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**Unacknowledged Urbanisation and Dynamics of Urban Mobility:
An Experience of Katwa Town, District: Burdwan, West Bengal, India**

Abstract

Urbanization does not always become a cause of creating town or city with potentiality of equal range of growth and development in all respects. Because across the global every town or city on various grounds has been left with some sort of shortcomings within its being in reality. As a result, certain segments of the town or city remain deprived of irreversible drawbacks. Urbanisation in India is neither unique nor exclusive, but somewhat it is similar to global scenario. Because Indian urbanization has gone through a long process which is almost equal to other countries in the world, i.e. based on progressive nature of market economy. Besides, other important causative factors are occupational shift from agriculture to urban based industries and services. In West Bengal, Katwa is situated in the district of Burdwan. It is a sub-divisional as well as an important town with long historical past. Katwa is governed by municipality which provides civic amenities to its residents though the same are not enough to match their need. Due to both physical and non-physical constraints has controlled the growth and development of the town. This study attempts to discuss the histogenesis, trend of urbanization, growth, expansion, constraints, problems which give a concrete idea of constraints related with less development in all aspects of Katwa town. This paper will highlight the level of urbanization of Katwa town of Burdwan district of West Bengal. Whether it is an old town but some constraints which were interrupt to

grow it properly. So the main aim of this paper is to explain the problem of the growth of the town.

Key words: urban development, Occupational shift, histogenesis, constraint etc.

Introduction:

Katwa is an oldest town in the Burdwan district. It has long historical past. But its growth and development yet has not been satisfied as it should be. The size of the town is very small in compare to other towns of the Burdwan district that indicate its nature of static growth. So, the prime investigation of this study is to find out the reasons or constraints of its less growth and development of the town. Infact, Katwa is an agricultural based semi urban centre under Katwa sub-division under district of Burdwan. It is the Head quarters of Katwa sub-division. The town is situated within the boundary of Katwa-I C.D. Block. As it is located on the river bank of Ajoy and on the lower Ganga plain. Hence, the soil of the town is highly fertile but there is every possibility of flood during monsoon. The town is unique with its varied characteristics both in agriculture and industry. Katwa is having an area covering of 7.93 Sq.km with a population density of 9,026/km². The study area consists of 19 wards according to census report of 2011.

Research Site:

Katwa town is the pivotal town of the Burdwan District. The Katwa municipal town is located in between 23⁰37'N to 23⁰39'N latitudinally and 88⁰6'E to 88⁰8'E longitudinally. It is situated in between the meeting or confluence point of river Ajay and Bhagirathi. The town is surrounded by Murshidabad on the west and Nadia districts on the north, On its eastern

side there is Dainhat municipality. It is bounded by river Bhagirathi in the north-eastern side and in the north side the town is outlined by river Ajoy. The town has reasonably good accessible having SH-21 and Eastern railways which extend from Sealdah to Katwa and Howrah to Katwa. The Katwa railway station is well connected by eastern railway both by main and chord line covering Kalna and Katwa road with hinterland..It lies at distance of about 56 Km from Burdwan city, 52 km from Nabawip, 10 Km from Dainhat, 68 Km from Beharampur city, 78 km from Krishnanagar and 60 km from Bolpur. More so, capital city of Kolkata is only 158 km away from Katwa.

Objectives:

The aims are as follows:

- ❖ To investigate the history of town
- ❖ To show the present urban status of Katwa
 - To demarcate the land use changes of the town
 - To identify the trend of population growth
 - To show the bases of economy and its growth
 - To find out the infrastructural facilities of the town
- ❖ To highlight the constraints of development
- ❖ To focus the possibilities of development of the town

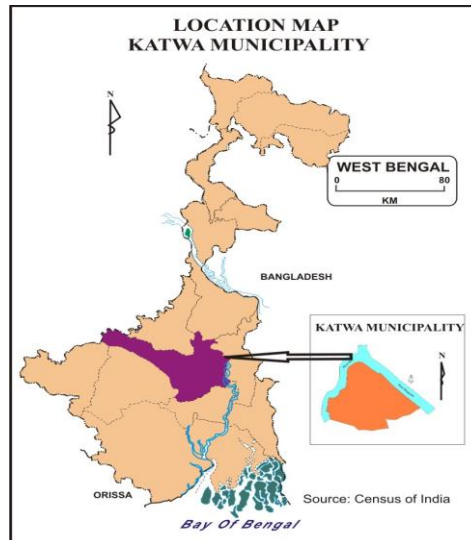


Fig: 1

Methodology:

Data are required for the fulfillment of the targeted objective. Hence the, primary and secondary data had been collected from different sources.

- Primary Data:

Primary survey is based on field enquiry. Out of 14406 household only 10% had been surveyed in detail. Questionnaire had been made for interviewing the people about their demographic profile, economic activity, assets, education, health and problems of the area.

- Secondary Data:

In this present study secondary data are very much important for authentic analysis. Secondary data have been collected from census office, Burdwan University library, NATMO, SOI, Katwa municipality, Agriculture office of Katwa, Police station, Industrial development office etc. After getting all information every data has been arranged and compiled as per its requirement. After proper analysis of these data some cartographic techniques have also been applied for better expression of the whole subject.

Historical Framework:

History of katwa is rooted to more than three centuries with changes in its name in different eras of ruling governance. Formerly it was named as Indrani, Katdwip, Katadupa, Kantik Nagar, Kantik Dwip, Katua etc. Though the name of katwa or Katadwipa was mentioned in Indica of Megasthenis i.e. more than two thousand years ago and even this area was also mentioned in Kritibas's Ramayana. But unfortunately no archaeological evidences have been found here in support of such claim. The strategical position of Katwa soon attracted the notice of Muhammadan conquerors of Bengal and it was one of their earliest seats. During the period of Maratha invasions, it was considered as a key to Murshidabad, and was frequently used as a base by Ali Vardi Khan in his operations against the invaders. In 1742 he defeated the Marathas in a pitched battle outside the walls of fort. In 1757 Clive in his march towards the western bank of Bhagirathi before the battle of Plassey and seized the fort of Katwa which was abandoned by the garrison at the first assault. A large mosque (in very fair preservation) still exists within it. It was built by Jafar Khan, the founder of Murshidabad and Subedar of Bengal from 1702-1725. In the history of Bengal, Katwa was considered as the gate way to Murshidabad. Nawab Murshid Kuli Khan established a Chouki at Katwa, and then a part of it was named as Ganj Murshidpur. He also built a mud fort on the opposite side of Katwa as a Sankhi. At the initial period of colonial rule, Robert Clive, a British general, constructed a fort at Katwa. Robert Clive waited at Katwa fort and had made a plan for the great battle of Plassey to be fought against Sirajudoulla. Another most important event happened in Baishnab religion. Chaithanya Mahaprabu, the founder of Baishnab religion (part of Hindu religion) took diksha from Kesob Bharoti at Katwa. Because of this

event it is a famous place for believers of Baishnab religion. After a long time of this event, Carey the junior, second son of William Carey resided here for 42 years for his missionary work. The water transport was the main source for travel and transportation through river Bhagirathi in the past. But due to siltation the navigation and gradually went out business activities and railways had taken the alternative and popular mode of journey. It is necessary to mentioned that the development of Katwa initially started by Nawab Murshidkuli Khan. In the year 1847 Katwa was designated as a sub-divisional town and on 13th March, 1869 Katwa Municipality was established.

Overview and Status:

Katwa town comes under katwa subdivision. There are two municipalities in this katwa subdivision. Other than areas under two municipalities entire subdivision is truly rural in nature. These two municipalities are Katwa and Dainhat.

If we make a comparative study among Katwa and other municipal towns of Burdwan district, the position of this town can be identified very properly. According to the 2001 census, there are 11 (eleven) municipal towns in Burdwan district, Katwa is one of them. As per area, Katwa Municipality is the smallest one (7.93 sq.km) whereas Durgapur is the largest municipal town (154.05 sq.km). In case of population size, Katwa has ranked 7th position among all the towns. But in case population density, Katwa Stands 1st position with the population density of 9026 person/sq.km.

Table No. -1 Comparative study of Municipalities of Burdwan district

Name of the Municipality	Population (1991)	Population (2001)	Growth Rate(%)	Total Area(sq.km)	Population Density/sq.km	No. of Wards	Municipal Category
Asansol Municipal Corporation	2,62,188	4,86,304	85.59	127.00	3,829	50	Class-I

Burdwan Municipality	2,45,079	2,85,871	16.64	23.00	12,429	35	Class-I
Dainhat Municipality	20,349	22,593	11.03	10.60	2,181	14	Class- III
Durgapur Municipal Corporation	4,25,836	4,92,996	15.77	154.00	3,201	43	Class-I
Guskara Municipality	26,995	31,863	18.03	17.00	1,874	16	Class- III
Jamuria Municipality	1,18,494	1,29,456	9.25	79.20	1,635	22	Class-I
Kalna Municipality	47,229	52,176	10.47	10.00	5,218	18	Class-II
Katwa Municipality	55,541	71,589	28.89	7.93	9,028	19	Class-II
Kulti Municipality	1,08,518	2,90,057	167.29	99.00	2,930	35	Class-I
Memari Municipality	29,000	36,191	24.80	16.00	2,262	16	Class-III
Raniganj Municipality	61,997	1,22,891	98.22	25.00	4,916	21	Class-I

Source: District disaster management plan, Burdwan department of disaster management, Government of West Bengal, 2008– 09

Physical Background:

a) Physiography:

Burdwan district has been characterized by its varied tectonic elements and riverine features. In North eastern part of Burdwan district, laterite cover with red soil and Quaternary sequence of riverine sediments grouped under Sijua, Panskura and Diara formations are exposed. The Sijua formation is mainly clay with caliche concretions; Panskura formation constitutes clay alteration with silt and sand at the bottom and Diara formation comprises bedded interfingering sand, silt and clay in the shifting channel courses. The three formations are found in Katwa town. The whole area has been designated from the elevation range of 20 m in the north east to 40 m above sea level in the south west.

b) Climate:

- i) As the Tropic of Cancer has passed through the district of Burdwan, the climatic condition is 'hot and humid'.
- ii) Highest temperature in summer 42⁰C and 14⁰C in winter.

- iii) The average annual rainfall of the district is 1500 mm. The monsoon enters the district at the end of June.

c) Soil:

Different types of soil are encountered in different topographical biological and hydrological as well as geological condition within the Burdwan district. Towards the east alluvial soil attains an enormous thickness in the low level plains to the east. This alluvial soil is formed of alluvium brought down by the Ajay, Damodar, Bhagirathi and numerous other rivers. These soils are sandy, well drained and slightly acidic in nature. Katwa municipal area lies in this eastern part. This soil is very much suitable for agriculture.

d) Drainage:

The town is located in between the Ajay at west side and Bhagirathi at east side. Both river meets at the northern side of the town. In dry season level of water of Ajay becomes very low. As a result, But in rainy season this river creates a condition of flooding both the banks and its adjoining areas. This town is highly influenced by this river.

- Growth of the town:

i) Evolution of the Katwa municipal area:

The area of Katwa municipality gradually increased over the year. From 1869 1961, the area was 2.54sq.km. consisting of four wards .But it was changed in 1971. The area stood at 5.18sq.km. comprising 14 wards .Further, without any increasing number of wards the area was extended to 6.53 sq.km. in 1991. Finally in the year 2001, the total area of Katwa municipality reached at 7.93sq.km. taking the total number of wards 19 within its fold. The

rapid expansion of municipal area of Katwa town within a short span of time in an indicative fact of dynamism in urbanity.

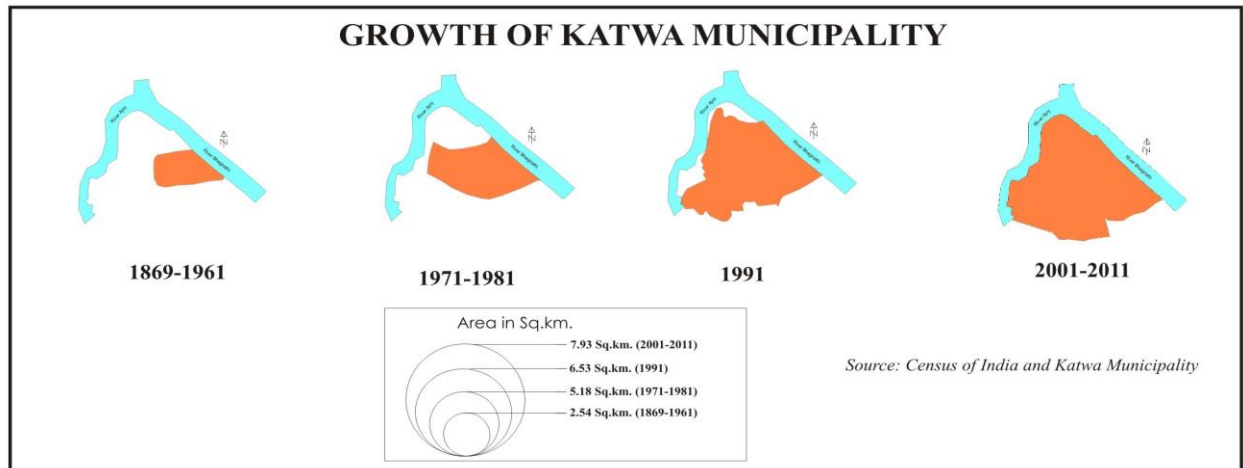


Fig: 2

ii) Population change:

According to 70 years population data of Katwa town it appears that population of this town has changed not rapidly but gradually. Table No.2 is showing the decadal variation and also wardwise distribution of population. In 1951, population of Katwa was 15,533. In the same year Katwa was divided into four wards with density of population 6115/sq.km. Among the four wards, population was higher in ward No .2. In 1961 there had been a conspicuous increase in population with almost equal number in each ward. It has been known from an authentic source of municipal body that the total population then reached to 20621 and density as was calculated 8119/sq.km. In 1971, the total area of the Katwa town was increased with an increase in number of wards. The density of population was projected 5566/sq.km. The highest number of population was found in ward No.13 and lowest in ward No. 7. In 1981, population was increased again along with its total area and the total

population went upto 32890 and density shown as 5036/sq.km. In 1991 increasing trend of population took a rapid turn and finally stood at 55541 with an increased density of 8506/sq.km. In 2001 , total area of the town was again increased and was sub-divided into 19 wards under the administrative capacity of the existing municipality folling an increasing in population which mounted to 71589 with a density of 9028/sq.km. Now according to 2011 census data, population shown as 81753 with an indication of density as 10309/sq.km.

Table No. -2 Decadal Variation of population

Katwa Town(Ward wise)

Wards no.	1951	1961	1971	1981	1991	2001	2011
1	1466	5376	1739	2011	2020	2255	2268
2	7035	4671	2122	2500	4684	1966	2469
3	3767	5931	3031	3926	4208	3432	4109
4	3265	4643	2508	3296	6319	5564	6536
5			2505	3231	5481	3730	3915
6			2216	1742	4037	4026	3736
7			1090	1467	6030	4918	5326
8			1367	1446	3992	3769	4049
9			1615	1675	2990	2922	3539
10			1411	1675	3480	3939	4758
11			1697	1551	4518	5160	5694
12			1521	1823	2933	6101	8609
13			3052	4037	2369	1961	1821
14			2904	2510	2480	4111	4833
15						4261	4613
16						2690	2691
17						3217	3335
18						2046	2337
19						5521	6872
Total	15533	20621	28832	32890	55541	71589	81753

Density/Sq.km	6115	8119	5566	5036	8506	9028	10309
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Source: Census of India

Following change in population, future population can be estimated by introducing the method of population projection. The approximate growth of population has been charted out as follows:

Table No. -3 Population Projection

Katwa Town

Year	2001	2011	2021	2031	2041	2051
Population	71589	81753	93360	106615	121752	139038

Source: Prepared by Author

After a detailed discussion, the conclusion could be drawn that increase in population in Katwa did not take place instead, there had been a continuous slow growth with the passage of time. Population growth rate was high during the period from 1981 to 1991. After that rate of growth over the decades took a quite remarkable upwards turn from 2001 to 2011 both in a form of its natural growth as well as continuous influx of immigrants from surroundings villages. However, it has been observed that dramatic increase in population failed to make a notice, the reason of which, as it is presumed, due to slow growth of economic development. Besides, urbanization of Katwa town has not been dealt with properly to promote it as a modern town.

Literacy Rate:

Literacy rate of any region is an indicative in question of status of the society. From that point of view literacy rate of Katwa town is quite appreciable. As per 2001 census, literacy rate of Katwa was 72.94% which was increased from 65.69% in 1991 to 51.37% in 1981. According to 2001 census, male literacy rate shown higher than female literacy rate. In an

average , the gender gap worked out as 9.28. Maximum gap shown at ward no. 19 and minimum at ward no. 5. Gender gap in literacy, indicates gender discrimination in education which I absolutely undesirable in any town of modern India. Because it is indirectly related to development of the town as a whole.

Table No. -4 Decadal Variation of Literacy Rate , Katwa Town(Ward wise)

Ward No.	Literacy Rate(1981)		Literacy Rate(1991)		Literacy Rate(2001)		Gender Gap(2001)
	Male	Female	Male	Female	Male	Female	
1	55.6631171	38.95705521	73.51509	56.05573	77.60141	68.42105	9.180358
2	72.8682171	52.47933884	69.36488	50.98901	69.5321	54.66667	14.86543
3	65.3543307	47.25448786	67.64571	60.12814	85.12764	77.23926	7.888372
4	63.7809187	49.62453066	44.622	36.18271	79.57219	71.14897	8.423225
5	79.4642857	69.37459703	83.62657	75.74184	88.92473	85.45455	3.470186
6	81.4689266	69.66161027	85.68675	77.52294	89.56781	83.40785	6.15996
7	70.5436157	71.59763314	81.13821	70.21997	82.06543	74.71651	7.348926
8	84.3922652	71.6066482	76.78659	67.24401	71.48129	63.62179	7.859491
9	87.1310508	73.67149758	65.99349	51.89003	66.08579	54.96503	11.12076
10	86.2068966	75.53956835	69.58002	54.48196	78.53247	66.077	12.45547
11	61.8453865	48.06408545	71.76573	104.1463	82.27704	72.79208	9.484961
12	52.0130577	32.41150442	60.93433	46.63462	72.40829	61.39582	11.01247
13	64.3062201	46.27632255	61.18211	42.97225	76.36888	64.67391	11.69496
14	71.0110585	54.74276527	73.86973	56.76596	80.20784	68.65597	11.55187
15					73.5761	62.5295	11.0466
16					72.21038	66.32892	5.88146
17					90.374	82.59773	7.776274
18					92.19512	88.14887	4.046248
19					55.27638	40.21938	15.057

Source: Census of India

This type of discrimination in education found specially in ward nos. 19, 2,10,13 and 14 which are actually quite backward and these people depend on agricultural economy. But

in ward nos. 5,18,16 belong to very old society and all wards are comparatively urbanized which is , in fact, the basic reason for increasing the growth rate of literacy of Katwa town.

Sex Ratio:

Male female ratio or sex ratio is related to balanced social structure. According to 2001 census, in Katwa town, average sex ratio is 963/1000 which is highest in ward no. 4 i.e. 1005 and low in ward no. 3 which stands at 905.

iii) Trend of Urbanization:

Urbanization takes place as a result of upgradation social infrastructure from traditional old society depending only agricultural economy to modern society. It is long term continuous process. One of the objectives of this paper is to understand the tendency of growth and pattern of urbanization in Katwa town.

➤ Phase-I (In Historical backdrop)

East India Company had played a vital role for the development of urban Katwa or Katwa Town. Specially William Carey the junior who had spread the missionary activities in Katwa and its surroundings to encourage people to learn English. In the beginning of nineteenth century Katwa was developed as a business town. Mainly the trading used to function in different places through river transport, specially by river Bhagirathi. As per some historical article, it has been revealed that, there was a company, named 'Mesars hore miller' who had some ships or launch type of vehicles which were used for goods or public transport. 'Labongola', 'Kalaiporta', 'Pasari poti' etc. was the important business centre or places of Katwa along river Bhagirathi. 'Salt' was prime product as business goods of East India Company that they used to trade from Katwa. Some people of Katwa or its surrounding

areas were quite rich at that time. It appears from the said article that then people extended their help for the development of Katwa town.

➤ Phase-II (Post Historical backdrop)

Modern Katwa town was established after getting the status as subdivisional town. According to survey report, published in 1854-57, Burdwan district had six subdivisions and had only four towns in the mid of 19th century. Katwa and Dainhat are among them. In 1842 proposal was made to bring Katwa within the ambit of 10th Act of Municipal rules. But it is accepted and enacted in 1850. Katwa and Dainhat was the result such act. From 1850 to 1869 Dainhat came under Katwa union. But in 1869, 5th March Dainhat had developed its own municipal body and on 13th March, Katwa municipality also had developed accordingly. In 1885, 1st election was organized followed by the ‘Bangio Municipal Act’. At that time Katwa had only three wards. After the election and formation of municipal body all types of official activities started to function. In the Late 19th Century river Bhagirathi had started to change its course, which adversely affected the river transport system in summer due its decreasing water level. As a result importance of water transport had lost its popularity. But after the introducing of railway from Bandel to Katwa in 1912, the urbanization of Katwa started to begin its new phase though the process of urbanization was bit slower during the period 1872-1911.

Table No. -5 Decadal Growth of Population and Urban Growth Rate of

Katwa Town

Year	Population	Changes of Class of Town	Growth rate(%)
1872	7963	v	-
1881	6820	v	-14.35
1891	6699	v	-1.78

1901	7220	V	7.78
1911	6904	V	-4.38
1921	6823	V	-1.17
1931	7772	V	13.91
1941	11282	IV	45.16
1951	15533	IV	37.68
1961	20621	III	32.75
1971	28832	III	39.82
1981	32890	III	14.07
1991	55541	II	68.87
2001	71589	II	28.89
2011	81753	II	14.19

Source: Katwa Municipality

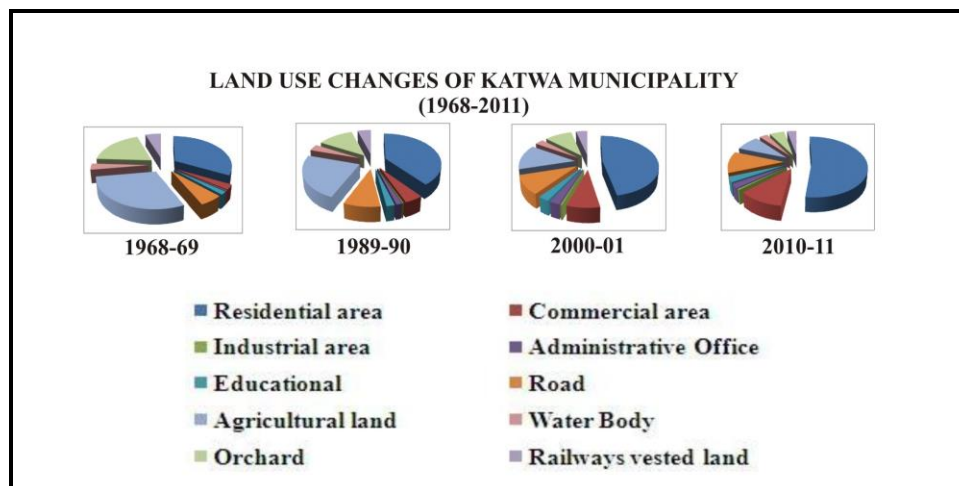
➤ Phase-III

Transportation is most important infrastructures through roads and railways in maintaining the connectivity with different places. After independence, the improvement of transportations in both is quite noticeable. Because, now Katwa station is one of the most important railway junctions of the Eastern railway. Katwa-Ajimganj railway is one of the important railway tracks which ways established in 1903 and has connected North Bengal via Maldah through Farrackah Bridge. Other than this, trains are also easily available for Howrah and Sealdah stations that helps to connect between Katwa and Kolkata. Besides this, there is also narrow gauge line between Katwa-Burdwan and Katwa-Ahamedpur which established in 1915 and 1917 respectively. But its popularity is quite less. Because, bus services from Katwa to Burdwan as well as to surrounding places are very much available from Katwa bus terminus. Presently, this town has good number of Govt. Offices like Sub-divisional head office, Civil Judge Court, Police station, Jail, Post offices, employment exchange, settlement office, PWD office, Irrigation Department, Telephone offices, shop establishment Offices, Electric Offices, Telephone

exchange, BDO office etc. which were taken place during 1960-70. However, since Katwa sub-division is based on agricultural economy. This town also plays a vital role for its marketing. Other than this cottage industry, handicrafts, weaving, metal utensils factory, rice mill etc. are the main small scale industries are found within or just out side the Katwa town which were the Katwa town has been enriching its urban status by way of achieving all round improvement and development specially after 1980.

c. Land use:

Land, the basic natural resource, influences social, economic and cultural aspects of a man in different ways. There exists an indepth relation between a man and his sources of land in question of proper utilization of its productivity for different purposes. Geographical character reflects the landuse pattern of an area, which gives us an idea about the carrying capacity of that particular area or region. Land use is one of the most dynamic parameters by which, the development or growth or the changes of an area can be identified properly. Land use of Katwa town is largely influenced by its extensive flat lower Ajoy plain. Congenial monsoon climate, reasonable fertile soil along with economic and social factors like, irrigation, transport network, communication facility, possibility of industrialization and urbanization etc. which impart great control over the use of its land. Hence, the study of landuse definitely gives some idea about agricultural growth, nature of development in built-up area. More so, it opens up a scope for the implementation of developmental activities towards maintaining a balanced regional growth.



Source: Computed by Authors

Fig: 3

The landuse pattern of Katwa town is the expression of the functional interaction of human activities related to urbanized and other non urbanized part of the town. Here from the topographical sheet No./79A/2, years-1968-69 and 1989-90 as well as landuse map of the municipality and the satellite image which used as the main tools to project the whole area of land and with their classifications according to their utilization. The details are given below:

Table No. -6 Land use category of Katwa Town

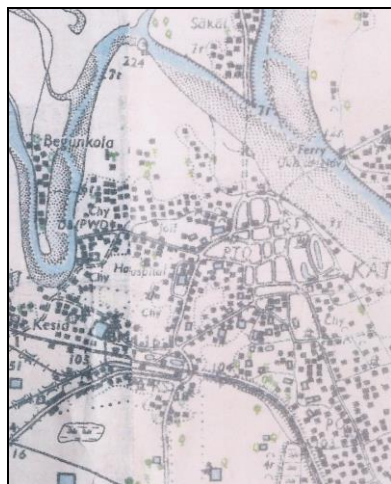
Type	Percentage (%)			
	1968-69	1989-90	2000-01	2010-11
Residential area	32.78	39.44	47.02	52.15
Commercial area	2.66	4.5	8.05	11.14
Industrial area	0.12	0.25	0.42	0.61
Administrative Office	0.24	1.4	2.4	2.45
Educational	1.67	2	2.68	2.86

Road	5.56	8.9	10.06	11.38
Agricultural land	29.52	23.26	13.22	8.25
Water Body	3.3	3.4	2.9	2.8
Orchard	18.93	12.28	9.35	5.13
Railways vested land	5.22	4.57	3.9	3.23

Source: computed by Authors

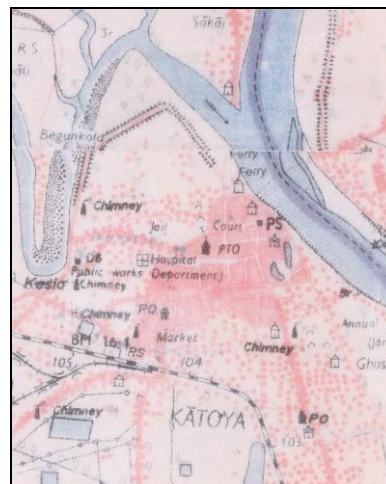
In the year 1968-69 residential area of the town was 32.78% which has increased in 2010-11 at the rate of 52.15%. Commercial area also has increased from 2.66 % to 11.14%, because of increasing trend of trade and commercial activities which are the most important base of economy of the town. But the growth of the industrial area is not at all satisfactory due to lack of industrial development. Till now there is no heavy industry within town or within the periphery of the town. Only some light industries for which the area of the town has only increased from 0.12% to 0.61% like saw mill, cottage industry etc. have developed during period 1968-69 to 2010-11 and the area increase only from Administrative area is highly increased i.e. from the year 1968-69(0.24%) to 2010-11 (2.4%) it means administrative importance of Katwa town has improved. The area under educational institution has also increased. Infact , the improvement of area within the Katwa town and its internal road connectivity are quite and road is highly noticeable, owing to their increasing development which have taken place from 1.67 % in 1968-69 to 11.38 % in 2010-11. In spite of all there

Changes of Landuse of Katwa through Topographical Map and Satellite Image



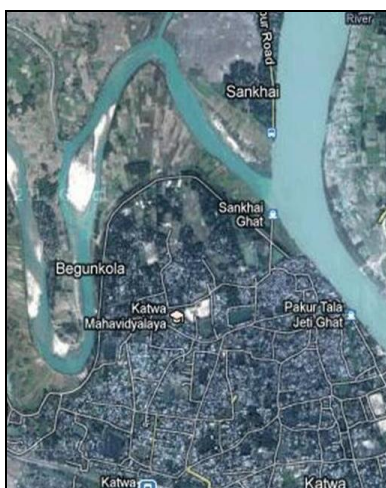
Source:Topographical Sheet No. 79A/2

Year-1968-69,Published by Survey of India



Source: Topographical Sheet No. 79A/2

Year-1989-90, Published by Survey of India



Source: Google earth

Date: 17/02/2016

Fig: 4

urban developments there is also a contrast scenario. Because till today this town has agricultural field within its periphery but the area is getting decreased due to urbanization. Urbanization has also affected the numbers of wetland and orchard field that has

continuously decreased over the decades i.e. from 3.3% and 18.93 (1968-69) to 2.8 and 5.13 % (2010-11).

In this context, it is necessary to mention that Katwa is well connected by railway which have large vested lands and are being utilized for different purposes. As a result, there has been a continuous decrease from 1968-69 to 2010-11.

This way, land use categories differ or changed over time. But the total area increased decade after decade and growth of infrastructure for urban development influenced the overall land use pattern. Hence, the growth rate is quite low, except, educational institution area, roads and commercial area. Existence of agricultural field indicates the growth rate of urban infrastructure is not so high, as a reason of which there are no such remarkable changes found in land use pattern.

Base of economy:

Table No. -7 Occupational pattern of Katwa municipality

Year	Workers(%)		
	Primary	Secondary	Tertiary
1971	10.5	18.31	71.19
1981	4.43	5.92	89.65
1991	3.93	6.26	89.81
2001	1.82	6.70	91.48
2011	0.34	5.96	93.70

Source: computed by Authors

Occupational pattern of Katwa town is quite exceptional. Because most of them are still engaged in agriculture. However, it indicates that though modern people of Katwa town do

not prefer on agriculture as a means of their livelihood. But according to definition of census, a town should have at least 75% of people who are to depend on non-agricultural activities for their livelihood. In that case Katwa town has poorly matched the norm of the eligibility as defined. In 1971, 10.52% of people were engaged in primary activities which were decrease from 1981. In 1991 it stood at 8.53% which was rapidly decreased to 1.81% in 2001 and in 2001 came down to 0.34%. People started to get them involved in secondary and tertiary activities. But involment in secondary activity continued to decline over the next decade. Because in Katwa town or within its outskirt there is no such big industries or industrial zones. However tertiary sectors are well in progress and involments of people in such sectors are in rising trend.

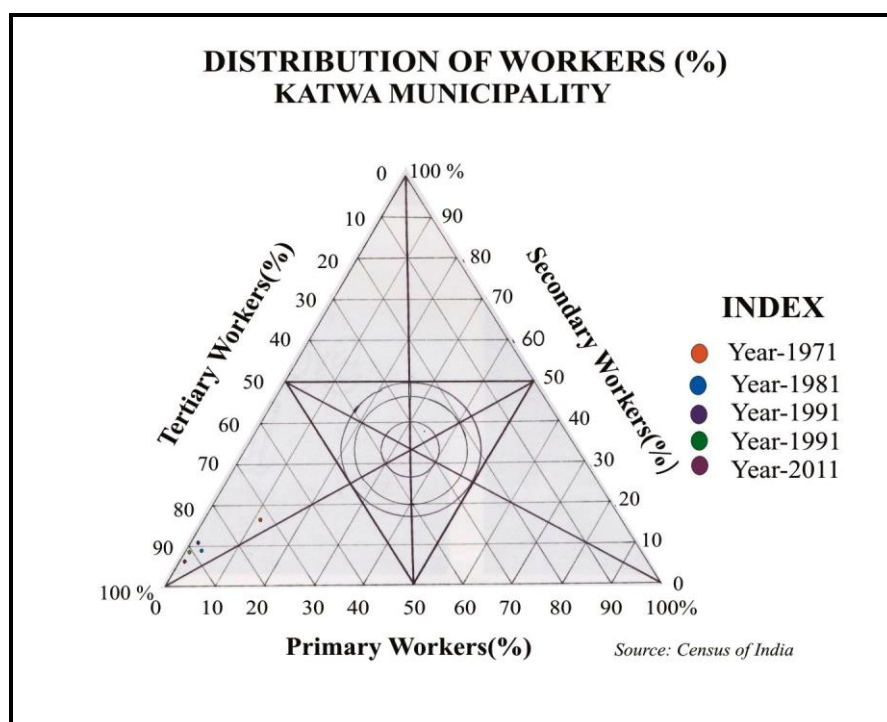


Fig: 5

According to the census report maximum people of Katwa are to get them engaged in trading, manufacturing, marketing, transport and many other service sectors. As a result, percentage of involvement in these sectors increase from 1971 (71.19%) to 1981 (89.65%) and again after a decade trend of rising became effective it from 86.41% in 1991 to 91.48% in 2001 which reached become 93.70% in 2011. Another noticeable point is necessary to mention here that according to census report, participation rate of women in working place is only 14.20% which indicates the lacking of modern outlook of people of this town.

Infrastructure:

Education:

Social and economic developments of a region are very much dependent on the availability of education facilities. In this respect Katwa town is well equipped. In Katwa there are seven government aided madhyamik cum-higher secondary schools, namely Katwa Kashiram Das Institution, Katwa Durga Dasi Chowdhurani Girls' High School, Katwa Bharati Bhavan High School, Katwa Ramkrishna High School, Katwa Balika Vidyalaya, Kashiswari Girls school, Katwa Janakilal Siksha Sadan etc. Katwa Kashiram Das Institution was established in 1857, and named after the writer who translated the holy script The Mahabharata from sanskrit to Bengali. It is one of the most famous boys' schools in the district. Jagadish Chandra Bose was once a student. Private educational institutions are also played an important role to provide the educational facilities to students. This school like Holy Angels' School, St. Joseph School, Kishyaloy, Ananda Marg, Shishu Niketan etc. For higher education, there is a college, named Katwa Mahavidyalaya. Apart from stereotype educational institutions, there are also colleges, like, Katwa Teachers' Training College for basic training and Bengal Institute of Technology (BIT) an engineering college for diploma degree in

engineering. Besides, there are also Nineteen public library in Katwa town and three society are available in Katwa town.

Market:

At present Katwa is having 9 municipal markets where in 1985 there were only two municipal markets. Nichu bazar is the heart of Katwa marketing system where the maximum goods are transected. The main markets are Borobazar, Station Bazar, Madhabitata, Locknath bazar, Panuhat bazar, Satyam bazar, Busstand bazaar etc. Katwa municipality has constructed few markets and they get a big amount of revenue from there. Few markets are being constructed in ward no. 4 within the area of Super market near Katwa bus stand. All the agricultural and industrial commodities are marketed in those markets on getting imported either from Kolkata or Burdwan.

Electricity:

Availability of electricity is an essential service to urban as well as rural areas. The highest number of electric consumers are seen in Nichu bazaar area (979/1000 population) and the lowest is in ward no. 2.

Banking services:

Availability of banking services are considered as one of the most important infrastructures for the development of a town in all respect. Katwa town is almost well placed in that regard. Because it is having 12 number of branches nationalized bank. This financial institution has played a vital role for the development of local economy. The main are all nationalized banks such as SBI, ADBI, Allahabad bank, UCO bank etc. The main private bank is Axis Bank. Burdwan co-operative society bank are also functioning for maintaining

the financial transactions. Silpa Samabai Samiti is also giving financial support to poor people without interest.

Health care:

Health care facilities, like clinics and hospitals play are the most essential part of modern society. In Katwa, there is only one Sub-divisional hospitals and five nursing centres namely, Seba Sadan, Aragya Niketan, Santi, Mathri Sadan and Katwa Nursing centres. This hospital and nursing centres are quite inadequate in providing proper health care for the people of Katwa town and its surroundings.

Recreational facilities:

Main recreational facility in Katwa town is that watching films in a cinema hall is only source of the people to have recreation. In Katwa town there are three cinema hall namely Uttara, National and Sanhati Mancha.

Transport:

Both rail and road transport are included in this study. Katwa town is one of the most important railways junctions of Eastern railway. Katwa-Ajimganj railway is one of the most oldest track which was established in 1903. This has connected the North Bengal via Maldah through Farrackah bridge. Besides this, trains are also available for Howrah and Sealdah station that helps to connect Katwa with Kolkata. This apart, there is also narrow gauge line from Katwa-Burdwan and Katwa-Ahamedpur which were established in 1915 and 1917 respectively. But its popularity has reached below expectation because people prefer to avail bus services from Katwa to Burdwan. More so, all the buses are available from Katwa bus terminus and transit time is less required compared to railways.

Constraints of development:

Causative factors for underdevelopment of Katwa Town:

Some of the following causative factors which are considered to be the most effective ones in keeping this town hold in terms of being underdeveloped.

A. Physical constraints:

The expansion of Katwa town has failed to get the scope because of its physical constraints which are basically related to its locational disadvantage. The river Bhagirathi is located on its western north-eastern side and river Ajoy is on its western part. Hence, the expansion of this town is though possible only on its southern edge, but that too has been limited by agricultural growth and extensive cultivation. Due to this reason, from the year 1959 to 2011, Katwa town does not grow much in size.

B. Infrastructure Problem:

• *Poor storage system:*

Katwa town is an entryptot of the surroundings villages. In other words it is a rurban town. People of surrounding areas and villages prefer to send their agricultural products to nearby markets or wholesale/retail markets of a town. The products are mainly rice, mustard, jute, potato, onion and other vegetables. But the main problems of this business are lack of required cold storages when there is a huge production within the town. So Katwa town has failed to keep up the faith of the farmers, though its economy depends on agriculture. As a result the problems become aggravated in case of storage perishable agro-products for longer time.

- *Transport Problem:*

Transportation problems both by roads and railways still persist in sending goods and traveling from Katwa town to different places though both the modes are in operation. However, people prefer to have railways services to fulfill their purposes. Because road transport is not much popular among people of Katwa town owing to whimsical freight structure of the operator of the transport. This trend is very much common in case of transporting saleable goods from Katwa markets to any other far off markets. As a result, there has been an additional cost which, in fact, adversely affects the business.

- *Parking Problem:*

There is no adequate open space inside katwa town for parking heavy vehicles engaged in transporting goods. Hence gradually this has become a permanent problems and trucks are found parking on state highway which very often creates a traffic jam on highway.

Inadequate Urban amenities:

Among all other problems, lack of required urban amenities is the direct indication of ill treated urban development. Poor health services or scarcity of medical facilities is one of the basic drawbacks. Hence, in case of any patient in serious condition he or she is to shift to Burdwan or Kolkata for better treatment. Besides lack of proper medical care facilities, educational scopes are not upto expectation. Because number of standard English medium schools are quite limited. More so, boarding facility for students from surroundings villagers are not found registered with municipalities. Over and above, this town is having no such amenities which can represent the standard of living, like shopping centre, market complex, video game parlor, many internet café, indoor stadium, outdoor stadium, big cinema hall

etc. More so, people are to depend only on cycle rikshaw for traveling from one place to another within the town.

- *Health Problem:*

Katwa sub-divisional hospital is the only source to get medical services for common people. But that too as has been found quite unsuitable for proper treatment of the patients. Because all the systems are unhealthy and unhygienic including its inner and outer atmosphere. Availability of essential medicines are very limited. However since this the only hospital in the region with an ever increasing population. It is very much important to expand its area as well as to develop the infrastructure for providing more number of people with proper treatment. It is also pertinent to mention that hospital is lacking well qualified and specialized physician which needs special attention to solve the same.

- *Water Supply:*

Drinking water being supplied by Katwa municipality is not upto the standard of acceptance. The main source of water is ground water. But for storing there is reservoir. However, to meet the increasing of households at a rapid rate, Katwa municipality takes a plan to construct a reservoir which is already under construction at ward no. 12. In 2001 among 15,262 household only 10,609 (69.51%) household used to have fresh drinking water.

C. Weak economy:

- Initially, it was a very small town. But during the period 1959-60 and 2010-11, the size of the town increased only from 5.18 sq.km to 7.93 sq.km and today it has 20% of agricultural land and 30 % of people of the town are engaged in agricultural activity.

This agricultural activity does not able to help the economic development of the town.

Food crops are the main agricultural product, however, the production is low but till now they are practicing the same old agricultural method with unorganized marketing system.

- Within or just out side the Katwa town, there is no such large industry. Only small size factories are found. This factories mainly manufacturing, Metal utensils, Bakery products, Clay dolls, Handloom goods etc. So, engaged in industries contribute very little for the development of Katwa town.
- In this connection it is necessary to mention that, within Katwa or within its the periphery, there is no such raw materials available for which any industry can be developed. But developed infrastructure with required vacant land are the key factors for setting up large industry which may take place in Katwa in near future.
- In that respect, Katwa is far away from industrialization. As a result, scope of employment generation by some other ways is far below to match the expectation. Schools, govt. offices are the only source of jobs, So, educated and technically skilled persons of Katwa prefer to go outside of Katwa or to different places of West Bengal or even outside West Bengal to have their jobs. Hence, as a whole it can be concluded that young generations of Katwa town are not satisfied with the scope of employment within the town.

D. Unplanned urban growth:

Above all, Since the Katwa town is almost 140 years old the conversion from its rural nature to urban character was not carried out in a planned way. The changing phases have gone through a long process covering multicultural and various income groups As a result, there is no symmetry in construction of housing pattern. More so, there is no such strict guideline

or stringent rules within the framework of the civic body to make town planned one. The maximum unplanned old houses are found in Dubo Para, Nichu Bazar, Horo Gauri Para, Chaul Patty, Subodh Smriti Road area, Hari Bari, Madhabi Tala etc. In this municipality except few roads most are ill conceived, and narrow. In fact, due to lack of proper planning and care, condition of roads are very poor. Water logging is another problem in rainy days due to improper drainage system. Sanitation system is quite old and in neglected condition. Disparity is also found between old and new areas of the town. Interrupted power supply is also great problem of this town. Street light is also very insufficient as per its necessity. In addition to odds as have been mentioned there is a crucial problems in relation to increasing 'Basti' dwellers by occupying lands unlawfully in ward nos. 2,3 and 4 and also ward nos. 12 which is extended along railway lines.

Possibilities of development:

a) *Improvement in economy:*

The basic economy of Katwa town is heterogeneous because agricultural activities are still considered as a significant part of the economy. On the other side trading, marketing, services are another most important economic sector. So, boost the economy of this town it is necessary to modernize the entire economic sector. At the initial stage, modern techniques and methods should be applied in agriculture. Multi crop cultivation should be implemented. Farming of green vegetables, fruits, flowers are to be encouraged since all there are profitable. At the same time proper marketing of green vegetables and flowers to nearby or but far away markets would help the farmers to earn more profit margin. Besides, food processing industry could be developed by way of using all there agricultural products which in other way would help to generate employment for the local people. Dairy farming could

also be developed along the Bhagirathi river side, where a large grazing land is quite appropriate for this purpose. Apart from this, railway vested land can be used by the establishment of Railway wagon factory and others related allied factory. This could also help to develop the employment scenario of the town.

b) Improvement in basic amenities:

To develop the katwa town priority should be given to improve its basic amenities. More modern schools with boarding facilities, computer and other technical/non-technical institutions; like school of ceramic art, farming technology, mechanical engineering, nursing training, handicrafts etc. are to be established for young people to get them educated to have better job. Sanitation and drainage system are needed to be improved by widen the size with increasing the depth in order to raising its containing capacity. Garbage disposal system should proper and regular with the help of traditionally trained persons to be employed by municipality under stringent supervision. garbage cleaner for this, recruitment of many cleaner men are needed. Uninterrupted power supply is also necessary, for which required measures should be taken through state govt. level. In this connection it is necessary to mention here that Katwa Thermal Power Plant is going to install within a five years time to meet the shortfall of power supply in Katwa town and its surroundings. Insufficient street lights should be replaced by proper illumination. Well equipped hospitals, nursing homes and clinics for treatment of various diseases are almost needed to solve the medical problems of this town. Besides, for proper functioning of all the above appointment of qualified and experienced physicians are also quite necessary. Since Katwa town is surrounded by villagers where different types of quality fish and vegetables are produced its economy is partly

influenced by rural economy. But for want of proper markets producers of those daily needed goods fail to earn appropriate profit margin who prefer to attend Katwa market. Hence, municipality should look into the matter with modern approach so that there could be a beneficial point to producers as well as to municipality.

c) Development in transport and communication:

Good road condition is the basic need for the development of infrastructure and thereby plays a determining factor for industrial growth. But the condition of connecting roads of Katwa town with different parts of the district or nearby districts of the state West Bengal. So, with a view to uphold the economy of the town it is quite necessary to develop or reconstruct the roads. Two Bridges – 1. Katwa-Uddharranpur (Over Ajoy-Bhagirathi river) 2. Katwa-Ballavpara (Over Bhagirathi river) are essentially needed. Because it will help to connect Mushidabad and Nadia districts. Construction of flyover at Katwa railway gate is also necessary to avoid traffic jam during office hours. Another problems needs to be redressed which is related to internal connectivity currently maintained by rickshaw. For fast movement it should be replaced by light vehicles, like auto. Transportation through railways in Katwa section is comparatively better now. Because, to make the same convenient to general people certain railway projects have been undertaken. Among them Bogona-Burdwan broad gauge line is well in progress. But Katwa-Bolgona broad gauge line is yet get sanctioned though the same is in the pipeline.

d) Tourism development:

Tourism is one of best to develop the economy of Katwa municipality. In tourism scenario, Katwa Municipality in Burdwan district has great potential. There are many sites in the town and its surroundings enriched for their historical, cultural, religious importance or scenic beauty etc. The most famous and most important tourist places are Shah Alam's Durga, Sree Gouranga Mandir, Madhaitala Ashram, Sakhi Akrah, Katwa Saheb bagan, KD Vidyamandir, Khepimatala, Ghosheswar Mandir, Haribari Durga, Ghosheswari Bhairabi bari, Ramkrishna Ashram, Bijaykrishna Goswami Mandir, Guruduar, Haragouri, Siddheswari, Mahabirjir Mandir, Jhupokali tala, Bigyana Parisad etc. But due to lack of publicity of people of West Bengal. However, with a view to materialize the same wisely, it is necessary to make wide publicity. In addition to that proper tourist information centre should be established to guide the interested people. Business people are to be encouraged to construct hotels and lodges, rest houses and to develop tourist friendly environment at tourist spots.

Summary and Observation:

After a detailed study of whole aspects of Katwa town, it can be concluded that this town has failed to grow as per expectation. Because this is a very old and unplanned town. As a result it has multifarious problems, like sewerage, developed land, housing, transportation and other facilities. The level, quality and distribution of services have been very poor. Several studies have indicated large segments of urban population do not have access to drinking water, sanitation, basic health services and education. These deficiencies have serious health impacts particularly affecting the urban poor. Deteriorating infrastructure, weak municipal institutions and poor delivery systems have constrained the urban economy and its ability to generate employment, incomes and services for local people.

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