A Comprehensive Study of Human Development – a case study of Chanderghat GP, Nadia, West Bengal

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Article Info

Abstract

Human Development is based on the people's health, education level and their standard of living. HDI is designed with the help of health index, education index and income index. Now, Chanderghat GP stands with HDI score 0.567 whereas the national score of India is 0.586 (rank135 out of 187 countries as per census 2011). The study also found the diversity of HDI score among SC - 0.507, OBC -0.545 and General-0.651 respectively at GP. Income disparity and school dropout rate are two main reasons for such diversity. However, the current HDI status of GP is quite similar to Nadia as 0.570. There are few suggestions to mitigate the disparity among those categories..

Introduction

HDI is *the* abbreviated form of Human Development Index*,* developed and propounded by *the* Pakistani economist Mahbub-ul-Haq, followed by Amartya Sen, an Indian economist, in 1990. *The HDI is a statistical tool to measure a country's overall achievements in its social and economic dimensions. The social and economic dimension of a country based on the people's health, education level and standard of living.* It is a comprehensive tool devised by the United Nations for measuring the levels of social and economic developments of the different countries and ranking them accordingly. A new method was published on 4th November 2010 and subsequently updated on 10th June 2011. It makes use of four parameters for measuring and ranking countries according to their social and economic development which includes the Life Expectancy at Birth (Goalpost - maximum and minimum are 85 and 20), Expected Years of Schooling (Goalpost - maximum and minimum are 15 and 0), Mean Years of Schooling (Goalpost - maximum and minimum are 18 and 0) and Gross National per Capita Income (Goalpost - maximum 75000 (PPP US$) and minimum 100 (PPP US$).

The United Nations Development Programme (UNDP)

The UNDP helps developing countries by giving aid for its effective use. It encourages the protection of human rights, empowerment of women and capacity development. And it also focuses the global debate on key development issues, innovative analysis, providing new measurement tools and sometimes controversial policy proposal. The global analytical framework and inclusive approach which carries over into national, regional and local Human Development are well supported by the UNDP.

Statement of the Problem

Nowadays, several models of development have given a lot of importance to human development. It can take place through education, health and family welfare and is also influenced by legal, political and social environments in the society. It is required for economic,

social and cultural developments in society. A government of new emerging states is incapable of social regulatory services in rural areas. To achieve the greater development in every GP level, the government must have active support and greater contribution from the people. Thus the government is obliged to seek new unfamiliar partners like local leaders and people from non- governmental organization. Therefore, the main objectives of my study include analyzing the current status of human development cutting across caste boundaries in the study area, to identify the major reasons for such discrimination, to suggest measures for improving the human development and to compare the HDI value with respect to that of the district, state and country. The research design is given below:

Data	Primary and Secondary
Data Source	Pre-tested structured questionnaire as well as Research papers, Books, Periodicals Journals, Government websites etc.
Period of Study	18th December, 2014 to 2nd January, 2015.
Tools	Conventional Cartographic Techniques and Simple Statistical Methods
Type of Research	Descriptive and Exploratory
Sample Size	Stratified Sampling in 200 Households
Parameters	Human Development Indicators (education, income, health)

Study Area

The study area concerns part of the district of Nadia that lies between $22^0 11^/$ to $24^0 53^/$ N latitude and $88^0 09^/$ to $88^0 48^/$E longitudes. It covers an area of about 3927 sq. km. with 5,168,488 population and 1316/sq.km. density of population. It consists of 17 blocks, each of which has several gram panchayets (GP, cluster of villages) and each GP contains several villages. Tehatta I block covering with area 249.55 sq. km with 11 Gram Panchayats (Kanainagar, Chhitka, Shyamnagar, Betai I & II, Raghunathpur, Natna, Tehatta, Chanderghat, Patherghata I & II). Chanderghat GP lies with latitudinal and longitudinal position are 23°41′00″N 88°29′00″E and covering area about 24 sq.km. It is surrounded by Tehatta GP in North, Tehatta II block in west, Nakashipara and Chapra block in South and Pathargata I & II in the East. The GP (fig.1) is situated on the bank of the river Jalangi **(i.e.,** a tributary of the Ganges R. in Murshidabad and Nadia districts). The entire area lies on the alluvial plain of the river Ganga and its tributaries with high productivity of crops.

Health Index

To find the answers of various health related questions like frequency of death, causes of death, medical treatment and the place of treatment etc., 200 sample household surveys have been carried out in the selected GPs. The primary objectives of this survey were to find out the constraints of human capital information of the rural households**.** The health status of a population depends on nutrition, access to safe drinking water, sanitation facilities, environment, type of shelter, awareness about health and health care. This study is primarily based on the data from Rural Sample Survey. It is usually measured in terms of indicators of mortality and morbidity.

The household's status of Chanderghat GP can roughly be considered as safe. There is no immense difference among General, SC and OBC in this regard (Fig. 2). The World Health Survey for West Bengal has found that 94.7 per cent of the people do not eat sufficient vegetables and fruits. However, insufficient intake of vegetables cannot always be attributed to lack of purchasing power or poverty alone. Sometimes, it is closely related to culture and food habit of different section of the population.

The Incidence of mortality varies across the families of the GP. Minimum age of death is experienced by the family of OBC male whereas the maximum is found in General male (fig. 3). Mean age of death is 68.39 years. Death at an early age is generally considered as a sign of bad health status therefore OBC male is found to be the worst and General male is the best in respect of mortality. Deaths are mostly found among the aged persons followed by heart disorder, cerebral attack etc. It is observed that deceased persons have received mainly allopathic treatment; other kind of medical treatment is very low. Government hospital is found to be the most important place of medical treatment in the GP. Another important determinant of population change is marital status. There is a comparative statistical analysis among GP, Nadia districts and West Bengal in Table 2. The reasons of such health index imbalance are—

Firstly, lack of sanitation. People bearing the surnames of Sardar, Das and Halder are very poor and adequate sanitation conditions are almost absent in those households. They use open space for this purpose.

Secondly, as far as access to safe drinking water is concerned, some of the households do not have access to safe drinking water. There is great difference among these three. Most people of the General category purchase drinking water whereas most SC and OBC families collect water from a faraway 22 pipe-tube well.

Thirdly, people of SC and OBC households deal with animals like swine, cow etc.; therefore a few animal diseases get transferred through mosquito bite.

Fourthly, their house structure and locality are not quite safe.

*Fifth***,** early marriage plays an important role at GP (Table **-** 2).

*Sixth***,** the status of medical treatment is also not adequate enough with only I hospital and 2 health centres with an unfavourable patient-doctor ratio.

Education Index

Realizing the far reaching benefits of education both central and state Governments have been making concerted efforts to increase literacy rate , special

emphasis has been given on education in each 5 year plan in order to achieve universalization of education (Tilak, 1994). Various programmes like pre-school through ICDS projects, free elementary education in the govt. schools, various incentive schemes like mid-day meal, free school uniforms, text-books, operation blackboard, non-formal education schemes, establishing primary schools within the close vicinity of the villages have been launched by Central as well as State Governments. But it is quite disappointing to note that the objectives of universalization of elementary education still remains elusive in most of the states including West Bengal and the achievements to that end are far from satisfactory.

Considerable progress has been made in terms of provision of facilities and enrollment of children in the relevant age group; however the goal of universalization of elementary education continues to remain a distant dream. This is largely on account of the inability of the system to enroll and retain children from the disadvantageous groups (Sen, 2002).During the last fifty years, almost all the districts have experienced spectacular growth of literacy rate but this growth is not identical; rather tremendous heterogeneous growth rate was observed ((fig. 4).

To measure the educational scenario of the GP inhabited by general, OBC and SC, level of education is derived by using the selected class distributions like, age group, illiteracy, less than 5, 6 - 8, 9 -10, 11 or more and missing. A close look of the row 11 in Table 1, 2 and 3, gives the status of literacy. The standard literacy rate is seen in families of General category followed by OBC and SC. On the basis of the table above, it is evident that the illiteracy rate is concentrate with SC and followed by OBC and General. It is clear that people belonging to the General category are quite better off compared to other two categories viz. OBC and SC. This is the overall picture of the GP but if we disaggregate the overall literacy rate with respect to a backward community like SC then a very disappointing picture emerges from the GP which needs serious attention.

The reasons for dropping out of school across the GP is represented by the wheel graph (fig. 5). It is mainly due to excessive cost of education, followed by work for family/business (Table 6). Knowledge has been considered as an important component of social development in general and human development in particular.

Income Index
Economic productivity forms an integral part of human development. No human development is possible without economic prosperity. Growth of economy and productivity is generally assessed with the help of Gross National Product and per capita income. Here I defined these two as person'sIncome/Month. The mean income in GP is Rs. 2367. Study attests that highest earned income goes with General followed by OBC and SC (fig.

6). The basic key component of economy at a place is quality of life or standard of living. This may be divided into two broad categories viz.,

(a) the *basic requirements* of a family for private consumption like adequate food, shelter, and clothing, certain households equipments and furniture,

(b) certain *public services* are to be provided to the people. These are safe drinking water, sanitation, health, transport and education.

The UNDP (1990) has claimed that the basic need usually concentrates on the bundle of goods and services that deprived population groups (like OBC and SC) need: shelter, clothing, health care and water. Now to describe the standard of living eight parameters are chosen viz., electricity, sources of drinking water, sanitation facility, fuel used for cooking, type of house, no of rooms, household assets and having BPL card. All eight elements are mostly facilitated to people belonging to the General category whereas others (OBC and SC) are quite deprived with large marginal gaps (Table - 7). After highlighting the parameters the following graph represents the actual disparity in income index among General, OBC and SC (fig.7).

The HDI
After the intensive study of health, education and income index finally the HDI of the GP is revealed. The variability is generally seen in HDI among these three as expected earlier. On the basis of the health index, education index and income index, research came to the conclusion the General category has taken highest rank whereas the SC is at the lowest rank (fig. 8). The category OBC obtained moderate rank in the GP. There is another comparative analysis among study area, Nadia, West Bengal and India where it is clear that development of study area and Nadia are almost same but development of West Bengal is higher than development of India (fig. 9).

Suggestions and Recommendations
The inequalities in human development among SC, OBC and general caste are concerned with demographic and socio-economic factors. The following points may be considered as suggestive measures to reduce the development gaps —

(1) Basic Amenities: The GP has failed to provide few basic amenities like drinking water, sanitation etc., to the backward people. The provision of basic infrastructure and service is very essential for living.

(2) Healthcare: Morbidity rate has enormous effect on *h*uman development. The GP does not offer adequate treatment facilities. Delivery of health service to the backward communities needs to be improved at each level.

(3) Education: In education, certain spatial and social pockets of illiteracy require to be addressed for all the three social groups.

(4) Landuse: Proper and adequate landuse management, land conservation, resource mapping and scientific harnessing of natural resources available in local areas are required.

(5) Landlessness: The GP, in spite of being agriculture dominated one, though partially commercial activity based, most of the backward people do not have land for cultivation. Thus landlessness in these categories wants to be explained in terms of its causes. Feasibility of peasant cultivation also needs to be strengthened.

(6) Joblessness: There are various types of unemployment predominant here i.e., seasonal, open, hidden and disguised unemployment with the GP being an agriculture dominated village. So, proper land use policy of agriculture is required for the whole year.

(7) Poverty: Poverty alleviation is directly proportional to rise in income level. This is true with this GP as well. In terms of poverty alleviation, the requirements of the people should be considered with due importance.

(8) Road Connectivity: Road condition-wise the GP is very much underprivileged. Various schemes do not get implemented here properly. Lack of roads and adequate transport system hinders the provision of essential services and utilities including health and education infrastructure.

(9) Policies and Programmes: Rural policies and programmes can succeed only if there is consent from and active participation of the people concerned and if it is aimed at improving the living condition of the rural poor.

(10) Self-help groups: More Self-help groups should be formed and bank loan facility should be extended and supported by local authorities i.e., Panchayat.

(11) Migration: People between 17 and 38 years age group migrate due to pull factors, causing change in population in detention. Migration can stop with intensive area development. Government Ration Shops should be allotted to members of backward community as community development measure. Government should set up agricultural SEZ in GP for more employment.

Conclusion

Every corner of a state, each caste- category has equal right to be developed at equal pace. Human communities living in those smallest units located in remote areas should receive the fruits of development. The backward caste i.e., SC (0.507) and OBC (0.545) in GP as well as West Bengal performing poor human development should be given proper attention for development to improve the quality of human resources so that people can enjoy long, healthy and creative lives. The gaps can be reduced through people centered development approach, the empowerment of rural communities and the decentralization of government responsibilities in especially the weaker sections.

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Table – 1: Comparison among General, SC and OBC caste in Chanderghat GP

Index	Value (N = 200 G = 85 SC = 60 OBC = 55)		
	General	OBC	SC
Health	0.823	0.708	0.702
Education	0.613	0.529	0.454
Income	0.549	0.434	0.410
Human Development	0.651	0.545	0.507

Source: Computed by the Author

Table – 2: Marital Status

Place of Residence	Mean Age at Marriage*		Percentage of Marriages below Legal Age at Marriage		%Married Women aged 20 - 24 (married before 18)
	Boys	Girls	Boys (<21 years)	Girls (<18 years)	
Chanderghat GP	24.3	18.11	10.22	26.34	35.55
Nadia	24.5	18.60	22.70	40.40	64.30
West Bengal	24.6	18.40	21.80	42.00	54.70

*Mean age at marriage and percentage of marriages below legally prescribed minimum age at marriage by sex, residence.   Source: Computed by the Author

Table – 3: Educational Level of the Household Population of General Category

Age	Illiterate	Years of schooling among those who are literate*					Total Percent
		Less than 5	6 - 8	9 – 10	11 or more	Missing	
7 - 9	7.9	79.9	11.6	4.5	3.1	0.9	100
10 - 14	5.0	63.0	31.9	4.0	1.3	0.8	100
15 - 19	11.4	35.4	38.3	22.0	3.5	0.8	100
20 - 29	25.0	27.0	36.1	23.1	12.7	1.1	100
30 - 39	31.1	34.1	31.6	21.6	11.5	1.2	100
40 - 49	46.6	39.1	29.0	20.4	10.4	1.1	100
50+	55.1	45.1	28.7	16.2	9.0	1.0	100
Total	22.4	35.7	31.8	18.4	13.0	1.1	100

* Population aged 7 years and above are taken   Source: Computed by the Author

Table - 4: Educational Level of the Household Population OBC Category

Age	Illiterate	Years of schooling among those who are literate*					Total Percent
		Less than 5	6 - 8	9 - 10	11 or more	Missing	
7-9	9.9	97.9	0.1	0.0	0.0	2.0	100
10-14	7.0	72.4	25.9	0.9	0.0	0.8	100
15-`19	13.4	30.4	38.6	22.0	8.3	0.8	100
20-29	27.0	34.1	31.1	19.0	14.6	1.1	100
30-39	40.1	39.4	29.7	17.7	11.5	1.7	100
40-49	49.1	45.2	26.5	16.4	9.6	2.3	100
50+	57.1	50.9	23.7	14.0	9.0	2.4	100
Total	31.4	50.4	26.8	13.4	8.0	1.4	100

* Population aged 7 years and above are taken   Source: Computed by the Author

Table 5: Educational level of the Household Population of SC Category

Age	Illiterate	Years of Schooling among those who are Literate*					Total Percent
		Less than 5	6 - 8	9 - 10	11 or more	Missing	
7 - 9	9.0	97.9	0.0	0.0	0.0	2.1	100
10 - 14	8.0	74.4	24.2	0.6	0.0	0.8	100
15 - 19	16.7	30.5	41.3	21.3	6.0	0.9	100
20 - 29	34.2	37.5	32.5	18.1	10.4	1.4	100
30 - 39	50.6	44.3	31.4	15.3	7.0	1.9	100
40 - 49	62.8	53.3	27.7	13.0	4.0	2.0	100
50+	77.2	65.6	21.4	7.3	3.1	2.6	100
Total	39.9	54.0	27.6	11.9	5.0	1.5	100

* Population aged 7 years and above are taken   Source: Computed by the Author

Table – 6: Reasons for Dropping Out Of School

Reasons*	General	OBC	SC
School too far	3.32	1.24	1.51
Further education not necessary	11.11	5.45	4.78
Required for household work	11.15	10.22	12.21
Required for work on family/business	14.11	12.21	13.21
Required for outside work	8.89	12.78	8.66
Cost too much	15.21	32.21	34.52
Not interested in studies	19.71	5.78	4.54
Repeated failures	3.39	1.77	2.10
Got married	11.11	16.51	17.20
Others	2.00	1.83	1.27
Total	100.00	100.00	100.00

Percent distribution of household population aged less than 18 years who dropped out of school by main reasons
Source: Computed by the Author

Table – 7: Housing Characteristics and Assets

Elements		Housing Characteristics	General	OBC	SC
Electricity (100 %)		Having electricity connection	89.9	72.23	67.24
Source of Drinking Water (100 %)	Improved Source	Piped water into dwelling/yard/plot	30.1	17.9	8.6
		Public Tube Well	31.7	24.3	29.9
		Own Tube Well or borehole	3.9	10.1	1.7
		Other improved	31.4	38.9	49.4
	Non improved sources		2.9	8.8	10.4
Sanitation Facility (100 %)	Improved Sanitation	Flush to sewer/septic/pit	80.8	37.6	25.5
		Pit with slab	9.3	15.6	17.5
		Pit with improved Ventilation	0.1	0.1	0.1
		Other	0.4	0.5	0.5
	Non - improved	Flush not to sewer/septic/pit/twin pit	2.1	0.9	0.6
		Pit without slab	0.8	1.6	1.7
		No toilet/open space	6.5	43.7	54.1
Fuel used for Cooking (100 %)		Liquefied Petroleum Gas (LPG)	48.9	12.8	2.7
		Electricity	0.2	0.1	0.0
		Kerosene	7.9	1.9	0.2
		Wood	12.1	25.4	29.1
		Others	30.9	59.9	67.9
Type of House (100 %)		Kachha	8.4	41.1	50.2
		Semi – pucca	28.2	32.6	33.8
		Pucca	63.4	26.4	16.0
No of Rooms (100 %)		1	25.6	39.0	56.2
		2	50.5	33.6	23.9
		3+	37.9	27.4	19.9
Household Assets (100 %)		Fan	86.8	81.2	67.6
		Television	88.2	72.6	61.5
		Telephone	100	97.9	88.1
		Bicycle	97.4	86.3	75.9
		Motor cycle	45.7	17.4	5.0
		Car	1.8	0.0	0.0
		Tractor	0.5	0.0	0.0
Having BPL card (100 %)			12.9	33.2	38.4

Percent distribution of the households by housing characteristics and selected durable goods, by residence, GP.
Source: Computed by the Author

Table – 8: Comparison among HD Indicators of Chanderghat GP, Nadia, West Bengal

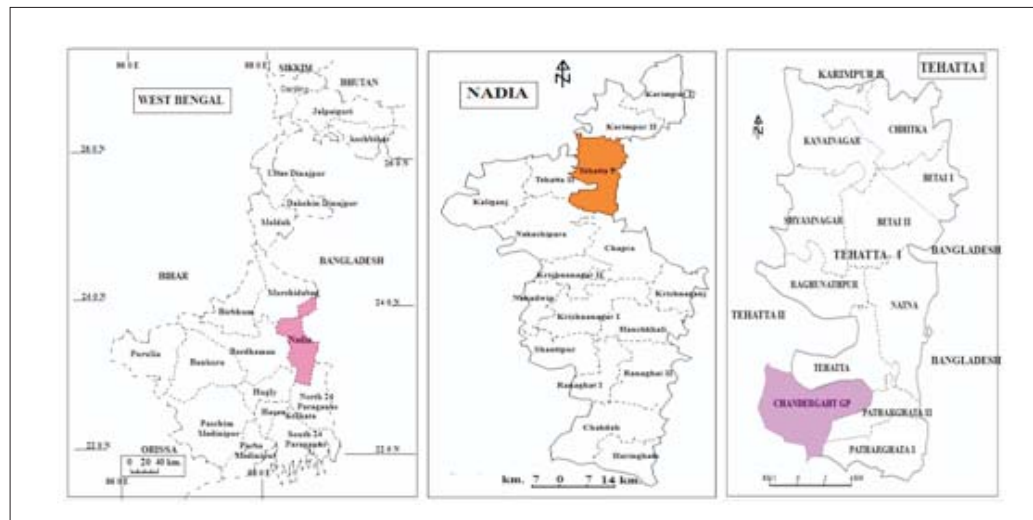| Place	Health index	Education index	Income index	HDI
Study area	0.744	0.532	0.464	0.567
Nadia	0.650	0.660	0.410	0.570
West Bengal	0.700	0.690	0.430	0.610
India	0.713	0.471	0.595	0.586

Source: Computed by the Author

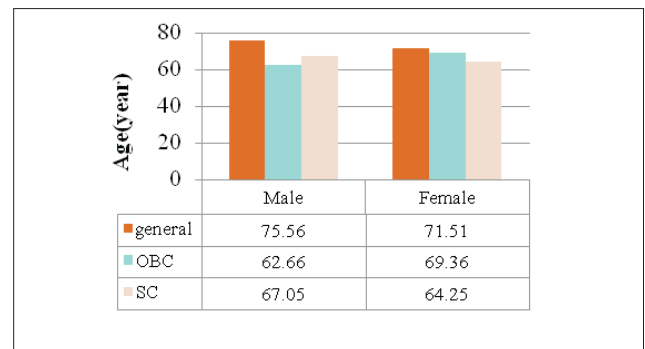Fig. 1: Location of the Study Area
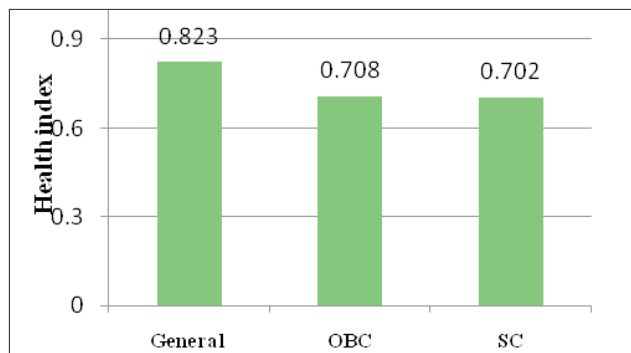
Fig. 2: Comparison of Health Index

Fig. 3: Comparison of Mortality
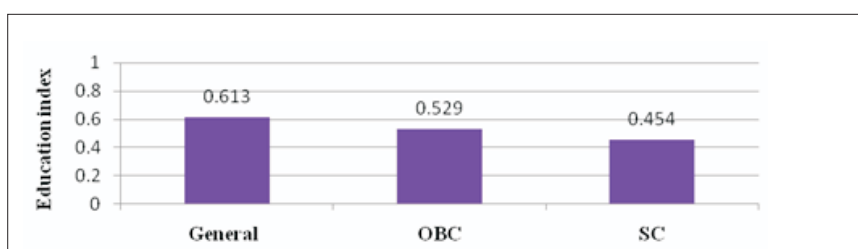
Fig. 4:Comparison of Education Index
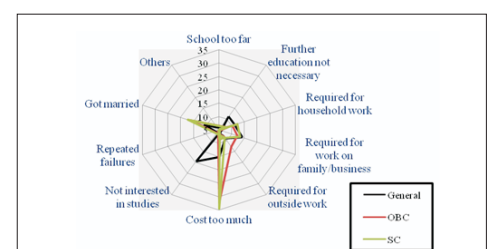
Fig. 5: Reasons for School Dropout
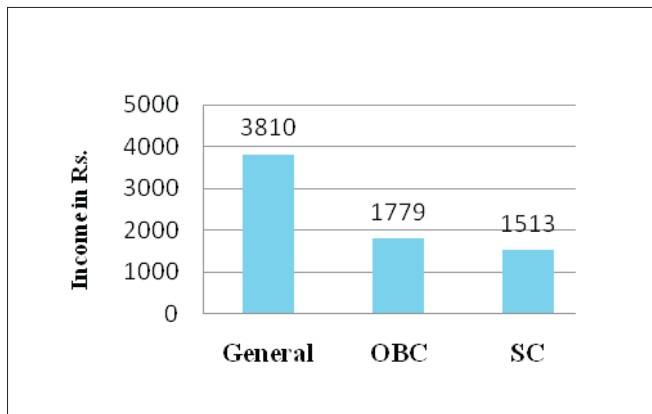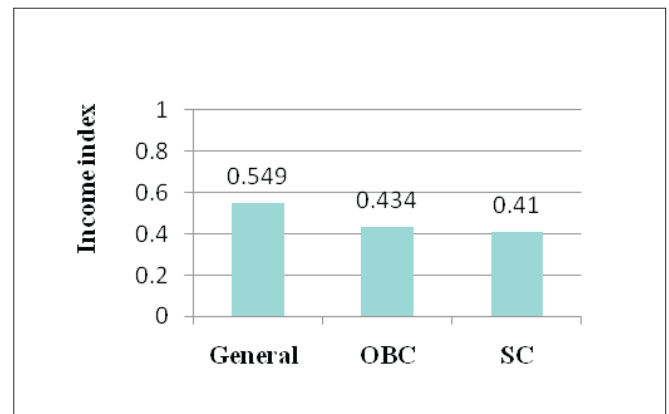
Fig. 6: Comparison of Monthly Income

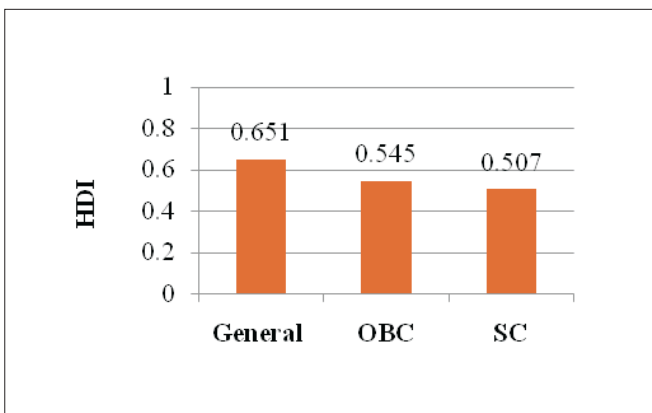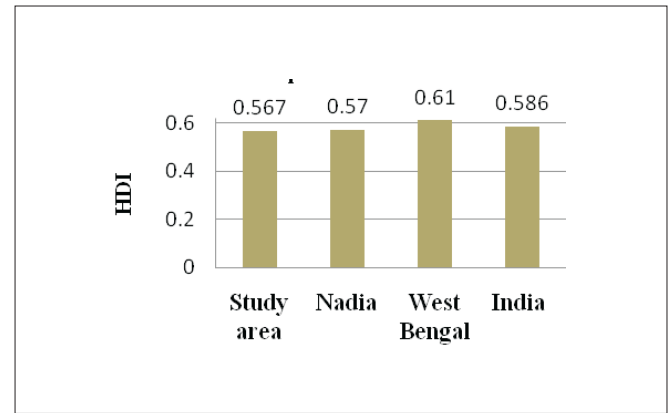Fig. 7: Comparison of Income Index

Fig. 8: Comparison of HDI

Fig. 9: Comparison of HDI

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