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Socio-Economic Conditions and Quality of Life in the Tribal Areas of Orissa with Special Reference to Mayurbhanj District

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Abstract

Orissa, being socio-economically backward but sound in traditional culture, is one of the important states in eastern India. Out of 30 districts, nine are considered as tribal districts (according to Location Quotient value), and, of the total population (41,947,358 in 2011), a significant share (22.1%) goes to tribal people (8,145,081in 2011). They are also one of the most backward and geographically isolated communities. Their lifestyle and economy is confined to the direct utilisation of natural resources, pre-agricultural level of technology and specific indigenous type of work. Now with the emergence of industry and market economy, the age-old relationship between tribes and nature has been disturbed. Keeping this in backdrop, the present study tries to explore the changing scenario of socio-economic condition in the tribal areas of Orissa. In this regard, various socio-economic indicators have been analysed and compared for representing district-level patterns of quality of life and finding out the variation among the primitive tribal households in the study area. In addition, Mayurbhanj has also been taken as a case study to represent the socio-economic condition and quality of life at the block level. It may be pointed out in this context that out of 30 districts in Orissa, according to Location Quotient value Mayurbhanj is the highest tribal-concentrated district. The overall objective of this study is to obtain a better understanding of the disparities and variations in socio-economic status in Orissa as well as in Mayurbhanj and also find out some remedial measures to overcome the problems to bring the primitive tribal community in the mainstream of the society. From the analysis of the health-related indicators, it is clear from the analysis that the quality of life in the district has improved remarkably over the years, but socio-economic disparities in terms of caste and gender continue to be a major problem mostly in tribal and backward areas.

Key words: Schedule Tribe, Primitive tribes, Location Quotient, Socio-economic disparity, Quality of life, Mayurbhanj District, Orissa

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Introduction

The tribal[1] societies in India are considered as the weakest sections of the population in terms of common socio-economic and demographic factors such as poverty, illiteracy, lack of developmental facilities and adequate primary health facilities (Thakur et al., 1991; Basu, 1994). For many decades, 'growth with equity and social justice' has remained on the development agenda of developing countries, but from the historical past, Indian society suffers from substantial disparity in education, employment, and income based on caste and ethnicity (Desai and Kulkarni, 2008). According to the Ministry of Tribal Affairs, Government of India, over 84 million people belonging to 698 communities are identified as members of Scheduled Tribes (ST) in India (Agarwal, 2013). Among the 29 states in India, Orissa[2] (presently known as Odisha), being socio-economically backward and culturally sound, occupies a unique place in the tribal map of the country having largest number of tribal communities (62 tribes including 13 primitive tribes) with a population of 9.59 million constituting 22.86% of state's population and 9.17% of the total tribal population of the country (Census of India, 2011).They mainly live in isolated areas and far away from the modern civilization with their traditional values, customs, beliefs and myth. Out of 30 districts in Orissa, nine are considered as tribal districts (according to Location Quotient value). Mayurbhanj is one of them. The current research aims to show the patterns of socio-economic conditions of tribals in Orissa with respect to three indicators or variables, that is, health, education and economy. We have also tried to compare block-wise variations (spatial disparity) of socio-economic conditions between tribes and non-tribes (social disparity) and male-female population (gender disparity) in Mayurbhanj. In this paper, we gave emphasis on: (i) education as it is an important component of human development which indicates a person's productivity and income-earning potential by imparting basic as well as specialised skills (DHDR, Mayurbhanj 2011), (ii) health as the healthcare system in this state has improved remarkably over the years, communicable and nutrition related diseases continue to be a major problem mostly in the tribal and backward areas (State of the Environment Report, Orissa 2007), and (iii) economy as economic growth is a necessary condition for human development and it is one of the major components to satisfy the basic needs of life.

Study Area

Total geographical area of Mayurbhanj as well as the study area (Fig. 1) is 10,418 sq. km and extends from 21°16' N to 22°34'N, 85°42' E to 87°11'E. Before India's independence, Mayurbhanj was a princely state, ruled by the Mayurs and Bhanjas since the Ninth Century A.D. They ruled continuously for more than 1000 years. It was the last feudal state to be annexed with Orissa on January 1949 and became the largest district in Orissa. It is a tribal-dominated border district in northern Orissa with a rich tradition and vibrant culture. The Similipal forest is known for its biodiversity and natural panorama. For administrative convenience, the district has been organised into four sub-divisions, namely, Panchpir, Bamanghaty, Baripada and Kaptipada. There are 9 tehsils and 28 police stations. The district is divided into 26 Community Development Blocks, which comprise 382 Gram Panchayats and 3,952 villages. Three distinct topographical formations are found in the district. At the centre, there are hills and lesser elevations running from north to south. These hills divide the plains into two

[1] Article 366 (25) of the Constitution of India refers to Scheduled Tribes as those communities, who are scheduled in accordance with Article 342 of the Constitution. The essential characteristics, first laid down by the Lokur Committee, for a community to be identified as Scheduled Tribes are: (a) Indications of primitive traits; (b) Distinctive culture; (c) Shyness of contact with the community at large; (d) Geographical isolation; and (e) Backwardness. The Primitive tribal communities have been identified by the Govt. of India on the basis of (a) pre agricultural level of technology, (b) extremely low level of literacy; and (c) small, stagnant or diminishing population. "Bhumija", "Kolhas" and "Santals"are the major tribes of Mayurbhanj district.

[2] In this research, we use as Orissa.

parts: eastern and western. The eastern part, which comprises Kaptipada and Baripada sub-divisions slopes gradually towards the sea. A number of hill streams pass through this region. On the western side, there are many rocky mounds and hills, for which the landscape is marked by rolling topography (DHDR, Mayurbhanj 2011) (Fig. 1).

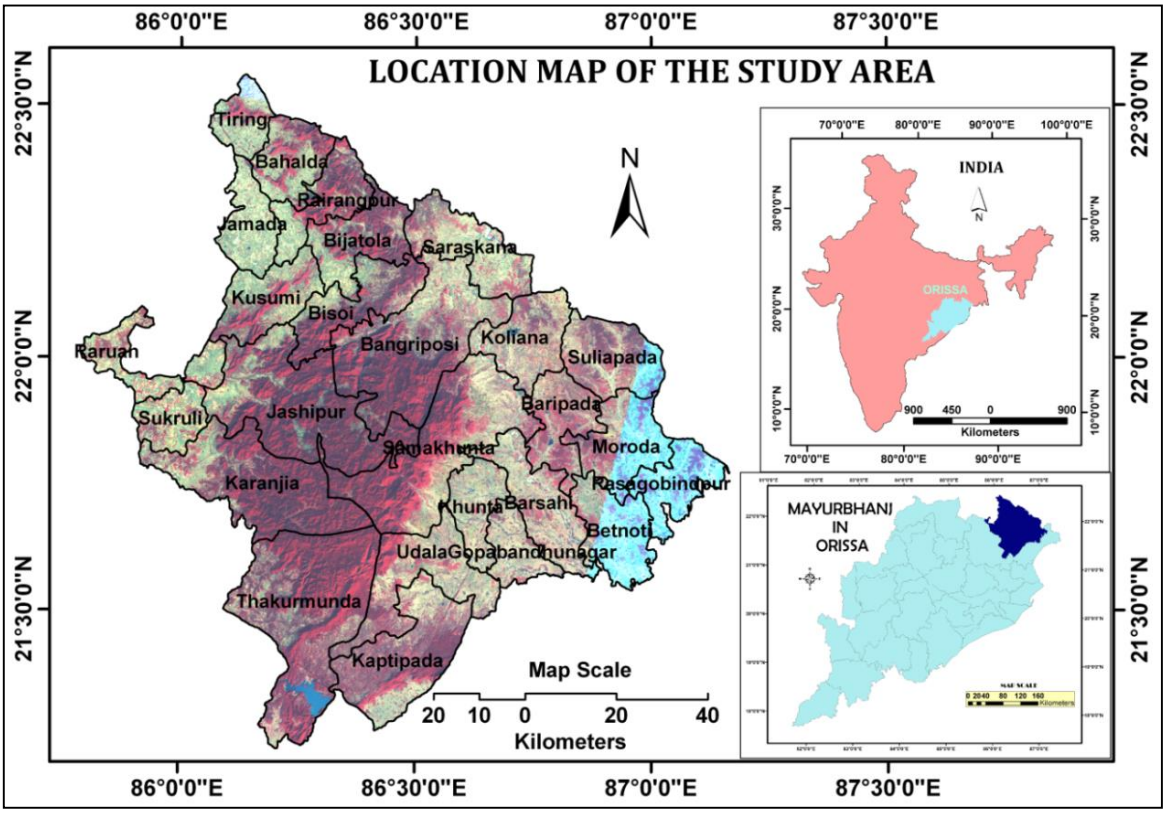


Fig. 1: Blocks and Physiography of Mayurbhanj, Orissa (Source: Landsat ETM data &District Website)

Rationale: Mayurbhanj as a Study Area

Orissa has the second largest tribal population in India next to Madhya Pradesh. In percentage, it has the highest tribal concentration in its population. As per 2011 Census, the tribal population is 22.86%, although district-wise it varies from 58.7% (Mayurbhanj) to 0.4% (Puri). With regard to socio-economic conditions, there are significant disparities in the state among the districts. In this research, an attempt has been made to investigate the present socio-economic conditions and spatial disparity at block levels in terms of caste and gender in Mayurbhanj district, as this district has the second highest proportion of STs (56.6 per cent) and highest concentration of schedule tribe population (highest Location Quotient value), and it is the only district in Orissa, where more than 70% (73.42%) out of school children are STs (Fig. 2).

Objectives

The overall objective of this study is to obtain a better understanding of the present conditions and disparities in socio-economic status in Mayurbhanj, Orissa. This study includes:

- concentration of tribes in Mayurbhanj and Orissa;
- analysis of present socio-economic conditions at block level;
- intra-regional disparities among different communities and gender;
- identification of probable factors responsible for such variations,
- analysis of the dominant economic activity and its level in different blocks; and
- remedial measures required to overcome the problems of socio economic as well as human development.

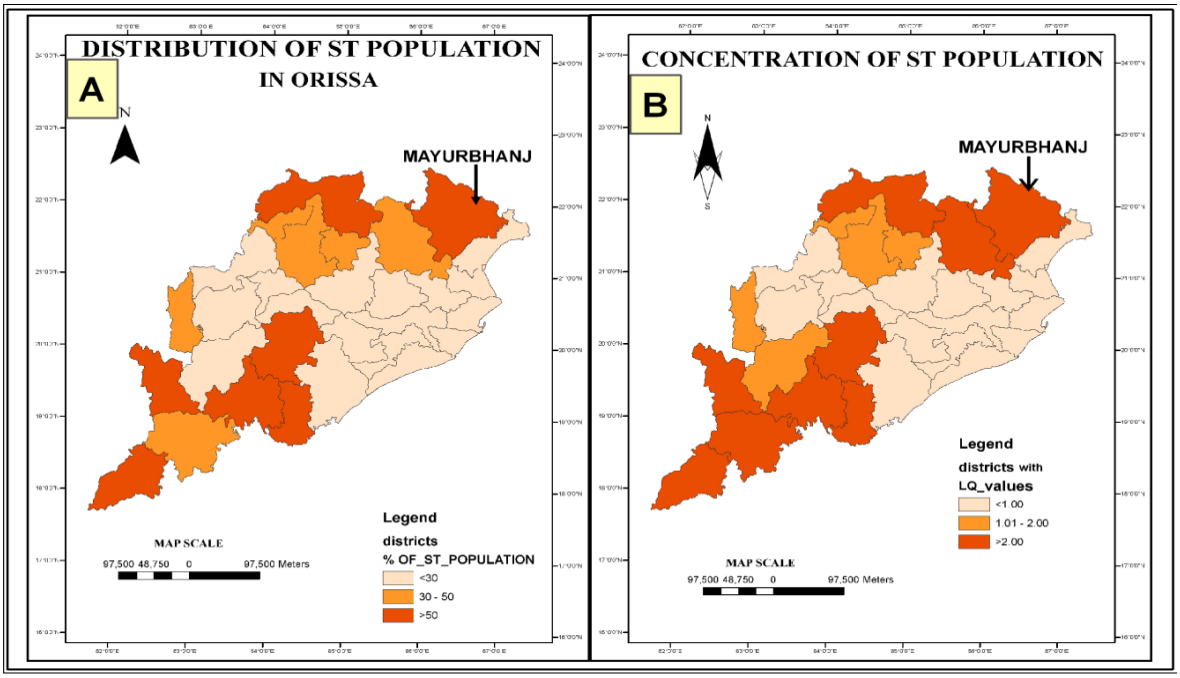


Fig.-2A & 2B: District-wise Distribution & Concentration of Tribes in Orissa (Data Source: Census of India 2011, Calculation & Mapping by the Authors)

Data Base and Methodology

The research methods followed in this work include consultation of literature, data collection from secondary sources, statistical analysis, and preparation of maps. From some available books, reports and papers, we have retrieved the basic ideas about the study area. Secondary data are obtained from (i) District Human Development Report, Mayurbhanj: 2011 (ii) District Statistical Handbook, Mayurbhanj: 2009 (iii) Odisha Primary Education Programme Authority (http://www.opepa.in) (iv) Odisha Government Portal (http://www.odisha.gov.in), (v) Department of School & Mass Education (http://www.odisha.gov.in/schooleducation), (vi) ST & SC Development, Minorities & Backward Classes Welfare Department (http://www.stscodisha.gov.in), (vii) SC & ST Research and Training Institute, Bhubaneswar, (viii) Integrated Tribal Development Authority, Baripada, (ix) District Statistical Office, Baripada, Mayurbhanj, (x) Census of India: 2001 & 2011 (xi) District Level Household and Facility survey of Orissa or DLHS-3, and (xii) Bulletin of Indian Council of Medical Research: 2009. For better understanding of the socio-economic conditions and disparities, we use different statistical techniques like (a) Location Quotient; (b) Sophers' Disparity Index; (c) Nelson's Method to identify dominant functions; (d) Ranking Method of constructing Composite Index, and (e) Co-efficient of Equality in Education, etc. Physiographical map have been prepared by mosaicing satellite images in Erdas Imagine v.9.0.Other maps have been prepared based on secondary data using Arc-GIS software v.9.3. Diagrams are prepared with the help of Microsoft Office Excel v.2007.

Discussion and Analysis

Spatial Distribution of Scheduled Tribes in Mayurbhanj

Among the 30 districts of Orissa, Mayurbhanj has the highest concentration of tribes (Location Quotient value is 2.56). Among 26 Community Development Blocks of Mayurbhanj, four blocks (Suliapada, Betnoti, Moroda and Barsahi) have less than 50 percent tribal population while seven blocks (Tiring, Jamada, Bijatola, Baripada, Khunta, Udala and Thakurmunda) have more than 70 percent tribal population with respect to its total population (Fig. 3/A). Using the value of Location Quotient, we identified six blocks as

tribal dominated. The map reveals the following spatial pattern.

- Higher level of concentration (LQ value is >1.2) - Tiring, Jamada, Bijatola, Khunta, Udala and Thakurmunda.
- Medium level of concentration (LQ value is 1.00-1.20) - Kusumi, Bisoi, Bangriposi, Koliana, Baripada, Samakhunta, Karanjia, Sukruli, Jashipur and Kaptipada.
- Lower level of concentration (LQ value is <1.00) – Bahalda, Rairangpur, Raruan, Gopabandhu Nagar, Betnoti, Barsahi, Rasagobindpur, Maroda and Suliapada (Fig. 3/B).

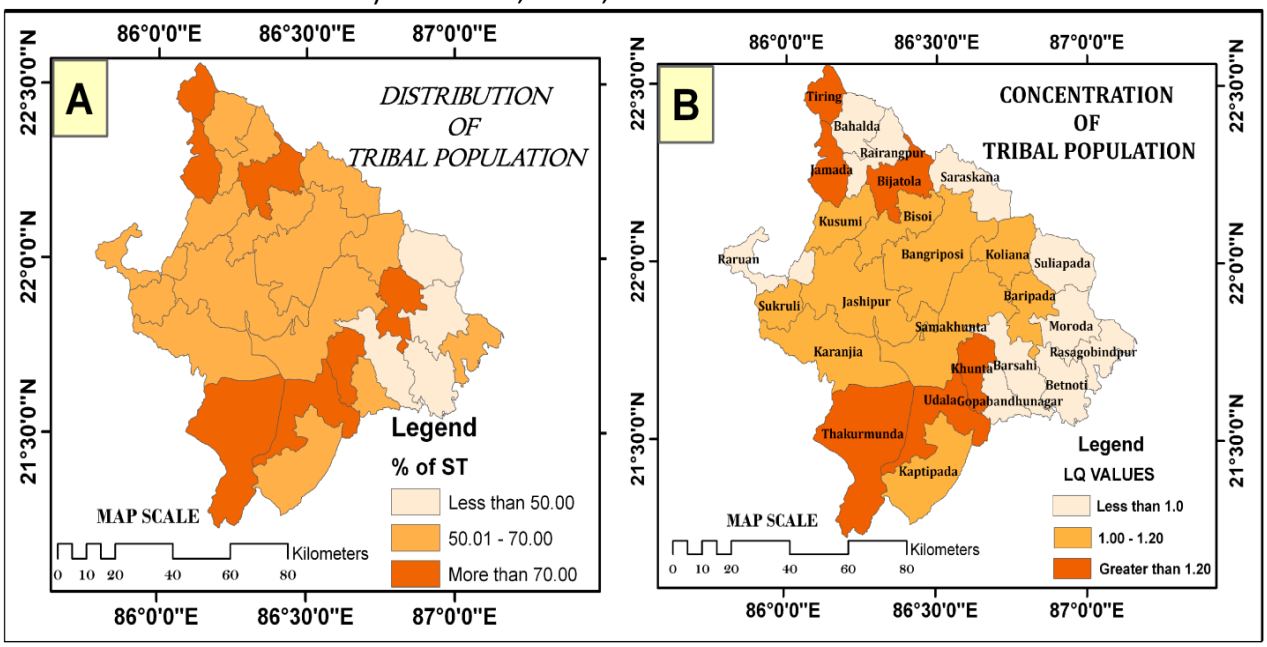


Fig. 3A and 3B: Block-wise Distribution & Concentration of Tribes in Mayurbhanj (Data Source: Census of India 2011, Calculation & Mapping by the Authors)

Literacy Status of Mayurbhanj

Literacy rate is considered as one of the crucial indictors of education. The overall literacy rate in Orissa has increased by about 57 (%). That is, between 1951 and 2011, it increased from 15.8 percent to 72.03 (%) (Fig. 4/B). This rate of increase is roughly the same for all-India. However, as per the 2011 Census, Orissa still ranks 25th among 35 states/Union Territories (Census of India, 2011). However, the literacy rate of Mayurbhanj is still far behind than state and national average. The overall literacy rate in Mayurbhanj was very low in the immediate post-independent era. In 1951, only 5.2% people in the district were literate, among them male literates were 9.6% while female literates were only 1.2%. With governmental efforts (for example*, Sarbasikhsha Abhiyan*, *Mid-Day Meal Scheme*, etc.) for expansion of basic education, the literacy rate in the district increased to 63.17% in 2011 (Fig. 4/A), while male and female literacy rates stood at 73.76% and 52.71% respectively. Though the Sopher's Disparity Index[3] reveals that the overall educational disparity, our findings suggest that the gender

[3] To find out Disparity between two groups we use 'Sopher's Disparity Index'. This method of calculating disparities has been developed by David V. Sopher (1974) modified by Kundu and Rao (1983) as the original index fails to satisfy the additive monotonocity axiom (The additive monotonocity axiom specifies that if a constant is added to all observations in a non-negative series, ceteris paribus, the inequality index must report a decline) (Husain, 2010) . According to this method:

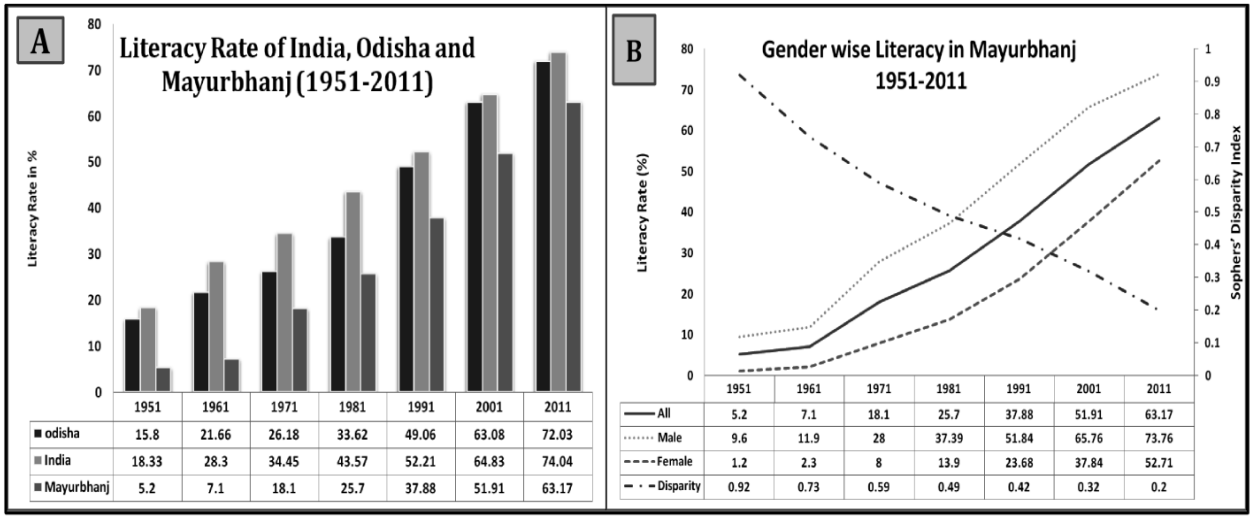
DI= Log(X2/X1)+Log[(Q-X1)/(Q-X2)]

Where, X2 > X1 and Q = 200. In this method, X2 is taken for the variable having comparatively higher value and X1 for the lower value. According to this Index, in case of perfect equality i.e. no disparity at all, the value of DI (Disparity Index) will be 'Zero'.

gap in literacy have been decreasing over time (Fig. 4/B).

Block-wise Spatial Disparity in Literacy Rate

In 2011, the state average of male literacy rate stood at 81.59% and female literacy rate stood at 62.46% in Orissa. The male literacy rates in the blocks of Mayurbhanj ranges from 51.59% in Thakurmunda to 69.43% in Gopabandhu Nagar block, while the female literacy rate ranges from 24.68% in Thakurmunda to 47.69% in Gopabandhu Nagar. This signals that the highest rural female literacy rates are not even equal to the lowest male literacy rate, which indicates that overall female literacy rates are lagging behind their male counterpart in the rural blocks of Mayurbhanj. Even Bijatola, Jashipur, Baripada, Thakurmunda, Kaptipada and Udala blocks represent less than 60% male literacy (Fig. 5/A). Among these blocks, three are tribal concentrated (Kaptipada, Udala and Thakurmunda). In spite of an urban area, the cause of low male literacy in Baripada is the immigration of worker from the western and border areas of Mayurbhanj. In case of female literacy, more than 40% female are literates only in three blocks namely Gopabandhunagar, Barsahi and Betnoti (Fig. 5/B).



	1951	1961	1971	1981	1991	2001	2011
odisha	15.8	21.66	26.18	33.62	49.06	63.08	72.03
India	18.33	28.3	34.45	43.57	52.21	64.83	74.04
Mayurbhanj	5.2	7.1	18.1	25.7	37.88	51.91	63.17

	1951	1961	1971	1981	1991	2001	2011
All	5.2	7.1	18.1	25.7	37.88	51.91	63.17
Male	9.6	11.9	28	37.39	51.84	65.76	73.76
Female	1.2	2.3	8	13.9	23.68	37.84	52.71
Disparity	0.92	0.73	0.59	0.49	0.42	0.32	0.2

Fig-4: Status of Literacy
(Data Source: Census of India, Figures: Authors)

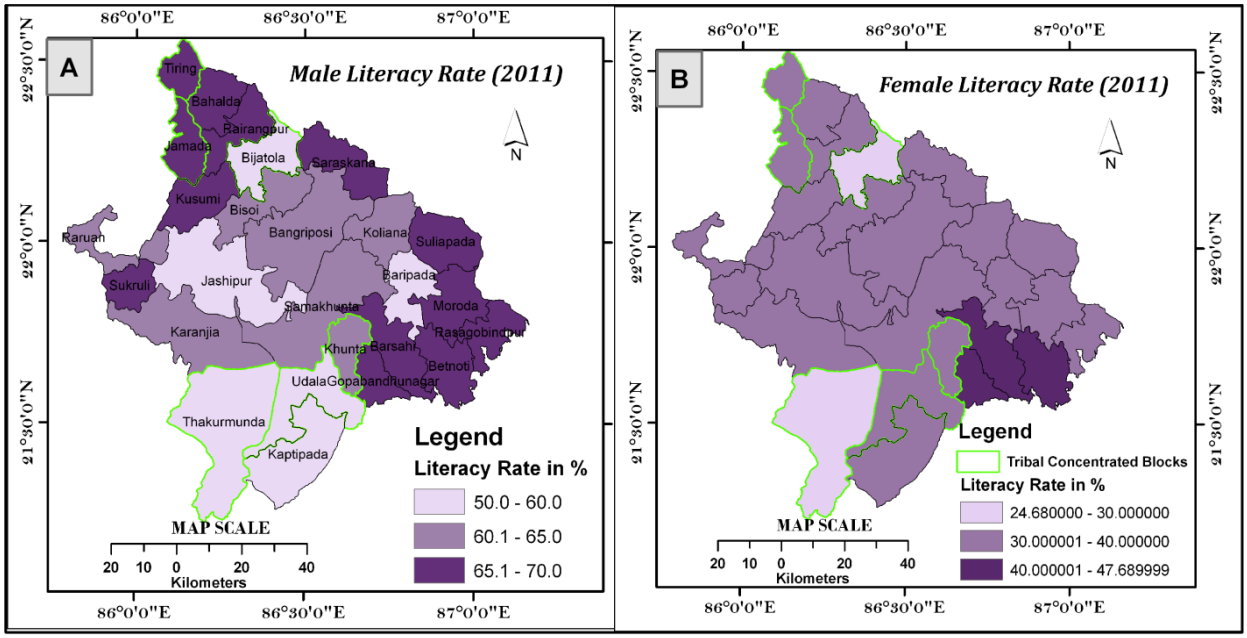


Fig.-5: Gender-wise Literacy rate (Data Source: Census of India 2011, Figures: Authors)

Educational Disparity between Tribes and Others

The literacy rate of Scheduled Castes (SC) population is almost same as the general castes. The literacy rate of SC in 2001 was 53.56% as compared to 51.91% for all. However, overall the ST population was less literate than SC and General category with literacy rate of 38.80% in 2001. According to the values of *Co-efficient of Equality*[4] in primary education, Thakurmunda and Jashipur have high educational disparities between STs and Other category of population. The Co-efficient value of maximum blocks is more than 75, which indicates that the overall educational disparities between tribes and others are very low in case of primary education (Fig. 6/A). However, in the case of higher education, the value of co-efficient of equality is very low in Bijatola, Bisoi, Baripada, Barsahi, Udala and in Kaptipada, which indicates that in these blocks, tribal communities lag behind their counterparts. In the blocks of Mayurbhanj, the Co-efficient value of higher education in maximum blocks ranges from 7 to 54 (except Bahalda), which indicates that the overall educational disparity between the tribes and others are high in case of higher education (Fig. 6/B).

Block- & Gender-wise Educational Disparity

Illiteracy of women in this district continues to be a major problem. But, the Sopher's gender disparity index for literacy in the district has registered a decline from 0.92 in 1951 to 0.2 in 2011, which indicates the overall educational disparity amongst gender have been continuously decreasing over time (Fig. 4/B). However, gender-wise literacy rates between different blocks in Mayurbhanj indicates that Bisoi, Tiring, Jamadaand Bijatola blocks have high educational disparities amongst gender according to Sopher's Disparity Index (Fig. 7). Among these four blocks, Tiring, Jamada and Bijatola blocks are tribal-concentrated blocks, which means that the literacy rates of females belonging to Scheduled Tribes (ST) continues to be a major problem in this district. Although, the overall school enrolment increased with time, which was also an aim of the Millennium Development Goal of universal primary education, but there is a remarkable gap between boy's and girl's enrolment in school education.

Health Status of Mayurbhanj Compared to Other Districts of Orissa

As mentioned earlier, Orissa has the second largest tribal population in India next to Madhya Pradesh. In percentage, it has the highest tribal concentration in its population. The state occupies one of the lowest positions in the country in terms of the level of development. In 2011-12, over 32.6 % of the population lived below the poverty line as against 21.9% at the national level (Rangarajan, 2014). If human development is viewed as the process of widening the choice of people as well as the achieved levels of their wellbeing (Patra, 2009), the situation is far worse in the tribal districts. Human development and health indices of tribals are very low in Orissa, particularly in the tribal dominated districts. In 2007-08, Human Development Index (H.D.I) of Orissa is 0.362, which is much lower than the H.D.I. of India (0.467) and many other states as per the Human Development Report, 2011. Seven among the nine tribal districts of Orissa hold 24 to 30 H.D.I. ranks. However, as reported in Orissa Human Development Report 2004, the Human Development Index of 0.639 for Mayurbhanj is much better than the state and the district occupies ninth place among the thirty districts of the state (Fig. 8/A).

[4] To measure the educational disparity between different ethnic groups we use 'Co-efficient of Equality in Education'. Victor S. D'Souza (1980) evolved this formula for the measurement of educational inequalities among Scheduled Caste of Punjab. The coefficient of equality is estimated by using the following formula:

Q = [((Et/Eo))/((Pt/Po))]*100

Where Q = Coefficient of equality for STs, Et = Enrolment of Scheduled Tribes in any particular types of education, Eo =Enrolment of other communities in the same, Pt = Population of Scheduled Tribes, Po= Population of other communities. If the value of co-efficient of equality is 100, it indicates that Scheduled Tribes are at par with other communities and availing the same facility of education like others. If it is less than 100, it indicates that the tribal communities are lagging behind their counterparts. This would provide us the educational status of Scheduled Tribes vis-a-vis Non Scheduled Tribes (Das and Sahoo, 2012).

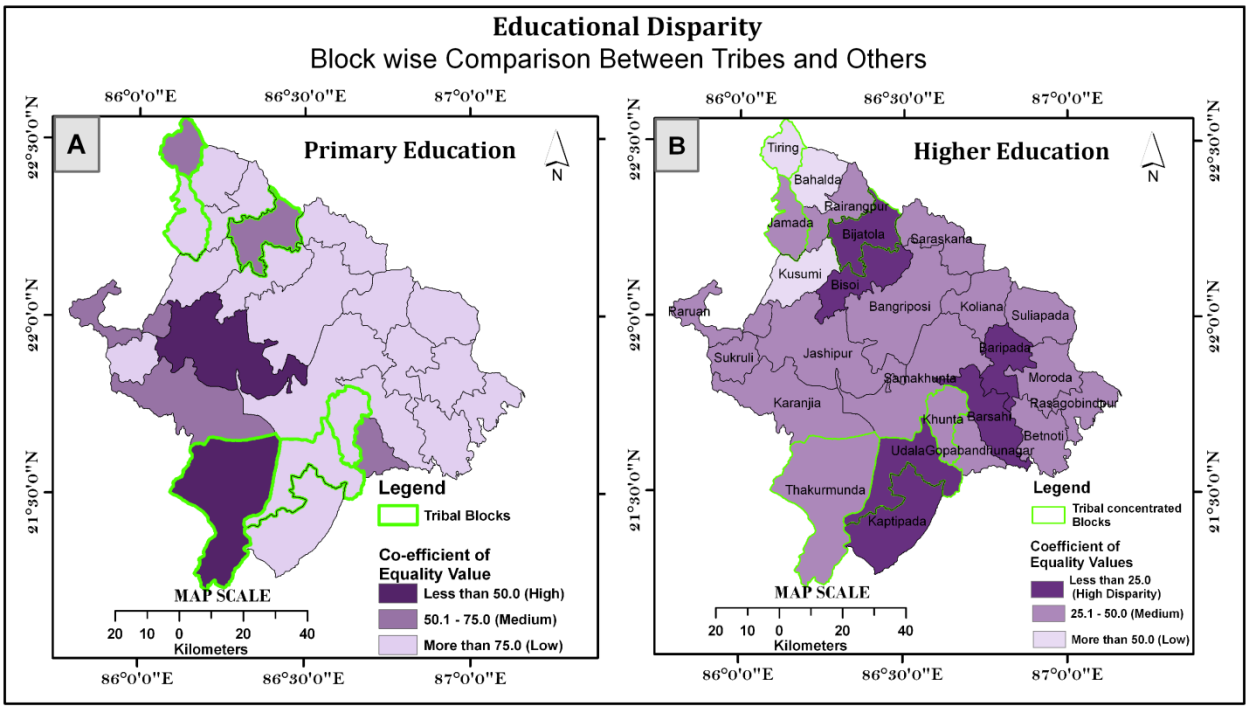


Fig. 6: Co-efficient of Equality in Education
(Source: ST & SC Development, Minorities & Backward Classes Welfare Department; Calculation & Mapping by the Authors)

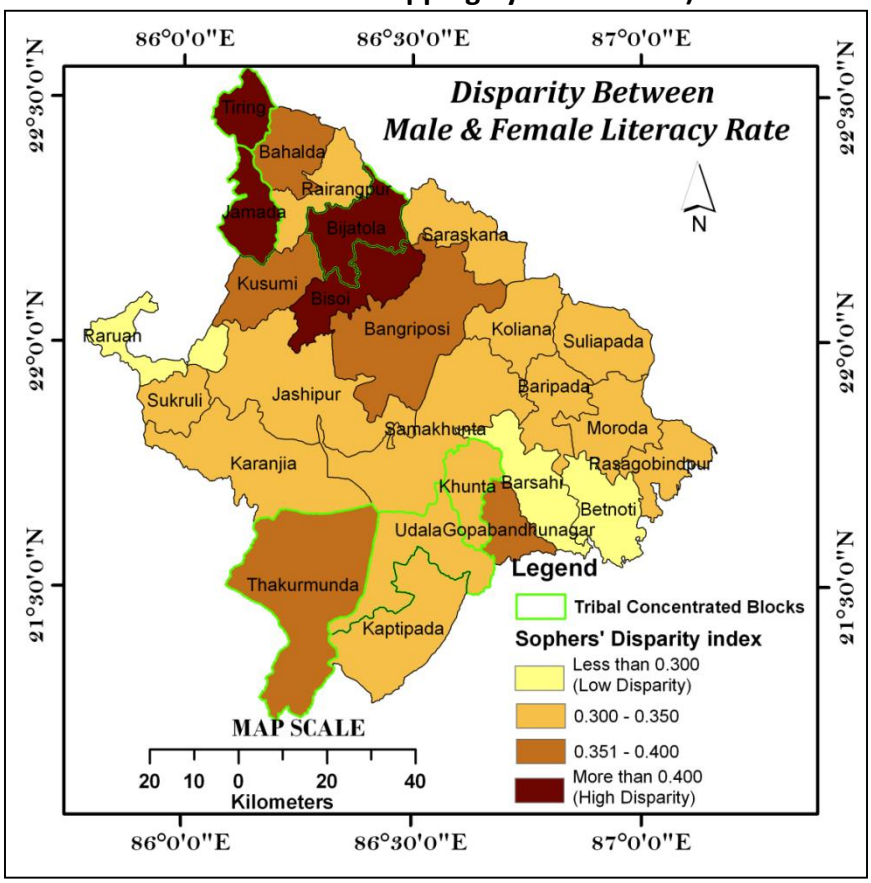


Fig. 7: Block- and Gender-wise Disparity in Literacy
(Data Source: Census of India 2011, Calculation & Mapping by the authors)

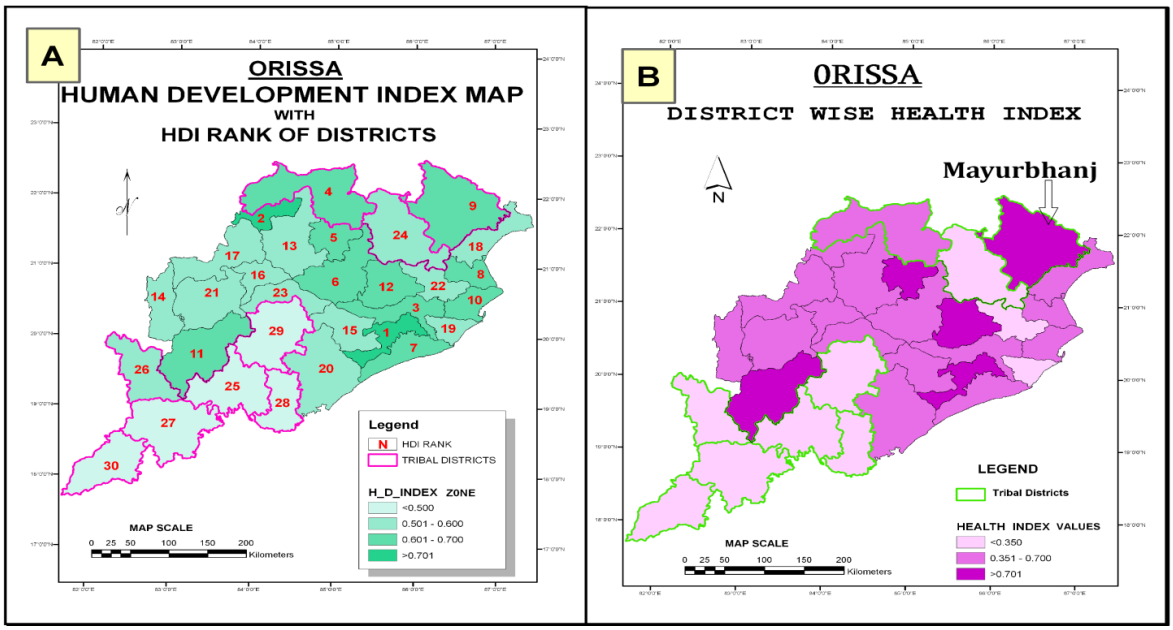


Fig. 8A & 8B: Mapping of HDI and HI of Orissa
(Data Source: Human Development Report, Orissa (2004), Figures: Authors)

An overall picture of the health status of a region is indicated by its recent demographic changes. According to Orissa Human Development Report 2004, a slower growth rate of population in Mayurbhanj compared to the state between 2001 and 2011 gives a relatively good picture of health status in the district. As mentioned in this report, the Health Index of Mayurbhanj is of 0.782, which is higher than 0.471 for the state and the district occupies first place among the districts of the state (Fig. 8/B). This indicates relatively good picture of health status in the district.

Diversity of Health Status within Mayurbhanj

Although the Human Development Index and Health Index of Mayurbhanj represents relatively good picture comparing with other districts but there are also variations between health status within administrative and social level. For example, the Infant Mortality Rate (IMR) of total Mayurbhanj district was lower than national-level average (66/1000 live births) in 2001. But among twenty-six blocks of Mayurbhanj only six have higher IMR than national average (Fig. 9/A) and Udala's (tribal concentrated block) Infant Mortality Rate is more than average of Orissa (91/1000 live births). Though as whole, the IMR for the district, which was 97/1000 live births in 1997 declined to 42.03/1,000 live births in 2009. Despite this, the health scenario in Mayurbhanj leaves much to be desired. The challenge is to reach out to vulnerable tribal groups who live in remote and poorly accessible areas (DHDR, Mayurbhanj 2011). One of the major health related problems in Mayurbhanj is Child malnutrition. As per the RCH-2 Survey (2004), about 48% children in Mayurbhanj were found to be underweight and 17.80% were severely underweight.

Fig. 9/B shows block wise status of malnourished children. From obtained data from Office of the Chief District Medical Officer and District Social Welfare Officer (CDMO & DSWO), Mayurbhanj, it is clear that in all the blocks more than half of the rural children between 0-6 years were reported as malnourished. Only in four blocks less than 55% children and in eight blocks more than 60% children are suffering from malnourishment. It is also clear that among the six tribal Blocks, four blocks (Tiring, Bijatola, Udala and Thakurmunda) have high percentages of malnourished children. Providing adequate antenatal care for healthy motherhood and childbirth is one of the Millennium Development Goals of Orissa as well as of Mayurbhanj. Data on inter-block full antenatal care of pregnant women (%) in the district represent inadequate

health picture (Fig. 10/A). In 2008, the proportion of pregnant women receiving full ANC (antenatal care) in Mayurbhanj was 24.25% (DHDR, Mayurbhanj 2011). Among twenty-six blocks of Mayurbhanj the condition of Koliana, Sukruli and Suliapada is worst in terms of ANC. The full ANC among pregnant women in these three blocks is very low i.e. below 20%. Only in two blocks, above 30% women received full ANC during their pregnancy, one is Karanjia (31.13%) and other block is Jashipur (30.23%). Though comparatively large proportion of births (67.2%) took place at home in the district of Mayurbhanj but there are also huge variations among the blocks. Interaction with people in Focused Group Discussions (FGDs) during the sample survey of DHDR (District Human Development Report) showed, in rural areas the proportion of institutional deliveries was as low as 52.91%. On the other hand the value was quite high (i.e., more than 99.64%) in urban areas (DHDR, Mayurbhanj 2011). From District Human Development Report of Mayurbhanj, 2011, it is clear that block wise institutional delivery varies from 4.64% in Samakhunta to 79.32% in Barasahi block (Fig. 10/B). In Samakhunta block, low institutional deliveries stems from the lack of transport facilities due to presence of rugged topography and dense vegetation.

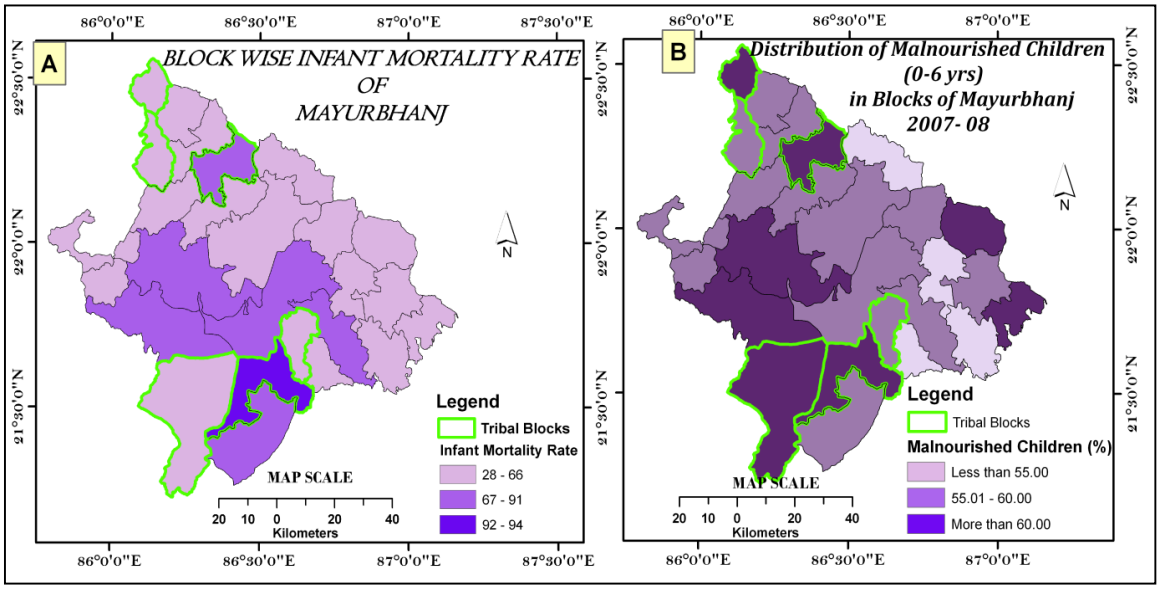


Fig-9A & 9B: Block-wise IMR & Distribution of Malnourished Children in Mayurbhanj (Data Source: DLHS-3, Figures: Authors)

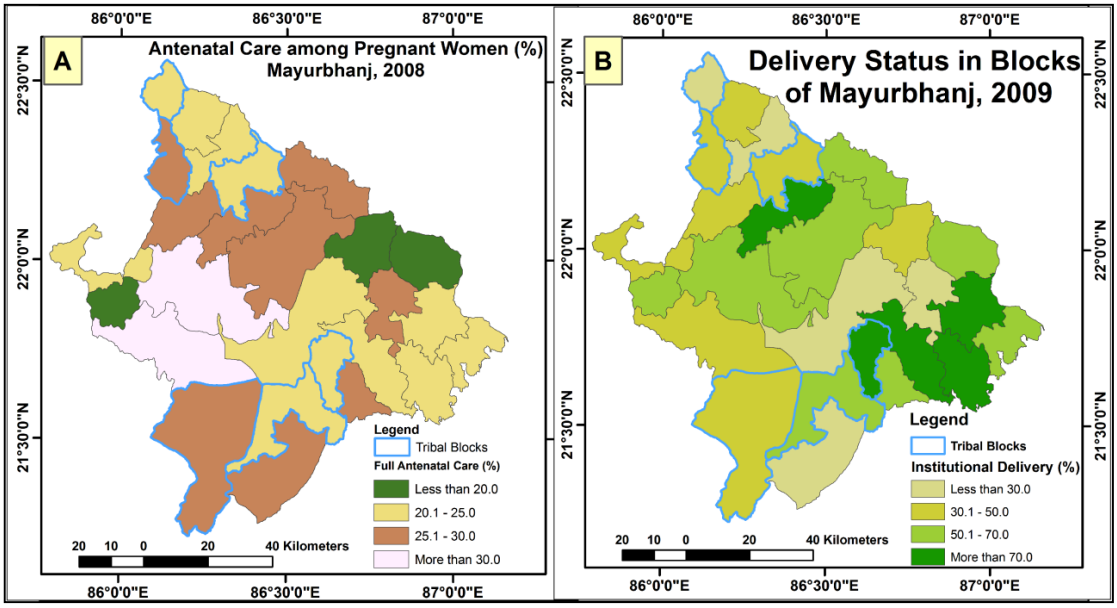


Fig-10A & 10B: Inter-Block variations of Antenatal Care and Delivery Status in Mayurbhanj (Data Source: DLHS-3, Figures: Authors)

Economy of Orissa and Mayurbhanj

Economic growth is not enough for human development, but it is a necessary condition. The cost of living in rural Orissa is one of the lowest in the country and the cost of living in urban Orissa is even lower than the rest of India. In terms of real per capita income, the State has lagged behind the national average ever since independence. In 1950-51, Orissa's real per capita income was about 90 percent of the national average, but in 2012-13, it came down to about 75.6 percent of the national average (Odisha Economic Survey, 2014-15). Figure 11 gives the dynamics of the composition of Odisha's economy from the year 2004-05 to 2011-12. It is clearly becoming less agricultural, more industrial and more service-oriented over time. In 2013-14, agriculture represents only 15.58 percent of Orissa's GSDP. The Service Sector and industry sector represent 59.02 percent and 25.4 percent respectively.

On the other hand, the tribes of Mayurbhanj are almost dependent mainly on cultivation. Some people are engaged in mining activities. People are also engaged in hunting, collecting minor forest produce (MFP), rural handicraft, handloom textiles, village and cottage industries such as pottery, *sal* leaf plate and cup making, stone carving and handicrafts for their sustenance. From Net District Domestic Product (NDDP), we can get an idea about material livelihood conditions of the district. In the income indices prepared for 30 districts in *Orissa Human Development Report 2004*, Mayurbhanj ranked 21st, indicating that it was a low-income district. Per capita income of the district has been consistently lower than the state average income and has declined as a proportion of the latter from 89% in 1993-94 to 73% in 2004-05. According to the Directorate of Economics and Statistics, Orissa, the gap between the two increased from ₹527 in 1993-94 to ₹4,478 in 2004-05 (Fig. 12).

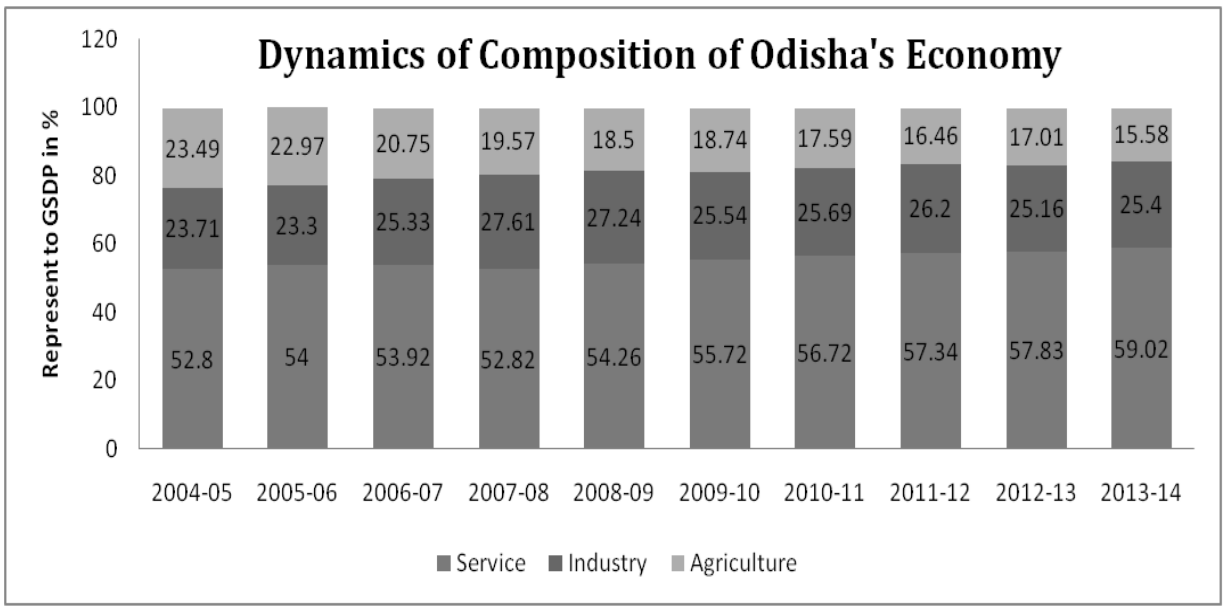


Fig. 11: Dynamics of Composition of Orissa's Economy
Data Source: Odisha Economic Survey, 2014-15

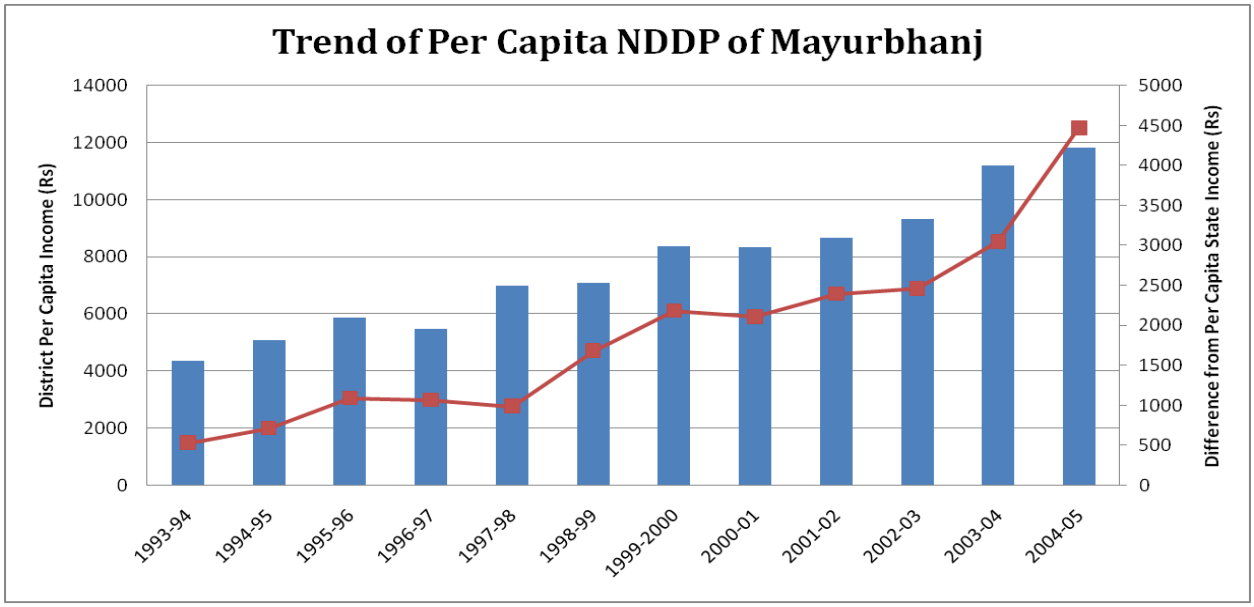


Fig-12: Temporal Changes of Per Capita NDDP of Mayurbhanj
Data Source: Directorate of Economics and Statistics, Orissa

Workforce Participation Rate

The issue of livelihood security is closely linked to employment status of the people. As per the 2001 Census, the *Work Participation Rate* (WPR) in Mayurbhanj was 46.23%. With the control of birth rate, the value reaches up to 60% in 2011. The proportion of main workers in the total workforce increased from 80.09% in 1981 to 81.36% in 1991, but decreased to 60.17% in 2001. Due to unemployment in 2011, the proportion of main workers to total workforce decreased to 43.75%, which represent an alarming condition of the economic development of the district. In Mayurbhanj, the Work Participation Rate (WPR) in different blocks ranges from 46.3% to 68.9%. Figure 13/A shows block wise main worker's percent to total population and Figure 13/B represents non-worker population in the blocks of Mayurbhanj. It may be observed from the figure that the percentage of non-worker population is high in the western-bordered blocks Jamada, Sukruli, Bahalda, Tiring, etc. Absence of urban centre, unfavourable physiographic conditions, etc. is the underlying causes for the same. This increasing unemployment results in the emergence of Maoist movement in the western-bordered blocks.

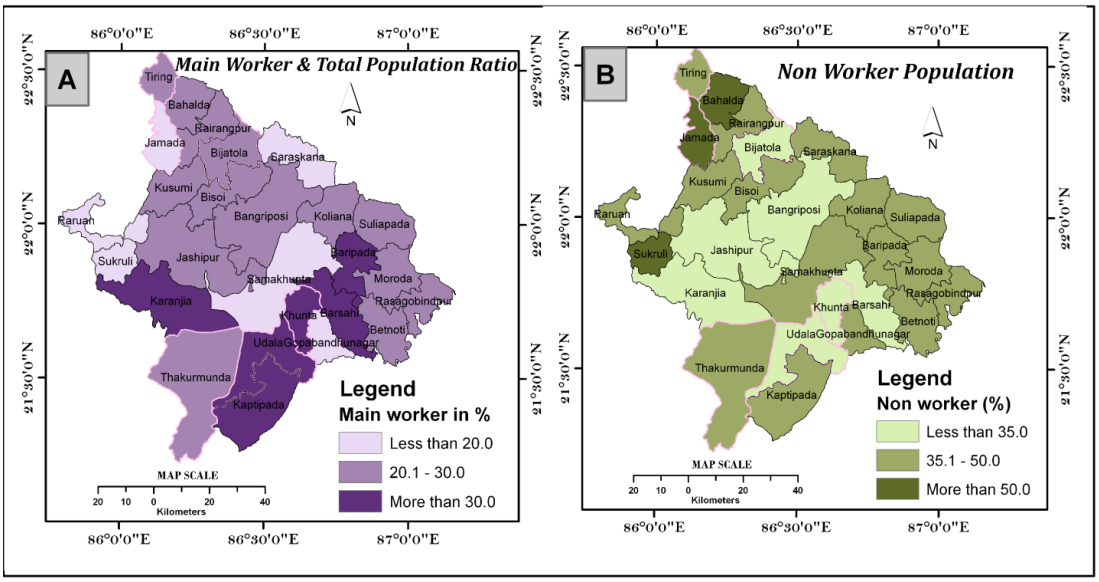


Fig-13A & 13B: Main Worker's to Total Population and Non-Worker Population in Blocks of Mayurbhanj
Data Source: Human Development Report, Orissa (2004), Figures: Authors

Dominant Economic Activity

Based on the percentage of different types of workers, we have tried to identify the dominant economic activity and its level in different blocks. In this regard, we have used Nelson's Method[5] to identify dominant functions. According to this method, for example, if percentages of cultivator of a particular block leave behind the overall mean plus standard deviation value, then it will treat as cultivator dominant block. If the value surpasses the overall mean plus three standard deviation values then its category will be CL3 or the block's economy is highly depended on Cultivation. If the percentage of different types of worker (that is, Cultivator, Agricultural Labours, Household Industry Worker and Other Worker) did not cross the overall mean plus standard deviation value, then it will be a Block with diversified economy.

According to this method, the economy of maximum blocks in Mayurbhanj is diversified or depended on mainly Cultivation (Table 1). Only four blocks' (Baripada, Karanjia, Rairangpur and Betnoti) economy mainly depends on Services as these blocks have urban centres. Among the six highly tribal dominated blocks, Jamada and Tiring's maximum people are Cultivators, which indicates the lower economic condition. Figure 14 on Dominant Economic Activity also indicates that maximum Cultivator Blocks are situated in western part of the district, which means the western part of Mayurbhanj is highly backward.

Suggested Measures to Overcome the Problems of Socio-Economic Development

Enriched with various natural resources, Mayurbhanj, at present, is one of the largest districts in Orissa. However, it has not yet been developed as expected. Physical barriers and inadequate infrastructural facilities like road communication, railway links, telecommunication facilities, lack of education using modern technology, etc. are the identified as constraints for setting up large industries. For proper 'growth with equity and social justice' (which has been the development agenda of developing countries for many decades) of Mayurbhanj as well as of Orissa, an educated developed society is needed to enhance capabilities of the tribes to participate in the mainstream economic development.

The research suggests that all the tribal dominated districts of Orissa (including Mayurbhanj) suffer from different dimensions of poverty. That is why the basic services and needs like availability of nutrition, supply of pure drinking water and sanitation facilities should adequately be provided towards improving their socio-economic conditions. Commercial promotions of tribal art will help them to improve their economic conditions. For appropriate development of socio-economic conditions, there is an urgent need for HDI mapping through rating and approach. Based on backwardness value, budgetary allocations by the government are required for the overall development of the area. The common people (including the tribals and those living below poverty line) should be made aware about the existing facilities so that they can utilise the facilities for their development. In this regard, a mass awareness campaign on development programmes need to be organised at regular intervals in the tribal areas. For this, the government should collaborate with Non-Government Organisations.

[5] Harris (1943) made the first attempt towards identification of the dominant economic characteristics of an area. H. J. Nelson (1955) used almost similar method with a threshold which could be worked out from the mean and standard deviation (SD) of the occupational structure of a given area. According to Nelson's method first percentages of each occupation to the total labour force of the area are worked out for each unit area. The mean and SD of these percentage among all the unit area are then calculated separately for each occupation. The areas are then classified according to their percentage of each occupation being more than or equal to mean + SD, mean + 2SD, mean + 3SD. The percentage of a function less than its mean+SD is not considered as significant (Mahmood, 1977).

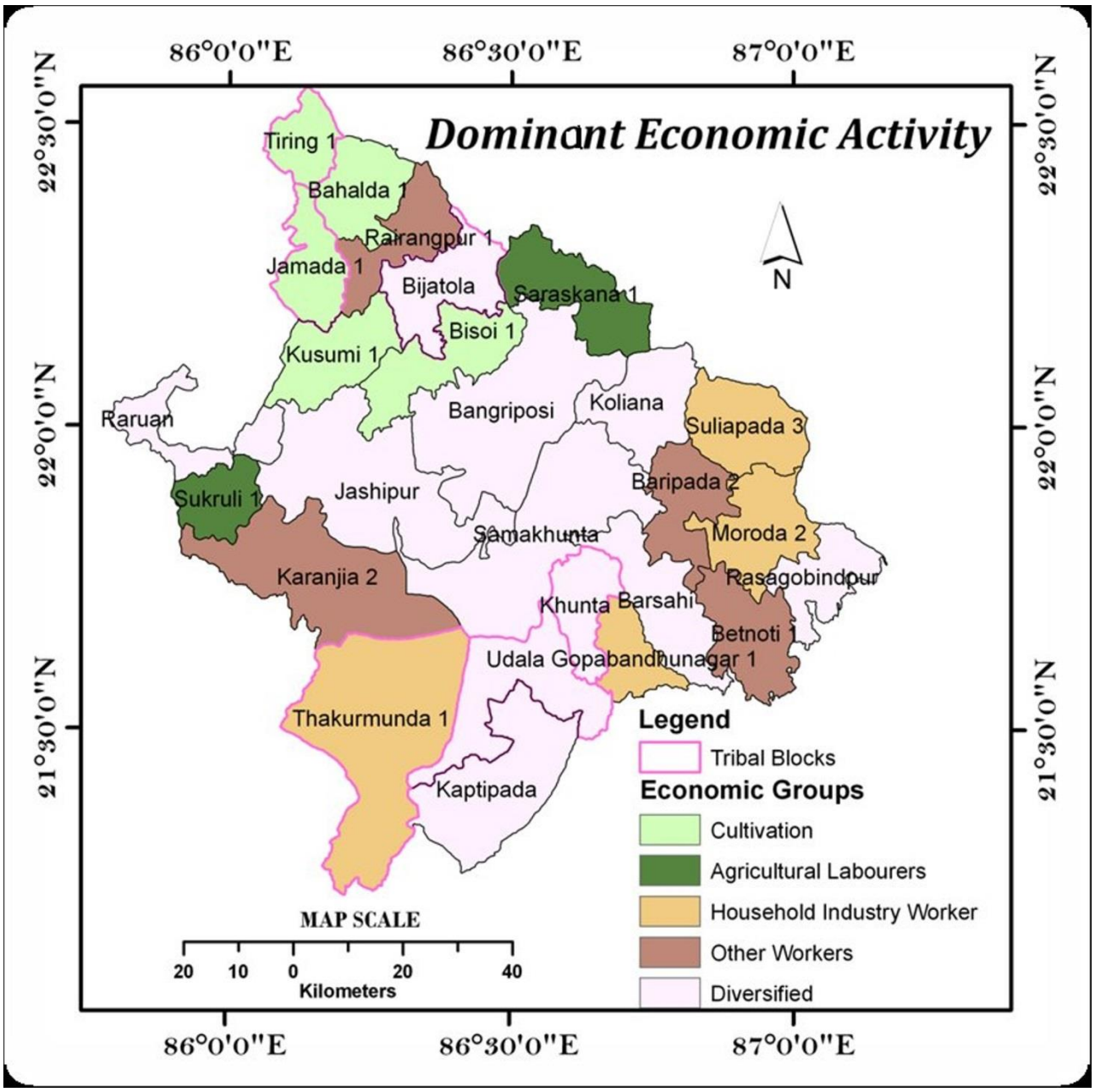


Fig-14: Dominant Economic Activity in the Blocks of Mayurbhanj, 2011
Figures: Authors

Table 1: Block-wise Dominant Economy Activity of Mayurbhanj, 2011

Sl. No.	Blocks	Total Workers	Percentage of Workers				Category
			Cultivators	Agricultural Labourers	Household Industry Workers	Other Workers	
1	Samakhunta	23754	23.1	44.1	15.1	17.7	Diversified
2	Bangriposi	52615	17.3	57.9	5.7	19.1	Diversified
3	Baripada	43059	13.4	39.6	11.6	35.4	OW2
4	Barsahi	67453	15.7	56.3	8.6	19.4	Diversified
5	Betnoti	44768	13.3	32.2	22.8	31.6	OW1
6	Bijatola	56893	17.3	53.1	8.4	21.3	Diversified
7	Bisoi	39736	25.5	49.3	5.9	19.3	CL1
8	Gopabandhunagar	33026	17.9	42.4	19.4	20.3	HIW1
9	Jamada	25241	28.3	57.2	2.7	11.8	CL1
10	Jashipur	63360	20.7	50.3	5.2	23.8	Diversified
11	Kaptipada	33191	19.1	52.5	4.8	23.6	Diversified
12	Karanjia	52211	19.3	35.2	7.4	38.1	OW2
13	Khunta	63267	23.1	57.1	4.2	15.7	Diversified
14	Koliana	40145	18.1	52.0	6.5	23.4	Diversified
15	Kusumi	32530	28.7	53.0	1.7	16.7	CL1
16	Muruda	38390	20.5	30.3	29.3	19.9	HIW2
17	Rairangpur	61206	20.7	41.3	2.5	28.7	OW1
18	Raruan	31848	19.5	54.0	3.2	23.2	Diversified
19	Rasagobindpur	43394	16.3	54.6	9.6	19.5	Diversified
20	Bahalda	41834	29.6	51.5	2.1	16.8	CL1
21	Saraskana	48586	16.8	62.0	3.9	17.3	AL1
22	Sukruli	15545	24.2	64.2	1.4	10.1	AL1
23	Suliapada	48833	13.6	29.9	37.1	19.4	HIW3
24	Thakurmunda	29626	20.0	30.2	21.4	28.4	HIW1
25	Tiring	50293	28.5	50.6	2.9	17.9	CL1
26	Udala	55485	19.8	55.4	4.8	20.0	Diversified
	Mean		20.4	48.3	9.5	21.5	
	SD		4.8	10.1	9.2	6.5	
	Mean+SD		25.2	58.5	18.8	28.0	
	Mean+2SD		29.9	68.6	28.0	34.5	
	Mean+3SD		34.7	78.7	37.2	41.0	

Source: Authors' Calculation Based on Census of India, 2011

Strong political commitment at the administrative level is urgently needed for providing better services to the communities. Availability of trained, qualified female teachers and developed infrastructure like separate toilets for girls in educational institutes, drinking water, roads, etc. will help to increase the female literacy rates. Adequate infrastructural facilities will help to setting up large industries towards generating employment opportunities.

Finally, it may be mentioned that an improved educational infrastructure in spatial scale is desirable. Otherwise, rapid economic growth of the district and state will be discontinued, and tribes would remain the most neglected section

of the society. Under this situation, spread of education and promotion of tribal art and craft is essential for the social and economic development of tribes.

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