

Development of the first planned township in West Bengal- *A Geo-historical study of Kalyani*

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Abstract

Kalyani township is in Nadia district of West Bengal with around 26 sq.km area situated on the eastern bank of River Hugli, like Kolkata. Second Chief minister of West Bengal, Dr Bidhan Roy had dreamt of a satellite as well as industrial and residential township to reduce the pressure of population from the City of Calcutta and then Kalyani was born. This study tries to explore the historical journey of Kalyani from a village of Nadia to a military base 'Roosevelt Town' to a modern township of India with the demographic evolution and geographical analysis of the area. History of the township reveals series of events which turned the rural area into military town to urban area and then to a modern planned township. The phases of development in the history of planning in West Bengal along with the unique planning strategy adopted by the Indian planners have also been highlighted for understanding the geo-historical and socio-political background of the present municipal area. The urban morphology created though government initiative is indeed an example of modern satellite township development in post-independent India.

Keywords : *Planned, Municipality, Industrial, Satellite, Refugee, Land use, Leasehold.*

Kalyani township is in Nadia district of West Bengal with around 26 sq.km area situated on the eastern bank of River Hugli, like Kolkata. Kalyani forms the northern end of the continuous urban agglomeration which has developed along the twin axis of the Hugli River and the railway line connecting Kolkata to North Bengal and Assam. It is the northern most part of the area covered by Kolkata Metropolitan Development Authority (KMDA). Kalyani forms the administrative headquarters of the subdivision of Kalyani.

The modern township of Kalyani was mooted at a time when Kolkata was reeling under the pressure of influx after partition in 1947 and the then Chief Minister of Bengal, Dr. Bidhan Roy had dreamt of a satellite township to ease the population from the City and that is how Kalyani was born, phoenix-like, out of the ashes of World War II, at the site of an

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American Base, 'Roosevelt Town'. The area was originally selected for American military airbase during the Second World War. At that time, it was known as Roosevelt Nagar or Roosevelt Town (named after the president of America). Today also, a resident or a visitor can find some war remnants like military barracks, army hospital, air force station and tractor garages scattered here and there in the township. Kalyani Municipality, formed in 1995 (before that it was a notified area) is responsible for the civic administration of the town. The Municipality consists of a board of councilors, elected from each of the 21 wards of the town as well as a few members nominated by the state Government. It was believed that Kalyani would evolve as one of India's model towns in terms of planning with an exclusive industrial belt that would prosper the local economy to even greater heights. However, the so-called industrial development was hampered and did not flourish as it was expected due to several socio-political issues (Chakraborty,2013).

It is a planned industrial town but with large unplanned settlement. It has a university, and number of Government and private colleges. It has around 1,00,620 population with over 18,500 households (Census 2011). It has 16 slum pockets with over 49% people residing in these slum areas, one of the highest percentages of slum population in KMA area. It has four zones namely A, B, C and D. Kalyani Municipality is the urbanized form of vast rural hinterlands. In its south and east, two other municipalities (Kachrapara and Gayespur) are there whereas in north few villages are present.

As per the DDP (2007-2012), Peoples Biodiversity Register (2010), District Statistical Handbook-Nadia (2013) of Kalyani Municipality, the physical setting of the town is explored by the author. Geographical characteristics of the town

The author has tried to focus on the geographical phenomena like physiography, soil, ground water, climate etc. as an integral part of the study as it is correlated to the history of development.

Physiography and soil : The general relief map of Kalyani (Fig. 1) depicts that the area has an average elevation of 5-15 m and three contours i.e. 12,14,16 m, are drawn to show the elevation extent. It is clear that most of the area is under periphery area is lower than the core, it is often flooded and waterlogged.

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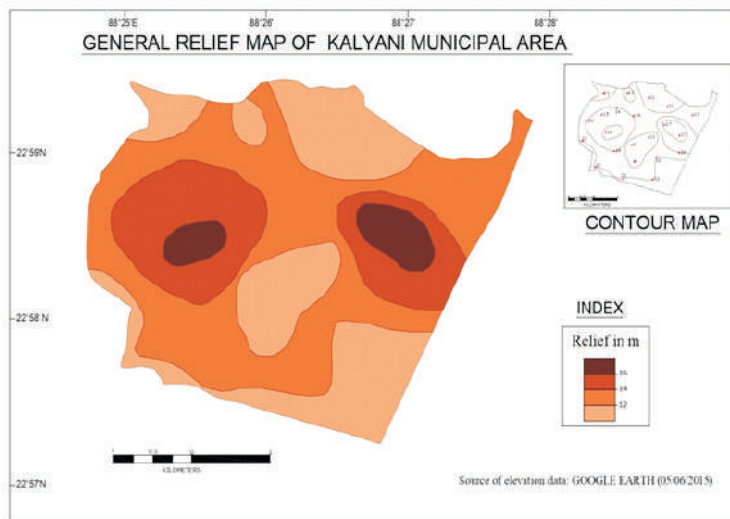


Figure 1: General relief map of KMA

Kalyani is situated in the delta region of the Ganges, on the natural levee area surrounded by the remnants of an ox-bow lake. During monsoon with high level of water flow, flood is a common phenomenon in certain parts of Kalyani. In the planning process the digital elevation model of the terrain of the municipal area could have provided a very useful flood disaster management model of the area (Chowdhury, 2011).

The area is filled with age old alluvial soil of the Ganga delta. Soils are deep, poorly drained, fine loamy soils, occurring on level to nearly level meander plain with loamy surface and moderate flooding. In Kalyani the soil profile is associated with deep, moderately well drained, fine loamy soil whereas in Bidhannagar it is little bit sandy and silty.

Ground Water and Climate

The ground water potentiality of the terrain in Kalyani is moderate to good. The area is made of riverine sediments, constituting mainly sands, silts and clays of Quaternary age. There is no persistent clay horizon in the near sub surface horizon. As such ground water basins are having extensive lateral extents and thickness of aquifers that persist under unconfined or water table conditions beyond depths of 150m or so exist. Aquifers with primary

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intergranular porosity yield groundwater at the rate of more than 40litres/second (Peoples Biodiversity Register, KMA,2010).

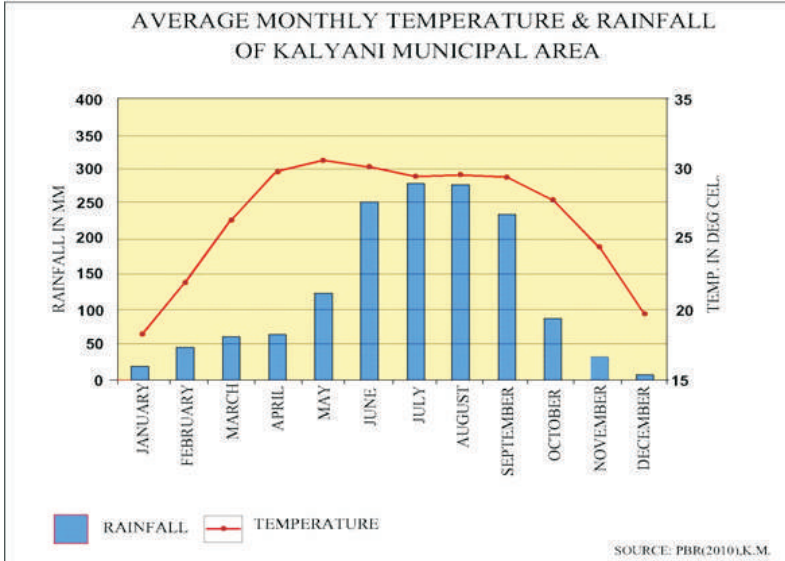


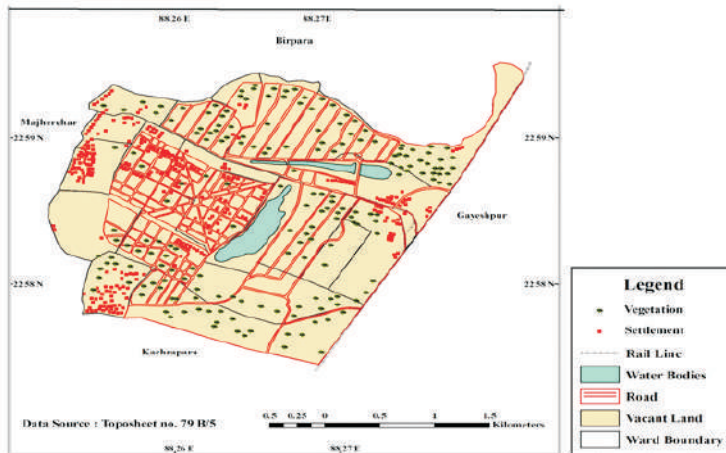
Figure 2: Climatic condition of Kalyani

The climatic condition (Fig. 2) mentioned in Peoples Biodiversity Register of Kalyani town indicates that overall, the town experiences tropical monsoon climate. Temperature and rainfall data of Kalyani show that the temperature ranges from 11^o-36^oC throughout the year and average rainfall is 122 cm. Humidity rises in summer (April-June) at about 93-94%. and the rainfall mainly occurs between June-September.

History of the development of Kalyani

The whole study area, extracted and drawn from the Toposheet 79 B/5) (Fig. 3), indicates that till 1970's Kalyani had only a few households developed in B block and the two main water bodies were larger in size than at present. A block has almost no habitation as it was developed afterwards. The major roads were set up in the township and the South Eastern Railway was the eastern boundary of the town.

Figure 3: Kalyani township in 1961



Source: Prepared by author from Toposheet 79B/5(SOI), Surveyed in 1958-59, published in 1961

Choosing Kalyani as alternative

The basic objective of the plan was to relieve the pressure of population on Kolkata after independence (for mainly refugee rehabilitation) and to provide additional space of living for the people in a rural setting, yet providing necessary urban amenities of a planned satellite town, not too far from Kolkata metropolis (48 km). Another objective was to establish it as a counter magnet of Kolkata to hold considerable number of population and with this reducing the in migration of population from surrounding fringe area to Kolkata. So, the purposes of development of the township were refugee rehabilitation, reduction of population pressure on Kolkata, industrial development in Nadia and employment generation, educational development and accommodation of lower/middle class people. The reason for choosing the site as per researcher's view were the following: vast area was available to develop township; primary infrastructure was available due to 'Roosevelt Town' set up before; distance within 50 Kms of Kolkata ensuring daily commuting, etc.

History of evolution

It has a long history of its own which I have described in brief. Despite the fact that this green township was constructed post-independence, it was previously habituated during and even before the British or colonial

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period. The history of the township reveals a series of events which turned the rural area into a military town and an urban area and then to a modern planned township. It is unlike the other study area which was not inhabited before; rather the town was a conglomerate of rural mouzas (villages) prior to Second World War. This rural area was moderately populated with 28 villages. Some of these are –East Gusthia, Chakmanik, West Bishnupur, Dharambati, Jadvbati, Mathurabati, Jadubati, Gopalpur, Goshpara, Uttarpara, Chandmari, etc. (Ghosh, 1999). Kalyani started to develop immediately after the Second World War in 1950 and was completed in November 1965 (Census, 1961). Keeping this purpose in mind the then Chief Minister of West Bengal, Dr. Bidhan Chandra Roy, planned to develop a completely new town with all modern amenities and facilities in the periphery of Greater Kolkata and chose the present location of Kalyani (the vast areas of the deserted Roosevelt City of the US military during the World War). To make Kalyani a modern planned town, its land use was preplanned. In the post-independence period (after 1950) the supply depot site was chosen for the satellite urban area -Kalyani. It was built in a short time in order to host the Indian National Congress meeting. The total area acquired for the Kalyani was 3836.42 hectares (38.36 sq.km). The area was divided originally into six Blocks: A, B, C, D, E and F together with areas reserved as green belt on the periphery of the same (Census, 1961). A little later Blocks A, B, C, D were included in Kalyani and Blocks E and F were included in Gayespur division. The blocks with their corresponding areas are given below (Table 3). After establishment, the land was distributed on leasehold basis to set up individual houses (Table 1) and year wise gradually the occupied houses raised from 968 to 9410 (1961-1991) but from 2010 onwards multistoried buildings began to be set up and changed the low-rise nature of the town.

Table 1: Number of occupied residential houses in Kalyani

Year	Number of houses
1961	968
1971	4269
1981	7979
1991	9410

Source: Chaudhury, 2003

It was a military camp during Second World War. 'Roosevelt City' was established here by USA as an army supply depot with a small flag railway station which was known as 'Chandmari' (Rifle Range). So, the railway track was set up to Simanta (boundary of the area) at that time for carrying goods and food for the soldiers. At present, two hangers of Roosevelt Nagar can be observed in Chandmari Placement for refugee camp as the remnant of the war city. But, after the world war came to an end, this base with some infrastructure was left by the soldiers. Apart from this, there are many other shelters of war scattered in Kalyani (the present TB Hospital was the Yarison treatment centre for soldiers) but unfortunately these precious historical relics are not valued properly in the manner as heritage should be taken care of.

The history after war is quite interesting as the site was chosen for refugee rehabilitation after the partition of India. Since 1950, refugee families began to settle at Majher Char, Gayespur and Taherpur area in and around present Kalyani town. Their livelihood was closely associated with the river Ganga as most of them were mainly fishermen but since the navigability of the river was declining gradually, they shifted to cultivation to sustain their livelihood; but even now some fisher folk reside in the urban wards of Kalyani. In 1949, Dr B.C Roy became the second chief minister of West Bengal and he initiated the development of a new township in Kalyani. With his initiative, the Master Plan was done by J.N. Dasgupta. All India National Congress session was held in 1954 in this town which gave this town immense importance and publicity. Slowly houses were built in Kalyani and were sold to people. Gradually the University was established in 1961 which gave a boost to the growth of the town. Industrial growth was initiated with the establishment of Kalyani Spinning Mills. It was followed by the development of a fairly big Industrial Estate in demarcated D block under the Cottage and Small-Scale industry of the Government of West Bengal. In the period 1961-71 Kalyani suffered stagnation. Then again since 1970, a new start for a better urban environment has been attempted and has been taking shape. The urban space was quickly filled by residential houses and Kalyani began to flourish as an industrial, educational and residential green township.

The phases of urbanization were not the same. At first it experienced a

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slow pace of urbanisation. Residential plots were handed over to the public at a very low cost which was a big advantage for the inhabitants. Not only that, the other commercial and industrial plots were also very cheap compared to the contemporary price. Then Kalyani gained a momentum in urbanisation and was populated slowly for a better future and a positive urban growth. Though it was planned to accommodate almost 2 lakh population on plot size of 5-20 cottahs (1 cottah=720 sqft, the target population is yet to be reached. (Chaudhuri, 2003).

The major historical events in the development of the town have been summarized in Table 2. The concept of Kalyani was to be a healthy, clean, green township, not only a suburb. It was planned to solve the emerging problems of the mother metropolis but due to distance and other factors it did not reach the glory as expected., but the density, land use pattern, morphology, green space, self-sufficient neighborhood concept etc. indicate that the conceptualization of Kalyani was truly that of a ‘Garden City’ (as postulated by E. Howard) for a better urban future.

The Master Plan

The Master Plan (Fig. 4) reflects the planning strategy of the township. The boundary of the town with railway(east), Canal(south) and Hugli

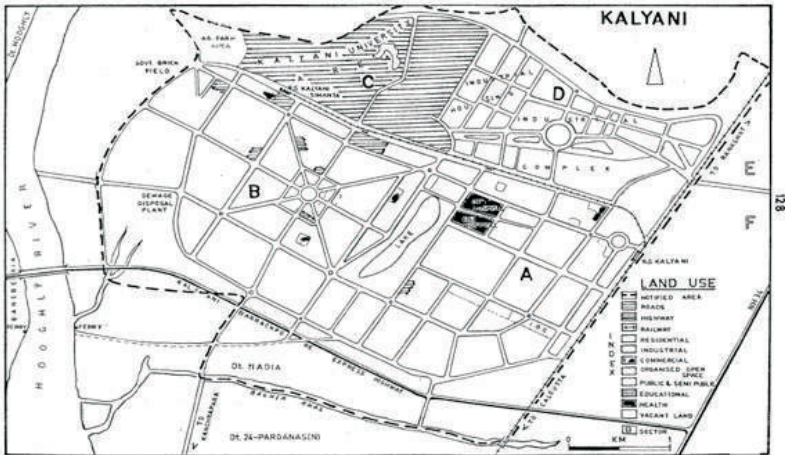


Figure 4: Kalyani Municipality Area during Planning Stage

River(west) gave it a natural advantage for fixing its land area. The neighbourhood area of A and B blocks were demarcated for mainly residential purpose and the area of D block in the north was meant for industrial area and Block C was for educational purpose where Kalyani University was set up (Table 4). The block-wise area given in Table 3 depicts that Block A has maximum area followed by Blocks B, D and C. The green belt around the township is about 1432 acres which is a unique feature of the planning. It must be mentioned that here the planners are Indian and no foreign strategy was imitated during planning.

Table 2: Important events in the development of township

Time period	Major events in development and planning
1945	Military camp during World War II –‘Roosevelt Nagar’
1949	Foundation of township acquiring rural mouzas
1954	All India National Congress was held here, distribution of land started
1961	Kalyani University was established, industries set up
1971 onwards	Urbanisation started after stagnancy with a clean and green environment, infrastructure developed

Source: Compiled by author

Table 3: Area of blocks at the time of town establishment

Block name	Area(acres)
A	1216
B	1098
C	640
D	720
Green cover	1432

Source: Tarafder and Islam (2012)

Table 4 : Block-wise land use type in KMA

Block	Location and Types of Land use
A	Near Kalyani railway station, mostly office, partly residential with commercial market
B	Residential as well as mixed land use pattern. Important landmarks like Kalyani main post office, town club, industrial training centre exist in this block
C	Institutional use in this block – largely occupied by Kalyani University
D	Fully industrial zone but partly occupied

Source: DDP (2007-2012), KMA

The distinct area-wise planning like health, education, industry, residence, CBD, etc. followed properly, hence resembling the sector model of urban morphology. It has been found that even after 60 years of establishment less deviation from the Master Plan is observed. Only the land in C block is encroached by slum colonies as it remained vacant and unused for years. A block has been developed lastly with commercial place, public and semi-public place, hospitals, etc. beside residential areas.

Conclusion :

The historical evolution of the modern township from a village is interesting and fascinating. It is observed that the contemporary towns Bidhannagar and Kalyani were planned to accommodate the population pressure of refugees after independence, to absorb some of Calcutta's excess population burden and flourish as satellite towns but the history of development and the situation existing prior to their development differed considerably. The conversion from marshes to the township of Bidhannagar or Salt Lake is unique. Even later, the East Calcutta Wetlands had a considerable role to play in the development of Salt Lake (Bidhannagar) whereas the pre-existing World War II military base infrastructure had its say in the emergence of Kalyani township. It is still lagging behind due to distance from metropolitan Kolkata and several other reasons. But the bimodal plan of Calcutta (Kolkata) and the first dream project of Dr. Bidhan Roy was an example not only in West Bengal but in the whole of India as a government initiative to develop a planned

residential, institutional and industrial town in the post-independence era.

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