



URBANISATION, SOLID WASTE POLLUTION AND MANAGEMENT IN RAIGANJ MUNICIPALITY, WEST BENGAL, INDIA

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ABSTRACT

Urbanization may be defined as the process of formation or gradual growth of cities and towns. Its main dimensions are (a) progressive population concentration, (b) predominance of non-agricultural activities (c) structural and socio-physical changes. It is a fact that urban localities have increased from 17.3% to 27.8% in the last few decades (1951 to 2001). But if we consider the another side of these development, a number of problems have also been identified. The situation is more acute both in case of the smaller and larger towns. Unplanned growths, rural to urban migration, insensible social and economic behaviour, and lastly general deterioration of environmental quality have come out as of utmost concern. Under these circumstances, the plight of the newly emerged town and cities should be highlighted as the present smaller towns will be big cities in the near future. So, the towns like Raiganj should be paid much more attention for its proper and perfect growth which will be environment oriented. The ever increasing problem of solid waste generation, its disposal and management in the Raiganj Municipality, West Bengal has been discussed upon data collected and generated in the field. It has been observed that this municipal town has experienced a remarkably rapid urbanization particularly over the last three decades and the extension of infrastructure of the urban service system, provided through the municipal office, has not been able to keep pace with this. Huge quantities of both bio-degradable and non bio-degradable wastes are being generated every day and due to the shortage of manpower and transport facilities solid waste disposal service cannot work properly. Rapid development of slums in the fringe areas of this municipal town in recent years has also aggravated the problem of solid waste management and disposal.

INTRODUCTION:

Initially, Raiganj was a sub divisional town of erstwhile West Dinajpur District of West Bengal. The said district was divided into North (uttar) and South (dakhin) Dinajpur District on 1st April, 1992. After this partition, Raiganj was declared as the District Head Quarter of Uttar Dinajpur District. As per 2001 census report, Raiganj has a population of 1,65,000 and it falls under the category of class I town (population 100000 or more). As stated earlier "urbanization" from various angles encompasses progressive population concentration, dominance of non agricultural activities, structural transformation, and socio –physical change including both people and place ; necessarily towns like Raiganj should be taken into appropriate consideration to analyze the interactive character of urbanization and environmental stability.

OBJECTIVE OF THE STUDY:

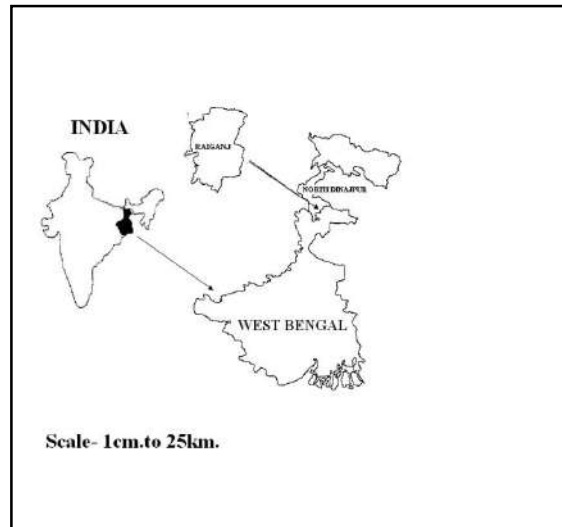
The main objectives of this study are as under-

1. To explain the transformation of a small 'gunj' to a large municipal town of the study area.
2. To mention the emerging environmental issues of Raiganj town.
3. To analyze the human perception about the environmental degradation in the study area.
4. To propose some preventive measures to encounter the problem.

LOCATION OF THE STUDY AREA:

Raiganj, the district town of Uttar Dinajpur is situated on the bank of river *Kulik*. Geographically it is located between 25°35'N to 25°57'N latitude and 88°07'E to 88°17'E longitude. It occupies an area of about 10.76sq.km and is bordered by Darjeeling district in the north, Dakshin Dinajpur and Malda district in the south, Bangladesh in the east and Bihar state in the west.

LOCATIONAL MAP OF RAIGANJ



Source: Self- Sketched

PHASES OF URBAN DEVELOPMENTN T OF RAIGANJ TOWN:

Regarding the history of the name Raiganj, different opinions are necessary to consider .Some says that ‘Raiganj’ is the modified version of ‘*Radhaganj*’ which was the outcome of ‘*Baishnab*’ culture. Whereas some are of the view that river *kulik* based port market ‘*Bandar*’ was mainly controlled by the ‘*Rais*’ i.e. females, so the town was named accordingly (*Rai*-females, *ganj*-settlement). Another opinion concerning the name of Raiganj is that there was heavy cultivation of ‘*rai*’ – a type of mustard, so this place has been named accordingly. Now, attention is to be paid towards the three main growth centers of the then Raiganj- Depending upon the navigation facilities of river *kulik*, a port based market was developed namely ‘*Bandar gudri bazar*’. The total bazaar area was consisted of ‘*Sahapara*’ ,*Bangadeshipara*’, *Baniapara*’ etc. Irrespective of caste and creed, a settlement was developed centering the *Bandar Kali Temple* resulting into faster growth. Another growth pole of Raiganj was the ‘*Ukilpara*’ (place of advocates) which was mainly dominated by the elite class. They chose this place to settle down out of several causes such as lesser flood probability, close proximity to the Rally Jute Trading Company and Railway Line as also Police Station and Mr.Kuladakanto Ghosh, advocate, was the pioneer of establishment of settlement here. After him, his relatives, mostly of advocates, decided to live here. Other than these two, *Mohanbati*, a nearer place to railway line was developed with a very few business families. Afterwards *Raiganj Muncefi court* was transferred there from *Bandar* area it gradually became a residential complex in and around.

Table-1

MAJOR ESTABLISHMENTS	YEAR
Raiganj <i>muncefi</i> court and Raiganj thana	1886
Binapani library and Raiganj Coronation High School	1911
Railway line	1927

Maharani Snehalata Park <i>renamed</i> as Raiganj Institute	1939
Mahavir Talkies	1944

Sources- Raiganj er itihās

In the post-independence period, Raiganj was upgraded as municipal town on the 15th August, 1951 with an area of 10.76sq.km. with a population of 15000. Immediately after the independence, population started increasing heavily due to inflow of refugees coming from the then East Pakistan.

TABLE-2

YEAR	POPULATION IN '000	NO.OF WARDS
1951	15	6
1958	24	9
1960	28	13
1961	32	16
1991	1,51	22
2001	1,65	26
2011	1,75	27

Source- Census of India and Municipal records.

In 1953, the construction of first metalled road was started from the extreme north of the town to the extreme south by PWD (Public Works Department). After that, in 1958, Raiganj sub divisional Hospital, Sub jail and the North Bengal State Transport Corporation's Raiganj Depot were inaugurated. Here readers will be astonished to know that previously there was a municipal dumping ground of night-soil at the places of present NBSTC depot as also present municipal office. There was a big fruit garden namely '*Milik Bagan*' which was destroyed completely for the construction of hospital, sub jail and B.D.O office.

Table-3

MAJOR DEVELOPMENTS	YEAR
Raiganj University	2015
Raiganj Super Market	1976
Gitanjali Cinema Hall	1980
Municipal Bus Stand	1989
Municipal Market Complex	1990
Bidhan Mancha	1995

Source-Municipal Records and personal interviews

During the time of partition in 1947, the educationally conscious people realized the need for a college. In 1948 it came under the University of North Bengal and since then it has been designating as a University college. Super Market having almost 100 shops along the main road was primarily started by the then Minister Dr.Jainal Abedin. Gitanjali Cinema hall was established entirely for entertainment purpose by Mr.Ardha Roy Choudhury and Mr.J.K.Khan. Municipal Bus Stand was initially formulated by Ex.Chairman late Mr. Tapan Kumar Dutta and thereafter constructed and opened by the then Chairman Mr.Harinarayan Roy on 2nd November, 1989 in order to reduce heavy pressure on state transportation. Municipal market complex was partially opened by Ex.Chairman Mr.Harinarayan Roy in 1990. Bidhhan Mancha, the biggest hall over here, was initially started by late Mr.Tapan Kumar Dutta as a town hall. After that it was restructured and constructed by Mr.Harinarayan Roy and there after it was completed and opened by Chairman Mr.Mohit Sen Gupta.

From inception, spread of tertiary activities and increase in population have played important role in the increasing urbanization process. Therefore two aspects relating to the urbanization process come into front-

- (a) Most of the population is engaged in non-agricultural activities.
- (b) Massive increase of population between 1981to1991 due to rural to urban migration.

Table-4
DECADAL GROWTH RATE OF POPULATION OF RAIGANJ TOWN

YEAR	POPULATION	DECADAL GROWTH RATE (%)
1951	15000	0
1961	32000	113.33
1971	43000	33.76
1981	60143	39.25
1991	151054	151.37
2001	165000	15.38
2011	175000	16.30

Source-Urban West Bengal (IILGUS)

Analyzing this peculiar decadal growth rate, some interesting facts come out. There is a huge increase in population in 1961 in respect of 1951 because of heavy refugee influx after partition in 1947. But the population increase of 1961 and 1971 was nominal (33.76%) as flow of refugee influx was slowed down. After that, population increased but in a moderately stable condition (39.25% in between 1981 to 1971). Suddenly, in 1991, there is a gigantic increase of 151.37% due to enormous rural to urban migration, (table-3) and thus most of the major urban establishments took place in between 1980's to 1990's. One of the most striking features of urbanization of Raiganj town lies in the makeover of infrastructural and social landscape such as the development of multistoried buildings or flat culture. The Midas touch of urbanization and globalization has made an alteration right from the food habit to the style of entertainment at present. Another strange character of the town is that all the important offices like D.M. Office, DLRO etc. are situated in the Panchayet area of Karnajora depriving the Raiganj town from enjoying the benefits of these offices which should be situated within the Municipal area. This is quite odd that district head quarter dwellers have to run to a panchayet area for their needs.

Recently, almost 70% of the ponds are filled up and bushes and jungles are cut down in order to build multistoried building. Availability of running water and electricity is also a major indication of the transformation.

SOLID WASTE PROBLEMS:

Though urbanization is very important in the process of development but it also brings some deep rooted problems-

1. Unplanned growth and increasing number of vehicles of the town causes traffic jam often around *line bazaar*, *rail line* crossing area etc. This is mainly caused due to the single road running north-south without any flyover for alternative short route.
2. Tenacity to live in towns causes population increase and resultant settlement congestion.
3. Increased number of vehicles.
4. Improper sewage and garbage disposal system.
5. Non-demarcated '*bazar*' area. Out of which the smell of rotten vegetables and fishes make life deplorable.



Plate : The perception of the people of Raiganj to take the single meal from the street side hotel (photo courtesy: ©T. Pal, 2018)



Plate Raiganj Municipality has distributed such type of Bucket to store wastes. (photo courtesy: ©T. Pal, 2018)



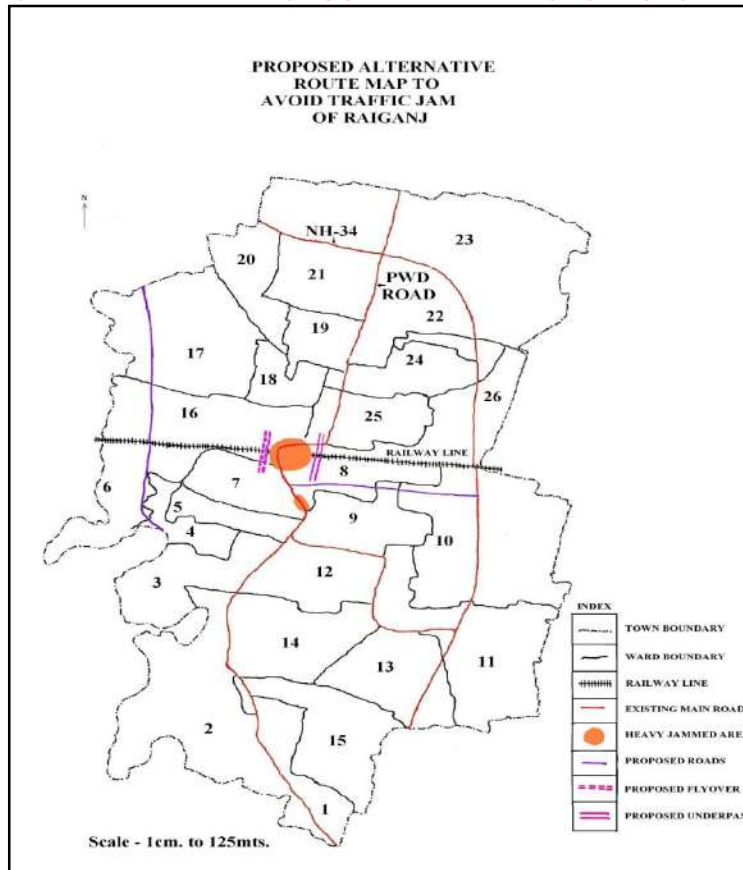
Plate : Solid Waste collecting Van used by Raiganj Municipality(photo courtesy: ©T. Pal, 2018)



Plate Nature of Solid wasters are generating from the Raiganj town. (photo courtesy: ©T. Pal, 2018)



Plate : Specific Solid waste dumping ground has built up by Raiganj Municipality



CONCLUSION:

Since the above discussion, it is high time to take some fruitful steps in order to get a hustle free urban environment.

1. A Master plan should be formulated for scientific development of environmentally sustainable urbanization.
2. A flyover and an underpass should be constructed on the Railway crossing at the middle of the town to avoid heavy traffic jam and easy trespassing.
3. Another plan for comprehensive scientific drainage scheme has to be immediately taken up for sanitation and also to avoid germination of larvae of mosquitoes.
4. One alternative road to be constructed towards western side of the town for connecting north-south as soon as possible.
5. Another road is essential to reduce traffic congestion of the town from Municipal Bas Stand towards east to connect N.H-34 parallel to Railway Line.
6. The Municipal area remain same as in 1951 till to day where as population pressure is almost eleven times more, so the surrounding areas need to be conjoined for expansion of the town.
7. Last but not the least that mass civic awareness is utmost important which should not only to be looked upon as only Governmental program but it is also the responsibility to prepare Raiganj as a green and healthy urban centre before the grey world in the long run.

CONCLUSION:

People desire development at any cost and consequently the environment is being endangered. Despite realizing earth's probable annihilation, the developmental activities have been going on and rapidly increasing also. No one is found cognizant about the brutality of growing environmental issues whether it is micro or macro. It is quite interesting that in spite of such realization, the notion of sustainable development is not being implemented. If such inappropriate policy implementation continues, it will not away to bring one's own ruin. Towns of smaller categories which are comparatively newer should be taken care with importance so that their survival in long run or coming decades is not turned into an awkward environment faced by larger towns and cities of present like Kolkata, Mumbai, New York, London etc. However, to make a town environmentally sustainable at first a blue print of work to be done is required-

1. *Problem Identification*
2. *Zone of Problem demarcation*
3. *Causes of Problem*
4. *Planning for solving the problem*
5. *Finalizing the solution*
6. *Policy Framing*
7. *Proper Implementation*
8. *Review of Implementation*

If stated cyclic plan of sustainable development of a town is analyzed based on Raiganj-the study area, at first problems related to urbanization have to be identified. This requires two essentials – **A. Residents' Perception** and **B. Testing the existing environmental quality of the town**. After considering the obtained information from the above two, problems of the town in respect of increasing urbanization and population have to be identified. After detection of problems, it has to be noticed that which areas or zones of the town are liable or prone to the urbanization related problems and accordingly zones have to be delineated from lighter to denser or acute level. Hence, causes of such problems may be found out systematically; in this case, one or more causes may be come out for an explicit problem. However, efforts have to be made in such a way so that the best cause of a specific problem encountered by an area is identified. Thereafter all the troubles of the town have to be systematically arranged or categorized. Hence, the final stage of the work blueprint will come, which will be more crucial as the researcher has to pay much more attention to the problems along with their causes to find out proper environmentally sustainable remedies, which would be followed, framed as policies and ultimately implemented. After finalizing the way out, policy makers will advise policies to be taken to reduce this menace and lastly after completion of implementation of remedial measures, a review to test the result must be done after a specific time gap.

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