Post-industrial Urban Transformation in a Transitional Metropolis: Implications for Housing Rights and Environmental Justice in Industrial Slum Tenements in Urban Core

Souvanic Roy, Professor, Indian Institute of Engineering Science and Technology (IIEST), Shibpur **Tathagata Chatterji**, Professor, Xavier University Bhubaneswar

1.0 Introduction

Our understanding of urban transformation of old industrial cities are to a considerable extent shaped by narratives from the Global North - where the past three decades had seen large scale transformation of nineteenth century factories, warehouse, railway yards and ports to recreational, residential and commercial land uses, through the rubrics of inner-city revitalisation. Informed by the logic of sustainable and compact urban form, production spaces of the industrial era have given way to consumption spaces of the creative economy era. There is however, a dearth of similar research on brownfield urban regeneration in industrial and post-industrial cities of India and other transitional Asian economies. Looking through the prism of industrial slum redevelopment in Kolkata metropolitan region, we attempt to bring a new dimension to brownfield urban regeneration discourse about the changing space relationships due economic restructuring.

Economy of the Kolkata metropolitan belt experienced several twist and turn over the years. The port-based industrial economy, which began with the establishment of the jute mills along the banks of the River Hooghly in 1860s, declined sharply between the 1950s and the 1970s. Consequently, the city and its industrial suburbs went into a prolonged period of stagnation. From the late 1990s Kolkata had seen partial economic recovery, powered by growth in IT-BPO, healthcare, retail, trading and associated residential and commercial real estate construction activities.

As the production economy centering on organized sector manufacturing units and its supplychain linkages in small-scale industrial economy terminally declined, the void began to be filled by small scale - mainly informal - consumption economy. Land use changes to accommodate such demands are often happening through informal arrangements mediated by small-scale local political leadership and civic officials, bypassing formal regulatory mechanisms. Inadequacies in formal land use conversion mechanism are contributing towards growing informal practices and land conflicts.

Our research focuses on land conflicts involving colonies of migrant industrial workers. As India's prime industrial cluster until the late 1960s, the Kolkata metropolitan region attracted large scale labour migration from the neighbouring states like UP, Bihar and Odisha for over a century. However, with the decline in the manufacturing sector, economy of the region declined sharply between 1940s to 1960s due to a host of socio-economic and political factors. Flight of capital and large scale unemployment had turned low income working class tenement areas into filthy slums. We focus on two such slum settlements in Howrah, an integral part of the urban core of Kolkata metropolitan region.

A particularly unique character of the slums in the urban core of Howrah and Kolkata is the three tier tenancy structure: the first tier comprising of the landlord, second – the hut owner (*thika* tenant) who took the land on lease from the owner and constructed low rise high density housing stock with cheap materials and third- actual tenants (subtenants) to whom huts have been let out. Later on as the original land owners had little interest in the land due to fragmentation of the family and increase in number of shareholders, and *thika* tenants interested only in maximization of rental returns, neither of them took any interest in providing healthy living environment in the slums. As a consequence, the living quality became deplorable in terms of basic services along with urban poverty and squalor and exploitation of the tenants and subtenants.

The second predominant typology is the slums grown in the closed jute mill lands in the city core. Despite closing down of the mills, the workers claim de facto right to occupancy acquired over generations. However, as the mill owner is not paying property tax the corporation is unwilling to extend basic services in these slums leading to sharp degradation of living conditions.

The situation has further worsened and the conflicts intensified in this age of globalised economy, with the intrusion of property developers, as slum lands and lands of closed industries

has turned attractive real estate gold mines to accommodate the rising number of middle class population in the city.

We discuss changing livelihood options for the interstate migrants in eastern India and the question of right to adequate housing and environmental justice based on case studies of two slums tenements. We explore the following questions: What is the nature of transformation and its impact on housing and basic services of the migrant communities in the slums in core city areas? What are the contours of conflict among diverse stakeholders in *thika* tenancy slums and slums in closed jute mill lands in the context of intrusion of developers in these areas? What is happening regarding the issues of right to adequate housing and environmental justice for the migrant communities and what roles institution like elected urban local bodies (ULB) are as playing, as they are supposedly the custodians of enforcement of regulations to ensure public health and welfare?

2.0 Morphology of the Kolkata Metropolitan Region

Kolkata (Calcutta then) grew steadily in economic and political importance with the expansion of British colonial power from Bengal to the rest of the Indian sub-continent, to emerge by the 19th century as the capital of a vast empire and the preeminent port of Asia. The city's economic rise was closely associated with its becoming the dominant node in the colonial trade route linking distant forelands in Europe with China and southeast Asia, while at the same time acting as the gateway to a natural resource (e.g. jute, tea, coal, iron) rich hinterland of the northern India through an elaborate rail, river and road network (Tan 2007). Spread of English language and ideas led to formation of a large western educated middle class and a vibrant civil society in the city which subsequently led to nationalist political movements (Dasgupta, S 2007). Although the capital of British India was shifted to Delhi in 1912, Kolkata continued to grow commercially till mid 1960s (Goswami 1989; Raychaudhuri & Basu 2007).

The extended metropolitan region of Kolkata includes three 3 municipal corporations (Kolkata, Howrah and Chandannagar), 38 municipal councils, and 22 Panchayet Samitis (Rural Councils) in an area of 1851 sq.km (KMDA 2007) and has 14.1 million population (Census 2011). It is oriented along a north-south longitudinal axis with the River Ganges running through the middle.

The metropolitan core is constituted of Kolkata Municipal Corporation (KMC) area, which forms the nucleus of this agglomeration with a population of 4.5 million (Census 2011) on eastern side of the river along with Howrah Municipal Corporation (KMC) area having a population of 1.07 million (Census 2011) on the western bank of the river.

With the port as the nucleus, an industrial complex, (which mainly consisted of jute mills and heavy engineering industries) started forming around Kolkata and Howrah from the 1860s. Jute mills, were located in small towns sides of the river, to facilitate transportation of raw jute bales by tug boats from riverine regions eastern (Goswami 1989). Railway lines, which were also simultaneously laid in the 1850s parallel to the river, connected the mill towns to two major railheads (Sealdah Station and Howrah Station) located at the eastern and western flanks of the metro core.

Developed railway infrastructure of the suburban mill towns, availability of skilled labour force and proximity to banking, financial and administrative facilities of Kolkata, contributed to further growth in industrial manufacturing, between 1920s and 1950s, especially in areas of heavy mechanical and electrical industries (Such as rail wagon, ship building, motor cars, transformers etc.). Supply-chain demands in heavy engineering industries in-turn led to formation of a large cluster of small scale ancillary workshops, lathe machine-shops, metal foundries in Howrah.

3.0 Post-industrial Urban Restructuring

The formidable industrial manufacturing economy of Kolkata metropolitan region declined sharply between the 1950s and 1970s due to several tumultuous socio-political events: loss of the jute producing hinterland of east Bengal (now Bangladesh) due to partition of India in 1947; national government's policies of freight equalisation which deprived the city of its locational advantages in engineering industries; and finally radical leftist insurgency, industrial unrests and militant trade unionism (Chatterjee 1990; Raychaudhuri & Basu 2007). Closing down of the big industries in-turn impacted the elaborate supply chain network of small-scale industries and caused large scale unemployment.

Closing down of the big industries in-turn impacted the elaborate supply chain network of small-scale industries. To compound the economic woes, the port also declined by 1960s due to heavy silting in the river and forced shifting of the major functions to the newly developed satellite port of Haldia further downstream. As a result, economy of Howrah and other the industrial towns, along the banks of the river, went into terminal decline. The woes of industrial decline at Kolkata's suburban belt was further compounded by unemployment of the educated youth due to shrinking opportunities in the office and financial services sector in Kolkata's metropolitan core, as the banks and corporate firms started relocating to more industry friendly cities.

On the other hand, socio-political disturbances in the region led to a population influx into the city and the urban agglomeration population jumped from 3.62 million in 1941 to 9.19 in 1981 (Census 2011) – which not only added to the problem of employment generation, but also severely strained the city's civic infrastructure.

The Left Front coalition, which came to power in the state of West Bengal in 1977 and remained so until 2011 mainly focussed its energies on rural areas of the state and neglected the infrastructure needs of its prime urban centre. Kolkata-Howrah and its industrial periphery suffered long power outages and transportation delays due to congested road and rail networks. However, the Left Front began changing direction from the mid-1990s. A New Economic Policy encouraging private investments (including in the IT sector, which was shunned earlier) was announced in 1994.

While this policy about turn did not bring in resurgence in industrial manufacturing, but service sector activities, such as software development, healthcare, retail and real estate registered quick growth. Growth of the export oriented IT-BPO (business process outsourcing) sector is particularly noteworthy – and generated new employment opportunities for the large educated urban middleclass. Kolkata's cheaper real-estate compared to Bangalore, Delhi and Mumbai; availability of a large human resource talent pool and strong governmental support attracted several international and Indian IT-BPO companies to open offices in the city.

Decline of industrial manufacturing and growth in IT and allied export oriented service sector has majorly contributed to a reorientation of Kolkata's spatial structure, from a linear axis along the river to a more polycentric one. Departing from the long established rail transit oriented linear urban structure, of the extended urban agglomeration, Calcutta Metropolitan Development Authority's (CMDA) Perspective Plan (1976) and the subsequent Traffic and Transportation Plan (2001-25), adopted a poly-centric urban form, envisioning suburban growth centres around the metropolitan core (Dasgupta, K 2007). Although, in reality, much of the growth has been at the eastern fringe, directly abutting the urban core, which from the 1990s onwards has become the locus of the city's economic gravity, From 1990s onwards, the Kolkata's economic gravity has shifted towards the ecologically vulnerable eastern periphery.

This spatial reorientation programme ran against the spirit of the Basic Development Plan (BDP), which was undertaken in the early 1960s to arrest the decay of Kolkata, with technical assistance from the Ford Foundation (Banerjee & Chakravorty 1994). Taking into consideration Kolkata's role as *the* primate city of eastern India, the BDP (1965-85) adopted a two stage framework. At a macro-regional level, it proposed establishment of alternative urban-industrial growth poles within West Bengal (Bagchi 1987). At a metropolitan regional scale, the BDP advocated a bipolar spatial structure to decongest Kolkata, by developing a satellite township about 45km upstream along the river Ganges and suggested a comprehensive urban renewal plan for Kolkata's decaying industrial belt. However, political uncertainties in the late-1960s came in the way of implementing many of the suggestions of the BDP (Bagchi 1987; Banerjee & Chakravorty 1994).

The eastward surge of Kolkata began with the launching of the Salt Lake township project in the 1960s, which after two decades turned into a prime up-scale suburb (Dasgupta, K 2007). Construction of the Eastern Metropolitan By-Pass road in the 1980s and development of the Rajarhat Township (since 1998) have further augmented the eastward thrust. Proximity to the airport attracted the IT-BPO companies to locate in this area. West Bengal government under different political regimes encouraged this spatial reorientation: by relocating several government departments from the historic urban core (of Dalhousie Square – Esplanade area) and by facilitating development of high impact projects like IT business parks, convention centres, luxury hotels, shopping malls and gated housing along the Eastern Metropolitan Bypass; and Rajarhat New Town.

4.0 Nature of Transformation and its Agencies

Patronage of the state political apparatus, formal bureaucratic planning machinery and demands of the market economy had all contributed towards shifting of Kolkata's economic locus, or at least its globalised face, towards the eastern fringe(Chatterji 2013). A new spatial typology, representing neoliberal, private-sector-led and state-supported, economic order started emerging, in the form of gated business parks, air-conditioned shopping malls, corporate hospitals, and gated residential complexes.

On the other hand, the Kolkata- Howrah metropolitan core and its suburban industrial townships are undergoing processes of gradual but steady economic and political informalisation. The production economy based on large-scale organized sector manufacturing units and its supply-chain linked small and micro-scale industrials units had terminally declined, the gap began to be filled by small scale - mainly informal – consumption economy. Thus, urban land associated with the older manufacturing economy, factories and labour colonies, have come under pressure from rising real estate demand, associated with the consumption economy driven by petty trading, retail and residential usage. This economic informalisation is fallout of the Bengal government's inability to rejuvenate its organised sector economy and generate employment for the masses. Whereas, rising real estate demand could be attributed to growing middleclass consumerism from the early 1990s onwards, with the advent of economic reforms and globalisation.

Land use changes to accommodate such demands are often happening through informal arrangements mediated by small-scale local political leadership and civic officials, bypassing formal regulatory mechanisms. Inadequacies in formal land use conversion mechanism are contributing towards growing informal practices and land conflicts. The worst victims of such conflicts are the retrenched industrial workers.

It is important to note here, that land supply in the core parts of Kolkata and its industrial suburbs are hugely problematic. Large chunks of land parcels in prime areas, belonging to jute mills and other industrial units, which had ceased manufacturing decades back, are locked up in legal disputes. Moreover, onerous zoning regulations make it difficult to reconvert industrial lands to other usage.

A veteran trade union leader from Howrah, who had been involved with jute mill workers union for five decades, mentioned two crucial hindrances, when interviewed (17 January 2012) –unpaid dues of the workers and land ownership pattern of the industrial units and opposition by the labour unions. There are sick factories under the custody of the central government, the state government as well as in the private sector. Many of the closed industrial units are in the custody of the BIFR (Board of Industrial and Financial Reconstruction). Secondly, almost every closed factory (particularly those in the private sector) owes large sums of money to the workers and the financial institutions. And many of these lands, along with factory sheds and machineries are mortgaged to the lenders (Chatterji 2014).

According to an estimate by Webcon, a consultancy firm under the state government, the sick units collectively owed INR 1,638 crores (USD 273 million) to their employees and INR 3,854 crores (USD 642 million) to the lenders(Livemint.com 2010). Again, many of the sick private companies are not officially closed, but under 'temporary lock-out' for several years. The worst sufferers in this scenario are off course the workers. Liquidation of the closed factories and recycling of the in land in their possession can generate revenue, which in-turn can help pay-off the worker's dues and create opportunities for new development. But the powerful union bosses are strongly opposed to such schemes, as that would reduce their political influence. Neither the Left Front, nor its successor the TMC has so far displayed the necessary political will to untangle the complex politico-legal web in which thousands of acres of land are stuck.

In mid-2000, real estate developers brought over a few closed factory sites to build luxury apartment buildings. For instance the South City project in Tollygunge area of Calcutta, (which includes Calcutta's tallest residential tower and a posh shopping mall), have come on the land what used to the site of the Jay Engineering Works factory site. Further south footwear manufactures Bata, have converted their factory town at Batanagar, to build an upmarket gated township called the 'Calcutta Riverside'. All these projects were approved by the Left Front government. However, there was a major political hue and cry, by the trade union leaders against such conversion of industrial premises for real estate development and the government backtracked. A new legislation was passed to prevent such conversion and ensure that industrial lands are to be used to build factories only and not for other real estate activities (Livemint.com 2010).

There are two important take-away points here. First, one-size-fits-all type blanket legislation on conversion of industrial land to other usage is simplistic and does not take into consideration local context. Many factories in Calcutta were established in the early 20th century, in areas what in those days were the urban fringe. Since then, the city limits has significantly expanded since then. Tollygunge is now an up-market south Calcutta locality – it is unrealistic to assume factories could come up there. It is necessary to have more contextual, city-specific land use regulations.

Second, it is essential to harmonise between land use regulations and economic structure of the city, as disconnections cause conflicts. And for that to happen, it is essential for the state planning agencies to formulate a pro-active urban renewal plan. Withdrawal of the state role, in situations of high demand leads to informalisation of the urban land supply mechanisms. The worst sufferers of such situations are the migrants and the urban poor, and cause loss of urban commons. Projects driven by real estate developers and mediated through informal political and bureaucratic networks meet the economic demands of middleclass consumerism, but how the industrial workers who lost their jobs decades back, get left out. Neither to such piecemeal scale real-estate driven projects address the need to build more affordable housing for the urban poor, nor do they add to shortages of public space.

The following section discusses the implications of lack of a robust legislation or inadequacies in the implementation of existing legislation and absence of a pro-active urban renewal plan on the housing rights and environmental justice for the poor slum dwellers in the two predominant slum typologies in the city of Howrah. The city has simultaneously experienced steady decline in manufacturing sector industries and rising demand of comparatively cheaper real estate to serve the growing number of middle class preferring to live in the city core and has become an urban laboratory to study the link of de-industrialisation, city restructuring and exclusionary practices for housing and basic amenities for slum tenements within and in close proximity to the closed and derelict industrial sites.

5.0 Genesis of the Howrah Town, Slum Formation and Emerging Urban Trends

As noted earlier rapid growth of jute, iron, steel and forging industry turned Howrah as a preeminent industrial hub of India. The forging industry became one of the leading foreign

exchange earners in post independent India. Further to this, benefits of agglomeration economy brought variety of other industries such as chemicals, rubber etc. to the city. Colonial era industrialization in the city attracted entrepreneurs from neighbouring districts and different parts of the state and menial workers from the underdeveloped states of Bihar and Uttar Pradesh.

However, from the beginning there was lack of effective municipal governance to accommodate the population influx and urban growth happened without being supplemented by affordable housing and municipal service provision. The migrants were more interested to send remittances to their native places rather than paying taxes for augmented municipal services. These factors prompted unplanned growth of the city with large disparity of living standards in different areas leading to slum formation in the city. With the location of major industrial units surrounded by slums in the proximity supplying cheap labour, the town flourished on both sides of the Grand Trunk Road (G.T. Road).

During 1950s and 1960s, while the town witnessed industrial expansion with small enterprises being set up within the residential areas, deteriorating municipal infrastructure was characterised by overflowing sewerage, scanty water supply, potholed roads and proliferation of slums and squatters. But the golden era of industrialization in Howrah was short lived. The Freight Equalization Policy of Government of India in the late 1950s robbed Howrah of the advantage of its proximity to coal and iron belt and spelt doom for the metal and metal based engineering industry. The jute industry was also facing downswing due to fragmentation of jute growing areas after the partition. Other industries were confronted with general recession and political upheaval in the state during mid-sixties. A vicious cycle of sickness of industries and militant trade unionism compelled the owners to close down many factories leading to flight of capital from the town and the state.

Subsequently, Howrah grew as an appendage of Kolkata. The first comprehensive planning effort to rejuvenate Kolkata metropolitan region- the Basic Development Plan 1966-86 published by Calcutta Metropolitan Planning Organization (CMPO) envisaged a bi-polar urban structure with Kolkata-Howrah in the north and Kalyani-Bansberia in the south of Kolkata Metropolitan Area.

A separate development plan of Howrah was published in 1967 that suggested a detail revival plans for industrial areas and augmentation of infrastructure and amenities (CMPO, 1967). In the CMPO plan there was proposal to set up separate development authorities for the east and west bank of the river. Accordingly, Calcutta Metropolitan Development Authority (CMDA) was constituted in 1970 but the one for Howrah could not materialize due to prevailing political climate of the state. So Howrah despite its economic contribution remained as backyard of Kolkata and the planning and development attention focused on the east bank in general and Kolkata in particular.

Even after five decades of formulation of the Howrah Plan in 1967, planned urban development remains a distant dream and urban amenities and infrastructure is in appalling state in the city. The few positive events happened during this period are the construction of the Vidyasagar Setu (second bridge over the river connecting the southern part of the Howrah with Kolkata), the Nibedita Setu (third bridge connecting the Dum Dum international airport with National Highways on the west bank), the Kona Expressway connecting Howrah to the network of National Highways. Recently the East-West Metro is being constructed to connect the central part of Howrah with Kolkata through mass transit system.

In the post liberalization scenario since 1991, with the abolition of Freight Equalization Policy and greater autonomy given to the states in attracting business, Kolkata revived partially through IT-BPO, real estate and hospitality sector investments. Contrary to this, Howrah has experienced growth of unregistered manufacturing, transport and communication, real estate and other services. Despite the improvement in connectivity with Kolkata by the two new bridges, Kona expressway and East-West Metro construction in process, Howrah continues to remain as a suburb of Kolkata without any concerted effort to rejuvenate its ailing industries, dearth of quality civic infrastructure for academic, health, commercial and recreational activities and land supply to ensure affordable housing for the people living in slums or slum like situation in the city.

Despite bleak infrastructure scenario, the district and the town has a stable population base, thanks to the growing tertiary sector activities providing employment to large section of the low and middle income labour force. Despite, stagnation in manufacturing, Howrah is higher ranking

district in the state of West Bengal in terms of growth rate of Per Capita Income, the Compound Annual Growth Rate (CAGR) of PCI is higher than the state average (Chatterjee, 2015). In spite of the historic reasons of economic decline, one of the prime reasons of its resilience is excellent road and rail connectivity to Kolkata and rest of India. Proximity to the ports of Kolkata and Haldia and direct access to the industrially developed western and southern states of the country through well developed highway network made Howrah a transport hub and distribution centre for goods.

The district is second most urbanized districts in the country with 98% urban population living primarily in 17% of the land area of the district in a thin strip of land in Howrah Municipal Corporation (HMC) and Bally Municipality along the river (Sanyal 2015). Recently, Bally municipal area is merged with HMC. The two municipal areas are among some of the high density towns in the country. HMC has a population density of 20817 persons per sqkm while that of Bally is 24841 persons per sqkm. The density figures for both the towns reveal high level of overcrowding and poor liveability standard compared to the quality of life in average Indian cities. Major restructuring of city is happening in northern part of Howrah and the areas along the G. T. Road where larger plots of old residences or closed and sick industry lands are being converted to multi-storied apartments predominantly to accommodate rising number of residential population. Land price comparatively cheaper than Kolkata coupled with improved connectivity via Vidyasagar Setu and proposed East- West Metro enabled growth of trendy shopping malls, high-end residential complexes and club-cum resort complex in recent decades to serve the needs of emerging urban neo-middle class in Howrah.

6.0 Slum Scenario and Ownership ambiguity

Slum is an integral feature of the urban fabric of Howrah since the inception of the town. The urban growth induced by colonial industrialization was not supplemented with municipal service provision. The migrant workers from the impoverished states of Bihar and Uttar Pradesh were also not interested in better living conditions as it would entail higher taxes or user charges. The problem multiplied after independence, especially during the recession and political unrest in 1960s and Howrah became a city of paradoxes. According to a survey conducted by CMPO in 1964-65, Howrah had a slum population of about 1.86 lakh, 33% of the estimated population in

1965 (CMPO, 1967). In 1990, about 4.68 lakh population (52% of the town population) lived in slums (CMDA, 1990). A comparison of slum populations between 1951 and 1991 census years reveals that while the town population doubled in 4 decades, its slum population grew seven times. In subsequent censuses the slum population figures appear to be highly questionable. In 2001, only 11.5% of Howrah's population lived in slums while that figure for Kolkata was 32.50%. Census 2011 reveals 83000 slum population living in 525 slums appears to be erroneous and far from the reality. In fact more realistic estimate was provided Quick Slum Survey (QSS) under DFID funded Kolkata Urban Services for the Poor (KUSP) Programme in 2009. The QSS estimated 21.9% of population was living in 441 slum clusters in Howrah.

Apart from some infrastructure development in some pockets, the Howrah Municipal Corporation has not initiated any comprehensive intervention for environmental management in the slums. The Howrah Basti Improvement Programme (HBIP) undertaken in Calcutta Urban Development Programme (CUDP) in 1980s was a service driven initiative with limited coverage in Howrah. It was designed extend water supply, community bathing facilities, sanitary latrine, drainage system, pavements and street lighting. An appraisal of the schemes (Sengupta, 1999) reported severe inadequacy of service provision at the community level for water supply, sanitary latrine, faulty design of drains and lack of privacy especially for the women. Even after implementation of the schemes, open defecation, persistent water logging and recurrent occurrences of vector borne diseases reported from many slum pockets.

The prime reason of failure of these schemes is its engineering and public works oriented approach for upgradation neglecting the soft parameters of development. Unemployment and poverty, behavioural issues of migrant slum dwellers, heterogeneous community structure, absence of tenure rights and clarity about ownership of the slum land, facilities of standard well below the acceptable minimum benchmark and absence of credible facilitators, NGOs remain as basic constraints to ensure improved environmental practices. These are structural issues and beyond the capacity of the slum dwellers to address. On the community front, the major barriers to improved environmental practices include relatively short duration of residence, absence of community networking initiatives and institutions, gender discrimination in division of labour, women lacking role in decision making and presence of strong politically vested interested groups.

A study was conducted by the authors in 2014. It used the HMC record as baseline data that estimated as per QSS data under the DFID funded KUSP Programme in 2009 with 42,354 families and 2.13 lakh population (21.19% of the town population) residing in 441 slum clusters in the town. The gravity of the problem is highlighted by the Slum Census,2001 which indicates that out of 50 wards in Howrah, 8 wards have 20-39%, 5 wards with 40-60%, and 1 ward has more than 80% population living in slums.

One of the main problem of Howrah slums revealed in this survey and also the reason for difficulty in future interventions is non-availability of land ownership data in 82.7% of the slum clusters even in listed 441 slums. Discussion with HMC officials revealed that multiple ownership claims and lack of transparent land records led to such ambiguity in the basic premise of existence of the slums. Ownership of 76 slums could be identified as under private ownership including slums on lands owned by jute mills, vested land, land owned by the railways and government departments and thika tenancy slums. Landownership information of 2 slums is found to be erroneous. Slum of Fakir Bagan Lane (one of the case study settlement) listed as private ownership is in reality is a cluster of thika holdings now vested with the state under the provisions of "Calcutta Thika Tenancy (Acquisition and Regulation) Act,1982". The other one listed as thika tenancy slum belongs to a private mill (Bengal Jute Mill). One of the slum indicated as private ownership is a property under litigation between Kolkata Port Trust and Bengal Jute Mill over lease agreement.

Following section discusses the contours of conflict among diverse stakeholders in a *thika* tenancy slum and a slum in closed jute mill land in Howrah and the emerging concerns and challenges related to housing, basic amenities and environmental hygiene and the role of municipal corporation who is the custodian of enforcement of regulations to ensure public health and welfare.

7.0 Salient Features of Case Study Slums

7.1 Fakir Bagan Lane

This is a slum on thika land now vested with the state government after the promulgation of 1982 Act. Majority of slum dwellers came from U.P., Bihar, Orissa and Tamil Nadu to work as

labourers in various enterprises in the city, engineering industries and settled here as they could manage affordable rental accommodation in proximity to their work places. About 4400 persons are living in the slum in a high density (92460 persons per sqkm.) environment. Initially the thika tenants took the land on lease from the landlords, constructed structures with cheap quality materials and rent them out to subtenants. Majority of the population are thika subtenants and others are thika tenants. Most of the people are daily wage earners in shops, godowns and local industries. There are also rickshaw and trolley pullers. Some are also associated with pottery works. Many women work as domestic helpers in nearby residential areas. 90% of the houses are rented. Majority tenants do not give any rent to Thika Controller. The Controller also does not have the requisite manpower to collect rent from tenants.

Basic services are in extremely poor state although Howrah Municipal Corporation is supposed to extend the facilities. The approach road to Fakirbagan is in poor condition with number of potholes. The slum has only 2 water taps and quality of water is extremely bad. Most of the houses are without any facility of latrine. The inhabitants resort to open defectation in the rail yard and vacant land available in the slum. There is no solid waste management system in place. Part of the area is low lying and many of the drains are being blocked by plastic and garbage. The ponds in neighbouring areas are being filled up leading to the rise in water logging.

In last two decades four/five storied permanent constructions are mushrooming with very poor quality of materials and unskilled workmanship. Due to cheaper land price compared to Kolkata unauthorized construction by petty developers in collusion with political parties in power is rampant in the slum. The developers make agreement for a period of 3 years with thika tenants and construct 4-5 storied buildings to accommodate old tenants, subtenants and also new settlers on rental basis against payment of huge amount of *salami*.

The major problem is open defecation in the slum. In very small number of houses there are latrines which are directly connected to surface drains without any basic treatment facility create severe health hazards for the residents. Heaps of garbage are regularly piled up and overflow from dustbins. Water from the taps often is not drinkable due to contamination by leakage in the pipeline. Prevalence of diarrhoea, jaundice and skin disease among the residents are indicative of severe environmental problems existing in the area.

7.1.1 Household Vulnerability

The following narrative of a widow living in the slum is representative of the hardship faced by several families living here and how their right to adequate housing and environmental justice are being subverted in a severely crowded environment and the socio-economic exploitation perpetrated by unauthorized housing transformation happening in thika tenancy slums.

Box 1

Name of the respondent- Sakuntala Devi. She is 45 years old and her mother is the head of the family. There are 4 members in the family with one earning member. Shakuntala Devi's elder sister sells vegetables and earns about Rs. 1000 per month. Sometimes they have to beg to arrange one meal a day. Shankuntala Devi is a thika tenant (thika praja/hut owner). She gave the land to promoter Dipak sonkar and Dodo Jaiswal to develop with an agreement that family of Shankuntala Devi with three other thika subtenants will be rehabilitated and promoter will settle additional people and realize rent and salami from them. According to the agreement the promoters are supposed to leave 3 years after construction and Shankuntala Devi will get back the house. However the promoters violated the agreement and even after 8 years they are realizing the rent and refused to transfer the property to Shankuntala Devi. Shankuntale Devi is provided with a small room of 2m.by 4m. without any toilet and water connection. The family is helpless. Sakuntala Debi's mother is old and ailing and she has 2 sisters, both of whom are left off by their husbands. Local party supports them in case of emergency.

7.2. New Coolie Line

The slum is located on the land owned by Bengal Jute Mill that is being closed for a decade. People from U.P., Bihar, Andhra settled here about 70 years back when Bengal Jute Mill provided them worker's quarter and used to take nominal rent from them. About 750 persons are living in the slum in a very high density (1,87,500 persons per sqkm.) situation. Most of the huts are inherited by next generation of slum dwellers. They enjoy de facto tenure rights legitimized through their occupation and use over generations. As the mill is closed for a long time majority of them are engaged as daily labourers in shops, godowns and construction activities (buildings

and roads). Some also work as rickshaw and trolley pullers. Some women work as domestic helpers.

The existing amenities are in very poor state. The drains are not cleaned and carry faecal matters. The old community latrine is dilapidated and without any basic treatment facility. There are 2 tube wells. One was found to be not in operational during the time of fieldwork. As the municipality is not receiving any property tax from the original owner of the land- Bengal Jute Mill and slum dwellers there is reluctance in extending basic services. Every year are gets waterlogged for 60-75 days during rainy season. Several houses become submerged in 1.2m-1.5 m. deep water and people have to shift to the houses at higher level.

Serious environmental problem created due to faecal pollution in open drain. As the slum dwellers do not pay any tax there is no municipal effort to extend basic amenities. Women have to go outside to fetch drinking water. The adjacent lands owned by closed mills and other industries are being leveled up for real estate development without any drainage improvement. Pond like situation created for the slum which is located on a low lying land and the problem of water logging is aggravated during last couple of years.

7.2.1 Household Vulnerability

The following narrative of a Muslim family living in the slum reveals the hardship faced by the community living here and how their right to adequate housing and environmental hygiene have been challenged in a crowded unhealthy living condition. As the land is owned by Bengal Jute Mill which is no longer paying any property tax, municipal corporation does not share any responsibility to extend basic services to the marginalized slum dwellers.

Box 2

Name of the respondent- Abdul Rahim. He is the head of the family and 48 years old. The family has 7 members with 1 working member. He works as temporary mill worker in a nearby mill and earns Rs.2000 per month. They came from Bihar in 1940s to work in Bengal Jute Mill and settled here. They use community latrine and women have to fetch drinking water from outside. They take loan from private money lenders in case of emergency. The mill authority deprived them from arrear salaries and other dues when it was closed. During heavy rain the roads

become water logged and their house get submerged. They have to take shelter in higher areas of the slum. The surrounding areas become higher with multistoried buildings being constructed but the slum continues to remain in low lying land. The area is polluted with the drains being filled up with faecal matters and not cleaned.

8.0 Challenges to Right to Housing and Environmental Justice

Since late 90s, with accelerated decline of manufacturing sector and closing down of jute mills and informalization of economy in Howrah the urban poor suffered considerably due to large scale unemployment and loss of income. Simultaneously, the lands of closed industries or slums became the goldmine for real estate to accommodate the growing population in the town. The ambiguity in land records in most of the slums, litigation among different state agencies, reluctant Municipal Corporation and nexus of political class and realtors created opportunities for unauthorised real estate to make windfall profit in short span of time without any compliance to building regulations. The following section elaborates the challenges faced by the communities in two slum typologies.

8.1 Slums on Thika Land

There are about 20,000 thika holding in HMC Area. Subsequent to the 1982 Act Thika Controller is the custodian of these lands. 90% of the thika tenants do not pay any rent to the Thika Controller. The Controller reported the absence of requisite number of staff including surveyors necessary to manage and monitor the development in large number of thika holdings in HMC area. The thika lands are being targeted by realtors who construct multistoried buildings to accommodate additional number of families over the existing ones. Most of these constructions are unauthorized with the developers building 4-5 storied apartments flouting the HMC rule of two floors prescribed for thika lands. The developer enters into agreement with the thika tenants for 3-5 years that after construction the thika tenants and subtenants will be rehabilitated and he will realize the rent for the period from new residents in the apartment. In most of the cases the developer flouts the agreement and continues to realize the rent along with substantial amount of *salami* received from the newly settled people. In the process the thika tenants and subtenants get exploited in terms of access to optimal habitable space and basic

amenities of living like water connection, sanitary latrine etc. In many cases the thika tenants exploit the subtenants in similar fashion. HMC is in a quandary as service provision becomes problematic for additional population as there is no contribution to corporation exchequer in the form of property tax. The safety of the occupants is also in jeopardy due to poor quality of construction, use of inferior materials and inadequate facilities like absence of water tanks and toilets leading to open defecation and serious health hazards.

8.2 Slums on Land Owned by Closed Jute Mills

The slum dwellers settled in lands owned by the jute mills used to enjoy de facto tenure rights by way of their occupation over generations. Initially they were paying rent when the mills were in operation. Since closure, they complained about the mill owners for nonpayment of their arrear salaries, provident fund and gratuity benefits and stopped payment of rents. A feeling of mistrust exists between the slum dwellers and the mill authority. In the meantime, taking advantage of the real estate boom the mill owners sold part of the lands originally used for production, storage and other purposes to the developers. Several high and middle income group apartment clusters are being constructed. In the case study slum, lands occupied by the mill workers or their descendants (listed as slums) could not yet be sold for community resistance. The slum dwellers enjoy the political support against any possible eviction. However, the possibility of eviction entirely depends on mobilization of political support by the slum dwellers. There are also reported cases where finally they succumbed to the nexus of political class and realtors. Based on the political clout, few slums in this category have been covered under KUSP program and provided with community latrine, piped water supply, pucca drain, improved road and community hall while others not so fortunate continue to survive under severe environmental constraints with open defecation or latrine without any treatment facility, kuchha drain and only symbolic presence of water supply. The mill owners approached the community in the new Coolie Line slum for their rehabilitation in walkup apartments and making rest of the land available for real estate but mistrust among the stakeholders stalled the negotiation process and the plight of slum dwellers continues.

8.3 Emerging Issues of Concern

Looking through the prism of de-industrialisation and economic restructuring of the Kolkata metropolitan region, our research focused on conflicts involving land use change and reuse and management of closed factory premises and colonies of migrant industrial workers. As India's prime industrial hub until the late 1960s, the metropolitan region attracted large scale labour migration from the neighbouring states for over a century. However, with the decline in the manufacturing sector, and flight of capital, the economy of the region declined sharply since then. And consequent civic apathy had turned the areas into filthy slums.

Since the early 1990s, the economy had partially recovered powered by growth in service sector, middleclass consumerism and rising demand for residential and commercial real estate. Consequently, land conflicts had intensified, over disused industrial premises and worker colonies. State apathy, opaque land holding patterns and lackadaisical civic administration is one the one hand leading to severe environmental degradation, on the other giving rise to informal and ambiguous governance. Informal nexus between real estate developers, petty politicians and civic officials have become arbitrators of local management mechanism. The worst affected in this scenario are of course the migrant industrial labours, who had lost their regular livelihood decades back.

This raises questions about the role of the state. What role should state political and planning institutions play to ensure transparency and efficiency in land supply mechanism and civic administration in industrial colonies? Is it acceptable to keep valuable land locked up in factory premises which had ceased production decades back? Is it acceptable ambiguity in land holding patterns due to messy property registration mechanism and tenement regulations to deny basic civic services to people? These are the questions that merit attention for future research to chart out an appropriate development strategy for the urban core of an industrial town that becomes the hotbed of conflict among multiple stakeholders in the post-liberalized economic scenario of the developing world.

References

Bagchi, A 1987, 'Planning for Metropolitan Development: Calcutta's Basic Development Plan, 1966-86: A Post Mortem', *Economic and Political Weekly*, vol. 22, no. 14, pp. 597-601.

Banerjee, T & Chakravorty, S 1994, 'Transfer of Planning Technology and Local Political Economy - A Retrospective Analysis of Calcutta's Planning', *Journal of the American Planning Assosiation*, vol. 60, no. 1, pp. 71-82.

Calcutta Metropolitan Planning Organization (CMPO), Govt. of West Bengal, 1967, *Howrah Area Development Plan 1966-1986*.

Calcutta Metropolitan Development Authority (CMDA), Govt. of West Bengal,1990, *Plan for Metropolitan Development*.

Census 2011, *Population Census 2001-11*, Registrar General and Census Commissioner, Govt. of India, Delhi.

Chatterjee, P 1990, 'The Political Culture of Calcutta', in S Chaudhuri (ed.), *Calcutta - The Living City, Vol - II*, Oxford University Press, New Delhi.

Chatterji, T 2013, *Local Mediation of Global Forces in Transformation of the Urban Fringe*, Lambert Academic Publishing, Saarbrucken.

Chatterji, T 2014, 'Reclaiming the River: Politics of Planning in Calcutta's Post-industrial Restructuring', paper presented to 50th ISOCARP Congress, Gydinia, Poland.

Chatterjee, M.2015, 'Urban Development in Howrah: An Introduction and Overview', in M Chatterjee and A Mukhopadhyay (ed.), *Urban Development In Howrah Socio-Economic Perspectives*, Primus Books, Delhi, pp. 1-45.

Dasgupta, K 2007, 'City Divided? Planning and Urban Sprawl in the Eastern Fringes of Calcutta', in A Shaw (ed.) (ed.), *Indian Cities in Transition*, Orient Longman Private Ltd., Hyderabad, pp. 314-40.

Dasgupta, S 2007, Bengal Renaissance, Permanent Black, New Delhi.

Goswami, O 1989, 'Sahibs, Babus, and Banias: Changes in Industrial Control in Eastern India, 1918-50', *The Journal of Asian Studies*, vol. 48, no. 2, pp. 289-309.

KMDA 2007, Comprehensive Mobility Plan, Kolkata Metropolitan Development Authority, Kolkata.

Livemint.com 2010, Law to free locked land may not meet expectations in Bengal, Livemint.com, viewed 26 April 2012,

http://www.livemint.com/Politics/aiyvxAgD8r3mVxhMmZsfYM/Law-to-free-locked-land-may-not-meet-expectations-in-West-Be.html.

Raychaudhuri, A & Basu, GK 2007, *The Decline and Recent Resurgence of the Manufacturing Sector of West Bengal: Implications for Pro-Poor Growth from an Institutional Point of View*, IPPG Programme University of Manchester, Manchester.

Sanyal, S.K. 2015, Pattern and Process of Urbanization and Industrialization In Howrah Some Ideas for the Future in M Chatterjee and A Mukhopadhyay (ed.), *Urban Development In Howrah Socio-Economic Perspectives*, Primus Books, Delhi, pp. 49-55.

Sengupta, C. 1999, Dynamics of Community Environmental Management in Howrah Slums, Economic and Political weekly,vol.34, no.1, pp 1292-1296.

Tan, T-Y 2007, 'Port cities and hinterlands: A comparative study of Singapore and Calcutta', *Political Geography*, vol. 26, no. 7, pp. 851-65.