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MICRO-REGIONAL INTER-COMMUNITY SOCIO-ECONOMIC DISPARITIES AMONG THE TRIBES OF DOOARS IN WEST BENGAL

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Abstract

Tribal population presently living in the Mal subdivision of Jalpaiguri district belongs to two broad ethnic groups, namely, the Mongoloid who are indigenous tribal people of the Dooars region like Limbu, Garo and Mech; and the Dravidian groups who are migrated from the Chhotonagpur plateau region after the introduction of tea plantation in the second half of 19th century as workers. There are variations of their social and economic activities within the region. Ten major tribal groups have been identified in Mal subdivision arranged as per descending numeric strength: Oraon, Munda, Santal, Lohar, Mahali, Kharia, Tamang, Limbu, Malpaharia, and Mech. There are also variations of their HDI scores based on selected parameters among these tribes. Attempts have been made in this paper to find out their development in the light of statistical techniques through micro level study.

Keywords: *Ethnic group, Development, HDI, Micro-level study*.

Introduction

The Dooars area of Jalpaiguri district is densely populated by different tribal communities. As per 2011 census, nearly 40% people of this subdivision are belonging to Scheduled tribes. The indigenous tribal people of Mal subdivision, the Mech, Rabha and Garos were traditionally dependent on village economy of agriculture, weaving, and fishing and often hunting. After the treaty of Sinchula in 1865 the British Government encouraged the immigration of the Nepalese in order to populate the sparsely inhabited zones of Dooars down the Bhutan hills (Debnath, 2013). Again a considerable number of tribal people were borrowed by the British East India Company to grow tea gardens, cut jungles and related activities from Chhotonagpur region. Oraon, Munda, Mahali, Santal, Koroa communities are now mainly engaged as tea garden workers. These people are very much

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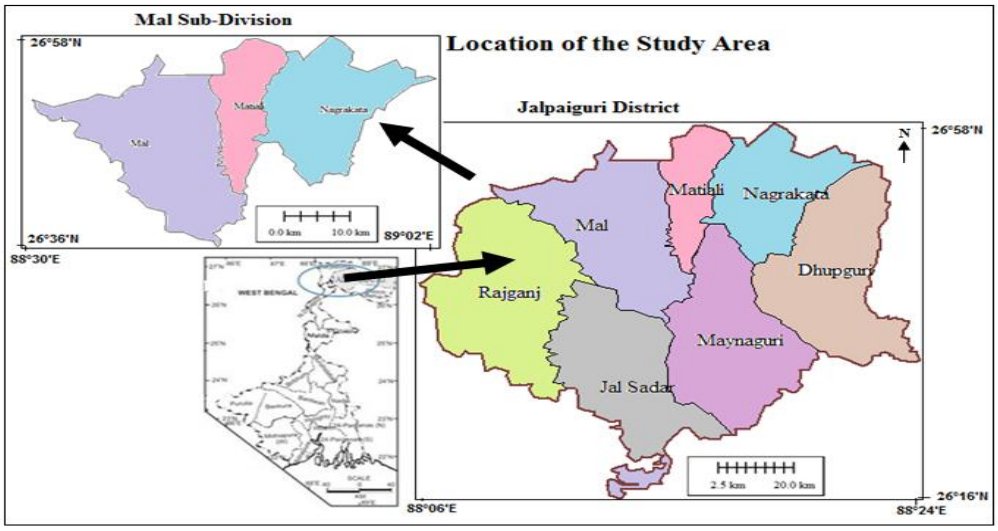
illiterate, simple and poor. But due to variation of origin and culture and economic activities there are differences of developmentand inequalities among the tribal communities as well as different micro regions. Hence the present study focuses the:

a) Micro-level variation of development and deprivation indices.
b) Nature of disparities of socio-economic indicators within the regions.
c) Community based variation of development indices over the regions of tea garden based GPs and agricultural based GPs.

Study Area

The study area, Mal subdivision located in the district of Jalpaiguri, consists three community development blocks: Mal, Matiali and Nagrakata. The three blocks contain 22 gram Panchayats (GPs). The subdivision has its headquarters at Malbazar. The subdivision is ituated between 26°36' and 27° 0' North latitudes, and 88°14' and 88°40' East longitudes.



Materials and Methods

Data relating to socio-economic indicators of tribal people has been collected from the field. 2-5% stratified random sampling method has been followed to collect data. Socio-economic status of tribal people varies from one group to another as well from one GP to another. Disparities are considered within a region considering one unit as ultimate level of development and comparing with that unit deprivation level is measured for the other units. So, regional disparities are basically intra-regional. Development and deprivation are just two opposites sides. To analyze level of disparities, statistical information are analysed.

a) Deprivation Index: Following deprivation method, with the selected variables, levels of deprivations are identified in each GP mathematically as:

$$Iij = Maxi - Xij / Maxi - Mini.$$

Where, *Iij*indicates deprivation index of the *ith* variable at jth unit of study. Maxi and Mini denotes maximum and minimum values of ith variable in the series respectively. Xij denotes original value of ith variable at jth

unit of study. The value ranges from 0 (absence of deprivation or best condition) to 1(Highest deprived or worst condition).

In case of negative indicators, the lowest value (0) indicates highest deprived (worst) and highest value (1) indicates absence of deprivation (best). To equalise the figures with the positive indicator, the value of Iij is again subtracted from 1(maximum value).

b) Average Deprivation Index: Average deprivation index is calculated by taking simple averages of all indicators in a group of study. The equation is:

$$Ij = \Sigma Iij / n.$$

Where, Ij is Average Deprivation Index of jth unit of study, n is the no. of indicators under consideration in a particular group.

c) Developmental Index: Finally development index (D. I) is made as the absence of deprivation with mutual relation among the GPs. Mathematically it is expressed as:

$$DI = (1- \Sigma Iij / n)$$

DI is actually Development in *jth* unit of study. 1 is absolute developed condition and deviation from that is developmental index.

d) Human Development Index: Inter-community human development index can be prepared on the basis of:

Step-1. Creating the dimension indices: Minimum and maximum values (goalposts) are set in order to transform the indicators into indices between 0 and 1. The minimum values can be appropriately conceived of as subsistence values. Having defined the minimum and maximum values, the sub-indices are calculated as follows: Dimension index (Di):

$$Di = \frac{\text{actual value} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

Step-2. Aggregating the sub-indices to produce the Human Development Index:

The HDI is the geometric mean of the three dimension indices:

$$I_{Life}\ ^1/_3\ , I_{Education}\ \ ^1/_3, I_{Income}\ ^1/_3$$

Results and Description

A) Disparities on Social Status of Tribal People:

To analyze the social status of tribal people two indices are taken into consideration: demography and education.

Demography

Five demographic indicators have been taken into consideration to show inter regional disparities in GP level. These are:

I. Women sex ratio per 1000 male population (X1)
II. Crude birth rate per 1000 population(X2)
III. Total fertility rate per woman (X3)
IV. Infant mortality rate per 1000 live births(X4)
V. Maternal mortality rateper 1000 women (X5)

Table 1.GP Level Disparities in Demographic Indicators, Mal Subdivision

GP Name	Demographic Indicators					Disparity in Demographic Indicators (Iij)					Average Disparities (Ij)
	X1	X2	X3	X4	X5	X1	X2	X3	X4	X5	
Bagrakot	1011	33	4.0	85	2.3	0.20	1.00	1.00	1.00	1.00	0.64
Odlabari	1000	32	3.6	82	1.4	0.24	0.91	0.67	0.93	0.31	0.55
Rangamatee	1026	33	3.8	80	1.5	0.13	1.00	0.83	0.88	0.38	0.57
Rajadanga	966	32	3.4	76	1.6	0.38	0.91	0.50	0.78	0.46	0.51
Damdim	1041	30	3.4	78	1.5	0.07	0.73	0.50	0.83	0.38	0.43
Tesimla	961	28	3.9	79	1.4	0.41	0.55	0.92	0.85	0.31	0.55
Kumlai	970	29	3.3	65	1.5	0.37	0.64	0.42	0.50	0.38	0.39
Changmari	919	31	4.0	64	1.7	0.58	0.82	1.00	0.48	0.54	0.58
Kranti	936	26	3.0	63	1.3	0.51	0.36	0.17	0.45	0.23	0.30
Chapadanga	963	24	3.0	60	1.3	0.40	0.18	0.17	0.38	0.23	0.23
Moulani	819	22	2.8	45	1.2	1.00	0.00	0.00	0.00	0.15	0.20
Lataguri	868	23	2.8	53	1.0	0.79	0.09	0.00	0.20	0.00	0.22
Matiali Batabari-I	1013	22	3.0	70	1.5	0.19	0.00	0.17	0.63	0.38	0.20
Matiali Batabari-II	973	22	3.0	72	1.4	0.36	0.00	0.17	0.68	0.31	0.24
Bidhannagar	991	23	3.1	60	1.3	0.28	0.09	0.25	0.38	0.23	0.20
Matiali Hat	1036	26	3.2	71	1.6	0.09	0.36	0.33	0.65	0.46	0.29
Indong Matiali	1045	26	3.5	65	1.7	0.05	0.36	0.58	0.50	0.54	0.30
Angrabhasa-I	965	26	3.0	60	1.3	0.39	0.36	0.17	0.38	0.23	0.26
Angrabhasa-II	922	24	3.0	61	1.2	0.57	0.18	0.17	0.40	0.15	0.26
Sulkapara	951	27	3.2	62	1.6	0.45	0.45	0.33	0.43	0.46	0.33
Champaguri	968	29	3.5	64	1.7	0.38	0.64	0.58	0.48	0.54	0.42
Looksan	1058	30	3.5	61	1.6	0.00	0.73	0.58	0.40	0.46	0.34

Source: Source*: Computed by the author*

In tribal women sex-ratio, Looksan GP has the highest position in subdivision of Mal followed by Indong Matiali and Damdim. Moulani has the lowest sex ratio of tribal people in Mal subdivision preceded by Lataguri, Changmari and Kranti GP. Considering sex ratio, the good condition areas are Bagrakot, Rangamatee, Damdim, Matiali Hat, Indong Matiali and Looksan. The bad condition areas are Changmari, Tesimla, Kranti, Chapadanga, Lataguri, Moulani, Angrabhasa-I, Angrabhasa-II and Sulkapara.

Crude birth rates are high throughout the area. So, lower birth rate is considered as a good indicator of society. Considering crude birth rate, the Bagrakot, Odlabari, Rangamatee, Rajadanga, Damdim, Tesimla, Changmari, Indong Matiali, Champaguri and Looksan shows bad condition i.e. higher birth rates in the subdivision for tribal people. The good condition GPs i.e. lower birth rates are found in Chapadanga, Moulani, Lataguri, Matiali Batabari-I, Matiali Batabari-II, Bidhannagar and Angrabhasa-II. Among the GPs in the subdivision lowest birth rate is in Moulani, Batabari-I and Batabari-II and highest birth rate is in Bagrakot and Rangamatee. Considering total fertility rate, the advanced areas are Lataguri, Moulani, Batabari-I, Batabari-II, Kranti, Chapadanga, Angrabhasa-I and Angrabhasa-II. Bagrakot and Changmari are in worst condition while Moulani and Lataguri are in best condition.

Infant mortality rate and maternal mortality rate are two important parameters of demographic factors. Inter-area disparities are found in the gram panchayat areas. Bagrakot is in the worst condition and Moulani is in the best condition. However, the GPs of Bagrakot, Odlabari, Rangamatee, Damdim, Tesimla are worst condition GPs in respect of IMR. The good condition GPs are Moulani, Lataguri, Bidhannagar, Angrabhasa-I, Angrabhasa-II and Chapadanga. Maternal Mortality is another indicator of health condition of mothers. MMR is absolute high (100%) among the GPs in Bagrakot followed by Changmari, Indong Matiali and Chapadanga. However the absolute low (0%) MMR is found in Lataguri preceded by Moulani, Angrabhasa-II, Angrabhasa-I and Bidhannagar. Average disparities of these selected five demographic indicators show that tribal people in Matiali Batabari-I and Moulani is in advanced position among the GPs while Bagrakot is in worst condition.

On the basis of averages of above five demographic indicators it is found that the GPs of Bagrakot, Odlabari, Rangamatee, Rajadanga, Tensile and Changmari are in worst condition (> 0.50); while the GPs of Damdim, Kumlai, Kranti, Indong Matiali, Sulkapara, Looksan and Champaguri are in medium (0.30-0.51); and the GPs of Chapadanga, Moulani, Lataguri, MatialiBatabari –I, MatialiBatabari-II, Bidhannagar, Matiali Hat, Angrabhasa-I and Angrabhasa-II are in best condition of their demographic profile within the subdivision.

Disparity in Educational (Literacy) Indicators:

Five indicators have been selected to show regional disparities in educational indicators. These are:

I. Illiteracy rate in percentage among the tribal people (X6)
II. Female literacy rate in percentage (X7)
III. Combined dropout rate in percentage (X8)
IV. Girls' dropout rate in percentage(X9)
V. Percentage share of higher education (Graduation or above) (X10)

Table 2. GP Level Disparities in Educational (Literacy) Indicators

GP Name	Educational Indicators					Disparity in Educational Indicators (Iij)					Average Disparities (Ij)
	X6	X7	X8	X9	X10	X6	X7	X8	X9	X10	
Bagrakot	37	60	44	25	2	0.20	0.12	0.52	0.23	0.83	0.38
Odlabari	38	56	46	24	0	0.23	0.24	0.30	0.19	1.00	0.39
Rangamatee	40	53	40	25	0	0.29	0.32	0.30	0.23	1.00	0.43
Rajadanga	45	51	37	30	5	0.43	0.38	0.70	0.42	0.58	0.50
Damdim	45	50	35	30	0	0.43	0.41	0.57	0.42	1.00	0.57
Tesimla	35	60	40	45	0	0.14	0.12	1.00	1.00	1.00	0.65
Kumlai	37	64	36	23	4	0.20	0.00	0.30	0.15	0.67	0.26
Changmari	65	30	35	33	0	1.00	1.00	0.52	0.54	1.00	0.81
Kranti	46	51	30	20	1	0.46	0.38	0.00	0.04	0.92	0.36
Chapadanga	48	51	34	19	5	0.51	0.38	0.22	0.00	0.58	0.34
Moulani	47	49	44	21	10	0.49	0.44	0.26	0.08	0.17	0.29
Lataguri	44	51	46	20	12	0.40	0.38	0.43	0.04	0.00	0.25
Matiali Batabari-I	45	43	40	40	1	0.43	0.62	0.70	0.81	0.92	0.69
Matiali Batabari-II	30	57	37	40	6	0.00	0.21	0.78	0.81	0.50	0.46
Bidhannagar	32	64	35	35	10	0.06	0.00	0.52	0.62	0.17	0.27
Matiali Hat	35	60	40	30	10	0.14	0.12	0.39	0.42	0.17	0.25

Indong Matiali	43	51	36	26	0	0.37	0.38	0.30	0.27	1.00	0.47
Angrabhasa-I	48	43	35	25	7	0.51	0.62	0.52	0.23	0.42	0.46
Angrabhasa-II	42	53	30	25	8	0.34	0.32	0.35	0.23	0.33	0.32
Sulkapara	40	56	34	25	5	0.29	0.24	0.30	0.23	0.58	0.33
Champaguri	35	59	44	23	2	0.14	0.15	0.09	0.15	0.83	0.27
Looksan	33	62	46	29	3	0.09	0.06	0.26	0.38	0.75	0.31

Source*: Computed by the author*

In illiteracy, maximum value of 1.0 (100%) is found in Changmari and minimum value of 0.0 (0%) is found in Matiali Batabari-II. It means that in Changmari GP highest illiteracy is prevailed and in Matiali Batabari-II lowest illiteracy rate is prevailed among the 22 GPs in Mal subdivision. In illiteracy the bad condition GPs are Changmari, Chapadanga, Moulani, Rajadanga, Matiali Batabari-I, Damdim and Lataguri. The GPs having lowest illiteracy are Matiali Batabari-II, Champaguri, Looksan, Bidhannagar, Matiali Hat and Tesimla. Female literacy rate is highest in Kumlai and Bidhannagar (0% deprived) followed by Looksan, Bagrakot and Matiali Hat. Female illiteracy is highest in Changmari, followed by Matiali Batabari-II and Angrabhasa-I.

Dropout from school before reaching eight standards is highest in Kranti and lowest in Tesimla. The GPs which are good in this indicator are Kranti, Chapadanga, Moulani, Champaguri and Looksan. The GPs which are bad i.e. high in dropout rates are Tesimla, Rajadanga, Matiali Batabari-II and Matiali Batabari-I. In Girls' school dropout rate bad condition GPs are Tesimla, Bidhannagar, Changmari, Matiali Batabari-I and Matiali Batabari-II are worth mentioned. Good condition GPs are Chapadanga, Kumlai, Kranti, Lataguri, Champaguri and Odlabari. Higher education in tribal area of Mal subdivision is very poor velocity. Highest numbers of graduates are found in Lataguri GP followed by Moulani, Matiali Hat and Bidhannagar. Considering Lataguri as absolute condition in higher education most deprived (100%) GPs are Indong Matiali, Changmari, Tesimla, Damdim, Rangamatee and Odlabari.

After averaging the above five indicators, it is found that the GPs of Changmari, Tesimla, MatialiBatabari-I, Rajadanga and Damdim (≥ 0.50) are in worst position; the GPs of Rangamatee, MatialiBatabari-II, Indong Matiali, Angrabhasa- I, Bagrakot, Odlabari and Kranti (0.35 -0.49) are in medium and Kumlai, Chapadanga, Moulani, Lataguri, Bidhannagar, Angrabhasa-II, Sulkapara, Champaguri and Looksan are in best position (<0 .35).

B) Disparities on Economic Status of the Tribal People

Disparities in economic indicators are analysed with some selected indices. Two indices are taken into considerations: Economic composition indicators and basic household indicators.

Economic composition indicators

Five indicators have been taken into consideration includes

I. Crude activity rate in percentage (X11)
II. General activity rate in percentage (X12)
III. Ratio of total workers to total population (X13)
IV. Ratio of main workers to total workers (X14)

V. Percentage of households having income above Rs. 5000 per month (X15)

Table 3.GP Level Disparities in Economic Composition Indicators for Tribal People

GP Name	Economic Indicators					Disparity in Economic Indicators (Iij)					Average Disparities (Ij)
	X11	X12	X13	X14	X15	X11	X12	X13	X14	X15	
Bagrakot	46	68	46	25	20	0.29	0.47	0.29	0.67	0.84	0.51
Odlabari	49	71	49	27	27	0.07	0.27	0.07	0.47	0.65	0.30
Rangamatee	44	68	44	25	40	0.43	0.47	0.43	0.67	0.30	0.46
Rajadanga	48	71	48	22	42	0.14	0.27	0.14	1.00	0.24	0.36
Damdim	50	70	50	26	22	0.00	0.33	0.00	0.54	0.78	0.33
Tesimla	42	65	42	26	25	0.57	0.67	0.57	0.61	0.70	0.62
Kumlai	45	63	45	27	37	0.36	0.80	0.36	0.46	0.38	0.47
Changmari	47	70	47	26	14	0.21	0.33	0.21	0.56	1.00	0.46
Kranti	43	67	43	30	23	0.50	0.53	0.50	0.10	0.76	0.48
Chapadanga	38	65	38	30	43	0.86	0.67	0.86	0.17	0.22	0.55
Moulani	36	60	36	29	26	1.00	1.00	1.00	0.26	0.68	0.79
Lataguri	45	67	45	30	26	0.36	0.53	0.36	0.11	0.68	0.41
Matiali Batabari-I	36	65	36	27	30	1.00	0.67	1.00	0.42	0.57	0.73
Matiali Batabari-II	45	65	45	31	50	0.36	0.67	0.36	0.00	0.03	0.29
Bidhannagar	40	69	40	30	29	0.71	0.40	0.71	0.09	0.59	0.50
Matiali Hat	43	72	43	28	35	0.50	0.20	0.50	0.31	0.43	0.39
Indong Matiali	45	73	45	28	23	0.36	0.13	0.36	0.31	0.76	0.38
Angrabhasa-I	40	65	40	30	35	0.71	0.67	0.71	0.09	0.43	0.52
Angrabhasa-II	36	66	36	31	40	1.00	0.60	1.00	0.06	0.30	0.59
Sulkapara	45	65	45	29	30	0.36	0.67	0.36	0.28	0.57	0.45
Champaguri	46	69	46	27	51	0.29	0.40	0.29	0.40	0.00	0.27
Looksan	50	75	50	25	45	0.00	0.00	0.00	0.62	0.16	0.16

Source*: Computed by the author*

GP level analysis of some selected data on economy indicates that within Mal subdivision, there are regional disparities or imbalances. Considering crude activity rate (CAR), Damdim and Looksan GP are in the most advanced position. Considering Damdim and Looksan GP as absolute developed, the least developed (100%) GPs are Angrabhasa-II, Moulani and, Matiali Batabari-I where crude activity rate is lowest among the GPs. Tesimla, Chapadanga, Bidhannagar, Angrabhasa-I are backward in CAR.

Among the 22 GPs in the subdivision Looksan is in optimum position in General activity rate (GAR) and Moulani is in least of the list. Considering these two as two poles, the deprived GPs are Tesimla, Kumlai, Kranti, Chapadanga, Lataguri, Matiali Batabari-I, Matiali Batabari-II, Angrabhasa-I, Angrabhasa-II and Sulkapara.

Ratio of total workers to total population varies considerably among the GPs. Most backward GP is again Moulani and advanced GP is Looksan. Less than 50% deprivation values are found in the GPs of Bagrakot, Odlabari, Rangamatee, Rajadanga, Kumlai, Changmari, Lataguri, Matiali Batabari-II, Indong Matiali,

Sulkapara and Champaguri. In most of the cases in tribal dominated GPs, total workers of tribal population are more than the least concentrated tribal GPs.

The tribal people are mainly workers of tea garden but all are not permanent workers, rather temporary workers are there. Ratio of main workers to total workers is a good indicator to determine economic status of a community. Within the study area optimum GP in that respect is Kranti and highest deviated GP is Matiali Batabari-II. The other GPs which are highly deviated from relative optimal condition are Bagrakot, Tesimla, Damdim, Changmari and Looksan.

For simple livelihood of the tribal people it may be assumed that monthly income above Rs. 5000 can be considered standard level. Champaguri GP is in optimal condition and Changmari is highest from the level of Champaguri. More than 50% deviation from relative optimal condition is found in Bagrakot, Odlabari, Damdim, Tesimla, Kranti, Moulani, Lataguri Matiali Batabari-I, Bidhannagar, Indong Matiali and Sulkapara.

On the basis of above 5 indicators, average disparities have been computed. Looksan is least dispersed and Moulani is most dispersed GP on economic indicators of tribal people.

Basic household indicators

Following five indicators can be considered as consequences of economic activities or economic conditions.

I. Percentage of households having more than three rooms (X16)
II. Percentage of households having separate kitchen (X17)
III. Households having latrine facilities (X18)
IV. Households having water facilities in the premises (X19)
V. Percentage of households having electrified (X20)

The required number of rooms is calculated using a simple rule: two rooms for a prime adult or a couple in a household, with an extra for additional adult age of above 18 years or for each pair of young age between 10 years and 17 years (Creswell, 2012). Most of the tribal households are one or two rooms. For proper livelihood more than three rooms in a house are very essential. In this indicator Moulani occupy relative optimum position among the GPs while Damdim and Sulkapara are in worst condition. However maximum deviations from the relative optimum level GPs are Rangamatee, Kumlai, Changmari, Matiali Batabari-I, Indong Matiali, Angrabhasa-I and Looksan.

Normally higher income group of people have more rooms than the lower income group of people. Pearson's product-moment correlation formula is concerned with the measurement of the strength of association between variables (Das, 1997). For the purpose of correlation, income is considered as independent variable (x); and number of rooms as dependent variable (y).

$$r = \frac{\sum(x - \bar{x})(y - \bar{y})}{\sqrt{\sum(x - \bar{x})^2 (y - \bar{y})^2}}$$

For our selected criteria $r = \frac{485.5}{\sqrt{2171 \times 1783.5}} = 0.247$

Positive correlation between the variable indicates that there is direct positive relationship between income and house standards. Although technically positive correlations are there but the relationship between the variable is week. Most of the tea garden workers in the subdivision live in garden quarters. Hence, income not always determines the number of rooms in a house.

Households having separate kitchen are maximum in Kranti and maximum deviation from this is found in Rangamatee followed by Damdim, Tesimla, Matiali Hat and Rajadanga. Again Latrine in a house is a good health and hygiene indicator. Among the GPs, Kumlai is in relative optimal condition followed by Sulkapara, Matiali Hat, Tesimla and Damdim. Considering Kumlai as optimum level, the most deprived GP is Chapadanga followed by Moulani and Kranti. A water facility within the premise is considered as an indicator of basic household item. In this perspective Kranti is in optimum condition followed by Chapadanga, Matiali Batabari-II. The most deprived GP is Looksan along with Bagrakot, Odlabari, Rajadanga, Rangamatee, Damdim, Tesimla, Matiali Batabari-I, Bidhannagar, Matiali Hat, Indong Matiali, Sulkapara and Champaguri. Most of the tribal quarters of tea gardens are electrified. There are many tribal houses which are yet to electrification. Angrabhasa-I is in the best position and Lataguri is in worst condition. Chapadanga, Moulani, Matiali Batabari-II, Bidhannagar, and Matiali Hat are also deprived from electrification. In most of the cases, the non-electrified tribal households are agricultural dependent.

Table 4.GP Level Disparities in Basic Household Indicators

GP Name	Basic Household indicators					Disparity in Household Indicators (Iij)					Average Disparities (ij)
	X16	X17	X18	X19	X20	X16	X17	X18	X19	X20	
Bagrakot	22	45	51	40	70	0.25	0.74	0.38	0.68	0.54	0.52
Odlabari	15	50	51	41	58	0.69	0.59	0.38	0.66	0.83	0.63
Rangamatee	14	36	55	42	66	0.75	1.00	0.27	0.64	0.63	0.66
Rajadanga	16	44	57	45	71	0.63	0.76	0.22	0.59	0.51	0.54
Damdim	10	41	59	40	65	1.00	0.85	0.16	0.68	0.66	0.67
Tesimla	14	43	61	35	70	0.75	0.79	0.11	0.77	0.54	0.59
Kumlai	15	45	65	50	64	0.69	0.74	0.00	0.50	0.68	0.52
Changmari	15	44	45	55	66	0.69	0.76	0.54	0.41	0.63	0.61
Kranti	23	70	39	78	65	0.19	0.00	0.70	0.00	0.66	0.31
Chapadanga	21	63	28	73	60	0.31	0.21	1.00	0.09	0.78	0.48
Moulani	26	68	32	66	53	0.00	0.06	0.89	0.21	0.95	0.42
Lataguri	20	65	39	60	51	0.38	0.15	0.70	0.32	1.00	0.51
Matiali Batabari-I	12	49	46	42	67	0.88	0.62	0.51	0.64	0.61	0.65
Matiali Batabari-II	17	54	47	71	59	0.56	0.47	0.49	0.13	0.80	0.49
Bidhannagar	18	52	51	42	57	0.50	0.53	0.38	0.64	0.85	0.58
Matiali Hat	16	43	61	35	58	0.63	0.79	0.11	0.77	0.83	0.62
Indong Matiali	13	54	54	41	58	0.81	0.47	0.30	0.66	0.83	0.61
Angrabhasa-I	14	52	44	56	92	0.75	0.53	0.57	0.39	0.00	0.45
Angrabhasa-II	22	51	47	50	78	0.25	0.56	0.49	0.50	0.34	0.43
Sulkapara	10	43	61	35	87	1.00	0.79	0.11	0.77	0.12	0.56
Champaguri	17	51	52	23	88	0.56	0.56	0.35	0.98	0.10	0.51
Looksan	15	53	50	22	72	0.69	0.50	0.41	1.00	0.49	0.62

Source*: Computed by the author*

After averaging all the five basic household indicators, it is noted that Damdim is in the worst position and Kranti is in the best position followed by Moulani, Chapadanga and Angrabhasa-II. Odlabari, Rangamatee, Changmari, Matiali-Batabari-I, Matiali Hat, Indong Matiali and Looksan are deprived GPs.

Major Findings

Development in Socio-economic Indicators

After putting the values of average deprivation of economic and social indicators, development index (DI) has been calculated. Opposite of deprivation is the development. On the basis of development index of above two, overall development is determined. 0.65 is the highest DI value occupied by Lataguri GP. The value indicates that among the GPs 65% development occur in Lataguri GP and this is relatively developed among the all GPs. The lowest value of DI is 0.39 occupied by Changmari.

Table 5. Disparity and Development of Social and Economic Indicators

Sl No.	GP Name	Average Deprivation (Ij)		Average Deprivation Of (1) & (2)	Overall Development
		Social (1)	Economic (2)		
1	Bagrakot	0.51	0.52	0.51	0.49
2	Odlabari	0.47	0.47	0.47	0.53
3	Rangamatee	0.50	0.56	0.53	0.47
4	Rajadanga	0.51	0.45	0.48	0.52
5	Damdim	0.50	0.50	0.50	0.50
6	Tesimla	0.60	0.61	0.60	0.40
7	Kumlai	0.33	0.50	0.41	0.59
8	Changmari	0.70	0.54	0.62	0.39
9	Kranti	0.33	0.40	0.36	0.64
10	Chapadanga	0.29	0.52	0.40	0.60
11	Moulani	0.25	0.61	0.43	0.58
12	Lataguri	0.24	0.46	0.35	0.65
13	Matiali Batabari-I	0.45	0.69	0.57	0.43
14	Matiali Batabari-II	0.35	0.39	0.37	0.63
15	Bidhannagar	0.24	0.54	0.39	0.61
16	Matiali Hat	0.27	0.51	0.39	0.61
17	Indong Matiali	0.39	0.50	0.44	0.56
18	Angrabhasa-I	0.36	0.49	0.42	0.58
19	Angrabhasa-II	0.29	0.51	0.40	0.60
20	Sulkapara	0.33	0.51	0.42	0.58
21	Champaguri	0.35	0.39	0.37	0.63
22	Looksan	0.33	0.39	0.36	0.64

Source*: Computed by the author*

On the basis of the DI values, the GPs can be categorised in three groups; though the groups are based on the calculated values of relative average disparity and development. The following are the groups of development index:

a) Developed GPs (> 0.60): Lataguri, Looksan, Kranti, Matiali Batabari-II, Bidhannagar and Matiali Hat.
b) Moderate Developed GPs (0.51 to 0.60): Chapadanga, Angrabhasa-II, Kumlai, Sulkapara, Angrabhasa-I, Moulani, Indong Matiali, Odlabari, and Rajadanga.
c) Least Developed GPs (> 0.51): Damdim, Bagrakot, Rangamatee, MatialiBatabari-I, Tesimla and Changmari.

Inter-community Human Development Index

The Human Development Index developed by the United Nations Development Programme (UNDP) is based on three indicators: longevity, education and standard of living. Very often income is considered as the expression of standard of living. Rajasthan was the first state in the country to who started to determine HDI values in PanchayatSamiti (block) level by adopting in-depth studies of national parameters (Joshi, 2008). In west Bengal the government wing of Development and Planning Department very often studies the block level HDI.

In the present study, ten major tribal groups have been identified. There are differences of their level of development. There are two steps to calculating the HDI.

Step-1. Creating the dimension indices: For the purpose of calculation of the indices minimum values assumed at 20 years for life expectancy, at 0 years for both education variables and at 500 for per capita gross income of a community.

Table 5.A. Goalposts for human development indexIndicators

Indicators	Observed Maximum	Minimum
Life expectancy (Years)	67 (Santal)	20
Mean years of Schooling	10 (Munda)	0
Expected years of Schooling	15	0
Combined education index	0.780	0
Per capita Income	2000 (Munda)	500

Step-2. Aggregating the sub-indices to produce the Human Development Index:

Example: Oraon

Table 5.B.HDI Indices Values for Oraons

Indicator	Value
Life expectancy at birth (Years)	55
Mean years of schooling	6
Expected years of schooling	11
Per capita Income	700

Life expectancy index $= I_{Life} = \frac{55-20}{67-20} = 0.745$

Mean years of schooling index= $I_{Schooling} = \frac{6-0}{10-0} = 0.6$

Expected years of schooling index= $I_{exp.schooling} = \frac{11-0}{15-0} = 0.733$

Education Index= $I_{income} = \frac{\sqrt{0.6-0.733-0}}{0.780} = 0.468$

Income Index= $I_{income} = \frac{700-500}{2000-500} = 0.133$

Human Development Index for Oraon Community is = $\sqrt[3]{0.745 \times 0.468 \times 0.133} = 0.359$

Table 6. Inter-Community HDI Values and Ranks

Rank	Community	I_{Life}	$I_{education}$	I_{income}	HDI Average
1	Munda	0.695	0.662	1.000	0.772
2	Santal	1.000	0.456	0.845	0.728
3	Mech	0.875	0.585	0.565	0.661
4	Limbu	0.810	0.543	0.565	0.629
5	Tamang	0.802	0.542	0.345	0.531
6	Malpaharia	0.456	0.405	0.550	0.467
7	Mahali	0.555	0.445	0.225	0.382
8	Lohar	0.565	0.425	0.221	0.376
9	Oraon	0.745	0.468	0.133	0.359
10	Kharia	0.656	0.435	0.110	0.315

Source*: Computed by the author*

5. Conclusion

From the above table it is found that relative inter-community tribal HDI values ranges from 0.772 to 0.315 on the basis of 10 tribal groups studied for the purpose. There are variations in the three parameters among the tribes; but there present acute variations among the tribal communities. However Mundas are top among the tribal communities because of their higher standards of every three aspects. This tribal group is most educated among the tribes and many of them engaged in different govt jobs and secondary and tertiary activities. The Santals who occupied 2nd position are of many cases their agricultural practices in non-tea garden based economic activities. The Meches who occupied 3rd position on HDI values are basically very few in numbers in our study region, but traditionally many of them richer than the newly arrived tribal communities of the Dooars. Limbus, Malpaharias and Tamangs are in middle position of human development index. Mahali, Lohar, Oraon and Kharia people of the Dooars are very poor and mostly engaged in tea gardens as labourer. So their position on the basis of HDI is least among the tribes. Oraon shares majority among the tribal groups. So average HDI values of tribal in Dooars fallen down.

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