

Land Conversion for New Urban Growth and Its Impact –From Dwellers' Point of View- A Case Study from New Town Kolkata

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Abstract- New Towns are usually built up at metro-periphery with an eye to accommodate overspill population and functions of metro city. These are self-sufficient planned towns having a full range of urban economic and social activities, so it can provide employments for all of its inhabitants as well as a balanced self-content social community could be maintained. In 3rd world countries New Towns are often built up from scratch i.e. on the area having no urban background and therefore it needs a massive land conversion from rural to urban. This paper aims to study the implication of such land title transfer on original habitats with a case study. The study has been conducted at Jatragachhi Mouza (i.e. lowest ordered administrative rural unit), NewTown, Kolkata. Once Jatragachhi Mouza of Rajarhat Block; N24 Parganas was rural in character, now it is located at the heart of New Town Kolkata. It is observed in this study that cultivation was the mainstay of livelihood for majority of resident. There was a dramatic rise in irrigated area pointing out agricultural prosperity. Ascending women's literacy rate as found in this rural mouza obviously indicates a constant social progress. Through land conversion, this flourishing agricultural land has been transformed into urban area with highly sophisticated uses. Such development may satisfy educated urban elite but the area loses its functional linkages with its surroundings and fails to prove its actual growth potentiality. The physical linkages (like past roads and irrigation infrastructure) which had developed through time to support the economy become defunct. Historicity of this original site is demolished. Losses of the inhabitants of the area who have been evicted are also immense and cannot be materially compensated. Therefore, ethos of such new town planning through land conversion is under question. Need for an integrated approach for rural and urban development planning is felt in this study.

I. Introduction

Crisis of land is the root of many urban problems especially in metropolitan cities. The quantity of land is limited; the requirements of land for the civilized life keep growing. Extreme pressure on land creates awe-some situations in metropolitan life especially in the third world countries. To mitigate this problem of land crisis, huge amount of rural land beyond the metropolitan boundary is often acquired by the state for the sake of New Town Planning. Such acquisition is obviously associated with land conversion from one title to other. Consequently such conversion causes the eviction, sometimes forced and distressed eviction of the dwellers from their original place and occupation. This pathetic part is shadowed under the glow of Planned New Town. An in-depth Study is needed to understand the spatial and societal change of the original habitat that happens due to land conversion for such Planned Urban Growth.

Aim: This paper aims to study the implication of such land title transfer on original habitats with a case study at Jatragachhi, New Town, Kolkata.

Objectives of the study:

- To identify the land use change due to land acquisition.
- To understand the demographic changes in terms of change in sex ratio, literacy, and occupational pattern
- To identify the change in infrastructure
- To study perception of the local people about impact of land transfer and New Town Planning

Land Acquisition and Land Use Changes: Jatragachhi which was purely rural area is now being acquired for development of New Town Kolkata. Acquisition has started since 2002. But land registration or mortgage was strictly restricted since 1999. 217.73 Hectare of land (74%) has been acquired so far. This is only cultivated land. But some residential plots with standing buildings are also demarcated as cultivated land (plot no: 802,819etc.) and have been acquired. Compensation value is fixed as 6000/-and 8000/-per 1.6 decimal land and 3000 for low fishery cum agricultural land (90.58\$, 120.77\$ and 45.29\$ respectively dated 13.9.2015). Claimers have to collect the compensation compulsorily within three months from the day of notification. Otherwise it would be returned to the District Treasury office and it would to claim in court with full proofs. It will be a lengthy and expensive process. Such forced acquisition agitated peasants. Demarcation of acquired land by

HIDCO officials could not be done without the help of police force. The poor, distressed cultivators had no other option but to collect their compensation and vacated their land. Several court cases have been suited and some peasants still refuse to collect compensation. Land uses which was practiced so long was overhauled. Impact of such acquisition of cultivated land for new urban growth on land and society are immense.

There was a stark change in land uses after acquisition. Most part of the mouza was agricultural land. (Fig-1 & 2) Settlements have developed along the main artery connecting Barasat and Basanti.

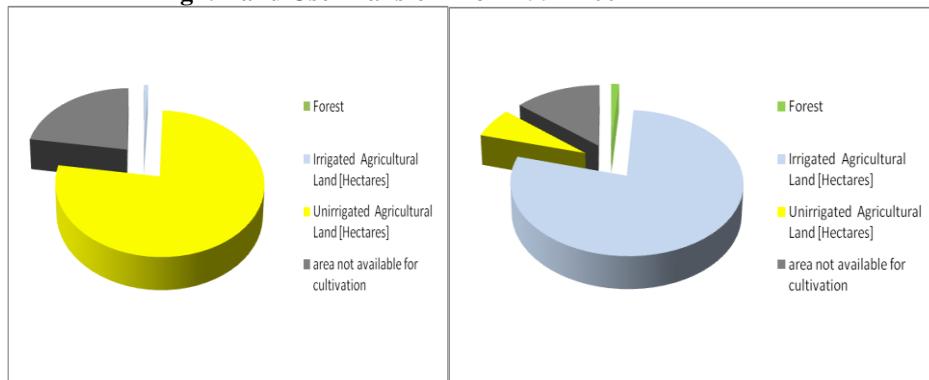
Till 2001, predominant use of the area was cultivation. It is evident from census records that cultivated land has increased by 22ha or 8% from 1991 to 2001. It is interesting to note that during the same period irrigation has expanded significantly. Irrigated area has increased from 2.02ha to 227.3 ha. There is no cultivable waste. All these facts indicate that the area is most suitable for cultivation and sufficient efforts have been made to improve irrigational facilities. Besides, 2001 census record affirms that forest has been developed on 3.60 ha (1.25%) land though there was no recorded forest during 1991. During the same period, area not available for agriculture has decreased by 25.5ha or about 9% (Table-2).

Table 2: Land use Changes of Jatragachhi (1991-2001)

Year	Total Area [Hectares]	Forest	Irrigated Agricultural Land [Hectares]	Unirrigated Agricultural Land [Hectares]	Total Agricultural Land [Hectares]	Culturable Waste	area available for cultivation [Hectares]
1991	290.93	0.00	2.02(0.72%)	223.39(76.78%)	225.41(77.5%)	0.00	65.52(22.5%)
2001	290.93	3.60(1.25%)	227.30(78.12%)	20.00(6.88%)	247.30(85%)	0.00	40.01(13.75%)
change	0.00	+3.06	+225.28	-203.39	+21.89	0.00	-25.51

Source: Census of India 1991,2001

Fig1: Land Use Transfer From 1991-2001



Source: Census of India 1991, 2001

With expansion of irrigation, cultivation was done both in Aman and Boro season. Three crops were harvested in a year. Two paddies, vegetables, mustard or lentil were grown. According to the report of the District Agriculture office Productivity of paddy in this Block of Rajarhat is highest in the District i.e. 4392kg/Ha (2001) But for the commencement of new town development, land acquisition is taking place in Jatragachhi. As on 12.11.2012, 217.73 hectares (74.84%) land area is acquired for the urban growth. This is solely agricultural land (Table-3, Fig-2& 3).

This acquired fertile agricultural land is given for sophisticated urban use. According to 2013, 50% land has been distributed to private housing developers, 15% is given for Eco Park in front of Financial Hub, 10% for a lake, 15% for road development including glamorous six- lane artery and Jatragachhi Metro Rail Station.

Table 3: Land Use Change of Jatragachhi 2001-2013

Year	Forest	Irrigated Agricultural Land [Hectares]	Unirrigated Agricultural Land [Hectares]	Total Agricultural Land [Hectares]	Culturable Waste	A area Available not for Cultivation [Hectares]
2001	1.25%	78.12%	6.88%	85%	0.00	13.75%
2013	0.00%	20%*	0%	20%*	0.00%	80%

Source: Census report, 2001 & Primary Survey 2013

But these new development is obviously in cost of food grain production. Considering the average productivity of paddy the loss of food grain (paddy) per year can be calculated as (217.73X2X4392) 1912540.32kg on in average. Total agricultural land acquired for Kolkata New Town Planning was 3075 hectare. If even 30% loss of food grain is accepted for mishandle and calamities average availability of paddy from the total acquired land appears to be 467,9,01,673 Kg/year. Thus such land transfer is a serious threat to the food security.

Fig 2: Land Use of Jatragachhi– 2001

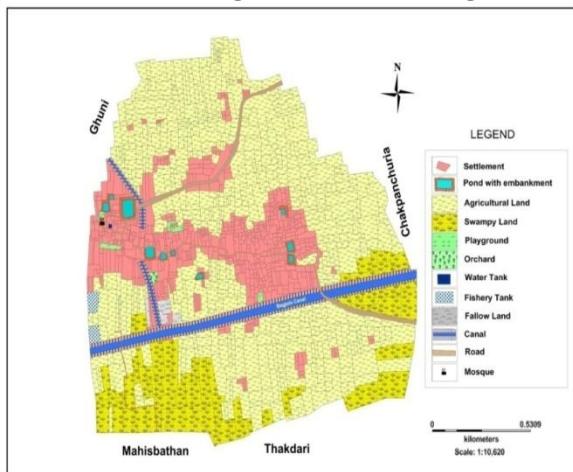
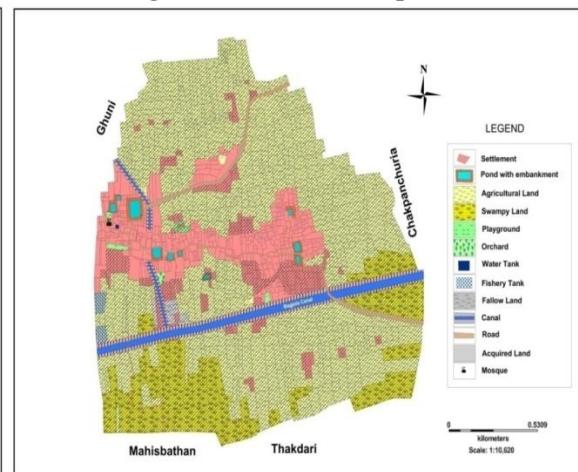


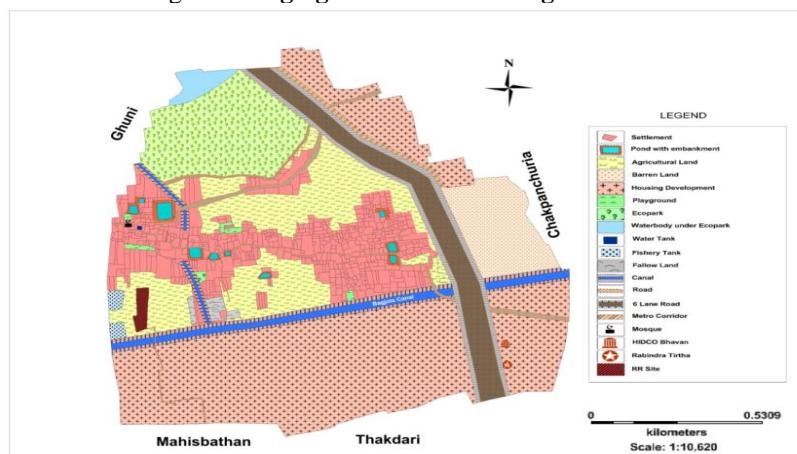
Fig 3: Land Use Of Jatragachhi after Land Acquisition-2003



Source-Primary Survey

Data Source: District Land Revenue Office, N 24 Pgs

Fig 4: Changing Land Use of Jatragachhi-2013



Source-Primary Survey

Demographic Changes: It was found from analysis of census data that the density of population has increased (1991-2011). But the sex composition remains the same. The literacy pattern is also changed. The decadal male literacy growth rate is 8% and it is 16% for female during the period of 1991-2001. It implies that a significant spread of female education occurs in this area (Table-4). But this growth rate comes down to 7% in 2011.

Table 4: Sex and Literacy Composition:

Year	Total Population	Male	Female	Population density(Persons/sq km)	Literates		
					Total	Male	Female
1991	4254	2205(51.8%)	2049(48.2%)	1462	1443	946(65.6%)	497(34.4%)
2001	5118	2652(51.8%)	2466(48.2%)	1759	3037	1740(57.3%)	1297(42.7%)
2011	6890	3557(51.62%)	3333(48.38%)	2375	4986	2706(54.27%)	2280(45.73%)

Source-Census of India 1991, 2001, 2011

Change in Occupational Character: The worker and the non-worker ratio remain more or less same during the period of 1991-2001. It has increased during 2011. Main workers in total workers have increased fantastically from 1991 to 2001 (Table-6). Only 5.44% workers were marginal in 2001. But main workers have reduced drastically during 2011. Marginal workers have increased from 5.44% to 30% during the period of 2001 to 2011. Such economic deterioration is obviously due to land transfer.

Table 5: Workers and Non-Workers Composition:

Year	Total workers	Main Workers	Marginal Workers
1991	1330(31.26%)	1141(85.79%)	189(14.21%)
2001	1545(30.19%)	1461(94.56%)	84(5.44%)
2011	2623 (38%)	1838 (70%)	78(30%)

Source-Census of India 1991, 2001, 2011

Infrastructural changes:

- The area was irrigated through Kestopur canal and Bagjola canal. A beautiful irrigation system through underground piping was developed. The area was irrigated through River Lifting Irrigation system also. But all these systems had been demolished even before acquisition started.
- Grain Gola (grain store room), agricultural instruments of the cultivators are now of no use. But following the traditional belief, farmers cannot sell those.
- All cattle animals have been sold.
- In past, the region was served by some unmetalled roads. These roads connect the important market settlements of vegetables and rice. But now this mouza is connected with the other parts of the region with modern transportation system. A major north south arterial road with a six lane divided carriageway is functional near the Jatragachhi mouza. It passes through the area connecting it with Kaji Nasrul Islam Sarani just off Baguihati at the one hand and Sector V of Bidhan Nagar on the other.

The regional road connection across the Vidyasagar Setu and Vivekananda Setu and Nibedita Setu are provided along the EM Bypass, Kona Express Way and Belgharia Express Way. This area is connected to the remote parts of the N and S 24 Pgs by Rajarhat road in the north and Basanti Highway in the south. There is a proposal for Eastern Expressway which is going to connect the whole of Kolkata Metropolitan area.

The study area is within 6 km of Bidhannagar and Dum dum railway station, the most important railway node providing interface and transfer facility of the sub urban railway system, circular railway. The upcoming East –West Metro is also ending at Saltlake.

The study area is south to Netaji Subhas Chandra Bose International Airport at Dum dum. There is also a possibility of an effective water transport system finally taking shape once Krishnapur canal is made navigable all the year round.

Impacts on Habitants: To understand the impact of the land conversion on the residents of Jatragachhi a primary survey has been conducted among the affected people. During land transfer compensation was given in two ways- i) land price compensated and ii) rehabilitation of the displaced persons. Compensation, when paid, is never been enough to replace what is lost. Nothing is exception in Jatragachhi. Occupational changes of these people not only cause loss in income but also create identity crisis.

A primary survey has been conducted among the people whose agricultural land has been acquired but are not displaced from Jatragachhi to understand how they maintain their livelihood. This is found that once settled cultivators have been transformed into marginal workers (Table-6).

Table 6: Occupational Change of cultivators who lost their land but not displaced

Cultivators-	26%	Security guard-	2%
Daily wage labourer-	24%	Fruit seller-	2%
Grocery shop	7%	Business (building material-	7%
Auto rickshaw puller-	14%	Biri (indigenous cigar) making-	4%
Tailor	2%	Mason-	10%
Others	2%	Past occupation agriculture	100%

Source-Primary Survey

In the RR Site (Resettlement and Rehabilitation Site) (Fig-4) displaced 600 families have been resettled. But they are not original habitants of Jatragachhi. They have been displaced from distant place. Due to displacement majority of the people lose their work. Once who were engaged in primary activities, now have been transformed into daily wage earner or informal workers like mason, carpenter, hand rickshaw puller, auto rickshaw puller, house painter, sweeper (Table-7).

Table 7: Present Occupations of Displaced People

Daily unskilled wage laborers(helper)	Manson	Carpenter	Hand rickshaw puller	Auto rickshaw driver	Home painter	Sweeper	cultivator
17%	12%	10%	15%	14%	14%	9%	11%

Source-Primary Survey

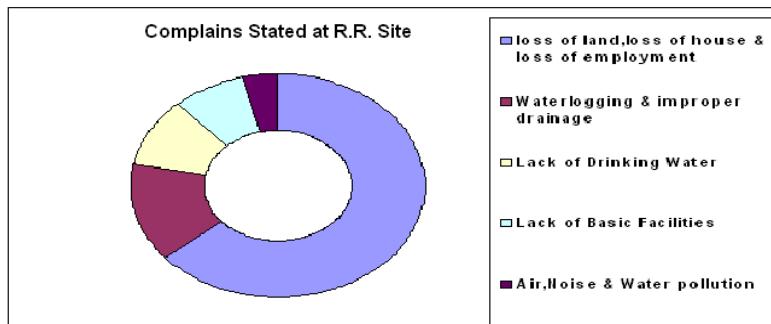
Living Condition at Resettlement & Rehabilitation Site (R.R Site): Plots allotted at R.R. Site is very small in size (Table-8). R.R. Site appears as congested slum with row housing separated by 4ft wide lane. Housing condition is very poor. 84% houses are kuchha, made of mud and are thatched. Part of the area is not electrified. There is no proper sewerage and safe drinking water supply. 669 families have to depend on two public tubes well for drinking water.

Table 8: Allotment of Plot to the Displaced persons at R R Site

Plot Size (sq feet)	438	600	720
No: of allotted Plots	79	545	43

Source- HIDCO

Fig-6 Complains as stated by the residents of R.R. Site during primary survey



Source-Primary Survey

New Town in Dwellers' View: 100% residents interrogated in Jatragachhi believe that New Town Planning has no good effect in their life. It grabs their land and peace. It will serve only upper stratum of the society. But they have been victimized. They are bearing the cost of new town as

- Loss of assured food due to loss of agricultural land and cattle.
- Drastic loss of income since they have been transformed into marginal workers.
- Loss of utility of their agricultural machineries as well as their traditional knowledge about cultivation
- Fear of hike in property tax
- Damaging of natural and social environment
- Water logging due to filling of agricultural land.
- Abuse of fertile soil
- Destruction of their excellent irrigation system
- Increase of social and political tension
- Loosening of social bondage
- Forced eviction and encountering with police
- Identity crisis
- Psychological problems

Not a single responder supports this smart New Town Plan through conversion of arable land into urban area. It is neither sustainable nor beneficial.

Conclusion: Jatragachhi, once a flourishing agricultural area is now transforming into central area of a New Town following a vast acquisition of cultivated land and displacement. The state, of course has paid compensation and offered some other facilities to these evicted people. But the losses of social identity as well space identity of these displaced people are in compensable.

Moreover, role of agricultural land as a producer of food is denied. Besides, agricultural land around the city could act as Green Belt for the city.

Infrastructure as well as functional linkages which had developed through a way of life are worthy of respect and protection. These cannot be brutally demolished.

A deep understanding of uniqueness of a place and place assets are at the base of spatial planning. Therefore, how habitants value the place (rather than planner) is important. But their voices are unheard in state directed spatial planning.

Town and country planning department is looking after spatial planning. Urban planning of different forms especially for metropolis is done by the department. Country (rural) planning rarely attended. Rural region surrounding the city develops in interest of the city and thus loses its original identity. Several social as well as environmental problems are thus generated. This story of land conversion in Jatragachhi for development of Rajarhat New Town has pointed these problems. It is realized from this study that rural-urban planning in integrated fashion is necessary as a policy for sustainable spatial planning.

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