

Socio-Economic Condition of Six Blocks of North 24 Parganas of Sundarbans Region –An Overview

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Abstract: Those southern six blocks of north 24 Parganas is under the development for various causes like a Proper communication problem, lack of health facilities, lack of proper education infrastructure etc.. Almost 60 per cent of people of this region depend on natural resources (2011 census). After “Aila” many people of this region have migrated to South India for their occupation. Almost 44 per cent of people of this region has to lead their life below the poverty line(2001 census). Freshwater supply is not regular and adequate in the summer season. After independence population pressure gradually increases and creates a huge pressure on the natural resource. Many islands of those block not properly connected with road network this island-people have to the open on the country bead. The government should adopt some development policies to develop local areas communication and health system. Though the Sundarbans Development Board, Backward Area Development Board and so many Government or Non-Government organizations involves Sundarbans development process though it is not adequate. To take some measures to control various water-related diseases and improve health infrastructure to Provide better health service. The paper attempted to investigate the socio-economic condition of southern six blocks of North 24 Parganas and suggest to some sustainable measure for all-round development in short-term and long-term basis.

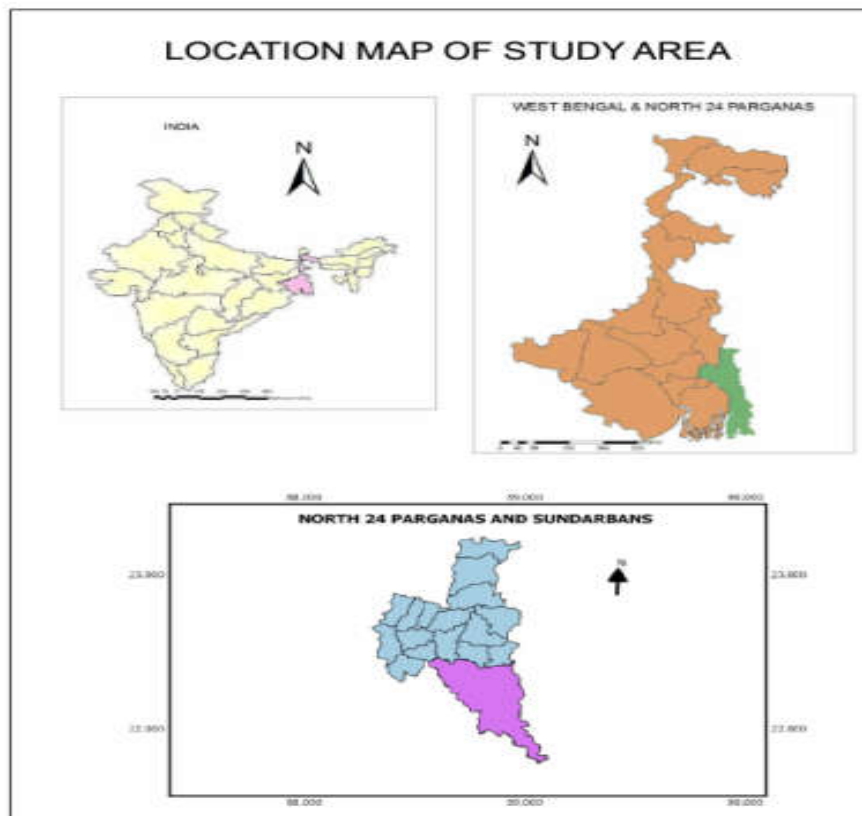
Key Word – Socio-Economic, Drop out, Occupation, Agriculture, Health.

1. INTRODUCTION

The present study based on various secondary data to analyse the socio-economic condition of this region. After the data collection created a various thematic map to show socio-economic factors. The mention six blocks are economically backwards and suffering from various problems. Population density is gradually increasing after independence. Six southern blocks of North 24 Parganas are not equally developed. Hasnabad and Haroh block have more developed than the other four blocks. This study tries to explore the various problems. Hundreds of village of those block fully depended on mud embankment which saves village agricultural land from river saline water. The present study aims to establish a relationship between the various socio-economic condition and their relation. This research uses various factors to explore block-wise disparities. Health infrastructure is an important factor, this research show block-wise disparities on the various factor. The present study has been ventured to know the socio-economic condition of those backward blocks by using various statistical techniques.

2. STUDY AREA

The latitude of the study area is 22°03' N to 23°03' N and longitude is 88°51' E to 91°30' E. The total area of those six blocks is 1074.22 sq. km. Total 1117733 people are living in those blocks and population density is 1040 per sq. km. The research area is bounded by the west Basanti block, Canning-I block, Gosaba blocks on the west, dense mangrove forest on the south, Ichamati, Kalindi – Raimongal river on the east and Dumpy – Hodges line on the north. People of those six blocks mainly depend on agriculture, primarily paddy cultivation



Source- Map created by Authors.

3. STATEMENT OF THE PROBLEM-

Health infrastructure in Sunderbans region is very inadequate and there is huge population pressure on it. Sunderbans region is one of the underdeveloped areas of India as well as West Bengal. People of this region suffer from various problems like lack of communication facilities, lack of infrastructure facilities, lack of education facilities, lack of health facilities, lack of job opportunity etc. The health facilities of this backward region have various causes like the boat is one of the main modes of communication for the various islands, health centres of this region suffer from various problems like lack of doctors, nurses and health equipment etc. The freshwater table in Sunderbans region varies place to place and time to time, for this reason, people of this area have to drink unclean and semi-salt water that carries various health diseases like diarrhea and cholera and so many others. But not only the adult people but also the children of this region suffer from various problems like malnutrition, underweight and so many other problems. The road network of this region is not well connected every island because they are situated scattered. Many places of the mentioned six blocks have no lighting at night. After "Aila" migration gradually increases rapidly and agricultural production gradually decreases. Almost 60 per cent (2011 census data) of this area's people depend on agriculture and agriculture depends on rainwater.

Agriculture of this region suffering from a various problem like lack of irrigation facilities in the summer season, lack of infrastructure, lack of modern equipment, the salinity of the soil affects the most and so many others problems. More than 43.88 per cent (2001 census) of this area people have to lead their life below the poverty line, so they suffering from various diseases and problem like mal-nutrition, under wait problem, anaemia etc..

4. LITERATURE REVIEW -

In order to frame the proposed research problem and draw the outline of the research contents, reviews on the available literature which are related to the proposed research topic and study area are carried out.

Dasgupta,S.(2005) in his book discuss about backwardness of this region and its causes elaborately. In his book mainly focus about socio-economic condition of fisher man and maximum portion people of this Sundarbans region dependent on agriculture.

Das,G.K.(2006) discuss about various Socio-economic section of this region elaborately and he also some suggestion and mitigation for long-term development of this region.

Basar,A. (2012) emphasized on water security of the coastal region of Bangladesh. The researcher also shows that saline water also create a security of drinking water and others sectors.

S.Bose.(2012), in this article main theme is child health care infrastructure and health condition of Indian Sundarbans region. He also show child health care infrastructure gap in rural area.

Mustaei,S. et al. (2014) have carried out an investigation on impact of salinity on the socio-environmental life of Bangladesh coastal region and also suggest some mitigation to control salinity.

De,D.(2014) in his research paper investigate about block wise health infrastructure gap and a overall health scenario of 19 blocks of Indian Sunderbans region. The researcher also uses various parameters to calculate health condition.

Lahiri,J.(2015) discuss about infrastructure gap of every sector as well as inadequacy and socio-economic condition of Sundarbans region. He also focuses in his on migration and gradually changes of demographic patterns change in Sundarbans region.

5. LIMITATION OF THE STUDY:-

This paper fully based on secondary data and information. The research was modified according to data availability. Limitation of time and others resource this paper not elaborately discuss all the matter. Secondary data source not properly updated year wise and time wise.

6. OBJECTIVES

The specific objectives of the proposed study are-

1. To discuss the socio-economic condition of the mentioned six blocks.
2. To discuss the health condition of concern blocks.

3. To discuss the literacy disparities among the male and female.
4. To analysis block-wise educational infrastructure.

7. BRIEF ANALYSIS

Every objective of the research is represented by a different table. The collection of secondary data will be represented by various suitable graph and diagrams. After data have been represented by various diagrams and graph after the next step analysis the information, result, synthesized.

7.1 POPULATION GROWTH

POPULATION GROWTH OF MENTION SIX BLOCKS IN THREE DECADE.

YEAR	1991	2001	2011
TOTAL	821301	962202	1116733
MALE	453739	495047	571709
FEMALE	397562	467155	545024

Source-Census of India (1991, 2001,2011)

7.2 SOCIO-ECONOMIC CONDITION-

Socio-economic condition depends on various factors like type of household, occupation structure, banking service, the percentage of BPL people, Block wise HDI rank and others economic activities etc. This bar graph shows that almost 45 per cent (2001 census) people of the mentions six blocks have to lead their life below the poverty level. Sandeshkhali-II block BPL percentage is highest (59.70 per cent) and Hasnabad block BPL percentage is lowest (28.69 per cent). Although North 24 Parganas 29.28 per cent people have to lead their life below the poverty line. This bar graph shows block-wise BPL percentage.

7.2.1 Working Participations Rates in the Block of North 24 Parganas.

WORKING PARTICIPATIONS RATES IN THE BLOCK OF NORTH 24 PARGANAS.

BLOCK NAME	HOUSEHOL D	TOTAL WORKER	CULTIVATORS	AGRICULTURAL LABOURERS
HAROA	46888	73257	57856	19503
MINAKHAN	43756	68327	8345	18028
SANDESHKHALI-I	37344	61005	7098	16034
SANDESHKHALI-II	37771	61479	6887	15034
HASNABAD	47739	80077	8540	17049
HINGALGANJ	46048	74515	7767	17577
NORTH 24 PARGANAS	259564	418660 (37.49%)	49015	103225

Source- Census data 2011.

This bar graph shows that Hingalganj Block percentage of the total worker is maximum (39.70 per cent) and Horoa block last according to the percentage of total worker (31.82 per cent). Although North 24 Parganas average is 33.27 per cent on the basis on percentage of the total worker. So, this table shows a block-wise variation on the basis of the total worker.

7.2.2 Type of house block-wise according to 2011 census data.

TYPE OF HOUSE BLOCK WISE ACCORDING TO 2011 CENSUS DATA.

NAME OF THE BLOCK	PERMANENT HOUSE	SEMI-PERMANENT	TEMPORARY
HAROA	23024 (49.97%)	19939(43.27%)	2944(6.39%)
MINAKHAN	14828(34.05%)	17768(40.80%)	10854(24.93%)
SANDESHKHALI-I	7720(20.59%)	11847(31.59%)	17818(47.51%)
SANDESHKHALI-II	3020(7.97%)	9514(25.10%)	25013(65.98%)
HASNABAD	19528(41.12%)	12226(25.74%)	15626(32.90%)
HINGALGANJ	7067(15%)	6144(13.04%)	33674(71.49%)
MENTION SIX BLOCKS	75187(28.96%)	77438(29.83%)	105929(40.80%)
NORTH 24 PARGANAS	70.47%	22.95%	6.03%

Source- Census data 2011.

According to 2011 census data, this bar graph shows that Horoa block has highest number (49.97 per cent) of the permanent house and Sandeshkhali-II has the lowest number of the permanent house (7.97 per cent). Though mention six block average is 28.96 per cent and North 24 Parganas average is 70.47 per cent on the basis of the permanent house. So, this areas permanent house average is very poor compare to North 24 Parganas average. This bar graph shows that highest number (by percentage) of a semi-permanent house situated in Horoa block and the lowest number of a semi-permanent house situated in Hingalganj block. This bar graph shows that mention six block economic condition is not very good. Highest number of a Temporary house situated in Hingalganj block (71.49 per cent) and lowest in Horoa block (6.39 per cent). Although mention six block average is 40.80 per cent and North 24 Parganas average is on the basis of the temporary house.

7.2.3 Type of fuel use for cooking-

TYPE OF FUEL USE FOR COOKING-(2011 CENSUS DATA)

NAME OF THE BLOCK	FIREWOOD	CROP RESIDUE	COW DUNG CAKE	COAL / LIGNITE/ CHAR COAL	KEROSENE	LPG/ PNG	ELECTRICITY	BIO-GAS	ANY OTHER	NO COOKING
HAROA	34845 (75.62%)	6414 (13.92%)	2009 (4.36%)	210 (0.46%)	60 (0.13%)	1467 (3.18%)	33 (0.7%)	40 (0.09%)	909 (1.97%)	93 (0.2%)
MINAKHAN	24922 (57.23%)	13315 (30.58%)	2722 (6.25%)	508 (1.17%)	57(0.13%)	643 (1.48%)	39 (0.09%)	24 (0.06%)	1235 (2.84%)	80 (0.18%)
SANDESH KHALI-I	19958 (53.22%)	9970 (26.58%)	5629 (15.01%)	227 (0.61%)	49 (0.13%)	496 (1.32%)	21 (0.06%)	37 (0.1%)	1067 (2.85%)	49 (0.13%)
SANDESH KHALI-II	14382 (37.94%)	13828 (36.48%)	8227 (21.7%)	96 (0.25%)	28(0.07%)	208 (0.55%)	26 (0.07%)	49 (0.13%)	996 (2.63%)	68 (0.18%)
HASNABAD	29269 (61.63%)	10389 (21.88%)	5753 (12.11%)	145 (0.31%)	35 (0.07%)	934 (1.97%)	47 (0.1%)	48 (0.1%)	790 (1.66%)	81 (0.17%)
HINGALGANJ	17247 (36.61%)	17438 (37.02%)	10467 (22.22%)	57 (0.12%)	84 (0.18%)	315 (0.67%)	37 (0.08%)	54 (0.11%)	1247 (2.65%)	160 (0.34%)
MENTION SIX BLOCK	140623 (54.18%)	71354 (27.49%)	34807 (13.40%)	1243 (0.47%)	313 (0.12%)	4063 (1.57%)	203 (0.08%)	252 (0.10%)	6244 (2.41%)	531 (0.20%)
NORTH 24 PARGANAS	34.27%	11.45%	3.64%	11.26%	2.7%	34.65%	0.09%	0.36%	1.19%	0.40%

Source- Census data 2011.

This bar graph shows that Haroa block maximum number of household use firewood (75.62 per cent) as a main source of fuel for cooking and a minimum number of household (36.61 per cent) of Hingalganj block use firewood as a fuel for cooking. Compare to other blocks more than 37 per cent household of Hingalganj block use crop residue as a fuel for cooking it is a maximum percentage and Haroa block a minimum number of household use crop residue as a fuel for cooking. More than 22 per cent household of Hingalganj block use cow dung cake as a fuel of cooking it is height percentage among mention six block and Haroa block rank last. More than 1 per cent household of Minkhan block use coal as a fuel for cooking it is maximum percentage among the six block and 0.12 per cent of the household of Hingalganj block use coal as a fuel for cooking it is the lowest percentage. More than 0.18 per cent of the household of Hingalganj block use kerosene as a fuel for cooking it is height percentage and Hasnabad rank lowest on the basis of kerosene used as a fuel of cooking.

7.2.4 Role of Fisheries in local economy-

According to 2011 census data at a present 10 Government scheme operated on fisheries in the mention six blocks. Total fish production of the mention six blocks is 808740.69 quintals. Haroa block rank one according to pie graph and Hingalganj block rank last on the basis of fish production. Almost 92547 people of the mention six blocks are engaged in pisciculture. Total 27581.07 hector area is use pisciculture of the mention six blocks.

7.2.5 Banking services -

SUNDERBANS BANK DETAILS-

CD BLOCK	COMMERCIAL BANK	GRAMIN BANK	BANK OFFICE POPULATION SERVED PER BANK (COMMERCIAL AND GRAMIN BANK)	NET SMALL SAVING S COLLECTION (000 Rs.)
HAROA	4	1	30,000	41,638
MINAKHAN	3	1	34,000	14,604
SANDESHKHALI-I	4	1	24,000	23,809
SANDESHKHALI-II	3	3	20,000	15,787
HASNABAD	6	3	17,000	72,244
HINGALGANJ	1	3	36,000	15,032
MENTION SIX BLOCK	21	12	1,61,000	1,83,114

SOURCE-DATA FROM SUNDERBAN DEVELOPMENT BOARD ,2010.

Total 36 banks are situated in mention six blocks among them 12 is Rural bank, 24 is a commercial bank and 34 Agricultural credit society is situated in the mention six blocks. It is observed from the bar graph that per bank served average 39000 people in Hingalganj block it is height ratio and per bank served 20000 people in Hasnabad block it is the lowest ratio among the mention six blocks.

7.2.6 Source of lighting-

This bar graph shows that 23.07 per cent of the mention six block household is depended on electricity as the main source of lighting, 73.24 per cent household of this region dependent on kerosene as the main source of lighting, 3.18 per cent household dependent on solar as the main source of lighting.

7.3 EDUCATION STATUS

7.3.1 Literacy rate-

Total literacy rate in mention six block is 63.3 per cent (765778 people) among them male literacy rate is 68.70 per cent (392788 people) and the female literacy rate is 57.55 (313046 people). This block-wise bar graph shows educational disparities among male and female, the literacy gap is maximum (14.7 per cent in Sandeshkhali-II block and the literacy gap is minimum (8.9 per cent) in Hasnabad block. The literacy gap between male and female gradually decrease in 1991 the gap was 21.57 per cent in 2001 the gap was 17.98 per cent and at a present, the gap is 11.27 per cent.

YEAR AND BLOCKWISE LITERACY RATE IN THE MENTION SIX BLOCK.

CD BLOCK	YEAR	LITERACY RATE			Literacy Gap
		MALE	FEMALE	TOTAL	
HAROA	1991	55.24	31.05	43.62	24.19
	2001	71.66	53.3	62.82	18.4
	2011	68.2	59	63.7	9.2
MINAKHAN	1991	53.8	26.45	40.61	27.35
	2001	69.3	47.2	58.65	22.1
	2011	66.5	56.1	61.4	10.4
SANDESHKHALI-I	1991	50.93	30.53	37.73	27.4
	2001	70.1	46.2	58.5	23.9
	2011	67.3	55.2	61.4	12.1
SANDESHKHALI-II	1991	55.75	25.9	41.42	29.85
	2001	71	46.8	59.3	24.2
	2011	68.6	53.9	61.4	14.7
HASNABAD	1991	56.76	34.49	46.01	22.27
	2001	72	54.4	63.5	17.6
	2011	67	58.1	62.7	8.9
HINGALGANJ	1991	66.5	37.21	52.42	29.29
	2001	81.5	58.2	70.1	23.1
	2011	75.1	61.64	68.5	13.56

Source-Census of India (1991, 2001,2011)

7.3.2 Drop out-

Drop out is a great challenge in the education system. According to 2001 census data, the bar graph shows that Haroa block dropout rate is low compared to the mention six block as well as North 24 Parganas average. In Sandeshkhali-II block dropout rate is high (17.56 per cent) through North 24 Parganas average dropout rate is 14.5 per cent. The dropout rate is not equally distributed in all the mention six block. So, dropout rate is one of the Indexes that show education quality of any block.

BLOCK WISE DROPOUT RATE AMONG THE BOYS AND GIRLS.

BLOCK NAME	BOYS	GIRLS	TOTAL
HAROA	9.00	6.11	7.57
MINAKHAN	14.02	10.46	12.30
SANDESHKHALI-I	12.76	12.70	12.73
SANDESHKHALI-II	18.80	16.23	17.56
HASNABAD	20.22	13.78	17.05
HINGALGANJ	11.99	10.21	11.13
TAKI (M)	17.11	13.40	15.27
WEST BENGAL	15.03	13.07	14.05

SOURCE-2011 CENSUS DATA.

7.4 HEALTH STATUS

7.4.1 Population –PHC Ratio in the mention six Block Of Sunderbans.

Size of population served per PHC	Name of the blocks
40000-50000	Sandeshkhali-II ,Hingalganj ,Sandeshkhali-I
50001-60000	
60001 or more	Haroa, Minakhan, Hasnabad

Source- District Human Development Report-2006

INFRASTRUCTURE GAP IN RURAL HEALTH CARE SYSTEM OF MENTION SIX BLOCKS.

BLOCK NAME.	HEALTH CENTRE.	HEALTH SUB-CENTRE.	TOTAL	PROJECTED POPULATION, 2005.	ADDITIONAL REQUIREMENT		POPULATION SERVED PER HEALTH CENTRE.	POPULATION SERVED PER SUB-HEALTH CENTRE.
					HEALTH CENTRE	HEALTH SUB-CENTRE		
HAROA	3	29	32	196850	4	10	65617	6788
MINAKHAN	3	29	32	183557	3	8	61186	6330
SANDESHKHALI-I	3	35	38	149345	4	15	49782	4267
SANDESHKHALI-II	3	35	38	143982	4	13	47994	4114
HASNABAD	3	33	36	189333	3	5	63111	5738
HINGALGANJ	4	42	46	162428	4	12	40607	3867
MENTION SIX BLOCK	19	203	222	1025495	22	63		

Source- District Human Development Report-2006 (North 24 Parganas)

According to norms is every PHC for 30000 people in the plain region and 20000 population in the tribal, Hilly and backward area. In Sandeshkhali-I, II, Hingalganj one sub-centre served 40000-50000 population this ratio is much higher than the norm. In Haroa, Minakhan, Hasnabad block one sub-centre served more than double according to the norm.

Population-Sub centre Ratio in the mention six blocks of Sunderbans.

Size of population served per sub-centre	Name of the blocks
5000 or less	Sandeshkhali-I, Sandeshkhali-II , Hingalganj
5000-6000	Hasnabad.
6000-7000	Haroa, Minakhan.

Source-Human Development Report-2006 (North 24 Parganas)

Note-The national norm is one sub-centre for 5000 people in the plain region and for 3000 people in the hilly, tribal and backward region. The table shows that in Sandeshkhali-II, Hingalganj one sub-centre served 5000 or fewer people this ratio also follow national norms. However, it is proved from this table there is one block which is close to the form of its provision. Though in Haroa and Minakhan blocks one sub-centre served 6000-7000 person which is much higher than existing norms of 5000 population.

According to data 22 additional requirement of the health centre is essential for better health to provide in the mention six blocks. According to 2011 census, 1296 beds are available in Sunderbans region. Bed turnover rate is height in Horoa block (195.7) and lowest is Minakhan blocks (49.8). Bed turn overrate one of the important health indicators. In recent year Horoa, Minakhan have achieved a considerable success in respect of institutional delivery, though Hasnabad block performance is the lowest position with only 8.7 per cent institutional delivery, So mention six blocks is far behind to achieved target of 100 per cent institutional delivery.

7.4.2 Drinking Water Facility-

The census data show that Hand pump supply 66.18 per cent drinking water in the mention six blocks. Tubewell / borehole is the second leading source of drinking water in this mention six blocks. Tap water from the treated source is the third largest source of drinking water. So, this pie chart shows that maximum people of this region are dependent on a hand pump for their daily drinking water supply. In the mention six blocks, 0.02 per cent household depend on spring for their drinking water and 0.12 per cent household depend on River /Cannel for their drinking water.

NUMBER AND PERCENTAGE OF HOUSE HOLD BY THE MAIN SOURCE OF DRINKING WATER, 2011.

BLOCK NAME	TAP WATER FROM TREATED SOURCE	TAP WATER FROM UNTR EATED SOURCE	COVERED WELL	UNCOVERED WELL	TUBEWELL /BORE HOLE	SPRING	RIVER / CAN NEL	TANK / PO ND / LA KE	OTHER SOURCES
HAROA	2168	796	100	18	38112	3	30	164	343
MINAKHAN	3368	869	113	5	29209	4	88	98	158
SANDESH KHALI-I	1232	356	91	19	28305	4	27	54	215
SANDESH KHALI-II	812	235	119	10	29657	2	47	32	58
HASNABAD	6544	3590	146	12	27291	28	42	116	320
HINGALGANJ	6009	5681	135	12	19189	10	84	377	347
MENTION SIX BLOCK	20133	11527	704	76	171763	51	318	741	1441
NORTH 24 PARGANAS	32.3%	6.56%	0.27%	0.18%	40.2%	0.06%	0.13%	0.26%	0.89%

SOURCE- 2011 CENSUS DATA.

8. CONCLUSION

The present study focuses on the socio-economic condition and healthcare infrastructure of the mention six blocks. Never the less, this research will be able to provide very important information on socio-economic condition and health condition of Sunderbans region. This research finding would be able to use as a guideline and as a reference for upliftment socio-economic condition of those six blocks. Considering the socio-economic condition it is necessary to make a separate specific research on every element of Healthcare system and specific research on every Road network system. After the overall discussion about socio-economic condition of mention six blocks of the North 24 Parganas, it is clear that this region is under development. Compare with other blocks Hasnabad block socio-economic condition is better among them and Handeshkhali-II blocks condition is very poor Literacy rate gradually increase and gender-wise literacy gap gradually decrease. Six southern blocks North 24 Parganas is a saline contaminated area . Almost 45 per cent (2001 census) people of that area economically poor (BPL). Literacy rate in this region is very low. Many islands of that block have no electricity they depend on solar power as a main source of lighting. The government should take some policy to better road communication of those blocks and this road will be ready for all weather use. Many villages of those blocks has to use embankment as a road which is not useable in the rainy season. Government should take some short term and long term policies for electrification of those scatter island .Mention six blocks of this region is not equally developed.

REFERENCE-

- Basar, A. (2012). *Water Security in Coastal Region of Bangladesh: Would Desalination be a Solution to the Vulnerable Communities of the Sundarbans?*. *Bangladesh e-journal of Sociology*,9(2),31-39.
- Das, G.K. (2006). *Sundarbans environment and ecosystem*, Published by Sarat Book Distributors, Kolkata.
- De,D.(2014).*Spatial Inequality in Health Care Infrastructure in Sunderban, West Bengal, India. International research Journal of Social Science*, 3(12),15-22.
- Labiri,J.(2015). *Sunderban Anadbikar Charcha*. Published by Rong Root, Kolkata.
- Mustari, S. and Karim, Z.A.H.M. (2014). *Impct of Salinity on the Socio-Environmental Life of Coastal People of Banglades*, *Asian Journal of Sciences and Humanities*,3(1),12-17.
- S,Bose.(2012). *Sunderboner Sisbu Sastha. Sudbu Sundarbon Charcha*,2(4),41.
- Sengupta, S. (2005). *Sundarbans Jib-Paromandal*. Published by Ananda Publishers Private Limited, Kolkata.

