of the densification is of concern. Average household size is decreasing in the rest of Pakistan, but in Karachi there are indications that it rose from 6.7 to 7.3 between 1998 and 2011, which means that 10 per cent of the recent density increase is within housing units.<sup>(58)</sup> This is corroborated by the discussion on housing and transport in the previous section of this paper.

Migration is also a factor, however, and there is every indication that migration to Karachi will not only continue but increase. This is because traditional governance systems in the rural areas have collapsed and the rural population increasingly depends on urban produced goods. For this, cash is required and with mechanization and corporate farming methods, the landless labour has no possibilities of earning a livelihood.<sup>(59)</sup>

Housing, therefore, is an important priority for both the migrant and longer-term populations, and its appropriate location is related to the availability, cost and nature of transport. The city has considerable land near the centre and places of work, in both the areas controlled by the CDGK and especially the cantonments. Except for the cantonments, this land has not been properly demarcated and much of its ownership is unclear. Therefore, a "land settlement" leading to a proper documentation of ownership and categories is required. Housing for low-income groups could be developed on this land. The main problem here is not the cost of the land (which communities could pay for over a 15-year period), but a strong anti-poor bias in planning and policy that can only be resolved through civil society pressure and pro-poor political movements.

The BoR land is continuously being urbanized. It is eating into Karachi's potential "green areas", whose aquifers also need to be recharged by the building of small check dams and the prevention of sand and gravel removal from seasonal rivers and streams. This ad hoc expansion

53. Arshad, Sidra (2012), "Chingchi Rickshaws Better Transport than Buses and Coaches in Karachi", *Awami Politics*, 31 October.

54. Hasan, Saad (2012), "800 years on, a battle for survival resurfaces for Karachi's old villages", *Express Tribune*, 16 February.

55. Siddiqui, Tahir (2013), "Crackdown on Qingqi rickshaws stayed", *Daily News Karachi*, 10 October.

56. JICA (2005), *Exponent Engineers, Karachi: Person Trip Study of Karachi City*, JICA report for city district government, Japan International Cooperation Agency, Karachi.

57. Hasan, A and M Raza (2011), *Motorbike Mass Transit: An exploration into the potential and problems of the rapid increase in the use of motorbikes as a transport mode in Karachi*, Unpublished paper prepared for the International Institute for Environment and Development, UK.

58. See reference 1.

59. See reference 25.

has to be arrested and replaced by high density housing that will save land for national parks and agriculture and make mass transit systems economically viable. Meanwhile, the investor-induced densification of the *katchi abadis* into apartments needs to be understood, and processes need to evolve to make it safe and environmentally healthy. But none of this will work unless credit on affordable terms is available to the poor for the purchase or building of a home.

The security situation in Karachi is related to an absence of governance, criminalization of sections of the police, slow legal processes, and an absence of consensus between the different political parties on how to deal with this issue. Security concerns, as described in the previous sections, are responsible not only for investment not coming into Karachi but also for the departure of industry to other locations in Pakistan and to Bangladesh and the UAE.

The land market also faces a number of constraints to functioning freely and effectively. These have been identified in the sections above.<sup>(60)</sup> An important issue is the absence of affordable, fast and comfortable transport that could perhaps make the periphery more acceptable to low-income groups; the market and the better-off people in the lower and lower middle income groups have tried to overcome this problem. The city today has more than 1.3 million motorbikes (which means one for every nine adults), mostly purchased on hire purchase from the market. Apart from capital costs motorbikes are cheaper and faster than Karachi's public transport and are flexible; the number of motorbikes is increasingly rapidly. A decision has to be taken as to whether motorbikes should be promoted by reducing duties on them or not. Also, a case for promoting only green bikes needs to be made. The emergence of Qingqis has benefited commuters in a big way. Apart from being affordable they require no subsidy and no loans for purchase, unlike buses. They too are increasing in number.

However, if motorbikes and Qingqis are to be promoted, then the nature of the current mass transit proposals for the city will have to change and be limited to only a few major corridors of movement. Beyond these corridors, Qingqis could be a mode of para-transit. To accommodate motorbikes, zoning and environmental regulations – especially related to parking, noise pollution and safety – will have to be developed and enforced. Local engineering projects to accommodate both of these modes of transport will have to be developed, segregating them from other modes. But before this an understanding of the physical needs of these forms of transport will have to be established,<sup>(61)</sup> along with an understanding of how they could be utilized in planning for access to appropriately located and affordable land for housing.

The issues related to housing, transport, environment and the constraints the land market faces can best be dealt with through the establishment of an effective governance system and an appropriate vision for the city as “a commuter and pedestrian friendly city” as opposed to “a world class city”. The security issue, on the other hand, has a regional context although it could improve with the establishment of an effective local government supported by the provincial politicians and establishment. However, for the establishment of a viable governance system, the political parties of Sindh will have to rise above their narrow constituency-related issues and politicians will have to think as statesmen for the larger benefit of the city and the province, and through this bridge

60. See reference 7.

61. See reference 57.

the ethnic divide to begin with. With such a consensus it may also be possible to make the Afghan War-related economy subservient to the provincial administration.

Karachi has a very active civil society that has developed various appropriate models for the provision of social and physical infrastructure at neighbourhood and sector levels. It has also fought, often successfully, against insensitive projects and for the rights of the *katchi abadi* dwellers. It has documented the city with the help of academia and pushed for reform. The involvement of this civil society, because of its knowledge and connections, is essential in the reform process. For this, civil society organizations will have to come together and function as a network rather than simply guarding their turf.

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