

# Assessment of Primary School Infrastructure: A Study of Rural & Urban Areas of Jalpaiguri District

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**Abstract:** The main aim of the SSA was to ensure universal primary education to all children as to fulfil our constitutional commitment. The efforts were magnified in the 1980s and 1990s through the introduction of several programmes. DPEP (District Primary Education Programme) currently SSM (Sarva Shiksha Mission) is acting as a centrally sponsored scheme with state Government for Universalising elementary education across India. A proper education and function in the school happens only if the school has reasonable infrastructure facilities. Infrastructure directly or indirectly affects the students-e.g. adequate seating facilities, presence of attached playground, and existence of separate toilet for girl's students-have positive impact on attendance rates. . As per survey on: "Social Consumption: Education" during National Sample Survey (NSS) 71st round, January to June 2014 conducted by National Samples Survey Office (NSSO), Ministry of Statistics and Implementation, reported that significant difference was found between rural and urban area schools. In this context, present study has attempted to analyse and evaluate institutional facilities (infrastructure) of the SSA programme in Jalpaiguri municipality (Urban) and Rajganj (rural). The present study shows that impact of infrastructure facilities has contributed differently urban and rural beneficiaries.

**Key words:** institutional, infrastructure, rural, urban and enrolment

## 1. Introduction

Sarva Shiksha Abhiyan (SSA) is realised as India's major programme for universalising elementary education. UEE (Universalization of Elementary Education) includes universal access and retention, bridging of gender and social category gaps in education and enhancement of learning levels of children. SSA supports UEE by providing the opening of new schools, construction of schools and additional classrooms, toilet and drinking water facilities, sufficient teachers, periodic teacher training and academic resource support etc. The implementation of such provisions could make to achieve the agenda of universal education. SSA has been operated since 2000-01. With the introduction of the RTE Act, the changes need to be incorporated into the SSA frame. The changes should not be confined with teachers or classrooms, but it should bring the vision and approach to elementary education. With the project as mentioned above, the census 2011 showed improvements in literacy rate in India. As per the data published by the 2011 census, India has managed to achieve an effective literacy rate of 74.04 per cent in 2011.

According to the report released by the latest census, there are almost 74 per cent literates that constitute the total population of India aged between seven and above. Sarva Shiksha Abhiyan (Education for All) was implemented in 2000 as a joint venture scheme between Central, State and Local Govt. and a time-bound programme of universalization of elementary education. The SSA was initiated in the year November 2000 and aims to achieve the goal of universalization of elementary education of satisfactory quality by 2010 and other aims are to reduce overall dropout rates, increase average learning achievements rate, reduce gaps in enrolment, dropout & learning among gender and social group and establish capacity at the district, state, and national level to plan, manage and monitor program.

The RTE provides an Act that mandates for every child in the age of six to fourteen age group shall have a right to free and compulsory education in a neighborhood school. The act also provides that if a school does not exist in the area, the appropriate Government should take proper initiatives to establish a school within a period of three years. The following timeframes, mandated by the RTE Act, become immediately applicable to SSA.

**Table 1. Activities and time frame list by the RTE Act**

<b>Activity</b>	<b>Time Frame</b>
Establishment of neighbourhood schools	3 years (by 31st March,2013)
Provision of school infrastructure	3 years (by 31st March,2013)
All weather school building	
one class room-one teacher	
Office cum-store-cum-Head teacher room	
Toilet and drinking water facilities	
Barrier free access	
Playground	
fencing/boundary wall	
Provision of teachers as per prescribed PTR	3 years (by 31st March,2013)
Training of untrained teachers	5 years (by 31st March,2013)
All quality interventions and other provisions	with immediate effect

Source: Sarva Shiksha Abhiyan, MHRD

School access has been converged covering not merely physical factors but also social issues including caste, class and special needs.

While determining the local requirement for such access of children to neighborhood schools, the availability of classrooms, drinking water facility, the playground facility, and other infrastructural facilities should be much focused. The selected sample area has many problems such as unemployment due to lack of industries, poor communication, poverty, parents' indifference or lack of interest in education. The problem lies with the limited accountability of schools owing to insufficient local supervision and control. Some basic information for infrastructure is given below

**Table 2 District Wise Details about School building, Separate Room for Head teacher, Ramps Facility and Drinking water facilities in North Bengal**

District Name	Govt.& Govt Aided	Schools having Building	% of schools having building	Schools having Head Master Rooms	% of schools having Head master/ Head Teacher Room	Schools Having Ramps	% of schools having Ramps	Schools having Drinking Water Facilities	% of schools having Drinking water Facilities
Dakshin Dinajpur	1719	1719	100	238	13.85	848	49.33	1718	99.94
Darjeeling	1319	1312	99.47	77	5.84	50	3.79	782	59.29
Jalpaiguri	3157	3157	100	400	12.67	1953	61.86	3079	97.53
Coochbehar	2519	2519	100	212	8.42	1577	62.6	2519	100
Maldah	2571	2569	99.92	668	25.98	1722	66.98	2546	99.03
Murshidabad	4896	4689	95.77	872	17.81	2977	60.8	4841	98.88
Siliguri	765	764	99.87	125	16.34	381	49.8	751	98.17
Uttar Dinajpur	2460	2460	100	250	10.16	943	38.33	2458	99.92

Source: Paschim Banga Sarva Siksha Mission Annual Report 2015-16.

**Table 2 District Wise Details About School boundary wall, play ground, student class room ratio, toilet facility and pupil teacher ratio in North Bengal**

District Name	Schools Having Boundary Wall	% of schools having Boundary Wall	Schools Having Play Ground	% of schools having Play ground	Student Class room Ratio	Schools Having Girls Toilet	% of schools having Girls Toilet	Schools Having Boys Toilet	% of schools having Boys Toilet	Pupil teacher Ratio
Dakshin Dinajpur	700	40.72	570	33.16	32.63	1715	99.77	1717	99.88	30.5
Darjeeling	177	13.42	616	46.7	16.33	700	53.07	623	47.23	15.3
Jalpaiguri	442	14	1803	57.11	38.75	2873	91	2128	67.41	31.6
Coochbehar	572	22.71	1668	66.22	36.51	2011	79.83	2203	87.46	34.5
Maldah	742	28.86	762	29.64	46.48	2173	84.52	1558	60.6	46.3
Murshidabad	1260	25.74	911	18.61	44.08	2692	54.98	4167	85.11	39.3
Siliguri	250	32.68	437	57.12	40.33	737	96.34	447	58.43	35.5
Uttar Dinajpur	488	19.84	929	37.76	46.22	1427	58.01	1984	80.65	44

Source: Paschim Banga Sarva Siksha Mission Annual Report 2015-16.

The above table-1 shows that there are in total 3157 primary schools in Jalpaiguri district, out of which 12.67 per cent of schools having the facility of a separate room for the head teacher. To ensure quality education in favour of children with Special needs (CWSN) across the district, the Govt. has adopted a policy whereby the expertise of the state's leading agencies is being made available to all. Local NGOs have also been involved in to participate in the programme and help in promoting the services being rendered to the CWSN. Inclusive education for CWSN has been promoted through the creation of a barrier-free environment including barrier-free toilets and provision of appropriate teaching-learning material. Out of 3157 total schools, 61.86 per cent of schools were installed with ramps facilities. Every school going has the right to get access to safe drinking water in their place of learning. Table- 1 shows that 97.53 per cent of schools have the facilities for drinking water. Table 2 shows that majority of the schools do not have the facility of boundary wall and it is seen that only 14 percent of the schools had a boundary wall in Jalpaiguri district. In respect of playground facility, 57.11 per cent of the schools had the playground and open space. It was found that on an average, a child spends six hours a day in a school. Naturally, it requires providing minimum toilet facilities to the student. Therefore, the matter of sanitation and hygiene in schools needs special importance by providing toilet facilities. The above table 2 shows that toilet facilities are available in 91.00 for girls and 67.41 per cent for boys. Toilet and water facilities are to some extent good in compare to Darjeeling, Coochbehar, Maldah and Uttar Dinajpur. The researcher identified the following problem lies with SSA in the research area:

## 1.2 Infrastructure Problems

The school building has to ensure easy access to all children and teachers. The school building does not mean only physical structure; and it should be built with special design features such as ramps, handrails, modified toilets etc. Separate toilet for girls, classrooms with natural light, ventilation, proper seating capacity is the indicators of quality educational transactions. The indoor and outdoor space of the school provides opportunities for learning. Creative use of spaces like inside wall of the classroom, verandas through drawings and art can serve the purpose of vision of SSA. Development of such school infrastructures like school building along with its indoor and outdoor spaces contributes to the goal of universal access, retention, equity and quality in education. WSDP is an educational plan that guides the infrastructure plan and its effective usage in the learning processes. Most of the schools have the adequate infrastructure like the school building, toilet facility, boundary wall, drinking water facility etc. but not as per specification set by RTE Act which affects the attendance of the students and also teaching quality.

### 1.3 General Profile of Schools in the District

As per record of Sarva Shiksha Mission (Annual Report 2013-14), Jalpaiguri District, there are 3157 Govt & Govt aided primary schools and 692 private primary schools. In Jalpaiguri municipality, there are 278 primary schools and 257 primary schools in Rajganj block. For the present study, 40 schools were randomly selected of which were primary schools from each sample.

### 1.4 Provision of various types of civil works in Jalpaiguri municipality (Urban) And Rajganj (rural)

Quality of school building and availability of other basic facilities is an essential factor of school access. The surrounding environment of the school has to be attractive and comfortable to the child, so that child is motivated to enrol in and attend school regularly. The basic facilities are such as rooms, electricity, toilets, ramps, handrails, boundary walls, are required to build a congenial atmosphere to promote elementary education. The details of various inputs which are provided to schools are listed below.

Table 4 School related inputs

SL. No	School related inputs	inputs
1		School building
2		Class Room For Teaching
3		Furniture For students
4		Class Room Require major Repair
5		Separate Room For HM
6		Electricity Connection
7		Boundary wall
8		Toilet Facility
9		CSWN Friendly Toilet
10		Drinking Water facility
11		Computer Aided learning lab
12		play Ground facility
13		Medical Check up of students
14		Ramp
15	Hand Rail	

Source: Sarva Shiksha Abhiyan, MHRD, 2011

## **2. Research Area**

For the study, researcher has set our research area in Jalpaiguri Municipality (urban) & Rajganj block (rural) in Jalpaiguri district. The area has chosen to make a comparative study between two adjacent regions and make a viable analysis on infrastructure facilities, in respect of universalisation of elementary education through intuitional facilities.

## **3. Objectives of the Study**

The scope of the present study is to examine the effectiveness of Sarva Shiksha Abhiyan in respect to infrastructural facilities in Jalpaiguri municipality (urban) and Rajganj Block (rural). The effectiveness of SSM was felt positively across the area, and it steadily increases from the inception of the scheme. There is wide variation in socio-economic status between Jalpaiguri municipality and Rajganj block in the Jalpaiguri district where the investigator had conducted a survey in respect of school related to inputs like school building, classrooms, furniture, electricity, CWSN (child with special needs) facility, drinking water facilities, playground and medical check up facility. While Jalpaiguri municipality is an urban town in nature, the other sample area Rajganj block is rural nature.

## **4. Methodology**

The present study is based on mainly on primary data. The first phase of data collection technique was done by means of collecting adequate and relevant data from published or unpublished academic journals, conference proceedings, dissertations and thesis. The second phase of data collection technique was adopted the method of interview. Here, a questionnaire is constructed for the interview. A study was carried out on 160 students each from Jalpaiguri municipality and Rajganj block. Primary data has been collected from different schools belonged to Jalpaiguri Municipality and Rajganj Block for achieving research objectives.

Twelve municipality wards were taken for study, out of 26 wards in Jalpaiguri municipality (urban). Out of this, twelve municipalities, 40 schools were selected randomly for the study. Five villages were selected randomly (viz. Panikauri, Sukhani, Mantadari, Shikarpur and Balaigach) from Rajgunj Block for 180 respondent students studying in class I-V. In total, 360 were interviewed for the research purpose .In this context, structured and well planned questions were asked with the objective of the study. This process helped the respondents to answer the question quickly and correctly.

## **5. Hypothesis Formulation**

A hypothesis has greater significance in the research process by explaining the cause-effect relationship and provides a basis for reporting and conclusion. After considering research objectives, the respondents

with a different sample are were taken, and hypotheses were designed and formulated from students. The study was conducted to test the following hypotheses:

“There is no significant difference between urban & rural schools with respect to institutional facilities”. The significance differences between the mean score of rural & urban schools with respect to the nine institutional variables are considered in the present study. The results are summarized as follows

**Table -5 Details of 't' test for difference in infrastructure facilities between Jalpaiguri municipality ( Urban) and Rajganj (Rural)**

SL.No	Group Statistics						
	Variables	Area	N	Mean	Std. Deviation	t value	P Value
1	Quite and enough space for seating	Jalpaiguri(Urban)	80	3.7125	1.009	1.465	0.975 (NS)
		Rajganj (Rural)	80	3.95	1.042		
2	Toilet facility are available	Jalpaiguri(Urban)	80	3.7375	0.910	1.863	0.103(NS)
		Rajganj(Rural)	80	4	0.871		
3	Medical check up facility	Jalpaiguri(Urban)	80	3.625	1.521	2.645	000 (HS)
		Rajganj(Rural)	80	4.15	0.915		
4	Safe drinking water	Jalpaiguri(Urban)	80	2.975	1.222	1.231	0.64(NS)
		Rajganj(Rural)	80	2.7375	1.220		
5	School Building	Jalpaiguri(Urban)	80	3.9625	0.849	3.141	000(HS)
		Rajganj(Rural)	80	3.4375	1.231		
6	Special toilet ,handrail for handicapped children (CWSN)	Jalpaiguri(Urban)	80	3.925	1.003	0.153	0.774 (NS)
		Rajganj(Rural)	80	3.95	1.066		
7	classroom are provided adequate TLM	Jalpaiguri(Urban)	80	3.625	1.236	4.899	000(HS)
		Rajganj(Rural)	80	4.3625	0.534		
8	Provision for Electricity	Jalpaiguri(Urban)	80	2.4875	1.169	7.61	0.13 (NS)
		Rajganj(Rural)	80	3.8375	1.073		
9	school has adequate playground facilities	Jalpaiguri(Urban)	80	3.8125	1.244	0.981	0.019(HS)
		Rajganj(Rural)	80	3.9875	1.000		

Note-HS- Highly significant, NS-Non Significant at 0.05 levels

It is considered essential to see whether the group of students in the two sample area significantly differed or not on six variables. Therefore it is attempted to study the significance of difference between the mean performance of Jalpaiguri Municipality(Urban) and Rajgunj (Rural) in enrolment, drop out, attendance, improvement in studies, quantity and quality of MDM served and regular inspection by authorities towards MDM effectiveness through testing the following hypotheses using Independent sample 't' test for significance of difference between the means and details are presented in the table....

## 6. Results and conclusions

The table-5 reveals that p value is greater than 0.05 for space (0.975), toilet (0.103),drinking water (0.64),CWSN facilities (0.774) and electricity(0.130).Since p value is greater than 0.05, the null hypothesis is accepted at five percent significant level. Hence it is concluded that there is no significant difference between rural and urban schools in respect to space availability, toilet facility, drinking water, CWSN and electricity. Since p value is less than 0.05,the null hypothesis is accepted at 5% level of significance with regard to medical check up, school building, TLM and play ground facilities. Based on mean score, it is found that, mean value in respect of medical check up in rural is 4.15 and that of urban 3.62.It means that, Rajganj has a higher medical check up ratio than Jalpaiguri municipality. The difference is statically significant. Why do rural students have more medical check up than urban schools? This could be unhygienic and less concern about health while upbringing of students in family, may be reason for frequent higher health check up.

Since P values is less than 0.05,the null hypothesis is rejected at 5% level of significance with regard to school building. Hence there is significant difference between rural and urban schools with regard to perception of the school building. Based on mean score urban students have better perception (3.96) than rural students (3.43).What could be reason for this difference in rural and urban students' perception about their school building? It was observed from the field survey that all the schools have own pucca or semi pucca building in Jalpaiguri district. . But it was found that the majority of the schools in our survey are very old, and the conditions of the buildings are not as per standard. It was found that almost 65% of the surveyed schools were established before 1970. It was seen that 33% in Rajganj and 47% in Jalpaiguri schools were of a tin shed and rest cases it was of RCC frame. Ceiling fans were also not available in the majority of the schools. This might have led the rural students to have lower perception about their school building.

Findings of the study also reveal that perception of rural and urban students with respect to TLM (Teaching learning material) is different. Mean score of rural students 4.36 and that of urban 3.62.Rural students' perception about TLM is higher than urban students. Due to less number of TLM in the class rooms and less expertise knowledge and training in urban schools leads to lower perception.



The Table-5 also reveal that, there is no significant difference between urban and rural schools with regard to space (0.975), toilet (0.103), drinking water (0.64), CWSN facilities (0.774) and electricity (0.130), since p value is greater than 0.05. Hence null hypothesis is accepted at 5% level of significance with regard to five instructional variables. Infrastructure directly or indirectly affects the students' enrolment or attendance in the schools. The overall enrolment at the elementary level has increased and but it was observed from the sample study that, 17 schools (out of 40) in Rajganj (rural) reported about the decline rate of enrolment in 2016-17 in comparison to the previous year 2015-16. Likewise, 21 schools in Jalpaiguri (out of 40) responded about the decline rate of enrolment. Two schools in Jalpaiguri were found with total students in primary schools less than 20. Due to a decrease in enrolment, the pupil-teacher ratio has increased. It was observed that the availability of private schools with all basic and modern (computer, smart class) facilities is the main cause of declining enrolment in Govt. primary schools. The language also plays a crucial role in primary education. Elegant building with well-equipped class, attractive uniform and participation in all extra co-curricular activities act as a motivating factor for the capable parents to enrol their children in private schools.

The study observed the following limitation of infrastructure facilities in these schools which are discussed below

- i) **Availability of Electricity:** About 30 of the schools in Rajganj are found without electricity, and all the schools in Jalpaiguri are found with electricity.
- ii) **Separate toilet facility of the staff:** Almost 90 per cent of the schools under the study did not have the provision for a separate toilet for the staff.
- iii) **Playground facility:** only 19 schools (47.5 per cent) and 16 schools (40 per cent) of the schools have the facility of playground respectively in Jalpaiguri and Rajganj. In most of the schools, there are no sports and games materials in schools. No primary schools had the facility of the gymnasium.

Every child of the age of 6 to 14 shall have a right to free and compulsory education in a neighbourhood school till completion of elementary education. It provided for children's right to free and compulsory admission, attendance and completion of elementary education. Elimination of institutional difference provides an equitable and justifiable framework to all children in the age group 6-14 in respect of completion of elementary education

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