

## **Literacy Disparity in Odisha: A Zonal Analysis**

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### **ABSTRACT**

The significance of literacy is its functional literacy that not simply in one's self-reliance in 3R- reading, writing and arithmetic but his increasing awareness and ensuing critical mindset. The functional literacy as well as the function of literacy is the key to our socio-economic progress. However, why a state cannot achieve 100 per cent literacy is not merely a falling short of development intervention but a spatio-socio-historical factor responsible for is either ill conceived or less perceived. In this context, regional and social disparities in literacy are to be taken care of. This article deals with a critical overview of the literatures as how and why literacy disparity persists in different regions of Odisha. In order to explore the extend of literacy disparity in zone wise districts a critical analysis is being judiciously under taken. For our analysis 30 districts of Odisha are divided into four zones namely Coastal plains, Northern plateau, Central T. Lands and Eastern Ghat, and they are further polarised into two broad divisions – the coastal and non-coastal zones. This spatial analysis has been objectified with a team of four focus groups by judiciously taking 48 participants- 12 from each zone in the study. Comparison to coastal zone the non-coastal zones are left far behind in literacy rate because of their geographical, historical, social and gender backwardness. The inadequate urbanisation and uneven regional development help perpetuating this literacy disparity at present.

**Key Words :** Literacy rate, Literacy disparity, Educational development, Zonal/ spatial analysis

### **INTRODUCTION**

Literacy has become a crucial indicator of relative development of an individual, group, community, society, nation-state and world as a whole while the illiteracy reverses this process with backwardness, poverty, disease, inequality, deprivation and all sorts of development disparity. "It is widely realised that societies with a higher percentage of literates have higher level of development" (Human Development Report, 2004). Thus, the significance of literacy has been multi-dimensional in human life and human society. It means one's self-reliance in three R- reading, writing and arithmetic and his ability to apply them to his life situation (National Literacy Mission).

The significance of literacy is the functional literacy that not simply in one's self-reliance in- reading, writing and arithmetic but how it gives an awareness of deprivation and its annihilation as well. In this context,

the functional literacy as well as the function of literacy has been the key for India's socio-economic progress at present (UNESCO: Literacy, UNESCO, archived from the original on 2009-05-20). However, despite government programmes, India's literacy rate increased only "sluggishly" (National Sample Survey Organisation (NSO, 2009). In fact, except some state like Kerala, Mizoram and Lakshadweep no state in India could achieve close to 100 per cent literacy (Census, 2011). Why a state cannot achieve 100 per cent literacy because more often the planners perceive that it is due to lack of effective development intervention. However, spatio-social-historical dimensions and factors are not seriously analysed for the consequences of uneven educational development. In this context, regional and social disparities are not adequately addressed for which India till today continues to struggle toward 100 per cent literacy.

Odisha is not exception to this fact. According to

Census 2011 Odisha's overall literacy rate is 73.5 per cent which was just behind the national average of 74.04 per cent. However a review of literatures (Garada, 2015; Das, 2015; Garada, 2014 and 2011; Jena, 1978; Mohanty, 1993; Pathy, 1988; Samal, 1984) reflects a contradictory picture on the overall educational development in the state. Until recently, Odisha has shown to the world that she is one of the best performing states in India. Her capital city Bhubaneswar has become the first in the list of smart cities declared by the central Govt. of India. It has also proved to be well rating sport city of India by organising world cup Hockey recently. It is because of rapid social change and education transformation of urban Odisha and her GDP growth. Most importantly, it has become knowledge hub in eastern India with many public and private Universities.

However, the overall development or a well showing statistical GDP average is not enough to justify that Odisha is a developed state. The uneven educational development and regional disparity are rather not significantly decreased over the years. The regional disparity and social backwardness also go together in Odisha. At this juncture unless the state take care of strategic regional development no real development is possible. And no development is possible without adequate literacy level in Odisha. More importantly the socio-economic development of a state remains incomplete without human resource development.

## METHODOLOGY

In this backdrop, the educational development is the prime and critical factor to lift a regions and its backward people toward development. On the basis of 1991 census, 2001 census and 2011 census the national literacy rate and Odisha' literacy rates have been compared. Accordingly the inter-district literacy rate in Odisha in three consecutive censuses have also been compared. This article deals with a critical overview of the literatures as how and why literacy disparity persists in different regions of the states. Literacy disparity among the districts has been analysed in details. A zonal analysis of the major factors responsible for the literacy disparity has been attempted in this paper.

For this analysis the thirty districts of Odisha has been divided into four zones such as Coastal plains, Northern plateau, Central Table Lands and Eastern Ghat on the basis of their geographical divisions (Human Development Report, 2004, Government of Odisha: 13-

14). In order to explore the extend of literacy disparity in zone wise districts a critical analysis has been undertaken. Further these four zones for a critical spatial analysis of literacy disparity are being polarised into two broad coastal and non-coastal zones. Both geographical and non-geographical factors responsible for literacy disparity are taken in the study. To explicate the spatial distribution of literacy, to analyse geographical factors for literacy disparity, to explore their educational backgrounds and urbanisation effects and to find out the correlation between spatial backwardness and social backwardness on literacy disparity, etc. are some of the broad objectives taken in this study.

To find out the extend of zonal disparity the inter-district literacy rates during 1991, 2001 and 2011 have been divided into three groups *i.e.* low, moderate and high and further each group has been divided into two sub-groups such as the low literacy group into very low and low, the moderate literacy group into moderate low and moderate high and the high literacy group into high and very high in the following manners.

### Low group:

- a) Very low- less than 25 literacy rate
- b) Group- B- Low- from more than 25 to less than 50 literacy rate

### Moderate group:

- a) Moderate low-from 50 to less than 60 literacy rate
- b) Moderate high-from 60 to less than 70 literacy rate

### High Group:

- a) High- from 70 to less than 80 literacy rate
- b) Very high – above 80 literacy rate

The zonal/spatial analysis has been further enriched with a team of four focus group participants from four zones, each zone with 12 local student representatives were taken purposefully. The 48 student respondents have been asked major questions and response in their focus group discussions. Their views, perceptions, discussion and our observation on literacy disparity have been objectively analysed in the study.

## RESULTS AND DISCUSSION

### Spatial distribution of literacy:

Initially Odisha (formerly, Orissa) had thirteen

districts, and later these districts have been further subdivided into thirty districts in 1992 (Garada, 2014). Accordingly, the Northern plateau zone includes three districts namely Mayurbhanj, Kendujhar and Sundargarh, the Coastal plain zone includes eleven districts namely Balasore, Bhadrak, Cuttack, Gajapati, Ganjam, Jagatsinghapur, Jajpur, Kendrapara, Khurda, Nayagarh and Puri, the Central table land zone includes eight districts namely Sambalpur, Sonepur, Bargarh, Balangir, Debagarh, Dhenkanal, Angul, and Jharsuguda and the Eastern Ghat includes eight districts Kalahandi, namely Kandhamal, Koraput, Malkangiri, Nawarangpur, Nuapara, Rayagada and Boudh (Human Development Report, 2004, Government of Odisha: 13-14).

Table 1 reflects a spatial distribution of literacy in detail. The literacy rate of the respective district has been placed in their respective geographical and climatic zones. It is found that comparison to coastal plains zone some districts in the Northern plateau, Central Table land and the Eastern Ghat continue to record less literacy rates during 1991, 2001 and 2011 censuses, respectively. We can observe from the Table 1 that nine of 11 districts of the Coastal plains have more than 57 literacy rate, more than 70 literacy rate and more than or almost 80 literacy rate in 1991, 2001 and 2011, respectively. On the contrary each district of Eastern Ghat is found to have less than 40 literacy rates in 1991 and its five districts continue to have less than 40 literacy rates in 2001. Even in 2011 five out of its eight districts was found to less than 60

literacy rates. However, during 2001 and 2011 though the districts in Central table land zone and Northern plateau zone have improved their literacy rates remain far less than that of districts in the Coastal Plains.

We can also observe from Table 1 the top five districts having better literacy rate come from the coastal plains whereas the bottom five districts with low literacy rate come from the non-coastal zones. For instance, the coastal districts namely Khordha, Jagatsinghapur, Cuttack, Kendrapara and Puri have consistently maintained their top literacy positions in 1991, 2001 and 2011, respectively whereas except Gajapati district of the coastal zone the districts namely Rayagada, Koraput, Malkangiri and Nabarangpur from Eastern ghat zone are consistently placed in bottom literacy rates in 1991, 2001 and 2011, respectively (Economic Survey, Odisha, 2006-07 and 2011-12).

During 1991 census about three districts belonging to eastern Ghat are found to have very low literacy status and about thirteen districts have low literacy rates of which except one district all of them fall in the non-coastal belt whereas three out of eight districts have moderate literacy status belongs to coastal plains. And in moderate high literacy status only six coastal districts are placed. Thus, the districts placed with very low and low literacy status are found in the eastern ghat zone, with low literacy status found in the northern plateau and central table lands zones, with moderate low literacy status found in the coastal plains, northern plateau and central table lands zones and

**Table 1 : Literacy Rates in Zone-wise Districts in Odisha in 1991, 2001 Census and 2011**

Sr. No.	Zone-wise districts	Literacy Rates			Sr. No.	Zone-wise districts	Literacy Rates		
A	<b>Coastal Plains</b>	1991	2001	2011	16.	Kandhamal	37.23	52.95	65.12
1.	Gajapati	29.37	41.73	54.29	17.	Boudh	40.98	58.43	72.51
2.	Ganjam	46.72	62.94	71.88	18.	Rayagada	26.01	35.61	50.88
3.	Balasore	57.64	70.94	80.66	19.	Koraput	24.64	36.2	49.87
4.	Nayagarh	57.2	71.02	79.17	C	<b>C. T. Land</b>	1991	2001	2011
5.	Jajpur	58	72.19	80.44	20.	Balangir	38.63	54.93	65.5
6.	Bhadrak	60.54	74.64	83.25	21.	Debagarh	44.45	60.78	73.07
7.	Cuttack	65.46	76.13	84.2	22.	Sonepur	42.62	64.07	74.42
8.	Kendrapara	63.61	77.33	85.93	23.	Bargarh	47.65	64.13	75.16
9.	Puri	63.3	78.4	85.37	24.	Sambalpur	51.52	67.01	76.91
10.	Jagatsinghapur	65.77	79.61	87.13	25.	Angul	51.53	69.4	78.96
11.	Khordha	67.72	80.19	87.51	26.	Dhenkanal	54.91	70.11	79.41
B	<b>Eastern Ghat</b>	1991	2001	2011	27.	Jharsuguda	52.73	71.47	78.36
12.	Malkangiri	20.04	31.26	49.87	D	<b>N. Plateau</b>	1991	2001	2011
13.	Nabarangpur	18.62	34.26	48.2	28.	Mayurbhanj	37.88	52.43	63.98
14.	Nuapada	27.52	42.29	58.2	29.	Kendujhar	44.73	59.75	69
15.	Kalahandi	31.08	46.2	60.22	30.	Sundargarh	52.97	65.22	74.13

Source: Census of India, 1991, 2001 and 2011

with moderate high literacy status found in the coastal plains zone only. Thus, disparity level is very high in the districts of eastern ghat zone and coastal districts are better literacy status because they are placed as par with or above the national literacy rate in 1991 comparison to non-coastal zones. However, there are a few districts from the northern plateau and central table lands zones are exceptionally placed in the moderate low literacy level. Nabarangpur district from the eastern ghat zone is placed in the lowest literacy rate whereas Khordha district in the coastal plains zone is found with better literacy rate (Table 2).

Similarly during 2001 except one central district and one coastal district as much as six out of eight districts of eastern ghat zone are placed with low literacy status. One, two and two districts falling in the Northern plateau, Central T. Lands and Eastern ghat zones, respectively are placed with moderate low literacy status and five districts falling in these zones are also placed with moderate low status. However, seven districts in northern plateau, central table lands and coastal plains zones are placed with moderately high status. Including two districts from central table land zone as much as eight out of 11 coastal districts are recorded with high literacy rates. And one coastal district is also being placed with very high literacy status in 2001. Malkangiri district from the eastern ghat zone is placed in the lowest literacy rate whereas Khordha district in the coastal plains zone is with high literacy rate.

Similarly during 2011 except on district the Eastern Ghat continues to remain backward in literacy rate comparison to that of districts in other zones. The three districts, two districts and another two districts out of its eight districts of the Eastern Ghat are recorded with low,

moderate low and moderate high literacy rate, respectively in 2011. And the two districts with moderate high and one with high literacy status, respectively found in the Northern Plateau whereas including one district as much as seven districts out of eight districts in the Central T. Lands are being placed in high group literacy. However, in the coastal plains except one moderate high literacy district two and eight out of its 11 districts are recorded with high and very high literacy rates, respectively. With 48.2 literacy rate Nabarangpur district from the eastern ghat zone is found in the lowest literacy status whereas Khordha district with 87.51 in the coastal plains zone highest literacy rate in 2001.

### Zone wise average literacy rate and sex wise literacy gap:

Based on a simple statistics even the zone wise average literacy rate and sex wise literacy gap in Odisha during 2001 and 2011 reveal the likewise disparity mentioned above. As per the Table 3 comparison to Coastal plains (59.62 and 72.44) the female average literacy rates in the N. Plateau, Central T. Land and Eastern Ghat zones are found to have low such as 45.98, 43.45 and 35.34 in 2001 and 56.50, 58.83 and 53.40 in 2011. In fact comparison to Coastal plains in these zones the average literacy status have been just shifted from low to moderate low in 2011. Comparison to non-coastal belt the coastal plains are recorded with better average literacy status in 2001 and 2011. Thus, the sex wise average literacy gap in the Coastal plains is comparatively better such as it was 22.04 in 2001 against 25.07, 24.41 and 31.09 in N. Plateau, Central T. Land and Eastern Ghat, respectively. Similarly the Coastal plains had 14.35 sex wise average literacy gap in 2011 against 16.44, 18.80

**Table 2 : Literacy Disparity Status in Zone-wise districts**

Sr. No.	Literacy group	Literacy Rate	Zone wise-Districts in 1991					Zone wise-Districts in 2001					Zone wise-Districts in 2011				
			A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
A	Low Groups	<50	8	2	4	2	16	6	-	1	1	8	3	-	-	-	3
1	Very low	<25	3	-	-	-	3	-	-	-	-	-	-	-	-	-	-
2	Low	>25 to <50	5	2	4	2	13	6		1	1	8	3				
B	Moderate Group	>50 to <70	-	1	4	9	14	2	1	7	1	11	4	2	1	1	8
1	Moderate Low	>50 to <60	-	1	4	3	7	2	1	2	-	5	2	-	-	1	3
2	Moderate High	>60 to <70	-	-	-	6	6	-	-	5	1	6	2	2	1		5
C	High Group	>70	-	-	-	-	0	-	2		9	11	1	1	7	10	19
1	High	>70 to <80	-	-	-	-	-	-	2		8	10	1	1	7	2	11
2	Very high	>80	-	-	-	-	-	-	-		1	1				8	8
	Total (A+B+C)		8	3	8	11	30	8	3	8	11	30	8	3	8	11	30

Source: Census of India, 1991, 2001 and 2011,

Note: A-Eastern Ghat, B-Northern Plateau, C- Central Table lands, D-Coastal Plains, E-Total Districts

**Table 3 : Zone wise average literacy rate and sex wise literacy gap during 2001 and 2011**

Zones	Literacy rate and sex wise gap in 2001				Zones	Literacy rate and sex wise gap in 2011			
	P	M	F	Gap		P	M	F	Gap
Coastal plains	70.79	81.66	59.62	22.04	Coastal plains	79.69	86.78	72.44	14.35
N. Plateau	58.67	71.03	45.98	25.07	Central T. Land	64.84	72.94	56.50	16.44
Central T. Land	55.83	67.84	43.45	24.41	N. Plateau	68.23	77.63	58.83	18.80
Eastern Ghat	50.86	66.43	35.34	31.09	Eastern Ghat	65.64	78.20	53.40	24.80
Odisha	63.1	75.35	50.51	24.8	Odisha	72.9	81.6	64	17.6

Source: Census of India, Statistical Abstract of Odisha, 2012:417

and 24.80 in N. Plateau, Central T. Land and Eastern Ghat, respectively. Comparison to Odish's sex wise literacy gap (24.8) found in 2001 and (17.6) in 2011 the coastal plains had less and lesser than that of non-coastal zones.

### Critical reflection on literacy disparity:

#### *Disparity in Primary schools and teachers:*

It is clear from the Table 4 that out of total Primary 53814 Schools in 2010-11 the districts in the coastal plains have occupied nearly 40 per cent whereas it is only 25.87 per cent, 18.39 per cent and 16.19 per cent in the districts of N. Plateau, Central T. Land and Eastern Ghat, respectively. The coastal plains is found to have more number of Teachers (42.35%) whereas it is 23.15 per cent, 19.15 per cent and 15.35 per cent in the districts of Eastern Ghat, Central T. Land and N. Plateau, respectively.

The coastal plains are found to have more number of female teachers (49.31%) whereas it is 32.60 per cent, 37.57 per cent and 45.78 per cent in the districts of Eastern Ghat, Central T. Land and N. Plateau, respectively. The coastal plains is also found to have least gender disparity in the availability of teachers such as 50.69 per cent male and 49.31 per cent female in primary schools whereas it is 54.22, per cent male and 45.78 per cent female, 62.43 per cent male and 37.57 per cent female and 67.40 per cent male and 32.60 per cent female in the districts of N. Plateau, Central T. Land and Eastern Ghat, respectively.

The zonal disparity is not only found in the availability of number of primary schools but also in the numbers of male and female Teachers available in the primary schools across the zones. However, our focus group discussion reveals two contradictory arguments such as the respondents from one group explains the regional disparity and gender disparity gap are continued between the non-coastal zones and coastal zone and second group argue that the coastal plains are with more number of teachers and least gender disparity comparison to that of non-coastal zones because the former zone has better local initiatives, leadership, political party and political will than non-coast belt.

#### *Geographical backwardness versus development disparity:*

The each zone has its own distinct Geographical features that explain their location potential for development. The geographical features can be both cause and consequences of development including including literacy disparity and growth (discussed in latter pages). Comparison to coastal zone the three non-coastal zones lack suitable soil composition of land, water bodies, etc. for their economic development in the state (Garada, 2014). Unlike the coastal plains zone which is blessed with river deltas the non-coastal zones that includes Northern plateau with hill ranges (up to 2000 to 3000 feet above sea level), the central table lands zone with a generally flat and slightly undulating and folded topography

**Table 4 : No. of Primary Schools and Teachers in Primary Schools**

Sr. No.	Zones	No. of Primary Schools				No. of Teachers in Primary Schools			
		T	%	M	%	F	%	T	%
1.	Coastal plains	21281	39.55	29284	50.69	28485	49.31	57769	42.35
2.	Eastern Ghat	13921	25.87	21285	67.40	10296	32.60	31581	23.15
3.	Central T. Land	9899	18.39	16307	62.43	9813	37.57	26120	19.15
4.	N. Plateau	8713	16.19	11353	54.22	9584	45.78	20937	15.35
	Odisha	53814	100.00	78229	57.35	58178	42.65	136407	100.00

Sources: OPEPA Bhubaneswar, Odisha; Statistical Abstract of Odisha, 2012:423

(elevation of 1000 feet) and the eastern ghat zone with hill ranges along with some plains and valleys (elevation of ranging from 900 feet to 2000 feet) forms the largest natural regions of the state (Odisha Agricultural Statistics, 2008-09:27). The coastal plain is gifted with six major rivers namely Brahmani, Baitarani, Budhabalanga, Mahanadi, Rushikulya and Subarnarekha bring silt from their catchment have reclaimed its area from the depths of Bay of Bengal (Sinha, 1971:11-21). The southern region with a rugged physiographic area covered by forests and hills and cut off from the other regions of Odisha does not have any major rivers like that of coastal belt. However, the south-western plateau comprises Kalahandi and part of Koraput district where Indravati, Hati and Tel are major rivers flowing (ibid, Garada, 2014). The central river valley regions of Bolangir and Sambalpur districts is found between northern plateau and eastern hills. The mighty river Mahanadi is flowing through this districts (ibid).

Earlier the regional backwardness of an area was assumed to be its remoteness, isolation and cut off from forward area. It was on the margin and has rare connection to the centre. To ameliorating these obstacles or to convert the backwardness into forwardness the development model of green revolution, mechanisation of agriculture, industrialisation and urbanisation were the most obvious catalyst. However, this critical interventionist western model led to backwash effect rather than trickle down and spread effect. As a result, the centre exploits the margin and shocks the possibility of forwardness in backward areas. Now the ideas of forwardness from regional backwardness are getting shifted toward techno-economic modernity. Further recently, the social and ecological viability has been the new conception of progressive forwardness.

### ***Spatial concentration of Population and its literacy disparity:***

Out of total 15571 Area (in'000 ha.) the Northern plateau, the Central Table lands, the Coastal plains and the Eastern Ghat have occupied 18.25 per cent 23.92 per cent, 25.79 per cent and 32.01 per cent areas, respectively (Odisha Agricultural Statistics, 2008-09:27). The coastal plains zone has highest percentages such as 47.83 per cent and 47.34 per cent to total Population of Odisha in 2001 and 2011, respectively whereas in N. Plateau, Eastern Ghat and Central Table lands there are only 15.25 per cent, 17.47 per cent and 19.4 per cent in

2011, respectively and 15.28 per cent, 17.98 per cent and 19.38 per cent in 2011, respectively. It is clear that just nearly 50 per cent of the state's population is concentrated in the coastal plains whereas just more than 50 per cent populations are found in the non-coastal zones (Garada, 2014). But the coastal plains have only about 26 per cent geographical area of the state against 74 per cent in the non-coastal zones. The non-coastal zones with less percentage of state's population blessed with more geographical area should have developed but otherwise was happened. It means if the geographical areas are not developed the less number of populations also cannot be developed.

In this context our focus group discussion reflects that unless the functional literacy is achieved the people in the backward area cannot realise the changing conception of regional backwardness. Many reveal in our focus group discussion that illiteracy as the main cause of backwardness in economic, tecno-economic and ecological productivity in different zones of the state. However, mere literacy growth cannot overcome the backwardness. The focus group discussion among the students of non-coastal belt blame that the government overemphasises the functional literacy in the non-coastal area whereas the coastal belt people realise both functional literacy as well as function of the literacy. What is significance of the literacy is the functional literacy that not simply in one's self-reliance in three R but how it gives us an awareness of deprivation and its annihilation as well. In our study all most all participants in four focus group discussion agree to these facts. Thus, the regional disparity of both functional literacy and function of literacy is to be resolved.

### ***Literacy Disparity of SCs and STs Population:***

Growth of the SC and ST literacy rates in the State has been traced in. As per the Table 5 compared to overall literacy rate of the state the ST literacy rate are found to be low but increasing over the decades. In 1991 literacy rate of ST was very low (22.3) whereas it was low in case of SC (36.8). In 2001 the ST literacy got shifted from very low to low status (37.37) while SC literacy changed drastically from low to moderate status (52.24). In 2011 ST population got into low moderate status (52.24) whereas SC population reached to high moderate status (69.02). It is clear that as compared to ST the SC literacy in Odisha is better in 2011. The SC literacy rate has substantially improved between 1991 and 2011 and the

**Table 5 : Literacy among ST and SC population in Odisha (1991-2011)**

Census	India			Odisha			ST			SC		
	All	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female
1991	52.21	64.13	39.29	49.09	63.09	34.68	22.3	34.4	10.21	36.8	52.4	20.74
2001	64.8	75.85	54.16	63.08	75.35	50.51	37.37	51.48	23.37	55.53	70.5	40.33
2011	74.04	82.14	65.46	73.45	82.4	64.36	52.24	63.7	41.2	69.02	79.21	58.76

Source: Census data 1991-2011

gap between SC and overall literacy rates has been declined remarkably than that between ST population and overall literacy of the state (Grada, 2014).

#### ***Spatial concentration of SCs and STs Population:***

In 2011 out total 41974218 populations in Odisha there are 22.8 per cent and 17.1 per cent ST and SC population. From the Table 6, it is found that in 2011 the coastal plains had a very low proportion of ST population (12.32%) to state's population whereas, Eastern ghat zone with 35.23 per cent, Northern plateau with 35.04 per cent and Central T. Land with 17.41 per cent have registered maximum ST populations.

Nearly about 88 per cent of state's tribal population are concentrated in non-coastal zones. Addition to that Odisha has the highest percentage of ST population after the North Eastern states, and has also highest numbers of tribal groups among all other states in the country (Garada, 2014). Out of total 62 tribal the major groups like Santhal, Kondha, Saura, Gondh, Paraja, Bhuyians, Kisan, Munda, Gadaba, Koya, etc. live in the scheduled area. Mostly, these tribals are concentrated in the districts of Gajapati, Kandhamal, Kendujhar, Koraput, Malkangiri, Mayurbhanj, Nabarangpur, Rayagada and Sundargarh districts of the non-coastal belt (Statistical Abstract of Odisha, 2012: 707). Thus, the regional backwardness goes with social backwardness.

On the contrary as much as 52.72 per cent of SC population is recorded in the coastal plains. Unlike tribal there are about 93 scheduled castes like Pana, Kandara, Gandha, Hadi, Bauri, Chamara, Dhoba, Gokha, Ghasi, etc. are spread all over the state. But, like schedule tribe they are also found socially and economically more backward in both coastal and non-coastal regions of the state (Garada, 2011 and 2012a&b). Hence, Odisha

government cannot afford to ignore these SC and ST communities in the state. Further, Odisha cannot develop without developing the backward SC and ST communities mostly those who are living in the rural areas (Garada, 2014).

For our spatial analysis it is found that the tribal population is highly concentrated in the non-coastal district of the states. On the other hand the SC population is highly concentrated in the coastal plains. Thus, the literacy rate is remarkably increasing among SCs in the coastal belt whereas it is not in case of STs from 1991 to 2011. This justifies that the regional backwardness goes with the social backwardness. Our focus group discussion reveals that literacy disparity correlates regional backwardness and social backwardness. The regional backwardness, social backwardness and literacy disparity are interrelated factors influence to each other. Out of 48 student respondents in their respective focus group discussion argue that literacy as well as regional development can overcome the social backwardness. They also argue that the low enrolment rate, high dropout rate and low learners' achievement at the primary level in rural, tribal and backward districts have not merely led to illiteracy problem but also to the educational backwardness and uneven development in the state.

#### **Historical backgrounds of educational disparity:**

Though during Ancient and medieval era the oldest universities namely Takshashila, Nalanda and Puspagiri of global standard had their reputation but neither were they reachable to the people of remote non-coastal belt nor evenly accessible to the pupils across all regions in the state. The educational infrastructures i.e., Pathshalas, Makhtabs, Chatasalis, etc. were also not evenly found across the regions and rather concentrated in Cuttack,

**Table 6 : Zone-wise Proportion of SCs and STs to Odisha's Population (2011)**

Zones	Population	%	ST%	SC %	Zones	Population	%	ST%	SC %
N. Plateau	6414908	15.28	35.04	8.15	Central.T. Land	8140191	19.39	17.41	21.87
E. Ghat	7543219	17.97	35.23	17.26	Coastal plains	19875900	47.35	12.32	52.72

Source: Census of India, Statistical Abstract of Odisha, 2012: 707

Puri, Balasore, Angul and Sambalpur regions at that time. Even the private initiatives like Pathasala in temples and Bhagavat Tungis and Sanskrit Tols in richmen's houses were restricted access to people. These were also found more in the coastal belt. After Hindus rule the Muslim and Maratha rulers did not pay any heed to the progress of education system in Odisha (Das, 2015; Garada, 2014; Jena, 1978; Mohanty, 1993; Pathy, 1988; Samal, 1984). As a result, the Aryan Odias largely concentrated in the coastal belt started initiating educational development among them, whereas the Dravidians in the non-coastal belt was left without any initiation (ibid).

During Modern Odisha, the Christian mission school of 1822, Macauley's Minutes of 1835, English medium of instruction, the government funded English medium School in Balasore and the Zilla Schools in Cuttack, Puri and Balasore in 1853 brought a path breaking changes in the educational development of Odisha at that time. In 1854 The Wood's Despatch witnessed the opening of new schools as well as retaining of old schools. It also started schools in the remote areas. However, the schools got established at Kendrapara, Puri, Balasore, Bhadrak, Mahanga, Hariharpur and other places. Following the Wood's Despatch the Sambalpur Zilla School became the Anglo-Vernacular School, Middle English Schools turned into vernacular schools, T. E. Ravenshaw started caring of 832 Pathasalas-the indigenous village schools, Maharaja Krushna Chandra Gajapati from Paralakhemundi took initiative for education development, etc. led to the schooling infrastructure in the state (Das, 2015, Garada, 2014; Jena, 1978).

As a result, though by 1947 the number of primary schools increased to 6998 in Odisha but highly got concentrated in the coastal area. Accordingly, private High Schools were established at Cuttack. The Pyari Mohan Academy ME School in 1875 changed into High School in 1879 and The Victoria School at Cuttack also assumed the status of a High School in 1888. By the end of Nineteenth century there were 12 High Schools and 82 M.E. Schools in North Odisha and 4 High Schools and 26 ME Schools in South Odisha.

According to the recommendations of Hunter Commission in 1882, private schools and colleges were initiated in different towns of Odisha. For instance a few schools were upgraded to Colleges such as namely Native College at Berhampur, S.B. Women's College at Cuttack, G.M. College at Sambalpur, S.C.S. College at Puri, F.M. College at Balasore, Radha Nath Training College at

Cuttack, the Odisha School of Engineering at Cuttack, etc. But these Colleges were few and mostly found in coastal belt and in major urban centres (ibid).

To above facts the respondents of non-coastal belt perceive that their regional history has not been adequately written or history of coastal region has been bypassed the history of the non-coastal belt. Many of them argue that the educational history of Odisha was the educational history of coastal belt. It is also corroborated to the aforesaid viewpoints that the establishment of earl schools and colleges as traced from the coastal regions because whatever educational infrastructures developed in ancient and modern Odisha were more developed in the coastal area. However, the respondents from coastal belt argue that it was not because of the area but because of the people as for instance, the people from coastal belt took initiative for linguistic movement and further contributed in educational development in the coastal area. And the people from other zones lack to acknowledge and still lag behind the Odia vernacular identity as they have their respective dialects which are yet to be developed as vernacular languages. Thus, the early development of Odia script, Odia linguistic movement and English medium of instruction in the coastal belt helped increasing the literacy rate there. Our focus group discussion reveal that unless importance of local language or dialects is realised the 100 per cent literacy and that too the function of literacy cannot be achievable.

### **Urbanisation and literacy development and disparity:**

The rates of urbanization in the state have been increasing such as it was 8.4 in 1971, 11.79 in 1981 and 13.43 in 1991. During 2001 and 2011, the percentages to total Population of the State have also shown increasing trend such as 14.99 per cent and 16.69 per cent, respectively. Though the trends were progressive with the previous three decades (during 1971, 1981 and 2001) Odisha remained almost in similar rank such as it was 14<sup>th</sup> rank in 1971 and 1981 and 13<sup>th</sup> rank in 1991 in the country (Census of India, 1981 and 1991). As per 1941 Census, only 3 per cent of the total population in Odisha lived in cities and towns against 13.86 per cent in India. In 2011 census, the proportion of population living in the urban areas of the state stood at 16.68 per cent as compared to 31.16 per cent for the country. In 1951, there were only 39 urban centres in Odisha, which has grown up to 138 in 2001 and 223 in 2011 (Department of

Housing and Urban Development, Govt. of Odisha, Design and Developed by OSUIP-TAST). Whether urbanisation has led to increasing of literacy rate is research question. The literacy rate in major urban agglomerations and cities in Odisha explain this question. Table 7 clears that Urban Agglomerations and Cities show very high literacy rate in Odisha.

On the basis of a list of major urban agglomerations and cities in Odisha, it is clear that urbanisation has very positive effect in contributing toward literacy rate as a very high per cent of literacy rate are recorded in these cities and towns. Accordingly for consideration of smart city out of 100 marks Bhubaneswar had scored 70 points, Rourkela came second at 61.1 and Cuttack, Berhampur and Sambalpur scored 60 each, respectively. However, these populous urban agglomerations and cities of Odisha are highly concentrated in coastal plain and central table land zones as there are six out of 15 major urban agglomerations and cities found in the state in 2011. The most backward zone has only three such populous city. Even the urbanisation trend in Odisha is not up to the marks.

On the questions of correlation between urbanisation and literacy growth about as much as 88 per cent of total participants in focus group discussion view that the urban way of life, rural population's interaction with urban population and better schooling infrastructure are some of the major causes of educational development in rural Odisha. It also reveals that though the urban centres positively contribute to the prospect of literacy growth in the state unfortunately, the towns and cities are composed of less number of local rural migrants. And even if local rural migrants are there a large number of them are living in slums without actual urban amenities. It is also

observable that urban pre-school and elementary schooling are more costly than rural schoolings in the state. Our study also reveals that industrialised centres in tribal belts have been inhabited largely by the outsiders including coastal migrants. Many non-coastal respondents also argue that there has been less reflective interaction between local people and outside migrants in the tribal area for former's educational development. The superiority and inferiority feeling among local and outsiders perpetuate such repulsive interaction. Thus, the processes of industrialisation and urbanisation hardly have had any impact for the literacy status of the tribal and backward people in the non-coastal belt.

### Educational Development and Disparity in Odisha:

During post-Independence India, the government of Odisha was set to achieve ambitious educational development goals like universal literacy, universalization of elementary education (UEE) by 2010, development of secondary and higher secondary education, skill development by vocational education, etc. The Integrated Child Development Schemes (ICDS) centers, the Early Childhood Care Education (ECCE) programme (since 1982) assisted by UNICEF, Mass Education Programme as a part of National Literacy Mission (NLM) (since 1991-92), DPEP as Centrally Sponsored Programme (since 1996-97), National Programme of Education for Girls at Elementary level (NPEGEL) (since 2003), Sarva Shiksha Abhiyan (SSA) as a national programme (since 2003-04), Kasturba Gandhi Balika Vidyalaya (KGBV), Post-Literacy Programme (PLP), Total Literacy Campaign (TLC) and Continuing Education Programme (CEP), etc. were ambitiously implemented in Odisha (Garada, 2014; Economic Survey, 2006-07 Govt.

**Table 7 : Literacy Rate in major Urban Agglomerations and Cities in Odisha**

Sr. No.	Name	Town/ City/ UA	Literacy Rate	Sr. No.	Name	Town/ City/ UA	Literacy Rate
<b>A Coastal plain</b>				<b>C Eastern Ghat</b>			
1.	Bhubaneswar	Capital City (UA)	93.00	9	Rayagada	UA	-
2.	Cuttack	UA	91.03	10	Jeypore	UA	82.38
3.	Brahmapur	City	90.04	11	Bhawanipatna	town	
4.	Puri	City	89.38	<b>D Central T. Land</b>			
5.	Balasore	Town (UA)	88.09	12	Sambalpur	UA	85.15
6.	Bhadrak	Town (UA)	79.49	13	Balangir	Town	86.27
<b>B Northern Plateau</b>				14	Jharsuguda	City	74.42
7.	Rourkela	UA	86.91	15	Bargarh	UA	88.39
8.	Baripada	Town	88.02				

Source: Provisional Population Totals, Census of India 2011. \* UA=Urban Agglomeration with a population above 100,000 as per 2011 census.

of Odisha: 14/1-7). The government of Odisha started following the National Policy on Education, 1986 which includes the activities of universalization of education, provision of free and compulsory education to all children upto the age group of 14 years, implementation of common system of education ('10+2+3' system), complete eradication of illiteracy, etc. But due to defective educational systems, ineffective policy measures and socio-economic backwardness, the educational goals remain a distant dream in Odisha. And more so, it was perpetuated due to regional disparity in implementation and the extension of government policies and programmes in the state.

During post- Independence Odisha the infrastructural disparity in school, college and university continue to be unbridged (Garada, 2014). Some famous schools of Odisha mostly located in the Cuttack and Bhubaneswar city such as St Joseph High School, Bhubaneswar, DAV Public School, Bhubaneswar, St Joseph School Cuttack, Kendriya Vidyalaya Bhubaneswar, Kendriya Vidyalaya Cuttack, BJEM School Bhubaneswar; Stewart School Cuttack, etc. are accessible distance to coastal districts (Garada, 2014).

Exception to the Central University in Koraput major national universities like Vedanta University near Puri, National Institute of Science Education and Research (NISER), Bhubaneswar, the Regional Institute of Education near Acharya Vihar in Bhubaneswar, Indian Institute of Technology, Bhubaneswar, National Law University of Odisha at Naraj in the outskirts of the city of Cuttack, etc. are found in the Coastal plains zone of the state. Six out of 10 state universities namely Utkal University, Bhubaneswar, Utkal University of Culture, Bhubaneswar, Odisha University of Agriculture and Technology (OUAT) Bhubaneswar and Ravenshaw University, Cuttack, Shree Jagannath Sanskrit University, Shree Vihar, Puri, Fakir Mohan University, Vyasa Vihar, Balasore is found in the coastal Odsha. Other respective universities namely Berhampur University, Bhanja Vihar University, Sambalpur University, Jyoti Vihar University, North Odisha University, Takatpur, Baripada and Biju Pattanaik University of Technology (BPUT) Rourkela have been set up in the non-coastal Odisha. Famous two new Deemed Universities such as Kalinga Institute of Engineering and Technology (KIIT), Bhubaneswar and Sikhsa O Anusandhan University (SOA) are also located in the area of coastal plains (ibid).

However, National Institute of technology (NIT),

Rourkela, MKCG Medical College, Berhampur and VSS Medical College, Burla, are some of the famous non-coastal Government Medical colleges excluding SCB Medical colleges, Cuttack but are a few in numbers cannot cater to the health needs of the state. In fact, all private medical facilities are also highly getting concentrated in Cuttack and Bhubaneswar cities of coastal plains. The government Art and Craft Colleges such as Govt. Arts and craft college Khalikot (Ganjam) and Bibhuti Kanungo Art and Craft College, Bhubaneswar and Music and Dance College like Utkal Music and Dance College, Bhubaneswar are also found in the coastal plains. Some of the government Law Colleges such as University Law College, Bhubaneswar, Capital Law College, Bhubaneswar, M.S Law College, Cuttack, G.M Law College Puri and Kalinga Law School (KIIT) Bhubaneswar, are being set up in the coastal regions (ibid).

The Govt. Engineering Colleges such as College of Engineering and technology Bhubaneswar, College of Textile Engineering Choudwar, College of Engineering and poly technique Sarang, Odisha School of Mining and Engineering Kendujhar, Angul Indira Gandhi Institute of Technology Talcher, National institute of technology (NIT) Rourkela, University college of Engineering Burla Sambalpur, are few in numbers there in Odisha. But some private Engineering colleges such as Institute of Technical Education and Research (ITER) Bhubaneswar, KIIT Bhubaneswar, Odisha engineering college (OEC) Bhubaneswar, C.V. Raman Engineering College, Bhubaneswar, Krupajal Engineering College, Bhubaneswar, Baripada school of Engineering and Technology, etc. are found in the coastal regions (Garada, 2014).

Some important management institutes such as Xavier Institute of Management, Bhubaneswar (XIMB), Kalinga School of Management (KIIT), Bhubaneswar, Madhusudan Institute of cooperative Management Bhubaneswar, Asian School of Business Management, Bhubaneswar (ASBM), Indian institute of Tourism and Travel Management, Bhubaneswar (IITTM), International School of Business Management, Bhubaneswar (ISBM), etc. are being set up in the coastal belt. So the concentration of all these educational institutions, universities and colleges in coastal plains and mostly in Bhubaneswar, the capital city of Odisha are accessible and cater to the educational needs of the coastal people as compared to the people of non-coastal

belt (ibid).

The existing schools, colleges, and universities are also not sufficient in number to increase the literacy and educational level of the people of Odisha. There is also no adequate availability of primary school within 100 sq.km. healthy enrolment ratio, adequate numbers of teachers; healthy teacher pupil ratio, etc. for the educational development in the state (Garada, 2014). It is also fact that since 1950-51 there has been a significant increase in the number of schools, enrolments and teachers in subsequent periods in the state. For instance, the number of primary schools was increased to 55106 in 2011-12 from 9801 in 1950-51 and the number of teachers was increased to 133,262 in 2011-12 from 16,525 in 1950-51 (Economic Survey, Odisha: 2012-13).

But these are inadequate to cater the requirement of schooling in the state. Addition to that neither adequate number of primary schools has been increased nor the required number of teachers has been provided in the schools from 1950-51 to 2011-12. As per a report (last updated on: 22/02/2017) the ENVIS Centre of Odisha's State of Environment) there are 51 educational Institutes including national institutes, Universities and Technical Institutions in Odisha. Out of these educational Institutes only 12 institutes (23.07%) are located in three non-coastal zones. Out of total 13 National Institutes in Odisha only one is there in Northern plateau and another only one in the central Table lands. Out of total 18 Universities in Odisha there are only two in Northern plateau, one in the Eastern Ghat and two in the Central Table Lands. Out of total 28 Technical Institutions in Odisha there are only three in Northern plateau, and two in the Central Table Lands. And because of the spatial proximity the educational development is more possible and accessible to the coastal people than non-coastal people (ENVIS, 2017).

#### Way forward:

The educational development with a high literacy rate can be a crucial catalyst to lift a regions and its backward people toward development and progress. The functional literacy as well as the function of literacy has been the key for Odisha's socio-economic progress at present. However, the inter-district literacy rates in Odisha during 1991, 2001 and 2011 censuses have been unevenly distributed among the zones. Among the zones the Eastern ghat remains most backward literacy zone followed by Northern plateau whereas coastal plains have

achieved highest literacy rate followed by Central Table lands. The literacy growth rate in coastal plains has been significantly different and better than each other zone in the state. Comparison to coastal zone the non-coastal zones is left far behind in literacy rate because of their geographical, historical, social and gender backwardness. The imbalanced regional urbanisation, inadequate educational infrastructure and uneven regional development also perpetuate their backward literacy status at present. The literacy disparity correlates with regional backwardness and social backwardness. The regional backwardness, social backwardness and literacy disparity are interrelated factors influence to one another.

The school infrastructure is inadequate to cater the requirement of schooling in the state. Addition to that neither adequate number of primary schools has been increased nor the required number of teachers has been provided in the schools from 1950-51 to 2011-12 in Odisha. Thus, what type of literacy and educational progress can be achieved in the state without having adequate numbers of teachers in the schools? And how will the government implement the *Right to Education (RTE) Act*, 2009 in the rural area or even in the urban slums without adequate infrastructure development. The study not only highlights the dimensions and factors but also caution the development specialists and policy makers for an even educational development in the state.

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