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## EDITORIAL

Published in June and December, ADIVASI is a bi-annual research journal. The journal aims to publish original unpublished research papers on tribal centric issues to highlight those aspects hitherto unexplored. It also publishes articles on Scheduled Castes. The corpus of the journal though is largely anthropological in nature; its scope is broadened to make it multidisciplinary to cope with the changing times. It endeavours to provide a forum to eminent scholars as well as young researchers to exchange innovative ideas and speculations. Tribal literature- contents and forms, representation of tribal life and culture in different genres of literature, tribal art and crafts, dances, music, paintings, tribal culture, languages/dialects, polity, administration, geography, history, economy, sociology, anthropology, tourism, ethno botany, traditional knowledge system, leadership: dalit literature and development aspects etc. are the core issues; other relevant subjects are also incorporated in this journal.

Published since 1955, ADIVASI has earned the distinction of being the oldest anthropological research journal of Odisha. This is the 59<sup>th</sup> volume number two. For this volume we received a number of research articles for which it was decided to bring out its two bi-annual numbers separately – the 1<sup>st</sup> one containing articles relating to different aspects of tribal ethnography and the 2<sup>nd</sup> one having articles on various dimensions of tribal development. This issue is the number two of december, 2019. In this issue 07 articles based on empirical research contributed by fourteen research scholars are presented.

At the beginning, the article titled **“Emerging Trends in Urban Education Program: Case of Anwasha – An Innovative Educational Intervention in Odisha”** written by B. Chhatoi, A. B. Ota, K. Patnaik & S. R. Satapathy has been presented. In this article the authors has discussed the findings of an empirical study on the Urban Education Program - ANWESHA - a pioneering initiative of the State Government for providing quality education to ST and SC students in best of educational institutions to nurture their inherent talent and expose them to a spirit of competitiveness and excellence so that they can prove themselves in their future. In this paper the authors have attempted to evaluate the ANWESHA program analyzing the primary data on efforts made in this regard by the Government of Odisha, outcome of the efforts and areas of concern.

Next comes the paper on Tribal Health titled **“Health Situation of Tribal Community in Odisha: A Critical Analysis”**. This paper authored by Dr. Bigyanananda Mohanty focuses on a study that aims to explore the health and nutritional disadvantages among tribal women and children of Odisha in comparison to the non-tribals. It analyses data from National Family Health Survey (NFHS-3 and 4). It is observed from the study that there is a significant paradigm shift and improvements in health sector of Odisha within a period from 2005-06 to 2015-16.

The 3<sup>rd</sup> paper titled **“Assessing Environmental and Social Risks in Development Projects”** is presented by Anil Ota & Chetan Zaveri. This has been prepared based on literature review and an empirical exercise carried out on 91 (ninety-one) sample respondents from 3 (three) anonymous industrial houses in the eastern Indian states of Jharkhand and Odisha. The core objective of the paper is to provide an understanding of the key Environmental and Social (E&S) challenges towards

sustainable industrialization and mining in eastern India. The findings of the study encompass an E&S Risk Assessment Model.

The next paper titled **“Meriah Sacrifice among Kondhs of Odisha: Colonial Government’s Approach to abate it”** is written by Gyanendra Kumar Dhir & Dr. Paramananda Patel. This paper has made an attempt to probe into different literature to understand the cult of human (Meria) sacrifices prevalent among the Kondhs of Odisha in a historical perspective. The paper also has tried to throw light on the different approaches the Colonial government had taken to abate the cult of human sacrifice during 1836-1861 that marked a watershed in changing Kondh religious traditions.

**“Prevalence of Non-Communicable Disease Risk Factors among Tribal Communities of India: An Overview with reference to Odisha”** authored by Sunil Kumar Gouda & Kanhu Charan Satapathy comes as the 5<sup>th</sup> article. The paper reviews available literature on prevalence of non-communicable disease and their risk factors among different tribal communities of India and Odisha.

The 6<sup>th</sup> paper titled **“Protection of Witch-Hunting: A Tale of Modern Age”** is written by Hitabhilash Mohanty. This paper assesses the philosophy of ‘witchcraft’ by reviewing various literatures for better understanding of the term and to understand the cause of ‘witch-hunting’ by identifying the real ‘victims’ and ‘perpetrators’. It elaborates the legal protection afforded by the country in general and the protection afforded for witch-hunting in the state of Odisha in particular and finds out whether the legal protections so afforded are serving their purpose. The paper provides an assessment of the effectiveness of the legal instruments so implemented for protection of ‘witch-hunting’.

The 7<sup>th</sup> paper contributed by Sitaram Pingua & Khirad Kumar Turk is titled **“Gender Disparities among the Scheduled Tribes of Odisha”**. The paper focuses on the gender disparities among the Scheduled Tribes of Odisha and specially the disparities in education, health and work participation. It is observed that there is a wide variation in education, health and work participation status among male and female ST population in Odisha.

My sincere thanks are due to the paper contributors for their painstaking efforts in preparing and presenting their articles. I am extremely grateful to Shri Sarat Ch. Mohanty, Associate Editor of Adivasi and Consultant, SCSTRTI for giving a substantial time for a thorough reading and editing of all the articles and for his efforts not only for bringing out this issue but also for all the issues of ADIVASI published over last 13 years. I also thank Dr. Mihir Kumar Jena, Lead Consultant, SCSTRTI for rendering editorial support to enrich some contents of this journal.

It is hoped that the articles published in this issue of ADIVASI will be of much help to the researchers, development practitioners, academicians and general readers interested in conducting research and acquiring knowledge about tribal society, culture as well as their development. I invite the research scholars to enrich all our future volumes with their valuable suggestions and contribution of empirical research papers.

**Dated, the 20<sup>th</sup> March, 2020**  
Bhubaneswar

**A.B. Ota**  
EDITOR

# EMERGING TRENDS IN URBAN EDUCATION PROGRAM: CASE OF ANWESHA – AN INNOVATIVE EDUCATIONAL INTERVENTION IN ODISHA

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## ABSTRACT

*Education through augmentation of inherent capacity of persons is a primary agent for eradication of poverty, adding quality to life and bringing about overall economic prosperity of the country. Accordingly, governments both at the centre and the state have been laying much emphasis on the education of the backward communities to bring them at par with others. Government of Odisha have established many schools and colleges to provide free education and free hostel accommodation to the students of scheduled tribes (ST) & scheduled castes (SC) towards ameliorating the disparities in educational attainment. Towards that, Urban Education Program conceptualized in the name ANWESHA launched in the year 2015-16 is a novel one. Its objective is to provide quality education to ST & SC students from remote areas in best of educational institutions located in urban areas to nurture their inherent talent and expose them to a spirit of competitiveness and excellence. The programme is in operation in 17 districts of Odisha. By the year 2019-20 a total of 20 531 students have been enrolled in 177 schools and accommodated in 94 hostels spread over these 17 districts.*

*The authors in this paper have attempted to evaluate the ANWESHA program analyzing the primary data on efforts made in this regard by the Government of Odisha, outcome of the efforts and areas of concern. Also, some suggestions have been incorporated to overcome the areas of concern and make the program meet its envisaged and desired objectives.*

**Key words:** Talent, quality education, accommodation, admission, bridge course, monitoring, training.

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## **Introduction**

According to Census-2011, there are 62 Scheduled Tribes (ST) in Odisha with 13 Particularly Vulnerable Tribal Groups (PVTGs) and 93 Scheduled Caste (SC) communities. As per Census 2011, the ST and SC population constitute about 39.9% of the state's population including 22.85% ST and 17.13% SC. A cursory look at the education of such groups at the National level, as against 72.99% accounting for total literacy rate, 58.96% is ST literacy rate and 66% is SC literacy rate. In comparison, the literacy rate of ST in Odisha is 52.24% and the same for SC is 69.02%. Thus, in terms of education these communities in Odisha are lagging behind the national literacy rates.

It is an undeniable fact that education, through augmentation of inherent capacity of persons, is a primary agent for eradication of poverty, adding quality to life and bringing about overall economic prosperity of the country. It is one of the mediums to bridge the inequality gap. Accordingly, governments both at the centre and the state have been laying much emphasis on the education of the backward communities to make them at par with others. Odisha, being the house to a large number of ST/SC communities of India, has taken several steps to address the educational backwardness of these communities.

Over the years ST & SC Development Department of Government of Odisha have established many schools and colleges to provide free education to the students of ST & SC communities. There are 164 Boys High Schools, 173 Girls High Schools, 47 Higher Secondary Schools, 766 Ashram Schools (Elementary level), 505 Sevashrams (Primary level), 19 Educational Complexes for providing education facilities to students belonging to the Particularly Vulnerable Tribal Groups (PVTGs), 2 Secondary Training Schools, 1 B.Ed. College and 13 Ekalavya Model Residential Schools (EMRS) managed by the Odisha Model Tribal Education Society (OMTES)<sup>i</sup>.

Besides the above endeavors, government of Odisha launched the Urban Education Program in the name ANWESHA as a special educational intervention in the year 2015-16 which clearly stands apart from all other educational initiatives undertaken by the government.

Under the above backdrop, the present paper attempts to:

- Assess the status Urban Education Program ANWESHA by analyzing outcomes of the efforts made in this regard by the Government of Odisha, and areas of concern.
- Suggest measures to overcome the areas of concern, if any, and make the program a vibrant one.

## **Materials and methods**

The paper is largely based on the primary data of both quantitative and qualitative nature collected from the ground level. It includes data collected from schools and hostels, interaction with principals, teachers, tutors, superintendents, other functionaries associated with the program, students and their parents, and personal observations. The secondary sources referred include the Census-2011; guidelines issued by the government from time to time; and other relevant literatures. Simple averages and percentages have been used for the purpose of analysis of data.

## **Limitations**

For uniformity of analysis and to facilitate comparison, students enrolled only after launching of the program in 2015-16 have been taken into consideration, although in certain schools there are students (up to class-X) enrolled under pilot project launched in the year 2007-08. As data is collected through interviews and personal observations, upward and personal bias cannot be ruled



out. Marks taken for appraisal of students' performance are awarded by the schools in which they are admitted. As most of the schools in which students are admitted are newly opened and struggling to fill up their seats the marks awarded by them may have upward bias and may not reflect the actual standard of the students.

### **Urban Education Program Anwasha**

The Urban Education Program - ANWASHA is a pioneering initiative of the State Government for providing quality education to ST and SC students in best of educational institutions to nurture their inherent talent and expose them to a spirit of competitiveness and excellence so that they can prove themselves in their future. There are many ST/SC parents who have aspirations to get their children educated in best of the urban schools but are deprived of the same due to their socio-economic condition and unaffordable cost of education. So, to fulfill the aspiration of such parents and provide best of educational opportunities to their wards, the state government through its ST & SC Development Department in partnership with urban educational institutions has initiated this scheme named as "Scheme for providing quality education to ST & SC students in partnership with urban educational institutions". Putting it in other words, it is an effort to tap the hidden talents, which would have otherwise withered in the wilderness, and to expose them to a spirit of competitiveness and excellence through quality education. The innovative scheme was launched in 2015-16 adding a new dimension to educational development of backward communities in the state.

### **Genesis of the program**

The present scheme Anwasha is the outcome of a pilot project named "Creation of urban hostel complexes and exemption of tuition fees for ST & SC students to study in public schools". The pilot scheme was launched in the year 2007-08 in Berhampur, Ganjam. The urban hostel at Berhampur started functioning with a modest 21 students who were admitted in Kendriya Vidyalayas at Ambapua and Golabandha. By the academic session 2015-16, there were 220 students under the scheme studying in class-I to class-IX. The scheme emphasized following developments.

- To fulfill the ambition of poor parents who are unable to educate their deserving wards in public schools due to unaffordable cost.
- Creating hostels to accommodate students from rural/remote areas and provide an atmosphere conducive to nurturing talent in them.

The hostel extended the facility of off-school hand holding and provided an atmosphere to groom the students from tribal areas to fit into public school environment. Therefore, the students not only performed well academically but also excelled in co-curricular and extra-curricular activities. Because of the success of the pilot project the present scheme Anwasha was launched to make the said benefit available to a larger section of students of the state with the following objectives.

- To provide opportunities to ST/SC children from rural areas to get education in best of the public schools and take benefit of the quality education and facilities provided by the public schools.
- To enable shaping up inherent talent of the selected students and expose them to the spirit of competitiveness and excellence<sup>ii</sup>.

### **Salient features of the program**

The salient features of the scheme are as follows:



- Duration of the scheme is 5 years (FY 2015-16 till 2019-20).
- The cost of the scheme is revised to Rs. 35345.2 lakh<sup>iii</sup> from existing Rs. 31916.6 lakh (As per revised EFC memorandum).
- Every year about 5000 students belonging to ST and SC communities from the state of Odisha would be admitted into the scheme.
- Candidates would be selected through a lottery system by district level committees under the chairmanship of respective collectors.
- Students would be selected in the ratio 70:30 from ST and SC categories respectively
- In each category boys and girls should be in equal proportion.
- Candidates for the scheme should be from the BPL category only.
- They would be admitted in best of public schools located in urban areas.
- Selected schools should admit ST/SC students beyond the 25% reservation stipulated for reserved category under Right to Education (RTE).
- The entire cost of their education like tuition and other fees of the school, uniforms, books, study materials etc. would be borne by government.
- Lodging and boarding, post school tutoring and transportation to school would be provided by the government on need basis.
- The schools under the scheme would be selected and empanelled by the district level committee based on the criteria such as recognition of school, availability of infrastructure, qualified teachers, student teacher ratio, academic performance etc.

#### **Present status of the program**

By the year 2019-20 a total of 20531 students have been enrolled in 177 schools located in 17 operational districts such as Koraput, Malkangiri, Nabarangpur, Rayagada, Kalahandi, Ganjam, Gajapati, Kandhamal, Nuapada, Sambalpur, Bolangir, Baragarh, Sundargarh, Mayurbhanj, Keonjhar, Deogarh and Angul.

Table 1.1 indicates that Mayurbhanj has maximum (2496) enrollment of students as against Deogarh having the minimum (390) enrollment. Rayagada has maximum (22) number of schools followed by Bolangir (21) and Mayurbhanj (19). Regarding the hostels and school buildings, out of total 94 hostels for accommodation of students only 9 (9.57%) are Anwesha buildings. That apart, hostel accommodation has been provided to students in 33 existing hostels of concerned schools and 38 such facilities in government buildings such as in Ashrama School and other School hostels of the SSD Department, Urban Education Hostels or other unused government buildings and 14 rented buildings

**Table-1.1**  
**District wise student enrollment under Anwesha program as on 30<sup>th</sup> September 2019**

Sl No	District	No. of Schools	Students	Hostels				
				Anwesha	School	Govt. Building	Rented	Total
1	Koraput	12	1250			4		4
2	Malkangiri	4	651			4		4
3	Rayagada	22	2199		3	6	3	12
4	Nabarangpur	10	1276	1		2		3
5	Kalahandi	14	1521		13			13
6	Nuapada	3	999	2	2	1		5

7	Kandhamal	11	1197	2	3			5
8	Ganjam	14	820		5	5		10
9	Gajapati	5	690		2	1		3
10	Sambalpur	6	1054	1	2	1		4
11	Sundargarh	16	1736			5	1	6
12	Bargarh	6	802	1		3		4
13	Balangir	21	1481		2	1	4	7
14	Mayurbhanj	19	2496	1		2	4	7
15	Deogarh	4	390				2	2
16	Anugul	1	633		1			1
17	Keonjhar	9	1336	1		3		4
<b>Total</b>		<b>177</b>	<b>20531</b>	<b>9</b>	<b>33</b>	<b>38</b>	<b>14</b>	<b>94</b>

- Source: Primary data

**Table 1.2**  
**Class wise Anwesha Students in the year 2019-20**

Sl. No.	District	Class					Total
		I	II	III	IV	V	
1	Koraput	312	303	231	377	27	1250
2	Malkangiri	138	139	169	163	42	651
3	Rayagada	431	477	525	591	175	2199
4	Nabrangpur	400	249	242	249	136	1276
5	Kalahandi	300	398	414	377	32	1521
6	Nuapada	273	297	197	176	56	999
7	Kandhamal	74	452	413	232	26	1197
8	Ganjam	228	226	158	155	53	820
9	Gajapati	189	190	128	97	86	690
10	Sambalpur	237	215	222	200	180	1054
11	Sundargarh	210	417	396	436	277	1736
12	Bargarh	137	149	148	286	82	802
13	Balangir	317	402	378	229	155	1481
14	Mayurbhanj	448	532	678	486	352	2496
15	Deogarh	98	99	91	59	43	390
16	Anugul	83	100	100	299	51	633
17	Keonjhar	316	320	276	336	88	1336
<b>Total</b>		<b>4191</b>	<b>4965</b>	<b>4766</b>	<b>4748</b>	<b>1861</b>	<b>20 531</b>

Table 1.2 shows that in Class-I there are 4191 students indicating the enrollment of students in the current year i.e 2019-20. Similarly, there are 4965, 4766, 4748, and 1861 students in class II, III, IV and V respectively. At present there are 20531 students under the program. In class-V there are only 1861 students as against the target of enrolling 5000 students every year. This may be due to the fact that, there was lesser admission in the year of launching of the program. However, in all subsequent years enrolment target was almost achieved.

### Good Practices

Programme has been in its fifth year. The students who were enrolled in class-I in the year 2015-16 have already been into class-V. Number of students enrolled under the programme as reflected in table 1.1 is a testimony to its acceptability. Academic performance of students who appeared in the annual examination held in the year 2018-19 is reflected in Table 2.1. The table indicates that the average mark secured by the students of most of the districts varied between 60% and 73% except Kalahandi (59%), Deogarh (59%), Sundargarh (57%) and Keonjhar (55%) who remained below 60% mark. Besides, curriculum students have also excelled in co-curricular as well as extra-curricular activities. Table 2.2 gives a brief account of students who have excelled in various fields at inter school level. There are also many students who have excelled in debate, essay writing, hand writing, drawing, dance and song competitions conducted at school and hostel level. Particularly in sports and games Anwesha students have performed very well.

**Table 2.1**  
**District and class wise average performance of Anwesha students in the Year 2018-19**

SI No	District Name	Class Performance												District Average	
		I			II			III			IV				
		N1	Agg	Average (Avg)	N2	Agg	Avg	N3	Agg	Avg	N4	Agg	Avg	N1+N2+N3+N4	Avg
1	Koraput	397	28630	72	341	22505	66	442	27231	62	27	1051	39	1207	66
2	Malkangiri	133	9021	68	79	5436	69	143	7640	53	29	1423	49	384	61
3	Rayagada	348	23259	67	416	27211	65	595	32571	55	197	11036	56	1556	60
4	Nabrangpur	252	17569	70	266	17574	66	247	16644	67	135	8167	60	900	67
5	Kalahandi	357	21006	59	409	25327	62	371	20694	56	26	1790	69	1163	59
6	Nuapada	249	24064	97	197	11666	59	176	9214	52	57	2588	45	679	70
7	Kandhamal	286	17594	62	371	23163	62	237	15116	64				894	62
8	Ganjam	179	13522	76	129	8328	65	111	5946	54	30	1754	58	449	66
9	Gajapati	162	12077	75	131	8609	66	93	5967	64	85	4999	59	471	67
10	Sambalpur	229	15347	67	258	16739	65	253	15565	62	306	14903	49	1046	60
11	Sundargarh	486	31120	64	514	28862	56	522	28794	55	320	16483	52	1842	57

12	Bargarh	140	10616	76	147	10133	69	235	13270	56	125	8207	66	647	65
13	Balangir	378	24479	65	330	21144	64	198	12235	62	59	3769	64	965	64
14	Mayurbhanj	661	48279	73	681	46275	68	441	29569	67	321	21915	68	2104	69
15	Deogarh	94	6120	65	94	5811	62	48	2422	50	43	2242	52	279	59
16	Anugul	100	7057	71	100	6823	68	299	22260	74	51	4034	79	550	73
17	Keonjhar	286	16559	58	272	16308	60	297	16024	54	88	3217	37	943	55

Source: Primary Data

**Table 2.2**  
**Anwesha students excelling in extra/co-curricular activities**

Sl. No.	Student	School	Event	Prize
1	Amisha Khora, Class-III	Saint school, Koraput	Science Olympiad	Gold medal
2	Mahendra Majhi, Class-IV	Mother Teresa School, Nabarangpur	Math. Olympiad	Gold medal
3	Purnima Gond, Class-III	Mother Teresa School, Nabarangpur	Math. Olympiad	Gold medal
4	Santosh Dolei, Class-V	Bikash Vidyalaya, Koraput	Drawing competition by 'The Samaj'	Third
5	Boarders	Anwesha Hostel, Nabarangpur	District level Dance Comp. on 15 <sup>th</sup> Aug.2019	First

Source: Primary Data

### Areas of concern

In spite of success stories there are some areas of concern presented hereunder which needs to be addressed for proper functioning of the program.

- Students are directly admitted into class-I of the Public Schools without pre-primary education like Nursery, LKG and UKG, which their counterparts have, leading to disparity in learning level at the time of entry into the school.
- They are admitted in July-August whereas admission of other students of the school is completed in March-April. By the time they get into the school other students have already received three months education. As a result they become back benchers in the school or kept in a separate section leading to discrimination.
- Being sandwiched between the admission target fixed by the ST & SC Department on one hand and reluctance of good schools to admit Anwesha students on the other, the authorities at district level are forced to select schools which are recently created and/or without affiliation to any examining body like CBSE, ICSE etc. Some schools are with range of classes just up to class-IV, let alone presenting students in class-X examination. It goes without saying that unless the students are examined by an Examining Body (Board) it is difficult to assess the academic standard of the school. It has also been observed that there are schools where the major

portion of the students in a class is Anwesha students. There are English medium as well as Odia medium schools with remarkable differences in standard of teaching and imparting quality education. It goes against the objective of the program which states that best of education would be made available to the students enrolled under the program. There should be mechanisms to assess uniform standard among the schools.

- Hostel accommodation which was an important element of the pilot project has been made optional. There are many day-scholars getting education under the present scheme. The schools are located in urban areas and the students who can commute to school as day scholars are certainly not from rural areas. Thus making the benefit under the programme available to the students of rural and remote areas do not seem to have been actually targeted.
- Food provided is neither adequate nor of proper quality. The ingredients used for cooking is not of proper quality. The PMS sanctioned for food and toiletries appears to be insufficient. Shabbiness prevails all around the kitchen.
- Out of 94 hostels accommodating Anwesha students only 9 are Anwesha's own hostels built for the said purpose. The rest are either other government buildings, own hostels of the schools or rented for the purpose of accommodating Anwesha students. It has been observed that in most of the hostels there is overcrowding of students, unclean toilets and bath rooms, lack of flush facility in toilets, unused wash basins for non connection of running water or height unreachable by small students.
- Students go to school without being properly prepared for the school. They wear unclean and untidy uniform and carry insufficient and inferior quality tiffin.
- Many hostels are found with inadequate tutors. Tutors engaged are not qualified enough to handle the queries of students of Public Schools. Male tutors are teaching girl students in the hostels in evening hours.
- Remuneration to tutors is neither lucrative nor paid on regular basis to attract and retain qualified persons.

### **Suggestions**

Following are some suggestions which will be useful in addressing the areas of concern in implementation of the program and for effective program implementation in future.

- The number of students to be selected should be decided at district level taking into account the intake capacity of public schools and accommodation available in the hostels or proper accommodation that can be arranged without any compromise in quality. However, a target for each district should be fixed by the department well in advance. Deviation from the target should be explained by the district administration with proper reasons.
- Selection of students should be completed before October and selected students should reach their respective hostels by beginning of October.

- Selected students should be imparted a bridge course to acquaint them with minimum education required to understand teachings in class-I of public schools for 6 months from October to March.
- Those who are found to be capable enough to cope with class-I curriculum of public schools should be admitted to such schools in the month of March along with other urban students. The slow learners should be admitted in Odia medium schools of the ST & SC Department.
- Selection of schools imparting quality education is one of the important aspects of the program. Therefore, the guidelines for selection of schools should be very clear to avoid ambiguity at implementation level. Instead of mentioning just public schools, guidelines should specify in clear cut terms the type of schools to be selected for admitting Anwesha students. It should be specific whether Odia medium schools imparting quality education and qualifying all the norms of school selection can be included or not. If an institution is known for imparting quality education and satisfies all the norms of school selection except location then the school should be selected subject to approval from the state authorities. For the sake of uniformity, schools affiliated to CBSE and with good track record of pass percentage at class-X board examination should be selected. Admission to schools not qualifying the norms should stop immediately. Effort should be made to transfer students already admitted in such schools to other schools qualifying the required norms.
- The number of Anwesha students in a class should be limited to 25% or 30% of the total students in the class and there should be no discrimination between Anwesha and other students in a class.
- Accommodation should be the first priority of the programme. Provision of day scholars should be discontinued. Students whose parents are able to provide educational support at home and reside not in rural areas should not be selected.
- PMS should be increased to facilitate the hostel superintendents to provide adequate quantity of quality food to the boarders. They should be directed to strictly follow the guidelines for mess management issued by ST & SC Development Department<sup>iv</sup>.
- Hostels should be the second home for the small children enrolled under the program. Adequate number of lady-cook-cum-attendants should be appointed with specific responsibilities like cooking, cleaning and taking care of specific number of students. One cannot attend to all the three works as these happen at the same time. For every 30 boarders a lady attendant should be appointed to play the role of a mother. She should see that before going to school boarders under her charge are well prepared, they have taken food, they are perfectly dressed, their school bag contains the text and exercise books required for the day, tiffin-box contains adequate amount of quality tiffin and he/she carries the water bottle.
- In spite of the fact that hostels are located in urban areas there should be regular visit by medical team, doctor or some health functionary like ANM.
- Hostel buildings should be constructed keeping in mind the requirements of its users in the age group of 6 to 16 years. There should be regular maintenance of the building to keep it in

proper condition. There should be separate hostels for boys and girls. In case of composite hostels, a lady assistant superintendent must be appointed to look after the girls.

- Hostels should have adequate number of qualified tutors. Lady tutors should be appointed to teach the girls. Tutors should be in constant touch with the concerned school teacher and maintain the academic progress of the boarders under his/her charge in a register.
- Remuneration to hostel staffs should be paid on regular basis and in time to create interest in them to serve better. Remuneration particularly to tutors should be lucrative to attract qualified persons. If possible, school teachers may be roped in to render the service after school hours.
- There should be constant monitoring of the facilities at school and hostel by district and state level authorities.
- The hostel superintendents should be given training on hostel management, safety and security, food and mess management, maintenance of records etc. Training should be given to the attendants who will play the role of mother and also to the tutors who provide off-school academic support to the students.

## Conclusion

The Urban Education Programme- ANWESHA is not a general educational intervention of the government like other endeavors to make available education to backward communities. It is an effort to tap the hidden talents, which would have otherwise lost in the wilderness, and expose them to a spirit of competitiveness and excellence through quality education. Though students have been selected on lottery basis without considering merit it is only the meritorious students who are the reason behind some success stories under the programme. There are a good number of slow learners who are unable to cope with the curriculum of English medium schools and likely to be a victim of inferiority complex. Therefore, it is not at all meant for all and sundry. It is only the deserving students from rural/remote areas, who are worthy of being exposed to a spirit of competitiveness should be enrolled under the programme and provided with best of education, accommodation and all other facilities of exceptional standard to prepare them to face the competition. In the pursuit of quantity, quality should not be sacrificed or compromised. A little modification in the approach will make the flagship program of Government of Odisha render a great service to the deserving students of backward communities from remote areas and a befitting one to be emulated by other states.

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<sup>i</sup> [www.stscodisha.gov.in](http://www.stscodisha.gov.in)

<sup>ii</sup> Letter No.11990/SSD dt 11.06.2015, ST & SC Development Department, Govt. of Odisha

<sup>iii</sup> Revised EFC Memorandum, ST & SC Development Department, Govt. of Odisha

<sup>iv</sup> Letter No. 32701 dated 05.12.2014 of ST & SC Development Department, Govt. of Odisha.



# HEALTH SITUATION OF TRIBAL COMMUNITIES IN ODISHA: A CRITICAL ANALYSIS

Bigyanananda Mohanty<sup>1</sup>

## ABSTRACT

*This study aims to explore the health and nutritional disadvantage among tribal women and children of Odisha in comparison to the non-tribals. For this analysis, data from National Family Health Survey (NFHS-3 and 4) have been used. Simple bi-variate analysis has been applied and a disadvantage ratio (DR) was computed for key health and nutritional indicators for women and children of Odisha. It is observed from the study that there is a significant paradigm shift and improvements in health sector of Odisha within a period from 2005-06 to 2015-16.*

**Key words:** Health, Tribal Community, Maternal Mortality Rate, Nutrition, SDG, Disadvantage Ratio

## Introduction:

Odisha, the 10th largest state of India occupies a unique place in the tribal map of the country having 62 numbers of scheduled tribes including 13 Particularly Vulnerable Tribal Groups (PVTG). The ST population of Odisha is 9.59 million constituting 22.85% of state's population and 9.17% of the total tribal population of the country as per 2011 Census. They are unevenly distributed in forest and hilly areas of Odisha. They mainly depend on shifting cultivation, collection of non-timber forest produce (NTFP) etc. Tribal population is the most marginalized and vulnerable communities in the state. They are neglected a lot, discriminated in terms of income distribution and social status. Most of them are poor, backward, uneducated and lead a hard and miserable life. They are mainly considered to be the weakest sections of the population in view of socio-economic and demographic factors like poverty, illiteracy, poor infrastructural set up and inadequate primary health facilities.

According to the World Health Organization (WHO), health is defined as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. Health is a prerequisite for human development and is an essential component for the wellbeing of the mankind. The major causes of maternal deaths are severe bleeding after birth, post child birth infections, high blood pressure during pregnancy and unsafe abortion (WHO). As per the Sample Registration System (SRS) data of 2011-13, the maternal mortality ratio (MMR) for Odisha is 222 per 1, 00,000 live births, which was higher than the national average of 167 per 1, 00,000 live births. Infant Mortality Rate (IMR) has declined considerably to 41 per 1000 live births in Odisha as per SRS,

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2019. The health status of tribal people is affected/ influenced by the socio-cultural, demographic, economic, educational and political factors. Ill health of tribal people is mainly associated with their existing environment, social isolation, poverty, house and habitat, poor sanitation, lack of safe drinking water, superstition and blind beliefs etc.

The United Nations Sustainable Development Goals (SDGs)) ensure healthy lives and promote wellbeing for all. SDG Goal – 3 targets to reduce under-five-mortality to as low as 25 per 1000 live births, to reduce material mortality to less than 70 deaths per 1,00,000 live births by 2030 and to achieve universal health coverage including access to essential medicines and vaccines.

Although the health care system in the state has improved significantly over the years, communicable and nutrition related diseases continue to be a major problem mostly in tribal and backward areas of Odisha and the pace of development is very slow as compared to other social groups. There is a dearth of information on health and nutritional status among tribal population in Odisha. Keeping this in view, this study focuses on the differentials existing in health and nutritional parameters among tribal and non-tribal population in the state of Odisha. More specifically, this study aims to examine the disadvantageous condition of tribal women and children in Odisha in terms of health and nutritional status.

#### **Methodology:**

##### **Data and Sampling:**

For this study, data from National Family Health Survey–3 and 4(NFHS 3 and 4) of 2005-06 and 2015-16 respectively for the State of Odisha has been analyzed. NFHS collected demographic, socio-economic and health information from 1,09,041 and 5,72,000 sample households of India during 2005-06 and 2015-16 respectively. This survey provides information on population, health and nutrition for India and each state and Union territory. The rural/urban sample was selected through a two stage sample design with villages/ Census Enumeration Blocks (CEB) as the Primary Sampling Units (PSUs) at the first stage selected with Probability Proportional to Size (PPS), followed by a random selection of 22 households in each PSU at the second stage. At the second stage in both rural and urban areas, households were selected after conducting a complete mapping and household listing operation in the selected first stage units. In Odisha, the data have been collected from 30,242 household with an overall response rate of 98.1% during 2015-16.

##### **Statistical Analysis:**

Simple bi-variate analysis has been carried out and the results are presented in percentage for different health and nutritional indicators. To examine and compare the disadvantageous condition of tribal with the non-tribal in Odisha, a Disadvantage Ratio (DR) (Agrawal, S. 2013) has been calculated for key indicators as follows:

$$DR = (\text{Indicator of Tribal}) / (\text{Indicator of Non-tribal})$$

DR of more than 1 represents poor conditions of tribal than non-tribal. However, DR of less than 1 represents better conditions of tribal than non-tribal. And the DR value of exactly 1 shows a similar status of tribal and non-tribal.

#### **Results and Discussions:**

##### **Socio-economic and demographic characteristics of tribal in Odisha**

The socio-economic and demographic characteristics of tribal in Odisha during 2011 have been shown in Table 1. About 94% of tribal resides in rural areas of the state. The female literacy rate of

tribal (41.20%) is far behind the total female literacy rate (64.01%). But the sex ratio of tribal (1029) is better than the total sex ratio (979) for the state. In case of poverty, 63.5% tribal people are below poverty line which is much higher than overall poverty in rural Odisha (35.7%) during 2011-12 as per National Sample Survey estimation.

**Table1: Socio-economic and demographic characteristics of tribal in Odisha**

Characteristic	Tribal	Total
Population (in %)		
Rural	93.79	83.31
Urban	6.21	16.69
Sex Ratio	1029	979
Child Sex Ratio	980	941
Literacy rate (in%)	52.24	72.87
Male	63.70	81.58
Female	41.20	64.01
Work Participation Rate	49.73	41.79
Male	55.70	56.11
Female	43.93	27.16
Rural Poverty (in%)	63.5	35.7

#### Maternal health status and disadvantage ratio (DR)

The maternal health status and their corresponding disadvantage ratio (DR) for tribal and non-tribal communities in Odisha has been presented at Table2.

**Table 2:Maternal health status among tribal and non-tribal and disadvantage ratio (DR), Odisha 2005-06 & 2015-16.**

Sl. No	Characteristics	2005-06			2015-16		
		Tribal	Non-Tribal	Disadvantage Ratio	Tribal	Non-Tribal	Disadvantage Ratio
1	Total Fertility Rate	3.1	2.2	1.4	2.46	1.81	1.36
2	Begun child bearing by age 19	25.3	10.2	2.5	10.0	5.5	1.81
3	Birth Order 4+	36.7	13.7	2.7	17.5	3.3	5.30
4	ANC provider was not a doctor	74.2	30.2	2.5	35.9	16.1	2.23
5	No 2+ TT injections	26.7	12.7	2.1	11.8	10.9	1.08
6	Not consumed IFA tablets for at least 100 days.	68.4	65.1	1.1	62.1	62.0	1.00
7	Ultrasound not done for the last pregnancy	95.9	81.6	1.2	54.1	27.0	2.00
8	Now Institutional delivery	88.3	53.7	1.6	27.5	7.5	3.67
9	Delivery not assisted by a health personnel	82.7	44.3	1.9	24.3	7.5	3.24
10	No post natal check up	74.5	52.9	1.4	16.6	16.0	1.04
11	No post natal check up within 2 days	81.4	60.6	1.3	24.3	21.3	1.14
12	Currently not using any contraception	64.8	45.0	1.4	47.4	43.3	1.09
13	Women not covered by any health scheme or health insurance				59.8	68.6	0.87

Source: NFHS-3 (2005-06) & NFHS-4 (2015-16)

It is observed that during 2015-16 more than 17% of tribal have undergone a birth order of more than 4 children with DR of 5.30 as against 2.7 in 2005-06. Total Fertility Rate (TFR) for tribal was 2.46 as compared to non-tribal 1.81 during 2015-16 showing a DR of 1.36. About 10% tribal women became mother by age 19 showing DR of 1.81 which is much below then that of 2005-06. In case of one-third of tribal women, the ante-natal care (ANC) provider was not a doctor during 2015-16 as against three-fourth during 2005-06 whose DR showed a decrease from 2.5 to 2.23 in case of those who had not received 2+ Tetanus Toxoid Injection, DR is reduced to 1.08 from 2.1 during the period from 2005-06 to 2015-16. The gap between tribal and non tribal women was not seen in case of iron and folic acid tablets consumption during these periods. The percent of institutional delivery increased from 12% in 2005-06 to 72% in 2015-16. This may be due to overall development in health status of Odisha. 24% deliveries were not assisted by health personnel during 2015-16 as against 83% during 2005-06 (DR 3.24). Delivery conducted by skilled health provider or safe delivery is a determinant of the level of maternal mortality.

However, there is significant improvement in delivery attended by skilled health professionals in the state over the period from 2005-06 to 2015-16. Only 17% of the tribal women had no post-natal checkup (PNC) and 24% did not have a PNC within 2 days of delivery during 2015-16. About 47% tribal women of Odisha were not using any contraception at the time of survey with DR of 1.09. The post natal period is a vital phase in the lives of both mother and her new born. Access to quality health care system during post natal period would significantly contribute to improve the wellbeing and survival of mother and new born which directly influences mortality rates.

#### **Nutritional status and disadvantage ratio**

Table 3 presents the nutritional status of tribal and nontribal women in terms of salt iodization, anemia and underweight status and their disadvantage ratio for the year 2004-05 and 2015-16. It is observed that more than 36% tribal women of Odisha were underweight in 2015-16 which was 51% during 2005-06 making a DR of 2.2 in 2015-16 and 1.3 in 2005-06. Similarly, higher percentage of tribal women were anemic then non tribal women depicting a DR of 1.3 and 1.6 during 2005-06 and 2015-16 respectively.

**Table 3: Nutritional status among tribal and non-tribalwomen and Disadvantage Ratio,Odisha 2005-06 &2015-16**

Sl. No	Characteristics	2005-06			2015-16		
		Tribal	Non-Tribal	Disadvantage Ratio	Tribal	Non-Tribal	Disadvantage Ratio
1	Salt not iodized at all (PPM)	33.7	20.8	1.6	12.5	5.3	2.4
2	Anemia (hbd 1.20 g bu)	73.8	57.8	1.3	63.3	40.4	1.0
3	Underweight (BMI d 18.5/Kg/m <sup>2</sup> )	51.3	38.9	1.3	36.5	16.3	2.2

Source: NFHS-3 (2005-06) & NFHS-4 (2015-16)

#### **Health and nutritional status of tribal children and Disadvantage Ratio**

Table 4 shows the health and nutritional status for the tribal and non-tribal children of Odisha and their disadvantage ratio for the year 2005-06 and 2015-16. In case of Vitamin A supplementation, anemia, neonatal mortality rate, infant mortality rate and under 5 mortality rate the tribal children of Odisha were very much disadvantaged as compared to non-tribal children. The State Government has been geared up to take necessary measures for improvement of these indicators. In case of complete

immunization, the status of tribal children was better than non-tribal showing significant improvement over the period of 10 years i.e. from 2005-06 to 2015-16 (DR for 2005-06 was 2.6 and for 2015-16 it was 0.69). 32% of tribal children within age of 6-59 months did not received vitamin A supplements in past 6 months with DR 1.16 during 2015-16. The tribal children were far behind the non-tribal children (DR was 2.07) in case of anemia. Around 60% tribal children were anemic which in case of non-tribal children 28% was. The childhood diarrhea was found more in non-tribal children than tribal during 2015-16 which is a better indication for health care status of tribal in Odisha (DR 0.92) as compared to 2005-06 (DR 1.1). About half of the tribal children were underweight compared to 20% in case of non-tribal depicting a DR of 2.35 during 2015-16.

**Table 4: Health and nutrition status among tribal and non-tribal children and Disadvantage Ratio, Odisha, 2005-06 & 2015-16**

Sl. No.	Health & Nutrition Status	2005-06			2015-16		
		Tribal	Non-Tribal	Disadvantage Ratio	Tribal	Non-Tribal	Disadvantage Ratio
1	Children at age 12-13 months who did not receive any vaccination	22.3	8.5	2.6	7.3	10.6	0.69
2	Children at age 9-59 months who did not receive vitamin 'A' supplements in past 6 months	85.5	76.7	1.1	32.3	27.8	1.16
3	Children at age 6-59 months who are having any anemia	80.1	59.6	1.3	58.4	28.2	2.07
4	Children under age 5 who had diarrhea in last two weeks preceding the survey	12.2	11.4	1.1	10.3	11.2	0.92
5	Neonatal mortality rate	54.0	42.6	1.3	35.5	21.6	1.64
6	Infant mortality rate	78.7	62.5	1.3	51.8	31.5	1.64
7	Under 5 mortality rate	136.3	77.5	1.8	65.6	35.2	1.86
8	Children underweight (Low weight of age)	54.2	34.8	1.6	48.5	20.6	2.35

*Source: NFHS-3 (2005-06) & NFHS-4 (2015-16)*

It is observed that the mortality rate among tribal children of Odisha was more than that of non-tribal children during 2005-06 and 2015-16. IMR was 20 point more among tribal (51.8) compared to that of non-tribal (31.5) making DR of 1.64. The tribal children of Odisha were 1.86 times more disadvantageous than non-tribal children in case of under 5 mortality rates during 2015-16 as compared to 1.8 in 2005-06.

In general, it is observed that there are remarkable maternal health and nutritional disadvantage among tribal women and children compared to situation of non-tribal. The disadvantage ratios were higher than 1 for most of the indicators for tribal compared to that of non-tribal. Differentials in maternal health and nutrition among tribal and non-tribal women as well as children are the major concerns for Governments. It is shown that a higher proportion of tribal women of Odisha is in the higher birth order and desire more children after having four living children. This may be due to high infant and child mortality among tribal in Odisha, lack of better health care system and poor condition

of water and sanitation. Use of modern methods of contraception is less among the tribal women and thus, unwanted pregnancy is quite high among tribal women. Generally, the diets of tribal are seen to be deficient in protein, iron, iodine and vitamins. For these, higher proportions of tribal women of Odisha are underweight as well as anemic.

### **Conclusion and suggestions**

Tribal women and children of Odisha were found deficient in important aspects of health and nutrition during 2015-16. Steps may be taken urgently to implement special health care strategies for reducing health and nutritional disparities among the tribal and non-tribal population of Odisha. In a development context, the health status of tribal women will play an important role in maintaining tribal population scenario of the state. To achieve the holistic development of tribal communities in general and tribal women and children in particular, attention should be given towards improvement of tribal health status significantly by executing scientific interventions with target oriented techniques. It is observed that there is a significant shifting of improvement in health sector of Odisha within a period from 2005-06 to 2015-16. This may be due to implementations of various health related schemes like MAMATA, Biju Swasthya Kalyan Yojana, KHUSHI, Ama Clinic Yojana, Odisha Sahaya, Odisha Nidan, Anmol, Biju Shishu Surakshya Yojana, Biju Kanya Ratna Yojana, Niramaya, Kishori Shakti Yojana, etc. by the state and central governments. Health interventions of the Government should focus on effective health care delivery system addressing to the needs of tribal in a culture sensitive manner. A focused approach to address the inequalities within the tribal and non-tribal in Odisha may be initiated towards reducing health inequalities to substantial extent by enriching the standard of functional knowledge of tribal women through information, education and communication (IEC) activities. There is a need to strengthen the maternal health care system for safe motherhood with special focus in tribal areas of Odisha. Extensive outreach, coverage and better access to quality maternal health services would contribute to reducing maternal deaths. Therefore, there is need of taking up appropriate programmes and policies towards meeting the targets of Sustainable Development Goals (SDGs) by 2030.

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# ASSESSING ENVIRONMENTAL AND SOCIAL RISKS IN DEVELOPMENT PROJECTS

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## ABSTRACT

*The present paper has been prepared based on literature review and an empirical exercise carried out on 91 (ninety-one) sample respondents from 3 (three) anonymous industrial houses in the eastern Indian states of Jharkhand and Odisha. The core objective of the paper is to provide an understanding of the key Environmental and Social (E&S) challenges towards sustainable industrialization and mining in eastern India. The findings of the study encompass an E&S Risk Assessment Model. The model has highlighted and analyzed the significant E&S risks to sustainability frameworks of industrial houses and the same is expected to serve as a guidance tool for proponents and lenders to identify and mitigate community and related issues in development projects. Other vital components of the paper include a narrative on the genesis of development of E&S and related guidelines for project finance and analysis of cases of social activism in South Asia that have contributed towards the development of international conventions, guidelines and national regulations on human rights and labour welfare.*

**Key Words:** EQUATOR PRINCIPLES, E&S RISKS, IFC, INDUSTRIALIZATION, SUSTAINABLE INDUSTRIALIZATION

## Introduction

Sustainability in the 21st century has become a buzz word. Tracing its origins to the Brundtland Commission Report, the term over the past few years has undergone substantial misuse and abuse. It has been interpreted differently by scholars and organizations on the backdrop of their own vested interests (Scolesbury, 2003). With the passage of time, the scope of 'Sustainable Development' has widened by amalgamating several associated impacts of human activities on local communities and environment (International Institute for Sustainable Development, et. al, 1992). It is to be noted that sustainable development was originally defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission Report, 1987). Some of the major socio-economic issues and contexts that have dovetailed with the term in recent years include; (a) equitable distribution of resources; (b) resource and profit optimization (over profit maximization); (c) effective use of natural resources; (d)

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community participation and engagement; (e) gender equality; (f) special attention for vulnerable communities; (g) cultural heritage (h) transparent reporting, etc. (Please refer to the 2012 Performance Standards mentioned in the revised Policy on Environmental and Social Sustainability of the IFC). In fact, originating out of the environmental debate in Western Europe during the 1980s and 1990s, the footprint of sustainable development has expanded to include the social, cultural and economic insinuation of planned endeavours.

### **Industrialization in the 21<sup>st</sup> century**

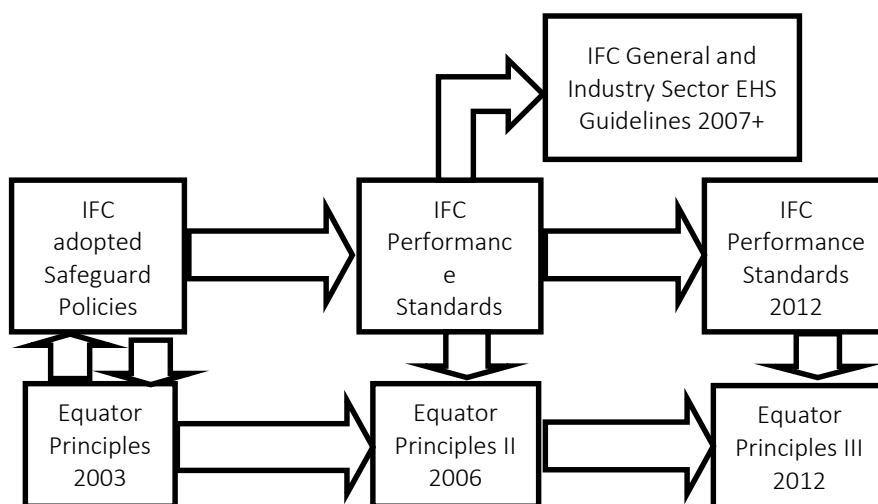
In the past, the entire process of industrialisation and the associated regulatory mechanism was not adequately defined. The legislative procedure lacked stringency and robustness to deal with violators. Though legislations to regulate industrialisation have been present since the 18<sup>th</sup> and 19<sup>th</sup> centuries (in Western Europe) but the leniency of the associated provisions and the laxity in their implementation served as an escape route for policy infringers in the past. However, with growing legislative and media activism, the accountability of institutional investors and banking financial institutions funding development projects has increased. To meet the growing need for transparency and accountability in project finance, the framework of international guidelines and national legislations for managing Environmental and Social (E&S) risks have also become more stringent. However, despite significant progress in managing E&S risks, there are several related issues that have either not been captured or remain inadequately addressed in frameworks for assessing E&S risks.

Apart from the international and national guidelines and policy frameworks, human rights activism and increased social policing by community-based organisations (CBOs), human rights agencies and non-government organisations (NGOs) has also contributed towards increasing the accountability of industrial houses to be socially and ethically more responsible (Slim, 2002). However, there have been few instances wherein NGOs have been alleged of adopting a partisan approach to social development. Some NGOs have also been assumed of acting against the national interests and for holding views that are detrimental to national interest.

### **Sustainable Industrialization – Timeline of international guidelines on E&S risks**

One major distinction between the contemporary guidelines and frameworks on sustainable development and that of the bygone era is that, apart from assessing the impact of development ventures on local community and environment, the current legislations and charters are also being used for assessing the E&S performance of prospective investment opportunities by lenders, institutional investors and banks. The outcome of the E&S performance evaluation in turn indicates the E&S risks associated with the potential investment. It is pertinent to mention here that the genesis of guidelines relating to ‘Sustainable Development’ can be traced back to 1979 when the World Bank issued a notification mandating an ‘Environmental Assessment’ to be undertaken by each Project to be funded by the organization (World Bank Operational Policy 4.01) (Cernea, et. al, 1997). However, it was not until 2003, that a comprehensive framework for assessing E&S risks in development projects was devised. To be precise, prior to the ‘Equator Principles’ (A voluntary set of standards for determining, assessing and managing social and environmental risks in project finance which were developed by private sector banks such as the Citi group and later adopted by the World Bank in 2003), the mechanism for determining, assessing and managing E&S risks in project financing lacked the desired robustness.

**Figure 1: IFC Performance Standards and Equator Principles – A timeline perspective**



**Source:** Literature review

**Figure 1** highlighted above provides a pictorial timeline of the evolution of the relevant Performance Standards of the International Finance Corporation (IFC)/ Policies in relation to the Equator Principles. Established in 1956, the IFC adopted the safeguard policies as the first formal procedure for environmental review of its projects in 1998 which were aligned to the 1988 World Bank Guidelines for evaluating project-specific pollution prevention and control measures. In 1998, the Safeguard Policies were adopted by the IFC Pollution Prevention and Abatement Handbook (Environment Department – World Bank, et al, 2000). Being members of the World Bank Group, the IFC as well as the World Bank have collaborated to develop guidelines for complying to the 10 Principles (Equator Principles) outlined for risk assessment and evaluation of development projects in 2003. The guidelines (popularly known as the Performance Standards) have since been modified twice - in 2006 and 2012. Consequent upon the modifications adopted by the World Bank in its Equator Principles, in 2006, the IFC Safeguard Policies were replaced by Performance Standards on Social and Environmental Sustainability.

### **Contemporary Guidelines and Standards for sustainable development**

In the last two decades of the 20th century, Banking Financial Institutions (BFIs) and Institutional Investors witnessed growing incidences of credit evasion by industrial houses. When incidences of loan defaults were analysed on a case to case basis, most factors triggering non-payment were traced to E&S issues. Subsequently, since late 1990s, banks and credit agencies have started devising E&S guidelines and standards. Borrowers in turn are expected to comply to the guidelines and standards as a prerequisite to qualify for loans. It is to be noted that indirect regulatory measures for ensuring compliance to environmental and other related issues were already in place such as the Environmental Impact Assessment (EIA) Notifications 1994 and 2006 (and amendments made thereafter) issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India (GoI), the Factory Act 1948, etc. However, the said notifications and legislative enactments were observed to cover only specific aspects of an industry or to have considered only a specific E&S issue (such as environmental pollution abatement, labour welfare, etc.). Hence, to provide a wider perspective to the concept of sustainable development and to integrate all the possible E&S impacts of an industry on the local community and environment (as indicated earlier), lenders – domestic (for e.g., IL&FS) and international – (for e.g., CDC) devised their own policies,

guidelines and standards for undertaking regulatory and non-regulatory assessments. Adherence to these lender requirements are expected to improve the overall E&S performance of the industry and in the process mitigate/ minimize related issues. Some of the most widely accepted guidelines and standards on sustainable development by BFIs/ Non-Banking Financial Companies (NBFC), and credit agencies have been discussed in the succeeding sections.

**Exhibit 1: Regulatory provisions in India for Sustainable Industrialization and the need for adhering to International Guidelines**

The Indian economy has been predominantly agrarian in nature with heavy dependence on the agriculture and allied sector. However, several measures have been taken ever-since the First Five Year Plan (FYP) (1951 – 1956) for industrialization of the economy. In fact, the pro-industrial measures initiated by the first Prime Minister of the country Pandit Jawaharlal Nehru led to the setting up of several heavy industries in the public sector. Consequently, various associated infrastructure and support-based projects such as multi-purpose dam irrigation projects were also set up that paved way for the rapid industrialization of the country. However, the regulatory mechanism for setting up major industrial ventures lacked 'Robust legislations' for ensuring sustainable industrialization. While environment-specific issues have been addressed by legislations such as the EIA Notifications 1994 and 2006 (and amendments made thereafter) , the lack of an 'all – embracing' law on sustainable development covering all E&S issues is perhaps a major deterrent towards sustainable industrialization in India.

Realizing this lack of regulatory stringency in managing issues relating to sustainable development in developing countries such as India, international lenders framed their own sustainability standards, principles and guidelines. Lenders expect the borrower to abide by both local legislations/ national regulations and international guidelines on E&S issues. In an event of discrepancy between the interpretation/ provisions of the guidelines and the national legislations on an issue, most guidelines require the more stringent of the two to be implemented. While some international guidelines are meant for all development projects, in general, with additional set of guidelines for specific industries (for e.g., the sector supplements of IFC), there are guidelines that are only applicable to a specific sector such as mining and metals (for e.g., the International Council of Mining and Metals (ICMM)).

**Source:** Findings of the literature review.

**IFC Guidelines/ Performance Standards**

The sustainability framework of the IFC was revised on 1st January 2012. The revised sustainability framework of IFC consists;

- a. The policy on Environmental and Social Sustainability – It defines IFC's commitments to environmental and social sustainability;
- b. Performance Standards – It defines the responsibilities of IFC's clients for managing their environmental and social risks; and
- c. Access to Information Policy - It articulates IFC's commitment to transparency

It is to be noted that the Equator Principles are based on the IFC Performance Standards and apply to projects that exceed USD \$ 10 million (First for Sustainability, 2017). The IFC monitors its investments and advisory activities as part of its portfolio supervision program that encompasses;

- a. Direct investments;
- b. Investments through financial intermediaries; and
- c. Advisory activities

The revised IFC Policy on Environmental and Social Sustainability encompasses 8 Performance Standards. The Performance Standards focus on specific E&S issues and in the process intend to mitigate/ minimize the impact of the IFC investment on them. The Performance Standards apply to all the investments of IFC unless the applicability of a standard is ruled out using proper justification during the screening and scoping phase. Apart from the Performance Standards, the IFC has also devised elaborate EHS guidelines and sector-specific supplements for identifying E&S issues that are specific to certain sectors such as power generation, mining, glass manufacturing, etc. The Performance Standards of the IFC are as follows;

- a. Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts
- b. Performance Standard 2: Labour and Working Conditions
- c. Performance Standard 3: Resource Efficiency and Pollution Prevention
- d. Performance Standard 4: Community Health, Safety and Security
- e. Performance Standard 5: Land Acquisition and Involuntary Resettlement
- f. Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- g. Performance Standard 7: Indigenous Peoples
- h. Performance Standard 8: Cultural Heritage

#### **International Council for Mining and Metals (ICMM) Principles**

ICMM is an international organization dedicated to creating a safer, more fair and sustainable mining industry. The Sustainable Development Framework of the ICMM comprises of;

- a. 10 Principles;
- b. Public Reporting (aligned to the Global Reporting Initiative – GRI); and
- c. Assurance (Third Party assessment of sustainability performance).

Established in 2001, the membership of ICMM includes 23 mining companies and 34 national/ regional mining associations (ICMM, 2016). Membership of ICMM requires a commitment to comply with its sustainable development framework encompassing 10 principles enlisted below. The sustainable development framework of ICMM has emerged out of the ‘Mining, Minerals and Sustainable Development Project (MMSDP)’ – a two-year consultation process with major stakeholders to identify key issues impacting the mining sector. The framework is updated on a continual basis and was last revised in 2016. Membership to the organisation is subject to compliance with the 10 principles of ICMM. The mechanism adopted for assessing the performance of aspiring members against the sustainable development framework takes place annually. Similarly, all the members of ICMM undergo an annual assessment exercise wherein the progress of each entity in relation to its commitments made in the earlier Annual Sustainable Development Report (SDR) is evaluated and the results generated are published in the ICMM’s Annual Review Report. The 10 Principles of ICMM are as follows:

- a. Implement and maintain ethical business practices and sound systems of corporate governance;
- b. Integrate sustainable development considerations within the corporate decision-making process;
- c. Uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities;
- d. Implement risk management strategies based on valid data and sound science;
- e. Seek continual improvement of our health and safety performance;

- f. Seek continual improvement of our environmental performance;
- g. Contribute to conservation of biodiversity and integrated approaches to land use planning;
- h. Facilitate and encourage responsible product design, use, re-use, recycling and disposal of our products;
- i. Contribute to the social, economic and institutional development of the communities in which we operate; and
- j. Implement effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders.

### **Extractive Industries Transparency Initiative (EITI)**

The Extractive Industries Transparency Initiative (EITI) was launched in December 2003. The EITI intends to bring together a coalition of governments, companies, civil society groups, international organizations and investors in a bid to increase transparency over payments being made by players operating in the oil and mining sectors to governments and other regulatory agencies. The initiative traces its genesis to the 'World Summit on Sustainable Development' held in Johannesburg, South Africa in September 2002 wherein the then Prime Minister of United Kingdom, Mr. Tony Blair made an announcement regarding its formation. Apart from the oil and mineral sector, the initiative also endeavours at covering the revenue earned by host countries from other forms of natural resources.

It is worthwhile to mention here that most activist organisations and human rights campaigners assert that the resource-rich regions of the world are characterised by poverty and that the revenue/profit generated from the oil and mining sectors are managed/ owned by a handful of elite business tycoons, influential politicians and members of the bureaucracy. It is further alleged that the illicit shareholders of the extractive industries are interconnected through a highly corrupt cobweb of transaction structure that is capable to contravene the national laws of countries regulating the extraction and trade of oil and mineral resources. Considering its overall goals and mandate, it can be firmly stated that the EITI is an appropriate step towards bringing greater transparency in financial transactions, especially in the oil and mineral sector. As of June 2017, the EITI principles have been implemented by 35 resource-rich countries around the World (EITI, 2017).

**Table 1 EITI Principles and Criteria**

<b>EITI Principles</b>	<b>EITI Criteria</b>
<p><b>a.</b> We share a belief that the prudent use of natural resource wealth should be an important engine for sustainable economic growth that contributes to sustainable development and poverty reduction, but if not managed properly, can create negative economic and social impacts.</p> <p><b>b.</b> We affirm that management of natural resource wealth for the benefit of a country's citizens is in the domain of sovereign governments to be exercised in the interests of their national development.</p> <p><b>c.</b> We recognize that the benefits of resource extraction occur as revenue streams over many years and can be highly price dependent.</p> <p><b>d.</b> We recognize that a public understanding of government revenues and expenditure over time could help public debate and inform choice of appropriate and realistic</p>	<p><b>a.</b> Regular publication of all material oil, gas and mining payments by companies to governments ("payments") and all material revenues received by governments from oil, gas and mining companies ('revenues') to a wide audience in a publicly accessible, comprehensive and comprehensible manner.</p> <p><b>b.</b> Where such audits do not already exist, payments and revenues are the subject of a credible, independent audit,</p>

<p>options for sustainable development.</p> <p>e. We underline the importance of transparency by governments and companies in the extractive industries and the need to enhance public financial management and accountability.</p> <p>f. We recognize that achievement of greater transparency must be set in the context of respect for contracts and laws.</p> <p>g. We recognize the enhanced environment for domestic and foreign direct investment that financial transparency may bring.</p> <p>h. We believe in the principle and practice of accountability by government to all citizens for the stewardship of revenue streams and public expenditure.</p> <p>i. We are committed to encouraging high standards of transparency and accountability in public life, government operations and in business.</p> <p>j. We believe that a broadly consistent and workable approach to the disclosure of payments and revenues is required, which is simple to undertake and to use.</p> <p>k. We believe that payments' disclosure in a given country should involve all extractive industry companies operating in that country.</p> <p>l. In seeking solutions, we believe that all stakeholders have important and relevant contributions to make – including governments and their agencies, extractive industry companies, service companies, multilateral organizations, financial organizations, investors and non-governmental organizations.</p>	<p>applying international auditing standards.</p> <p>c. Payments and revenues are reconciled by a credible, independent administrator, applying international auditing standards and with publication of the administrator's opinion regarding that reconciliation including discrepancies, should any be identified.</p> <p>d. This approach is extended to all companies including state-owned enterprises.</p> <p>e. Civil society is actively engaged as a participant in the design, monitoring and evaluation of this process and contributes towards public debate.</p> <p>f. A public, financially sustainable work plan for all the above is developed by the host government, with assistance from the international financial institutions where required, including measurable targets, a timetable for implementation, and an assessment of potential capacity constraints.</p>
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**Source:** EITI, 2005

Like the ICMM, compliance to the EITI principles is a pre-requisite for membership to the association. EITI is strict in assessing compliance of its members and displays zero tolerance towards non-conformity to its principles. The first member country to have been suspended by the EITI was Madagascar as the Board noted that 'it did not believe that the relationships necessary for effective EITI implementation in Madagascar are currently possible and capable of being sustained' (EITI, 2017).

### **A Brief about the Study**

The eastern states of India are characterized by mineral affluence. Yet the regions wherein these mineral reserves are situated are marked by extreme poverty and stark food insecurity. On the backdrop of the typical geomorphological and socio-economic features of the region and in view of the need for assessing, evaluating and mitigating the plausible risks to sustainable industrial operations in eastern India, the present study has been taken up. It is to be noted that most mineral bearing regions are situated on hilly terrain inhabited mostly by different tribal communities. Based on the proximity to mineral resources, most mineral-based industries have also been set up in these regions. Being situated within close vicinity of tribal communities, the need for evaluating the

environmental and social impacts of such industries becomes even more critical. The objectives with which the study has been undertaken include:

- a. To draw a timeline of development in international guidelines (E&S guidelines) for assessing, evaluating and mitigating risks associated with development projects;
- b. To demonstrate the migration from issues to systems that the social development sector of South Asia has witnessed by providing case studies on 'social activism' from the Indian subcontinent;
- c. To provide a platform for computing 'social risks' associated with development projects by using case studies; and
- d. To develop a 'Model Framework' (based on the Study findings) encompassing the prospective E&S risks encountered by contemporary sustainability frameworks of industrial houses.

The study based on which the present paper has been prepared was undertaken on 3 (three) operational industrial houses situated in eastern India (in the states of Jharkhand and Odisha). The study was undertaken on the backdrop of a comprehensive literature review as well as review of relevant project-related documentation of three industrial houses. As part of the study, consultations were undertaken with the senior management, representatives and heads of the departments of Environment, Health and Safety (EHS), Corporate Relations/ Corporate Services and CSR of the industries. No formal approval for using the names of the three industrial houses could be obtained for which the names of the sample organizations have been rephrased as A, B and C. However, the facts and data gathered during the empirical survey served as a suitable platform for devising the E&S Risk Assessment Model (the "Model"). The Model has been discussed in the later sections of the paper. The framework has elaborated the adverse consequences of E&S risks on industrial operations and their wider implications on the business operations (positive and negative) of industrial houses. The break-up of the sample population (encompassing representatives of various departments and members of the local communities) covered as part of the empirical study is presented in **table 2**:

**Table 2: Sample population covered under the study**

Sample Organization	Occupational Health Department	Industrial Safety Department	Environment Department	CSR Department	Members of the local community	Total
A	1	7	2	2	18	30
B	3	5	5	6	16	35
C	2	4	2	4	14	26
Total	6	16	9	12	48	91

**Source:** Sample design

The research methodology used for undertaking the empirical study included in-depth interviewing (for building case studies) of sample respondents selected through purposive sampling, conducting Focus Group Discussions (FGDs) among homogenous population groups (from within the local community) focusing on specific E&S issues/ risks. To understand the perspectives of management representatives and heads of the EHS and CSR departments concerning E&S issues, prior appointments were sort. During deliberations with management and departmental representatives, the approach and methodology towards assessment, evaluation and mitigation of E&S risks were



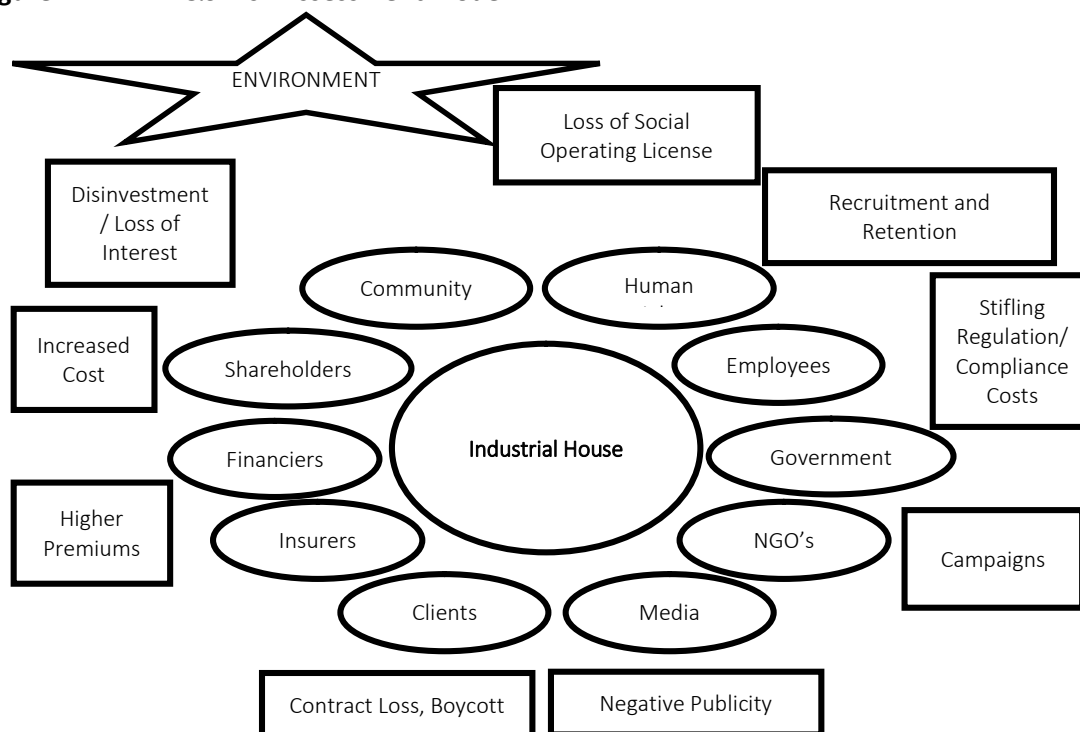
discussed at length. Some of the major aspects on which individual interactions were undertaken by the Researcher-authors with representatives of the senior management of the three industrial houses included:

- a. Overall awareness on the applicable regulatory framework and international standards and guidelines for managing E&S risks;
- b. Mechanism in place (such as incident register, sustainability reports, Hazard Identification and Risk Analysis (HIRA) reports, Grievance Redressal Mechanism (GRM), Stakeholder Engagement Process (SEP), etc.) to identify, record, address and report on E&S issues; and
- c. Methodology for sensitizing the affected/ local communities on E&S issues associated with the industry, possible emergency scenarios and Emergency Response Plan (ERP) in place (if any).

### Key Findings of the Study

The E&S performance of industrial houses in 21st Century India has assumed critical significance as in case of most developing countries. There are two key external factors that have influenced this change including; (a) development in regulations for monitoring of the environmental and safety performance of industrial houses by government agencies, institutions, regulatory authorities at regular intervals and (b) mandatory reporting of E&S performance in annual SDR as an investment obligation. As deliberated earlier, with the increasing role of institutional lenders and BFIs in project finance, the need for complying with the relevant international guidelines and standards of the concerned investor on E&S issues has become obligatory on part of project proponents. Consequently, the frequency and stringency of auditing, monitoring and evaluation of the E&S performance of aspiring borrowers has also increased.

**Figure 2: E&S Risk Assessment model**



**Source:** Findings of the study

Perhaps the most striking feature of the Study is the overlap/ resemblance of the outcomes of the literature review and the empirical exercise. Comparison with similar studies indicates that the findings of the present study are largely consistent with them. It is to be noted that while representatives and neighbouring communities of the 3 (three) sample organizations constitute the primary source of data collection, the secondary sources of reference encompass International Guidelines, Legislations, Policies and Conventions (IFC – PS and EHS guidelines, ICMM – sustainability principles and EITI – principles and criteria), Articles and Books that were reviewed prior to the empirical study. The findings of the literature review influenced the design of the present study and were used to corroborate the findings of the empirical study. The E&S Risk Assessment Model highlighted below has been built basis the facts and information obtained through literature review and the empirical study. Through the model, an effort has been made to provide a perspective on the adverse implications of various E&S risks on different stakeholders of an industry (oval structures) vis-à-vis the corresponding threats to the organization in case no mitigation measures are taken (rectangular boxes) [Figure 2]. The key findings of the study have been presented following the sequence of events as highlighted in the model (Table 3). Beneath each finding indicating the loss that a project proponent will sustain, the anticipated benefits of addressing the related risks have also been highlighted.

**Table 3: Findings of the study and corresponding mitigation measures**

S. N.	Study findings – Key E&S risks	Mitigation measures
1.	Lack of adequate and appropriate engagement with local communities results in loss of Social Licence to Operate (SLTO).	Effective engagement measures need to be implemented so that broad-based support can be drawn from local communities which is critical for sustainable business operations in any locality.
2.	Lack of engaging with local communities might result in violation of constitutional, fundamental, human and even ethical and moral rights. These violations might assume a wide range of manifestations including; not respecting the views and opinions of the local populace; and failing to provide a platform for Informed Consultation and Participation (ICP) for local communities and Free, Prior and Informed Consent (FPIC) for indigenous communities inhabiting the project area.	Community sentiments should be respected and their views and opinions should be sort and incorporated in development planning. It will assist the project proponent in garnering community support and building a community-friendly image.
3.	Community unrest and subsequent loss of SLTO increases apprehensions concerning the safety and security scenario in the industry. Consequently, attrition rate of workers and employees	Support of local communities should be sort by the project which in turn will reduce incidences of community discontentment. The peaceful scenario at site contributes towards recruiting and retaining of talent.

	increases, and recruitment and retention of manpower becomes a major challenge.	
4.	Recurring incidences of community unrest increase government surveillance on the E&S performance of the industry. Additional expenses are incurred, especially to manage social issues and the media. This contributes towards an increase in the overall Cost of Production (CoP).	Tranquil work environment in an industry will reduce the scrutiny of regulators. Decline in expenses incurred for meeting the additional requirements of regulators for managing E&S issues will help in maintaining status quo with respect to overall CoP.
5.	Taking advantage of the social unrest and turmoil, NGOs launch campaigns that impact the reputation of the company.	Efforts should be made to generate community support from amidst of social turmoil to supplement the brand equity of the company.
6.	On the backdrop of the conflict between the Industry and the NGOs, Media agencies publicize issues that impact the reputation of the company.	Efforts should be made to create a conducive environment for industrialization so that broad-based support of local communities can be generated. Consequently, the scope for NGOs and Media to spread myths will reduce.
7.	With persistent negative publicity, the clients of the industry start boycotting them. On the backdrop of the growing financial crunch, the industry fails to honour the contract terms with its clients.	Efforts should be made to develop a pro-community and pro-employee image and ensure regulatory compliance on critical environmental, social and governance aspects. In the process, the clients (such as Investor Bankers, Lenders/ Lending Institutions and Partner Agencies) will be more inclined to continue their association with the industry.
8.	With wide-spread negative publicity and growing hostility of different stakeholders (NGOs, Media, Investors etc.), fearing for their indemnity, insurers charge higher premium rates for providing insurance cover.	Tranquil environment and community support should be sort for the industry. This will reduce the possibility of damage or loss to the physical infrastructure and reduce the apprehension of insurers.
9.	Expenses incurred in managing the Media, paying higher insurance premiums etc. discourages investors/ lenders to invest/ lend money to the industry.	Promoting a positive image and projecting the successful track record of regulatory adherence by the industry will encourage the investors/ lenders to continue investing/ lending money to the firm.
10.	With the declining goodwill of the industry, the shareholders start liquidating their shares in the company. This often results in the closure of the firm.	Projecting the industry in positive light before its external and internal stakeholders will enhance its share value in stock markets.

**Source:** Findings of the study

### **Environment as a stakeholder in Development Projects**

Environment has emerged as one of the most crucial stakeholders in development projects. Consequently, all project proponents are implementing systems and processes for adequately assessing the risks and impacts associated with environment. Effective assessment of risks and impacts is subsequently used for devising mitigation measures. Review of industrial disasters indicates that most accidents that have affected local communities have also impacted the local ecology and environment. The importance of environmental aspects perceived by one industry might differ from that of the other. This is because, the nature of operations of an industry determines its actual impact on the local environment. In the context of the present paper, the term, 'environment' refers to the local ecology that has been affected by various forms of pollution (air, water, soil and noise). It is to be noted that robust regulatory provisions have been put in place requiring project proponents to implement effective systems and procedures for environmental management under the supervision of statutory bodies. The proposed Framework of E&S risks provide a holistic perspective of the individual concerns of key stakeholder groups and the threat it possesses to the local environment. The broad nature and scale of impacts on the local environment ensuing from the above E&S risks are as follows:

- a. With growing financial pressure and increasing dearth of resources to repay the loan (owing to factors such as withdrawal by institutional investors and lenders, higher premium rates charged by insurance providers and so on), the budget earmarked for mitigating E&S risks and hazards reduces. The decline in expenditure for managing E&S issues results in the existing E&S systems to become less effective; and
- b. Campaigns by vested interest groups often revolve around E&S issues. There have been instances wherein community unrest has been fuelled by such groups/ entities to trigger unrest. This consequently results in increase in scrutiny and monitoring of the project by regulatory bodies.

People are gradually becoming more conscious about their impacts on the local ecology and environment. This phenomenon of gradual transformation towards an ecologically more responsible future is a welcome trend. Despite arriving late, this awareness has already started displaying positive effects. Promoting limited use of papers for printing, encouraging judicious use of natural resources such as water and electricity and the global endeavour for green industrialization (including manufacturing of green products) are only indicative of the receptiveness of humans to the emerging sustainability challenges. The aforementioned 'behavioural change' towards a 'greener future' has also emphasized the need for encompassing environment as a special stakeholder in development planning. By analysing the challenges to building a 'greener future', it would be accurate to state here that perhaps we should start consuming less lavishly, live more equally and in the process care more for our future generations.

### **From Issues to Systems – Cases of Social Activism in South Asia**

Popularly known as the Indian sub-continent, South Asia encompassing the erstwhile British colonies of India, Pakistan, Afghanistan, Bangladesh, Nepal, Bhutan, Sri Lanka and Maldives accounts for almost a quarter (24 percent) of the global population (Bloom et al., , 2011). While some of the largest urban conglomerations of the developing countries are situated in this region, but its stark poverty and acute food insecurity are amongst the many social tribulations that a significant majority of its population endure. The social, economic and cultural dilemmas that the South Asian countries have been suffering from have contributed enormously in the development of international

guidelines, policies and conventions. The predicaments have often been a theme of debate and subject-matter of research. The cases of unbridled use of child labour in the garments industry in Bangladesh and the illegal use of bonded labour in extractive industries in India with special reference to coal mining are practical illustrations of individual issues leading to the development of critical legislations at the national and international levels. The theme of the present paper i.e., 'E&S Risks' encompasses within its fold the vital aspect of social accountability, a broader domain to which issues such as child and bonded labour subscribe to.

### **Child labour: The Case of the Garment Industry in Bangladesh**

Surviving the abolishment/ phasing out of the Multi-Fiber Agreement (MFA) in 2004, the Garment Industry of Bangladesh continues to register an impressive growth since the 1970s. The industry accounts for four billion USD in gross value terms and provides direct and indirect employment opportunities to nearly three million skilled and semi-skilled women workers (Yunus, et. all, 2012 and UNICEF, 2015) alone. Bangladesh accounts for 16 million children aged between 10 to 14 years. However, the country has miserably failed in protecting the basic rights of its children guaranteed by various international conventions, national legislations and the Bangladeshi constitution. Child labour is one such area of concern that contravenes the regulatory framework of basic human rights in Bangladesh. Approximately 6.8 million children belonging to the above age group (41 per cent of whom are girls) are engaged in 300 different work activities (49 of which are regarded as physically and/ or mentally harmful) (USAID, ND). Basis the above figures, it can be deduced that the flourishing and highly lucrative garment industry of the country employs majority of children in its workforce.

#### **Exhibit 2: Major legislations/ global endeavours for elimination of Child Labour in Bangladesh**

- a. Memorandum of Understanding (MoU) on the elimination of Child Labour from the Garment Industry in Bangladesh – 1995 (Spaak, et. all, 2005)
- b. Allocation of \$ 6 Million USD to the ILO International Programme for Elimination of Child Labour (IPEC) in Bangladesh – March 2000 (USAID2, ND)
- c. Labour Law of Bangladesh – 2006 (Volunteer for Bangladesh, 2010)

**Note:** Signatories of the MoU on the elimination of Child Labour from the Garment Industry in Bangladesh were the Garments Industry of Bangladesh, International Labour Organization (ILO), United Nations Children's Fund (UNICEF) with support from the Bangladesh and the United States (U.S) Governments.

**Source:** Please refer to the box.

While engagement of children in any form of employment constitutes a regulatory offence in most countries but, the nature of work in the garments industry is that of particular concern. Long working hours in the sector often results in terminal damage of its workers with special reference to children. Apart from the harmful material ingredients such as formaldehyde (used in making non-wrinkle shirts causing 'Contact Dermatitis') and textile chemicals (used during the dry-cleaning process of cloths which are also considered as potentially carcinogenic), child labourers in the garments industry are also assigned physically tasking activities such as brick breaking, hand-carting of materials and even sexual exploitation. Recurring media reports of the highly inhumane work environment in the garments industry in Bangladesh has contributed towards the propagation of several legislative enactments and global conventions for eliminating child labour at the national and international levels. The most vital national legislation on labour security that has emerged out of the social issues plaguing the garments industry in Bangladesh is the Labour Law of Bangladesh, 2006.

### **Bonded labour: The Case of the Coal and Farming sectors in India**

Bonded labour is known by different local names such as Gothi (Asian Legal Resource Centre, 2010) in Odisha (In eastern India) and is regarded as one of the worst manifestations of human rights violations. The constitution of India through several Articles such as Articles 21, 23 (1) and 24 prohibits bonded labour in all forms. However, until 1976 when the Bonded Labour System (Abolition) Act (Chauhan, ND) was enacted by the Indian Parliament, there was no regulatory framework to address the issue. In India, bonded labour is prevalent across the mining, especially coal mining and agriculture sectors of Odisha, West Bengal, Jharkhand, Chhattisgarh and Maharashtra. There are no genuine estimates of the scale of bonded labour in the country. However, the estimates of 2.62 Million made by the National Labour Institute in December 1978 (Sarma, 1981) and the cases against 2,514 persons registered by the National Human Rights Commission (NHRC) (The Economic Times, 2011) for engaging, promoting or propagating the use of bonded labour indicates its extent.

#### **Exhibit 3: Labour laws in India**

- |   |
|---|
| <ul style="list-style-type: none"><li>a. Trade Unions Act – 1926 (Kumar, ND)</li><li>b. Payment of Wages Act – 1936 (Varkkey, ND)</li><li>c. Industrial Employment (Standing Orders) Act – 1946 (Singh, 2007)</li><li>d. Industrial Disputes Act – 1947 (Saharay, ND)</li><li>e. Minimum Wages Act – 1948 (Mustafa, 1996)</li><li>f. Industries (Regulation and Development) Act – 1951 (Shaikh, 2010)</li><li>g. Employees Provident Fund and Miscellaneous Provisions Act – 1952 (NA, ND)</li><li>h. Maternity Benefit Act – 1961 (Sinha, 2004)</li><li>i. Payment of Gratuity Act – 1972 (Padhi, ND)</li><li>j. Bonded Labour System (Abolition) Act – 1976 (Kara, 2012)</li></ul> |
|---|

**Source:** Please refer to the box.

As child labour remains a major obstruction in ensuring social justice in Bangladesh, bonded labour continues to infringe basic human rights and the national legislative framework regulating labour related issues in India. The failure in paying debt by marginalized farmers to influential landlords constitutes a major factor for the continuing practice of bonded labour in the farm sector in India. As the terms of debt are usually based on verbal agreements, the debt (to be recovered in cash form) is often recovered by the lender in lieu of equivalent physical labour. In the mining sector, taking advantage of the illiteracy/ lack of awareness of the borrower, the proportion of physical labour to repay the debt is often miscalculated to the advantage of the lender. Consequently, to repay the debt, the borrower works for excessively long time spans in the farmland/ coal mines of the lender in sub-humane conditions without adequate access to basic amenities such as food, drinking water, toilets, Personal Protecting Equipments (PPEs) (in case of mining, industrial or construction projects) etc. The debates and civil society deliberations surrounding the 'sub-humane' working conditions of contractual workers engaged in the coal and mining sector of India has led to the modification of several welfare legislations at the national level such as the Industrial Disputes Act, 1947 and the Bonded Labour System (Abolition) Act, 1976.

### **Testimonial of numbers – Computing social costs to Development Projects**

Customary researchers in the domain of Social Development or Development Anthropology have often restricted their analysis of E&S Risks to using qualitative tools. Consequently, the social costs of discontentment amongst local communities against development projects largely remain

unquantified. While the practice of maintaining 'Incident Registers' by industrial houses wherein every incident (definition and interpretation of which varies from one company to another) relating to CSR, Human Resources (HR), Industrial Relations (IR), Security, Occupational and Community Health, Industrial Safety and Environment, etc. is a welcome trend but, its lack of quantification casts serious reservations over its applicability in assessment and management of industrial risks. Lack of knowledge on sophisticated quantitative or econometrics model among traditional subject-matter specialists has been largely overcome with the advent of computer software applications such as the Statistical Package for Social Scientists (SPSS). However, in the present study, the traditional technique of manual computation and analysis has been used for assessing the collected data. This is because, the sample population for the study (excluding the industry representatives) mostly constitute less-literate people. Moreover, convincing the less-literate respondents to respond to complicated questionnaires that can be fed to the SPSS for generating quantitative outputs was perceived to be challenging and time consuming. Consequently, the 'Single Case Approach' (**Exhibit 4**) to quantify social costs to a project was used encompassing individual interviews, FGDs and participant observation at site.

**Exhibit 4: Financial impact of obstructing railway operations on CoP of an industrial house**

**Railway transportation and retention changes**

- a. Transportation cost of raw materials (mineral ores) is INR 1.5 per tonne per kilometre;
- b. Total number of wagons permitted to be towed by a single engine is 59 including one guard bogie;
- c. Cost of retention for every hour is INR 100 per wagon. If each engine is towing the maximum permitted number of 59 wagons, the penalty calculated for retention is to the tune of INR. 5,900 per hour

**Approximate impact on CoP**

If CoP for a metal is INR 25,000 per tonne, retention of 59 wagons of mineral ore, escalates CoP by an estimated INR 5,900 per hour i.e., little less than a quarter of the actual CoP. The volatility of metal pricing/ rise in CoP ultimately trickles down to the end user. The end user of the metal in turn pays a higher price/ premium for which his/ her financial health gets impacted.

**Note:** The data and statistical figures mentioned in the exhibit are approximate values and should not be linked to the operations of any industry

**Source:** Based on consultations with Senior Management representatives of the sample industries.

Situated in isolated pockets, industrial houses in India lack proper connectivity. Under such circumstances, the transportation of raw materials into and processed products out of the plant premises for further processing or revenue realization becomes difficult. Similarly, the associated costs involved in setting up the necessary infrastructure in such areas is a capital-intensive affair. The process involves huge expenditure that usually affects the overall CoP. **Exhibit 4** has highlighted the approximate cost of halting railway operations of an industrial house owing primarily to social unrest (and under some circumstances operational/logistical factors such as derailment) and its estimated financial impact on the overall CoP. The above data and information have been extrapolated based on community consultations and extensive discussions with senior logistics professionals working with the raw material handling departments of the sample organizations. Consequently, the same should not be considered as accurate and should only be used for literary reference.



## Concluding Remarks

With growing legislative leniency in allowing foreign investments, the phenomenon of Multi-National Corporations (MNCs) setting up their business concerns, especially in the mineral-rich eastern and central states of India has witnessed a steep surge. To supplement the legislative enactments of the GoI for deregulating the market, mineral-rich states such as Odisha have enacted industry-friendly policies such as the Industrial Promotion Resolution (IPR), 2001 (Revised in 2007 and 2015). The IPR intends to create enabling circumstances for smooth industrialization in the state by offering several concessions and facilitating 'single-window' clearance for all the regulatory requirements, especially for foreign players operating in the mineral sector. With increasing efforts by the welfare government for industrialisation, the corresponding E&S risks associated with development projects have also increased. It is to be noted that though it is the duty of the state to frame laws but, their implementation is the collective responsibility of the state, the project proponent, lenders and the NGOs and CBOs.

It is also to be noted that 'sustainability' is increasingly being used by Industrial/ Corporate Houses to exemplify their operations as pro-people, ecologically responsible and employee-friendly. However, while doing so, most entities have neither understood the technical connotation nor endeavoured at integrating the various aspects of 'sustainability' into their business operations. Consequently, the industry perception of 'sustainability' – its meaning, constituents and implications is largely confined and often flawed. Moreover, there is lack of adequate engagement between industry professionals and academicians in discussing and identifying academic solutions to the concerns and issues surrounding the term 'sustainability'– environmental, social, governance, etc. This in turn has compounded the above-discussed problem of poor understanding of its concept and applicability to address ground realities. In view of the rapidly transforming socio-economic and legal landscapes of the country and critically appreciating the need for sensitizing the common people about their rights and privileges, it also becomes imperative that industrial houses take into cognizance the need for engaging with and disclosing relevant information to key stakeholder groups concerning their operations.

As indicated earlier, the core objective of the paper is to provide an understanding of the key E&S challenges towards sustainable industrialization and mining in eastern India. Apart from identifying challenges and risks to industrialization, several other aspects of sustainability and industrialization including a timeline perspective of progress in E&S guidelines; and an assessment of the plausible E&S risks to modern industries (derived from an empirical assessment) have also been shared. While sketching the genesis of development of international guidelines in E&S risk assessment, the key cases of social activism that have transcended to devising of related systems and legislations have also been discussed. In fact, eastern India has witnessed growing resistance to development projects. The phenomenon of community resentment towards industries and its insinuation on local communities has been illustrated in the form of a case study. With increasing community resentment and corresponding stringency of applicable legislations and guidelines for mitigating the impacts of industrialization on local ecology and communities, project proponents have been compelled to become more responsible in conducting their business from an E&S perspective. Though sustainability frameworks at the international and national levels have witnessed continuous evolution and are being increasingly used as tools for evaluating E&S risks but, there is no mechanism or procedure in place for assessing the effectiveness of these policies and guidelines. The present study and its outcomes are expected to provide scope and guidance to prospective researchers for undertaking more in-depth studies on E&S issues in development projects. The findings of such

studies are expected to assist in creating a more comprehensive and practically applicable quantitative tool for 'E&S Risk Assessment'.

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# MERIAH SACRIFICE AMONG KONDHS OF ODISHA: COLONIAL GOVERNMENT'S APPROACH TO ABATE IT

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## ABSTRACT

*In the religious rites and rituals sacrifice of animals and vegetables constitute an important part of the performance. History is a testimony to the fact that around the world certain ethnic communities believed in executing human sacrifices for a variety of reasons. The Kondhs in Odisha are well known for their erstwhile human (Meria) sacrifice in hoary past. It is still in the tell-tale of many scholars and people interested in the culture of Kondhs that the tribe used to offer Meria sacrifice to Goddess Earth intending to be blessed upon with bumper harvest of crops.*

*This paper has made an attempt to probe into different literature to understand the cult of human (Meria) sacrifices prevalent among the Kondhs of Odisha in a historical perspective. The paper also has tried to throw light on the different approaches the Colonial government had taken to abate the cult of human sacrifice during 1836-1861 that marked a watershed in changing Kondh religious traditions. There are many reasons which were claimed by different scholars in their writing regarding the abolition the Meriah rite but universally it was Contact with the British and impact of Christian Missionaries changed the outlook of the Kondhs and they move towards socio-economic progress.*

**Key words:** Kondhs, Belief System, Meriah, Sacrifice, British, Abolish

## Introduction:

In the religious rites and rituals sacrifice of animals and vegetables constitute an important part of the performance. Sacrifice is a belief of religious performing rite in which a mortal object is offered to the supernatural forces for betterment and well-being of individuals, families, village or the entire society. As Tylor (1871) viewed, 'it was a gift to the gods to secure their favour or to minimise their hostility'. A gift of sacrifice could be an offering of food, objects or sacrificing of animals. Human sacrifice is the offering of the life of a human being to a deity. Whether it is human or any other animal, blood is considered the life force of the being and hence the offering of blood is considered same as offering

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life. Many tribal religions practices across geographical boundaries have traditions of sacrifice and different ethnic groups have different notions attached to sacrifice. These notions are usually drawn from their folklore and religious lore depicting the relationship of human beings with the supernatural beings that determine the survival strategies and well-being of the communities. It is through sacrifices mediated by the religious practitioners; people try to establish a direct connection with the supernatural beings for accomplishment of particular wishes or purposes.

History is a testimony to the fact that around the world certain ethnic communities believed in executing human sacrifices for a variety of reasons. Encyclopedia Britannica (2018) provides that in Mexico, the belief that the sun needed “human nourishment” led to the sacrifice of thousands of victims annually in the Aztec and Nahua Calendrical maize (corn) ritual. Among the African Asante, the “victim sacrificed as first fruit” offerings during the Festival of New Yams were usually criminals, though slaves were also killed. Many such instances of ethnic traditions linked to human sacrifice among other forms of sacrificial objects are also depicted in relevant literature.

The Kondhs in Odisha are well known for their custom human (Meria) sacrifice in the past. It is still in the tell-tale of many scholars and people interested in the Kondh culture that the tribe used to offer Meria sacrifice to Goddess Earth intending to be blessed upon with bumper harvest of crops. Many local accounts still hold that the Meria sacrifice was mainly conducted to enrich the soil and redden the colour in turmeric, the most important cash crop of Kondhs. During the Colonial rule, reformatory efforts were made to stop the heinous practice of human sacrifice. The efforts materialized in finding a substitute for human in the form of a buffalo and the tradition continued. However, there has been still a search to find literature references and evidences to establish if the Kondh practice of human sacrifice or its substitute the buffalo sacrifice was primarily intended to enrich the redness in turmeric and boost its production. The Kondhs are well known in anthropological and historical literature for the pernicious practice of human sacrifice, which is known as Meriah. Human sacrifice was practised over a wide area covering the hill tracts of Odisha, Madras and Chota-Nagpur.

This paper has made an attempt to probe into different literature to understand the cult of human (Meria) sacrifice prevalent among the Kondhs of Odisha in a historical perspective. It has also tried to throw light on the different approaches the Colonial government had taken to abate the cult of human sacrifice during 1836-1861 that marked a watershed in changing Kondh religious traditions.

### **The Kondhs: Inhabitant of Hills**

The Kondhs are a Dravidian tribe predominantly inhabiting the hills of central Odisha and neighbouring areas. The term Kondh is derived from the Telugu word ‘*Konda*’ which means hill (G.A. Grierson, 1967). Their habitat was the hills separating the districts of Ganjam and Vizagapatnam in the then Madras Presidency and continuing northwards into the Odisha tributary States of Boudh, Daspalla and Nayagarh, and crossing the Mahanadi, into Angul and the Kondhmals (Grierson, 1967).

The British knew very little of the Kondhs of Odisha before 1836, although some references to this tribe was made by the first Resident of Ganjam in 1767. They were an interesting wild race who became known to the public due to the efforts of government and the Christian missionaries (Odisha District Gazetteers, 1945).

On the basis of the socio-economic and striking cultural characteristic features the Kondh can be broadly divided into several sections, such as Desia Kondh, Dongria Kondh, Kutia Kondh, Bura Kondh, Stitha Kondh, Pengo Kondh, Nagala Kondh, Buda Kondh etc. In general, Kondhs are divided into three broad categories such as Dongaria Kondh, Kutia Kondh and Desia Kondh. The Kutia Kondhs are a major

section of the Kondh tribe who speak '*Kui*', a Dravidian language. They identify themselves as *Kui enju*, which means '*Kui* speaking people' (Ota, Sahoo: 2010).

### **Belief system of the Kondhs**

The Kondh have their belief systems inherited from their folklore and predecessors. Some changes in their belief systems have been there due to acculturation. However, their religious belief systems have been founded on their cosmogonical and cosmological myth, philosophy of life, survival strategies and notion of well-being. The fear of the unknown haunts them which they attribute to the deities, ancestors, sorcery and acts of supernatural entities causing natural calamities and epidemics. To escape from misfortunes and lead a life as desired by them, they believe in magico-religious rites administered by the priests, called Jani. Being agriculturists, they worship the earth as mother goddess (Dharani Penu) to reap a good harvest. They believe that the Dharani Penu is all powerful and the agricultural harvests depend upon her mercy and good will. A good harvest is predicted from the beliefs on fertility cult linked to fertility of soil. Dharani Penu, if appeased properly, would help enhancing the soil fertility that would manifest in bumper crop yield is their prevailing belief.

However, the Kondhs developed a strange method of worshipping Dharani Penu with human sacrifice for the purpose of fertilizing the earth by blood and saving the crops from random havoc by natural calamities (The Calcutta Review, 1842). So, human sacrifice among the Kondhs was seen as a social institution and a religious rite which underlay a close identity between the celestial and temporal interests of the tribesmen. It was a means of propitiating the earth goddess whose favours were needed to maintain the fertility of the soil. It was also a form of public expiation to the anger of the goddess to avert droughts, epidemics and other natural calamities. The Kondhs believed that the blood of the victims caused the redness of the turmeric, an important crop of the tribal tract, and his tears brought the rains (Majumdar, 1980).

The origin of the human sacrifices among the Kondhs may be traced in their legendary accounts. The earth, they believed, was originally a crude and unstable mass unfit for the comfortable habitation of man. It was not conducive to cultivation too. An account by W.W. Hunter (1877) presented that the Earth-God ordered to split human blood before him and the Kondhs complied with this demand by sacrificing a child. Then the soil became firm and productive here with and the deity ordered man to repeat the rite and live (W.W. Hunter, 1877). In Hunter's account the Earth deity is presented as a male although the Kondhs consider it female entity. In course of time it became a deep-seated religious faith. Association in human sacrifice formed as an indispensable nexus of union among the Kondhs and it helped in the maintenance of the community spirit in the tribesmen.

### **Meria: Human Sacrifice by Kondhs**

The victims for human sacrifices were called Meriah in Odia although the Kondhs called them Toki or Keddi (Cambell, 1986). The victims could be a male or female and from any caste except Brahmins and Kondhs. Though adult males were preferred and they were the costliest, victims of any age were acceptable to the goddess. A Meriah may be sacrificed or kept captive and utilized for labour. There were instances where female Meriah were allowed to marry Kondh males and the children of that union automatically became Meriahs but they were never sacrificed in the village in which they were born but exchanged with a Meriah from other villages. The victim 'must be bought with a price' otherwise they were considered not acceptable to the Earth Goddess (Hunter, 1877). They were always purchased from the Panos, one of the low untouchable castes who were either staying in or attached to every Kondh villages. The victims were procured often by kidnapping them from the plain's areas.

But usually every year they moved into the plains, and purchased a number of small boys and girls from the poorer sections of the Hindus and sold them to the Kondhs who nurtured them till atleast they were seven years old (Carey, 1936). The cost of Meriah varied from place to place and from time to time ranging from fifteen to two hundred rupees (Patnaik, 1992) at the then price level which was too much of cost. The price was paid in kinds of livestock, brass vessels, corn and even land.

The human sacrifices were classified as public and private. While public sacrifice was offered by a tribe or a village as an entity, private sacrifices were offered by individuals (Hunter, 1877). The public sacrifice to the Earth Goddess was done twice a year-at the time of sowing and at the harvest time where they sprinkled blood in their fields. They did this in their belief that the process of fertilization would be facilitated by drenching the sterile soil with blood (Patnaik, 1992). A Human victim became equally necessary when the terrible Earth Goddess sent pestilence upon the people. Private sacrifices were done by families whenever sickness or great distress came upon them. The mode of sacrifice differed from place to place. But the most common practice was that the Priest, called Jani, would first wound the Meriah with his axe after which the crowd would rush to the victim and stripped the flesh from his bones keeping the head and intestines untouched (Risley, 1915). They would then rush to their respective fields and bury them believing that this would fertilize their fields.

J.G. Frazer's brief summary of Kond human sacrifice in "The Golden Bough" (1912, pp 249-251) has formed almost the only discussion of Macpherson and Campbell's early material. Accounts of human sacrifice in different cultures of the world have been very comprehensively presented by Sir Frazer in his pioneering work The Golden Bough. The Chapter 47 especially discusses human sacrifice for the Crops<sup>3</sup>. In many cultures, as has been described by Frazer the purpose of customary human sacrifice is linked to the notion of fertility and bountiful harvests from the cultivated crops. As regards to the relationship of human sacrifice of the Kandhas of Odisha that was quite customary for the tribe with the crops and especially the turmeric crop the following account has been offered by Frazer

'But the best-known case of human sacrifices, systematically offered to ensure good crops, is supplied by the Khonds or Kandhs, another Dravidian race in Bengal. Our knowledge of them is derived from the accounts written by British officers who, about the middle of the nineteenth century, were engaged in putting them down. The sacrifices were offered to the Earth Goddess. Tari Pennu or Bera Pennu, and were believed to ensure good crops and immunity from all disease and accidents. In particular, they were considered necessary in the cultivation of turmeric, the Khonds arguing that the turmeric could not have a deep red colour without the shedding of blood'.... (www.bartleby.com, p.6)

'Human sacrifices were offered to the Earth Goddess by tribes, branches of tribes, or villages, both at periodical festivals and on extraordinary occasions. The periodical sacrifices were generally so arranged by tribes and divisions of tribes that each head of a family was enabled, at least once a year, to procure a shred of flesh for his fields, generally about the time when his chief crop was laid down'....(www.bartleby.com P.6)

#### **Discovery and suppression of human sacrifice:**

The hills in the Kondhmal region were inhabited by many tribes, of which the Kondhs are prominent among them. No one has undertaken systematic study to trace the origin of the custom of human

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<sup>3</sup> <https://www.bartleby.com/196/103.html> : Sir James George Frazer > The Golden Bough > Ch. 47. Lityerses > § 3. Human Sacrifices for the Crops

sacrifice among the tribes. Although this practice has been completely abolished among the Kondh, yet older Dongaria Kondh people recount the different stages of Meriah sacrifice recollecting what they had heard from their predecessors. Meriah sacrifice was conducted either by the Mutha (constituted of number of villages), or by a single village or even by a single Kondh household.

The sacrifice was offered to the Earth Goddess (Dharani Penu) under the effigy of a bird, intended to represent a peacock, with a view to propitiating the deity to grant favourable seasons and bumper crops. There was no restriction on the sex or the age of the victim. Grown up men were most preferred because of the higher cost involved in procuring the young. As an alternative to spend higher in procuring adult victim, they used to procure children and rear them for years till adulthood for the sacrifice. The children were treated kindly and were free to move about in the village. But when they were sensible enough to know about their ill-fate, they were guarded. They were not allowed to leave the house of Kondh family rearing them. According to some informants there was no difficulty faced in procuring the victims in the past. In most cases the children were sold by their parents or relations. Sex or age was never considered a disqualification to become a Meriah. The Pana community members were always engaged to procure the victims. In no case, a Kondh was offered for Meriah sacrifice.

At any cost the victims of the Meriah sacrifice were to be purchased. The price was paid in kind of brass utensils, cattle or corn and the quantity of exchange depends on age of the person. About a month before the sacrifice there used to be lavish feasting, heavy drinking and dancing around the Meriah victim. Kondhs from nearby villages start assembling long before the actual ritual. On the day before the performance of the sacrifice the Meriah used to be adorned with garlands and was stupefied with liquor and crowds of people gather in the host village. He was made to sit or if necessary was tied to a post at the bottom. The priest conducts the sacrifice. The Jani along with the assembled Kondhs used to address the earth goddess as "O Goddess we offer the sacrifice to you - give us good crops, seasons and health". After addressing the Goddess they used to address the victim as "we brought you on payment, and did not capture you - now we are going to sacrifice you according to our custom and no sin rests on us". On the day of the sacrifice the victim used to be again intoxicated and anointed with oil. Each individual present on the occasion used to take oil from the anointed part of the victim to smear the same on their own head. The victim was usually taken in a procession around the village and its boundaries with drum beating and dancing. On returning to the post which was placed near the earth goddess, the people used to tether the victim with ropes for the killing.

If the victim lost sense due to intoxication or due to fear, he was seized by number of persons and his face was pressed down until he was suffocated to death. All these were done with beating the drums and shouting amidst great noise.

Then the Jani cuts a piece of flesh from the victim and it was buried ceremoniously as a manner of offering to mother earth. Then all the individuals assembled on the occasion were allowed to cut a small piece of flesh from the body for burial near their houses. The head and face of the victim were not touched and the bones when laid bare were buried in a pit near the Earth Goddess.

W. E. Russel, Senior Member of Board of Revenue and afterwards Member of Council at the Madras Presidency brought these horrible customs to the notice of British Government in 1836. The Report submitted by him about Kondhs and practice of human sacrifice on 12th August 1836 to the Madras Government read -

"The change from Goomsor to the colder climate and open country of the table land, where the hills are bare of jungle, the inhabitants infinitely more numerous, was very striking. ... Among the tribes west ward of Sooradah, the destruction of female children is common.



I believe I may say general, the same practice does not exist in the Meriah (Kondh districts) subject to Goomsoor, but the barbarous ceremony of human sacrifices exists there, and among many of their neighbouring tribes, and is of annual occurrence. In some places the victims are of both sexes in others males only" (Selection from Records Madras No. XXIV, Part-I-II).

On getting the Report about Meriah sacrifice, orders were issued to the concerned offices in the affected area to take immediate steps for the suppression of the barbarous rites. But Russel, who was posted in the area, felt that the time was still not ripe for any prompt action. The following report submitted by Russel to the Government clearly explains his reluctance for prompt action. In his Report, he writes,

"We must not allow the cruelty of the practice to blind us to the consequences of too rash a zeal in our endeavours to suppress it. The superstitions of ages cannot be eradicated in a day. The people with whom we have to deal have become known to us only within the last few months, and our intercourse has been confined to a very small portion of a vast population, among the greater part of whom the same rites prevail, and of whose country and language we may be said to know almost nothing. We must not shut our eyes to the fact, that, although we may desire to limit our interference to the territory owing subjection to us, any measure of coercion would arouse the jealousy of a whole race, possessing the strongest feelings of clanship and, whatever may be their dissensions in ordinary life, likely to make common cause in support of their common religion" (Selection from Records Madras No. XXIV).

Colonel J. Campbell, who had been Assistant Secretary to Russel, was entrusted to look after the Kondh district. He took up the mission to eradicate the practice of human sacrifice with great zeal. Due to his effort many Meriah children were rescued. In many places the surrender of victims was secured with much difficulty. The Kondhs were never willing to make a voluntary surrender of their costly purchases. In most places they tried to hide the victims. By the 30th December, 1848 Col. Campbell was able to rescue as many as 106 Meriahs from his area of operation. Later on, British Officers such as Captain Mac Pherson, Captain Mac Viccar, Captain Frye, Lt. Mac Neill and others worked very hard for the complete suppression of human sacrifice among the Kondhs.

Historical literature indicates that due to their great efforts by April 1853, twelve hundred and sixty victims had been rescued. The British Government had taken a considerate and sympathetic attitude towards the Meriahs. Two hundred Meriah children were sent to Missionary schools at Berhampur and other places. One hundred and sixty-seven children were given for adoption to willing persons. More than three hundred grown up Meriahs were provided with land and were resettled as farmers in the plains. A few grown up males supported themselves by wage earning or were employed in public services. The Kondhs were persuaded to immolate buffaloes with all the rites and ceremonies of the forbidden Meriah. Though the Meriah rites in general were almost extinct, yet in some remote and inaccessible areas, in rarest occasions human sacrifices took place in complete secrecy. It has been reported that this brutal practice of human sacrifice was completely abolished in 1861.

### **Approaches to abolish human sacrifice as Meriah and difficulties faced**

After getting to know about the human sacrifices practiced by the Kondhs, the Colonial government could immediately make an attempt to stop it. The difficulties in implementing any measures were many-fold. Firstly, the Kondhs had practiced this rite since time immemorial and it was a genuine difficulty to persuade them to give up a practice which they felt was 'essential for the very existence of mankind and the continuance of their own species' as It used to provide productive powers to nature?, especially when they believed that God had positively ordained them to perform the rite. Further, the rite had been sanctioned by the Rajas who had jurisdiction over them even though they

exercised little control over them. Secondly, the British knew very little about the Kondhs, their country, language and culture and hence were apprehensive of implementing any policies that might counteract and antagonize the tribe having strong feeling of clanship. Thirdly, the Kondh-inhabited areas being very hilly terrain with no roads and infested with wild beasts, it was not conducive for a rash operation. Besides, the Kondhs being illiterate and having no contact with the outside world live in a very unhygienic environment living together with their cattle, goats and fowls where pestilence very commonly occurred. In such a condition, the Colonial government felt its officials would find it difficult in implementing any policy which would require them to live among the tribes. Lastly, the Kondhs were zealously proud of their never conquered independence and the British backed off from any kind of action which could involve them in a prolonged and disastrous war (Carey, 1936). So, the Colonial government instead, decided to formulate a slow and steady policy which would ultimately let the tribe give up this practice voluntarily. The Colonial government formulated various policies like making the Kondhs integral and progressive members of the British Indian empire, making an attempt to discover the real cause of the practice in order to be able to end it, using moral influence and persuasion, helping the tribes in calamities, convincing them that fertility and prosperity could be achieved without human sacrifice and inducing them to have intercourse with other tribes. British officer like John Macpherson, who was actively involved in the suppression of the rite, made various recommendations like exerting personal influence, trying to win over the Kondh priests who were chiefly associated with the rite and winning over those Zamindars who managed to have direct influences over the Kondhs by awarding them honorary gifts and privileges etc. Since the British were keen to suppress the rite, their policy also passed through several phases of experimentation, of trial and error. It therefore, took time to adopt an effective policy to do so. Generally speaking, the government's efforts until 1845 were partial, unconnected and unsustainable.

Thereafter the efforts became 'combined, sustained, continuous and systematic' (Majumdar, 1980). Thus, even though the British knew the existence of human sacrifices among the Kondhs in 1836, it was only after 1845 that effective measure could be taken with the establishment of the Meriah Agency. An Act XXI, of 1841 was passed and it created space for an agent to the Governor General of India whose main duty was to suppress human sacrifice and female infanticide (which was also prevalent among the Kondhs). He was commonly known as the Meriah Agent or the Hill agent. The Meriah Agency was given the authority over the entire tribal tract which was then divided under the administrative jurisdiction of the Governments of Bengal and Madras. John Macpherson was made the first Agent for the suppression of the Meriah sacrifices.

Arduous efforts were made by the Agency officers to stop the human sacrifices among the Kondhs. Officers like G.E. Russell, Captain William Macpherson, Captain Frye, John Cadenhead, Lt. Colonel Campbell, Lt. Hill and Mc. Neill were appointed and entrusted to take steps to suppress the Meriah sacrifice. An attitude of firmness without resorting to force was their policy of action. Macpherson spent his energy in familiarizing himself with the Kondhs, conversing with them freely, giving presents of cloth, tobacco and even money to purchase liquor. He distributed beads to the Kondh women at every station, went hunting with the Kondh Chiefs, smoked with them, gave them presents and was kind to their children when all the while they were told that favours given to them would depend on their exertion towards the abolition of the sacrifice. The majority of them promised to work towards this end but often some Chiefs broke their promise.

Hundreds of Meriahs were rescued before they were sacrificed. From 1837 to 1845, the Madras authorities took steps in rescuing the Meriahs in their jurisdiction and their officers by following the policy of persuasion and repression, saved many victims. Campbell rescued one hundred and twenty-

five victims (Swaro, 1990). S.C. Macpherson in 1843-44, rescued two hundred and fifty-five victims from being sacrificed to the Earth Goddess. By April 1853, twelve hundred and sixty victims had been rescued in all years. From 1837 to 1854, as many as fifteen hundred and four Meriahs were rescued by the government. Dr. John Buckley, a missionary in Odisha, estimated that government rescued seventeen hundred victims from the horrible rite (Carey, 1936).

### **Measures adopted for suppression of human sacrifice**

#### **Promotion of Education:**

The British Government considered promoting education as a necessary tool to break down the prejudices of the Kondhs and bring them within the pale of civilization. Captain Frye, one of Lt. Campbell's staff was a university man and a born linguist. He gave the Kui tongue (the language of the Kondhs) its first written form using the Odia script. He brought back with him from his furlough a lithographic press. Using this press, the alphabet in Kui was printed for the first time. With the Kui-Odia dictionary in hand, a considerable number of school books were prepared in Kui language. Village schools were established. Its progress was, however, slow as the Kondh chiefs feared that calamities would occur if schools were opened. With the government assurance of not using violence or imposing British ideas on them, the Kondhs began to send their children to schools (Campbell, 1986). By 1860-61, the progress of the schools was reported to be very satisfactory with 521 students in them (Majumdar, 1980). The Missionaries had also started Mission schools by that time.

#### **Medical Aid:**

To improve the health of the Kondhs regularly infested by diseases and sicknesses like cholera and smallpox in the Kondh hills, the British took the measure of supplying medical aid as a necessary step to bring home the prejudices of the Kondhs that diseases were caused by the wrath of the deities and hence to be propitiated. Medical officers were, therefore, appointed in the Meriah Agency and hospitals were opened.

#### **Construction of roads:**

Construction of roads in the heart of the Kondh hills was yet another step to civilize the Kondhs to give up the Meriah sacrifice. The construction of roads was deemed necessary to make the exploration of the Kondh area more accessible (Campbell, 1986). Some of the rescued Meriahs were employed in the work of road construction.

#### **Fairs:**

Mac-pherson in his report suggested that opening of fairs would promote intercourse between the Kondhs and the surrounding Hindu population whereby they would develop a friendly and familiar contact with the outside world. This, he hoped, would indirectly help them in abandoning the human sacrifice (Macpherson's Report, 1842). So, fairs were regularly set up which subsequently improved the socio-economic conditions of the Kondhs.

The Meriah officers also formulated an alternative option of sacrificing human being in the Kondhs' religious rites. They adopted a policy of explaining the virtues of substituting buffaloes and goats for human beings (Carey, 1936). The constant and consistent efforts of the Meriah or Hill Agents by applying these various measures and policies ultimately bore fruit and between 1855 and 1861 hardly a dozen victims had been killed (Hota, 1960). The last Meriah to have been recorded sacrificed was in the year 1861 and in the same year the Meriah agency was abolished marking the successful suppression of human sacrifices among the Kondhs. It is pertinent to adhere that the British didn't totally suppressed the rite but all it wanted was the substitution of human beings by buffaloes and

goats and thereafter sacrifices to the Earth Goddess was continued with animals. With regard to the rehabilitation of the Meriahs, close cooperation existed between the government officials and the missionaries (Boal, 1963). The rehabilitation of the Meriah children were entrusted to the Odisha missionaries and the task was done by them.

### **Activities of the Christian Missionaries among the Kondhs:**

The Christian Missionaries came soon after the occupation of Odisha by the British in 1803. The most prominent missionary society in Odisha, the General Baptist Missionary Society (GBMS), was established as early as 1816 (Peggs, 1846) and various mission stations were established by the Society in Odisha. W. Brown, a GBMS missionary made an extensive tour of Kondhistan in 1837 to ascertain about the people, their language and culture and to see whether 'this unknown region might be brought within the operation of their mission' (Brown, 1837). Later on, missionaries like Amos Sutton, Isaac Stubbins and John Buckley proposed the setting up of a mission station in the Kondh territory. They appealed to the public regarding the proposal of the same through various newspapers and journals (Brown, 1837).

By 1845, Sutton proposed to start a mission work among them for the reason that the mission had taken care of many Meriahs who knew the Kondh language and he was hopeful that these rescued Meriahs would help the missionaries in preaching Christianity among the Kondhs. The GBMS issued circulars to different parts of India to establish a mission station. However, in spite of the proposal of the GBMS Committee, no permanent station was established in the Kondh tract. John Goadby, the first European to go to India whose purpose was to give his life to the Kondhs, was stationed in Russelkonda (the headquarters of the Meriah Agency in the hill-tracts of Odisha for the suppression of the Meriah scarifies and female infanticide named after G.E. Russell who discovered the practice) which was already a Mission station from which he worked for the Kondhs (Carey, 1936). Goadby toured the Kondh lands during 1862-63 and made reports on the land, the language and faith of its people. Again, in three extensive tours in 1865, he explored the various gateways into the Kondh hills. Goadby learnt to speak in Kui, the language of the Kondhs. He and his wife served the Kondhs till 1867. He died in 1868 at the young age of 38. After his death, no further attempt was made to reach the Kondhs by the GBMS until the early part of the 20<sup>th</sup> Century (Boal, 1963). It was not until 1914 and 1920 that the first baptism and the first church building was achieved among the Kondhs. So, in the period concerned, the activities of the Missionaries were more successful in terms of rehabilitation of the rescued Meriahs and spreading Christianity among them. This is not to say, however, that the impact of the Christianity was not felt at all.

The Government adopted a very considerate attitude to the rescued Meriahs and most of them were entrusted to the care of the missionaries. The missionaries opened orphanages and asylums for these Meriahs and they were reared up in Cuttack, Berhampur and Balasore orphanages. These asylums provided education to these Meriahs as well as to the children of native Christians. The purpose of the education was to make them useful members of the society. Thus, students, after completion of six hours of study, had to attend three hours of manual work. The object of the missionaries was to make them sensible, moral, industrious and pious young men and women. The missionaries also aimed to make the women good housewives for the native Christians (Sutton, 1835).

In order to preach Christianity among the Kondhs, the missionaries had to learn both Kui and Odia languages. The missionaries marked that the Kondhs generally took interest to know about Christianity as they had no such prejudices like the Hindus and managed to convert to Christianity. They brought almost all the Meriahs to the fold of Christianity (Sutton, 1839).

In order to enable the Kondhs to learn the scriptures, the missionaries distributed tracts and scripture portions written either in Kui or Odia and their efforts resulted in translations to the Kondh language. They, thus, not only enriched the Kondh literature but through their missionary operation in the Kondh tracts, they managed to create a great impact in the traditional tribal society. They changed the outlook of the converts in various ways. With the contact of the missionaries and especially those who became Christians, they practically disallowed the tattooing of their arms and faces, which the Kondhs practiced on a large scale. They started minimizing their habit of drinking with the advice of the missionaries or the native converts. Those who became Christians left the traditional pattern of worship. Some of the rescued Meriahs also played an important role in changing the outlook of the Kondhs in various ways. Thus, though the missionary activities among the Kondhs did not yield a good number of converts yet their contact changed their outlook in the long run (Boal, 1963).

### **Conclusion**

After the British discovered the practice of human sacrifice by the Kondhs, earnest efforts were made by both the Colonial government and the Christian Missionaries to civilize them through various measures like education, medical aid, setting up fairs, preaching, distributing tracts and trying to Christianise them. These measures were over and above the policies directly adopted to suppress the human sacrifices. Human sacrifice was a religious rite followed by the Kondhs over centuries and which had become a part of their culture and tradition. By criticising this culture and aiming to supplant it, the colonial ideology of an orientalist representation of India is clearly visible. The Colonial government promoted the idea of the superiority of modern western civilization and they tried to establish cultural hegemony. At the same time, the Christian missionaries considered the Kondhs' religious and social and religious life as culturally inferior, intellectually backward and religiously superstitious and sought to civilize them by trying to convert them to Christianity.

British contact with the Kondhs caught the latter between compulsions of tradition and forces of change and exposed them to a larger society and new economic forces. Their sources of income tended to get diversified with the establishment of fairs and frontier markets. They began to work as labourers to make roads; some became small traders while others worked in government offices. By suppressing the Meriah sacrifice, the government prevented the Kondhs from an unprofitable investment, for every Meriah had to be bought with a price. Treatment of diseases and education to a large extent helped dispel the belief of the Kondhs in supernatural causes. Contact with the missionaries changed their outlook and they began to reduce their practice of tattooing and drinking. Those who embraced Christianity left their traditional pattern of worship. Literature developed as a result of missionary activities. Thus, in spite of the colonial ideology of the orientalist attitude of the British towards the Kondhs, the influence of the British and Christian missionaries heralded changes towards a wider society among the Kondhs.

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# PREVALENCE OF NON-COMMUNICABLE DISEASE RISK FACTORS AMONG TRIBAL COMMUNITIES OF INDIA: AN OVERVIEW WITH REFERENCE TO ODISHA

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## ABSTRACT

*Non-communicable disease continues to be an important public health problem in India, being responsible for a major proportion of mortality and morbidity. Demographic changes, changes in the lifestyle along with increased rates of urbanization are the major reasons responsible for the trends in prevalence of non-communicable diseases. Though studies have been conducted in urban and rural areas, data related to tribal communities is very limited. The present paper is a review of available literature on prevalence of non-communicable disease and their risk factors among different tribal communities of India and Odisha.*

**Key words:** Non-communicable disease, lifestyle, tobacco, alcohol, BMI, hypertension, physical inactivity

## Introduction

Today, millions of people in developing nations are facing double burden of diseases associated with infection and nutrition along with the load of chronic non-communicable diseases (NCDs). Rapid urbanization has led to changes in daily activity, diet and lifestyle leading to NCDs like diabetes, cardiovascular diseases (CVDs), neuropsychiatric disorders etc. Epidemiological studies suggest increased prevalence of NCD risk factors such as tobacco and alcohol consumption, physical inactivity, over-weight and obesity, smoking, hypertension, diabetes, high lipid profiles in India. However, regional variations have been observed with respect to these factors. Very few studies are available on tribes with regards to Non-Communicable disease and their risk factors. Since NCDs have

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become a public health challenge, surveillance of risk factors associated with NCDs among tribal communities is essential for developing prevention strategies and implementing control programs.

Within Indian context, tribal population, by and large restricted to rural areas, are associated with poverty, illiteracy, malnutrition and such other persistent problems. Thus, they are assumed to be untouched by NCDs which are lifestyle driven diseases. However, several studies have produced evidence for increasing trend of NCDs among tribal population groups. ICMR conducted a survey among 7 states of India based on world health organization's (WHO) STEPS method to investigate NCD risk in 2007-2008. Though these states are inhabited by tribal population, prevalence of NCDs were reported among urban, rural and combined population. Studies have been conducted on tribal population groups of different states including Maharashtra, Gujarat, Andaman and Nicobar islands, Kerala and Karnataka on various risk factors associated with NCDs and recent report of ICMR titled India: Health of the Nation's States: The India State-Level Disease Burden Initiative(2017), also observed that the disease burden due to communicable, maternal, neonatal, and nutritional diseases, as measured using disability-adjusted life years (DALYs), dropped from 61 per cent to 33 per cent between 1990 and 2016. In the same period, disease burden from non-communicable diseases increased from 30 per cent to 55 per cent. However, owing to their diverse ethnic background, culture, diet, habitat and behavioral habits, tribes are expected to have community specific risk factors.

In the context of the above the paper reviews the various studies and secondary sources in order to make an assessment of the prevalence of non-communicable disease risk factors among the various tribal communities of India. Towards that, a systematic method of reviewing the available literature has been conducted. A review of existing literature on the prevalence of non-communicable disease risk factors among various tribal communities and its correlation to various diseases were taken into consideration and systematic analyses of the same have been done scientifically.

### **Global prevalence and envisaged development targets**

Non-communicable Diseases (NCDs) are diseases of long duration and generally of slow progression. NCDs, including cardiovascular diseases, cancer, diabetes and chronic respiratory diseases, and their key risk factors such as tobacco, harmful use of alcohol, unhealthy diet and physical inactivity and such remain the leading causes of death globally. NCDs are currently responsible for almost 70% of global deaths, the majority occurring in low and middle-income countries. In recent years, NCDs have been increasingly in the spotlight of the global public health community and national leaders. In two of the United Nations High-level Meetings, in 2011 and 2014, it has been kind of resolved to keep NCDs the focus of national and international attention and reflect their significant public health burden. In 2013 the World Health Assembly adopted a set of nine ambitious targets covering NCD mortality, risk factors and national systems performance. Additionally, the 2030 Agenda for Sustainable Development Goals, adopted at the United Nations Summit on Sustainable Development in September 2015, recognized the critical public health importance of addressing NCDs, and included a goal to reduce, by one third, the premature mortality from NCDs, along with targets to address risk factors such as alcohol and tobacco use, and the achievement of universal health coverage by 2030. Achieving these targets for NCD prevention and control requires a renewed and concerted action at the national level.

Though old age groups are more at risk, evidences suggest that 9 million of all deaths attributed to non-communicable diseases occur before the age of 60. Children, adults and elderly are more vulnerable to the risk factors of non-communicable diseases through unhealthy diet, physical



inactivity, exposure to tobacco smoke or alcohol consumption. According to WHO, poverty is invariably linked with NCDs which is evident in low and middle-income countries attributed to lengthy and expensive treatment, loss of breadwinners and loss of income. The global burden of disease has continued to shift from communicable diseases to non communicable diseases and from premature death to years lived with disability. It is also projected that globally there will be a rising trend in the burden of mental and behavioral disorders, musculoskeletal disorders and diabetes. According to another study, though the life expectancy of the Japanese are not affected by the high rates of smoking and high blood pressure at present, it is an anticipated risk for their economic development in future. A similar study on South Asian region indicated that there is a rapid increase in the prevalence of diabetes in the region and several modifiable and non modifiable risk factors played a major role in the development of diabetes. A study done to assess the prevalence of NCD risk factors among adult in urban areas of Kabul city, Afghanistan using WHO STEP wise approach for surveillance revealed high prevalence of NCD risk factors.

Driving forces for NCD include ageing, rapid unplanned urbanization and unhealthy lifestyles. Unhealthy lifestyles and unhealthy diets can manifest as raised blood pressure, elevated blood glucose, high blood lipids, overweight and obesity which are called intermediate risk factors which leads to cardiovascular disease which is an important NCD. Tobacco is accountable for 6 million deaths including deaths due to passive smoking globally every year and is expected to increase to 8 million by 2030. WHO estimated that, other modifiable risk factors such as insufficient physical activity, low fruit and vegetable intake and harmful alcohol consumption accounts for 3.2 million, 1.7 million and 1.1 million deaths respectively. As per WHO, NCDs disproportionately affects the lower income groups in a society, although the NCD risk factors are often present in the high-income groups as well. This could be due to the difference in access to health services for the rich and poor in any society. Elevated blood pressure is the leading NCD risk factor and accounts for 16.5 percent of the attributable deaths globally. Similarly, tobacco use (9%), elevated glucose (6%), physical inactivity (6%) and overweight and obesity (5%) all are NCD risk factors that contribute to the mortality rate in our society. Rapid rise in overweight and obesity rates are seen among young children in low and middle-income countries.

### **Indian Scenario**

Non-communicable diseases (NCDs) contribute to around 5.87 million deaths that account for 60 % of all deaths in India. India shares more than two-third of the total deaths due to NCDs in the South-East Asia Region (SEAR), as per estimates by WHO. Four types of NCDs such as cardiovascular diseases, cancer, chronic respiratory diseases and diabetes make the largest contribution to morbidity and mortality due to NCDs in India. Four behavioral risk factors such as tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol are responsible for significant proportions of these diseases.

Major metabolic risk factors are obesity, raised blood pressure, raised blood glucose and raised total blood cholesterol levels. Cardiovascular diseases such as coronary heart disease, stroke, and hypertension contribute to 45% of all NCD deaths followed by chronic respiratory disease (22 %), cancers (12 %) and diabetes (3%). The probability of dying between ages 30 and 70 years from four major NCDs is 26%, which means that a 30-year old individual has a one-fourth chance of dying from these diseases before the age of 70 years. The prevalence of current tobacco smoking has shown a slight decline in males but the prevalence (23.6%) is still higher than the global prevalence of current tobacco smoking (22%).

Tobacco use has been identified as single largest risk factor attributable to NCDs. The prevalence of obesity and overweight is also showing a rapid increase in trends. Age standardized prevalence of obesity (BMI ≥ 30) has increased by 22 % in the span of four years (2010-2014). Nearly one out of every ten persons aged 18 years and above in India has raised blood glucose, which poses extra financial and service burden on health systems. The age standardized prevalence of raised blood glucose is 9.0 % for both sexes. Every fourth individual in India aged above 18 years has raised blood pressure (hypertension) and the prevalence has increased by 10% from 2010 to 2014. The per capita (age +15) consumption of pure alcohol in India is estimated to be 5.2 liters per year. In 2010, the corresponding figure was 4.3 liters per year, which was significantly higher than the average consumption in the SEAR. (3.2 liters per year). More than two-thirds of the adolescents aged between 11-17 years are physically inactive in India as per WHO standards. The level of physical inactivity among adults is around 13 %.

### **Burden of NCDs and their risk factors in India**

India accounts for a relatively large share of the world's disease burden and is undergoing an epidemiological transition that the non-communicable diseases dominate over communicable in the total disease burden of the country. In a recent report of Indian Council of Medical Research (ICMR), titled India: Health of the Nation's States: The India State-Level Disease Burden Initiative (2017), it is observed that the disease burden due to communicable, maternal, neonatal, and nutritional diseases, as measured using disability-adjusted life years (DALYs), dropped from 61 per cent to 33 per cent between 1990 and 2016. In the same period, disease burden from non-communicable diseases increased from 30 per cent to 55 per cent. The epidemiological transition, however, varies widely among Indian states: 48% to 75% for non-communicable diseases, 14% to 43% for infectious and associated diseases, and 9% to 14% for injuries.

Considering the increased risk of NCDs in populations with rapid urbanization and resultant nutritional transition, it can be predicted that the tribal states of Northeast India will have a greater risk of NCDs as revealed in the work of many scholars. Studies on different tribes in India reports high prevalence of hypertension and other risk factors of NCDs. A study in 2013 reports that the prevalence of hypertension was higher (40%) among tribal adult population of Kerala and was associated with age, gender, educational status, physical inactivity, alcohol consumption and obesity. As per a study done in Faridabad, it is found that the prevalence of NCD risk factors across all age groups among urban slums is high. A study from Andhra Pradesh points out that though cardiovascular risk factors are less in rural areas compared to urban areas, the management of modifiable risk factors is suboptimal.

According to a study by Interheart, the New Delhi birth cohort evaluation found that the incidence and prevalence of risk factors are high among young age and it rapidly shows a transition. Incidence of obesity is more among women compared to men whereas incidence of hypertension and diabetes were more among men when compared to women. According to a study in 2010, the leading cause of death in rural India was NCDs. A study done in rural areas of Nagpur showed a high burden of non communicable disease risk factors in which tobacco and alcohol use was high among men and physical inactivity and overweight was high among women. They found low vegetable consumption across the group regardless of the sex of the subjects. A study using WHO STEP approach done in Haryana showed higher prevalence of NCD risk factors. According to a study done in Tamil Nadu, apart from central obesity and BMI, alcoholism is the significant risk factor for hypertension among men and family history of hypertension is the risk factor among women for hypertension.

National family Health Survey (NFHS-4, 2015-16) data on India reveals that due to the ongoing demographic and epidemiological transitions in the country, India is currently experiencing a major shift in disease pattern. The prevalence of non-communicable diseases is increasing and the prevalence of communicable diseases is decreasing. The prevalence of being overweight or obese among men and women aged 15–49 years has increased in India in all its states between 2005–06 and 2015–16 which is one of the leading causes of vulnerability to various non-communicable diseases/ illness. Among women, it has increased by 8 percentage points (from 13% in NFHS-3 to 21% in NFHS-4), and is highest in Delhi (35%), followed by Goa (33%), Kerala (32%), Punjab and Tamil Nadu (31% each). It has increased by 15 percentage points in Himachal Pradesh, which is the highest, followed by Goa and Manipur (13 each). The prevalence of being overweight or obese among men has doubled from 9% in 2005–06 to 19% in 2015–16 in India, and is the highest in Sikkim (35%), followed by Goa (33%), Kerala (29%), Tamil Nadu and Punjab (28%).

Overweight and obesity are lowest in Meghalaya and Chhattisgarh (10%), followed by Madhya Pradesh and Jharkhand (11% each); and Uttar Pradesh, Bihar, Assam, and Rajasthan (13% each). Over the last decade, Sikkim has experienced the highest increase of 23 percentage points in the prevalence of overweight or obesity among men, followed by Goa (17 percentage points), J&K, Arunachal Pradesh and Tamil Nadu (14 percentage points each). So far as Tobacco use is concerned at the national level, use of any kind of tobacco among men aged 15–49 years declined from 57% to 45% between 2005–06 and 2015–16. Among men, the maximum decline in use of any kind of tobacco is reported in Sikkim (22 %) followed by Kerala (18%) and Bihar (16%). Only 7% of women use any type of tobacco in NFHS-4, down from 11% in NFHS-3. The prevalence of very high blood glucose levels (more than 160 mg/dl) in India is 4% for men and 3% for women aged 15–49 years. The highest prevalence among men is found in Goa (7%), followed by Kerala, West Bengal, Odisha and Tamil Nadu (6% each). The prevalence of high blood glucose is lower among adult women than that of males in all the states of India with higher prevalence in Goa and Kerala (5% each), followed by Delhi, Tripura, Tamil Nadu and Mizoram (4% each). Hypertension is considered as a precursor of cardiovascular disease which accounts for 2% of women and 3% of men aged between 15–49 years having moderately high or very high levels of hypertension as per NFHS-4. The prevalence rate is higher in Nagaland, Telangana and Arunachal Pradesh (6%). It is 5% in the state of Andhra Pradesh, Assam, Himachal Pradesh and Mizoram (5% each). The prevalence of hypertension among adult men aged 15–49 years is higher than that of men in all the states of India.

### **Studies on tribes in India and Odisha**

According to 2011 census, total tribal population of India constitutes 8.6 percent of the total population. A study on problem perceived by tribal women in Haryana revealed some socio-cultural issues such as untouchability that still exists in the community. However, the economic problems and educational problems were the most dominant problems perceived by the tribal women. A genetic study on tribal people in southern India revealed that all tribal groups in and around Nilgiri Hills are more closely related to each other regardless of phenotypic characteristics and they share a common ancestry although they are morphologically and culturally different. There is only limited literature on risk factors of NCDs among tribal population in India. Studies on different tribes in India reports high prevalence of hypertension and other risk factors of NCDs.

A study Conducted by Mishra et al., 2013 on prevalence of risk factors of Non-communicable and cardiovascular diseases among 300 adult tribal and caste groups of urban slum areas of Cuttack city reported that about 54.2% of study subjects were found to be in overweight and obese categories.

Nearly 40% of the respondents had physical activity of  $\geq 3,000$  MET-min/week. Prevalence of hypertension was more among the adults with a physical activity of  $\geq 3,000$  MET-min/week than those with a physical activity  $< 3,000$  MET-min/week. About 56.3% of males and 57% of females ate two servings of fruits and vegetables per day which is below the recommended level. Current smokers were found to have more prevalence of hypertension than their non-smoking counterparts. About 34.1% males and 27.9% females were in pre-hypertension category and 15.8% females and 12.6% males were in stage 1 hypertension. Nearly 49.3% of the respondents who consumed alcohol were found to be normotensive. Regarding smoking as risk factor for cardiovascular diseases, 44.9% were found to be normotensive in non-smoking category whereas, 39.1% of smokers were found to be normotensive reflecting the fact that prevalence of hypertension is higher in smokers than non-smokers.

Study reported by Bharadwaj et al (2013) among the 900 tribal and rural population of Himalaya region of India reveals that as per Asian criteria, obesity (BMI 27.5–30.0 kg/m<sup>2</sup>) was observed to be significantly high accounting 13.7% in tribal area as compared to 5.5% in rural area. Risk level of HDL ( $< 40$  mg/dL) was present in half of the population of both rural and tribal areas. The prevalence of borderline to high level of triglycerides was observed to be 60.2% and 55.2% in rural and tribal area, respectively.

A Study reported by Khyatriya (2014) among the six tribes of India including Santal, Bhumij and Bathudi tribes of Mayurbhanj about the changing life style on 'disease burden on tribal health' indicate that young tribal males are showing increasing trend towards growing body weight, against the traditional wisdom, which in turn has been found to be strongly associated with metabolic risk factors. Younger males ( $\leq 40$  years old) show strongest association with hypertensive MAP, as well as with hypertensive blood pressure. The mean systolic blood pressure (SBP) and diastolic blood pressure (DBP) with respect to all the selected metabolic risks are much higher among the tribal females than their male counterparts. Study also reveals that that BMI is a strong facilitator of hypertension among tribal males in general and among younger males in particular. Individuals with BMI  $\geq 25$  kg/m<sup>2</sup> showed a strong association with hypertensive BP and hypertensive MAP along with hypertensive SBP and hypertensive DBP. Tribal females are in more danger of developing metabolic risks at lower BMI, irrespective of age which suggests an increasing tendency towards a double burden of disease among the studied tribal populations.

Study conducted by Misra et al (2014) on Risk factor profile for non-communicable diseases among 332 individuals of Mishing tribe of Assam using WHO STEPs survey reveals that overall, tobacco use was 84% (men 94%; women 73%) and alcohol use was 67 % (men 82%; women 50%); 68% reported to consume unhealthy diet (less than five servings of fruits and vegetables/day), 11% had abdominal obesity, 16% were overweight and 26% had hypertension. Older individuals had higher hypertension prevalence compared to younger individuals. Among alcohol users 91.4% used tobacco. Among tobacco users 72.5% used alcohol. Overall 61.1% used both alcohol and tobacco. 90.1% were using either alcohol or tobacco. Consumption of less than five servings of fruits and vegetables per day was reported by 68.1% of participants. Overweight was seen in 15.7% and abdominal obesity in 11.4% of the participants. 25.6% of participants were found to be hypertensive (men 27.9%; women 22.9%).

Study on Triple Burden of Obesity, Under nutrition, and Cardiovascular Disease Risk among Indian Tribes by Kshatriya & Acharya (2016) provides that a high prevalence of hypertension was observed among Bathudi (12.1%), the prevalence of overweight and hypertension among the Bhumij (17.7% and 14.7%, respectively) and Santals of Odisha (15% and 9.6%, respectively).

Negi, et al. (2016) reveals that the hypertension was prevalent in 19.7% and diabetes in 6.9% of the population out of 3580 randomly selected Tribals from Kinnaur district of Himachal Pradesh. Awareness of hypertension and diabetes was 39.8% and 40.8% respectively. The adherence to prescribed medications was reported in 52.1% and 56.4% of patients of aware hypertension and diabetes respectively. Overall, 23.3% and 8.5% of the patients with hypertension and diabetes had controlled blood pressure and blood glucose respectively. Overweight and obesity were observed in 38.2% and 8.8% of the studied population respectively. The consumption of tobacco and alcohol was reported in 22.6% and 24.9% of the population, respectively, and 34.5% were physically inactive. The prevalence of tobacco and alcohol consumption was significantly higher among men than in women, 47.9% as against 1.5% and 53.6% as against 0.9% respectively. The prevalence increased with increasing age till about 60 years of age. Proportion of the population consuming vegetables and fruits daily was substantially low both in men (21.8% and 4.7%) and women (21.9% and 2.7%) respectively and across all the age groups. Overall, men were physically more inactive than women (36.7% as against 32.6%) and proportion of the population leading sedentary lifestyle increased after the age of 60 years. The prevalence hypertension was significantly higher in men than in women (22.4% vrs.17.5%) while diabetes was more prevalent among women than in men (7.6% vrs. 6.0%). The prevalent health risk behavior of the tribal population was reflected by high prevalence of overweight and or obesity (48%), hypertension (19.7%) and diabetes mellitus (6.9%) that is similar to other rural population in the country.

As per National Family Health Survey (NFHS-4,2015-16), sample survey conducted among 30,242 households for both tribal and non-tribal (33,721 women and 4,209 men) of Odisha reveals that prevalence of high blood sugar level - (>140 mg/dl) (%) among women is 7.7% in urban area, 7.2% in rural area and 7.3 % for both. Prevalence of high blood sugar level (>140 mg/dl) among men is of 10.9% in urban area, 10.7% in rural area and 10.7% for both. Similarly, prevalence of very high blood sugar level (>160 mg/dl) among Women is 4.2% in urban area, 3.2% in rural area and 3.4% in both. Very high blood sugar level (>160 mg/dl) among men is 7.2% in urban area, 5.4% in rural area and 5.8% in both. So far as hypertension is concerned, prevalence rate of slightly above normal (systolic 140-159 mm of Hg and/or diastolic 90-99 mm of Hg) among women is 7.8% in urban area, 6.7% in rural area and 6.9% in both. Among Men this prevalence rate is 13.1% in urban area, 8.8% in rural area and 9.7% in both. Prevalence rate of moderately high (systolic 160-179 mm of Hg and/or diastolic 100-109 mm of Hg) among women is 1.8% in urban area, 1.3%in rural area and 1.4% in both. Among Men this prevalence rate for the same category is 3.7% in urban area 1.5% in rural area and 2.0% for both. Similarly, prevalence of very high (systolic  $\geq 180$  mm of Hg and/or diastolic  $\geq 110$  mm of Hg) among women is 0.6% in urban area, 0.7% in rural area and 0.7% in both. Among men this prevalence rate for the same category is 0.9% in urban area, 0.7% in rural area and 0.8% in both. So far as tobacco use of any kind is concerned prevalence rate among women is 10.0% in urban area and 18.9% in rural area. Among men this prevalence rate for the same is 43.3% in urban area and 58.8% in rural area. It indicates that more men are addicted with tobacco than women and prevalence rate is more in rural area than urban area. Similarly, prevalence of alcohol consumption among women is 1.3% in urban area and 2.6% in rural area. Among men the prevalence rate for the same is 33.2% in urban area and 41.3% in rural area. In terms of alcohol consumption men are ahead of women in both urban and rural area.

A study conducted by Orissa Health Support Project (OHSP) 2009, Technical and Management Support Team (TMST), CTRAN Consulting Pvt. Ltd. reported that 22% of morbidity being due to non-communicable diseases and 16% due to accidents and injuries. More prevalent non-

communicable diseases include mental ill health; cancers; genetically linked blood disorders; diabetes; cardiovascular diseases including rheumatic fever / heart disease; chronic bronchitis and asthma; oral including dental diseases; ophthalmic / eye disorders; accidents and Injuries.

Study reported by Kandpal et al. (2016) reveals that High BMI (56.6 %), hypertension (43.4 %), metabolic syndrome (39.2 %) and abdominal obesity (33.7 %) were the most prevalent CVD risk factors observed in the total of 288 participants Bhotia and Rang Bhotia tribal population of Uttarakhand. Physical inactivity was also found to be associated with high BMI levels. Hypertension, MS and abdominal obesity have been found to be high among the studied population. Alcohol consumption was observed among 37.5 % of the participants and of that 78.8 % of males were alcohol consumers. Distribution of smokers was 13.9 % which included 23.1 % of males and 8.7 % of females. Males had significantly higher prevalence of hypertension. All the CVD risk factors were found to be much higher among individuals who used to maintain sedentary life style.

A cross sectional study conducted by Sanjeev & Soman (2018) among 300 Kani tribal people of Thiruvananthapuram, Kerala reported that prevalence of hypertension was 48.3 % and of abdominal obesity was 22.1%. Among the studied subjects current user of any form of tobacco is 81.5%, 32.2% were current alcohol users, 75.8 % were current users of smokeless tobacco. The prevalence of current use of smokeless tobacco among men and women were 81.9 % and 69.8 % respectively. Prevalence of hypertension was higher (48.3%) among Kani tribe when compared to general population. Among the Kani tribe, the fruits and vegetable consumption were found totally insufficient. Almost one third (28.2%) of Kani tribes were found to have high combined risk score for NCDs.

Study reported by Charles (2017) among south Indian tribe of total of 480 subjects reveals that study 17 (3.5%) were known to have hypertension and 3.3% had diabetes mellitus. 49.9% of the study population had pre hypertension which was equally distributed among both sexes. Among the newly diagnosed hypertensives, 10.6% were in stage I hypertension and 4.1% were in stage 2 hypertension. Prevalence of any form of dyslipidaemia was 51.5% and almost equal number of males and females (53% and 50% respectively) had any one of the lipid abnormalities. Prevalence of hypercholesterolemia was 16.7% and 24.6% had hyper triglyceridemia. Prevalence of metabolic syndrome was 12.3 and it was almost equal among males and females. Prevalence of ever alcohol use was 34.2% and current alcohol use was 30%. Prevalence of ever tobacco users was 23.8% and prevalence of current tobacco users was 19.8%. Alcohol and tobacco use were not reported among females. Prevalence of low physical activity was 11.7%. Prevalence of overweight ( $\geq 23$  kg/m<sup>2</sup>) among this population was 20% and obesity was 4.8%. Prevalence of central obesity was 9.8%. All people in sample were consuming less than 5 servings of fruits and vegetables which is below the recommended level. Prevalence of diabetes mellitus among people with low physical activity was 10.7% as compared to 2.4% among those with normal physical activity. People with overweight had high prevalence of diabetes mellitus (9.4%) as compared with people who were not overweight (1.8%). Prevalence for diabetes mellitus among people with central obesity was 12.8% as compared to 2.3% among those without central obesity. People with overweight had high prevalence of hypertension (35.4%) as compared with people who were not overweight (13.3%). Prevalence of hypertension among people with low physical activity was 35.7% as compared to 15.3% among those with normal physical activity. Prevalence of hypertension among people with central obesity was 40.4% as compared to 15.2% among those without central obesity. Prevalence of dyslipidaemia among people with central obesity was 81.2% as compared to 47.5% among those without central obesity.

Study reported by Kumar et al (2018) reported among 150 indigenous tribal population of Tripura reveals that prevalence of overweight was 26% and abdominal obesity was 45.3%. 31% were hypertensive, 26% were tobacco smokers and 68% were tobacco chewer, 36% were alcoholic. 68% were taking vegetables more than 10 times/ week and 88.7% were taking fruits less than 5 times/week. 93.3% were aware of the harmful effects of tobacco consumption. The tobacco and alcohol use, two of the major NCD risk factors were high in this tribal population.

Study reported by Tushi et al (2018) on prevalence of risk factors for non-communicable diseases in a rural tribal population of Mokokchung, Nagaland, India reveals that among 472 subjects, 19.5% reported current smoking and 15.9% reported current alcohol use. Among 236 males, 38.1% were current smokers and 27.5% were current alcohol users, whereas of the 236 females, only 2 (0.8%) and 10 (4.2%) were current smokers and current alcohol users, respectively. The use of smokeless tobacco was common among both males (58.9%) and females (49.6%). Inadequate intake of fruits and vegetables was reported by 80.1% males and 93.6% females. Insufficient physical activity was observed only among 16 (3.4%) participants. Prevalence of hypertension and a body mass index of was 43.2% and 32.4%, respectively. The commonest type of tobacco smoked among current smokers was beedi (91.3%). Majority of the population (86.9%) consumed fewer than five servings of fruits and vegetables per day which is below the recommended level. Central obesity was identified in (20%) males and (48.7%) females. The prevalence of hypertension was nearly double among older persons (aged 45– 64 years) than among younger persons.

A cross-sectional study conducted by Bhar et al (2019) on behavioral and biological risk factors of non-communicable diseases among 172 tribal adults of rural Siliguri in Darjeeling District, West Bengal reported that among the study participants, the prevalence of current tobacco use and alcohol use were 69.8% and 40.7%, respectively; 96.5% consumed unhealthy diet and 2.9% were physically inactive. The prevalence of abdominal obesity and overweight were 26.2% and 12.2%, respectively. Most of the behavioral and biological risk factors of NCDs were quite high among tribal population of rural Siliguri except physical inactivity.

Present study among the Santal, Munda and Juang tribal communities of Jajpur and Dhenkanal districts of Odisha based on participant observation, community based cross sectional study, case study and focus group interview methods to assess the prevalence of non-communicable disease risk factors along with their socio demographic and behavioral risk factors reveals that there is a change of life style due to occupational shift. Tribal people in the area once depending on their traditional forest-based livelihood have been showing inclination to industrial economy as labour force and allied fields. They have been working in mining industries as open cast mining labourer, labourers, labour work for transportation of mining materials, driving, light and heavy machine operator etc. People work in shifts for their duties and as such they work in three shifts; morning, day and night shifts. While adopting to industrial work schedules they also adopt to new habits and life styles. There has been remarkable change in normal sleeping pattern, food habit, dress pattern and overall life style. With cash income in industrial economic setting the workers tend to lead sedentary life style and thus their calories requirement also decreases. Working for stipulated duration, often in stressful and competitive job environment, their tendency towards habit of using various tobacco products like chewing of *gutkha* and pan masala, and smoking beedi, cigarettes is increasing along with developing habit of drinking fermented beverages and distilled liquor such as beer, whisky along with adulterated country liquor, crop beverages like *handia*. Further, as a mark of status symbol the workers tend to adopt to India made foreign liquor in place of traditional beverages and distilled stuff.

Development of market centers in tribal areas became a place for social interaction among the tribes and to adopt new food and drinking habits which consequently influences the lifestyle and so the life style related diseases and sicknesses or the NCDs. The pace at which the process of acculturation is spreading across it is likely that their food habits undergo substantial changes in the coming days. As an implication of it their vulnerability in NCDs, that was quite uncommon in tribal people, may also increase. Under the impact of industrialization, modernization and globalization the choice for processed and packaged food, junk food, fast food and ready-to-eat is increasing that are known potential factors responsible for cardio vascular diseases. Preference for packaged food products rather than freshly cooked food with vegetables and fruits and increased dependence on market-bought food items is gradually raising the vulnerability of tribal people to NCDs. A chunk of tribal people is continuing through stress to meet the basic livelihood requirement, and are thus facing nutritional stress or stress of under nutrition which are susceptible to hypertension. All the above justify to be attributable factors for developing various non communicable diseases in later part of life like increase of body weight leading to obesity, hypertension, raised fasting blood sugar level/ diabetics and stroke.

### **Conclusion**

From the above discussions it is evident that India is experiencing a rapid health transition between malnutrition and over nutrition. Under impacts of urbanization and modernization there has been changes in lifestyles including food habits and decreased physical activity that are attributable to ascending circumstances of chronic conditions like NCD. It is therefore important in the context of tribal health in India, there is a need for re-orienting the health delivery system towards prevention, screening, early intervention and new treatment modalities with the aim to reduce the burden of chronic disease. Surveillance of NCDs and their risk factors should also become an integral function of health systems. Awareness needs to be spread among the community regarding importance of physical activity with appropriate interventions encouraging diet modifications. Identifying the community specific risk factors might help in implementation of health programs at grassroots level leading to reduction of such risk factors for NCDs among the tribal population. Increasing awareness about NCDs through locally accepted and culturally appropriate strategies need to be implemented in tribal area. Increase in number of NCD clinics with interventions to facilitate behavior change among tribal people towards regular health check-up would undoubtedly help to reduce these risk factors for projected NCD prevalence. Enforcement of laws against use of tobacco and alcohol should be made more stringent. Through information, education and communication (IEC) activities on physical activity and balanced diet the knowledge systems of tribal communities may be enhanced towards reducing the extent of NCDs.

This review-based research findings may be helpful in understanding tribal situation in Odisha in the context of NCDs which assumes importance as a new area of research in the field of anthropology. The paper has limitations in empirical evidences in the context of tribal communities in Odisha and India. However, it is expected that the scope of research on non-communicable diseases will scale new heights in coming days.



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## PROTECTION OF WITCH-HUNTING: A TALE OF MODERN AGE

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### ABSTRACT

*Among the numerous black magic activities, witchcraft developed a prominent occult praxis, which was often held accountable for negative situations like disease, physical deformities, famine, bad crops, deaths and other detrimental stances. Characterised to be spiritual, divinatory and mystic in nature, it is to this day, omnipresent in almost every human community in earth since the beginning of human existence.*

*This paper assesses the philosophy of 'witchcraft' by reviewing various literatures for better understanding of the term and to understand the cause of 'witch-hunting' by identifying the real 'victims' and 'perpetrators'. The paper elaborates the legal protection afforded by the country in general and the protection afforded for witch-hunting in the state of Odisha in particular and finds out whether the legal protections so afforded are serving their purpose. The paper provides an assessment of the effectiveness of the legal instruments so implemented for protection of 'witch-hunting'.*

### Introduction

Passing through the different stages of human progression, it can be noticed that the human beings have evolved to establish themselves as one of the most complex organisms currently existing on earth. Among the numerous changes leading to this entitlement of being the most 'complex being', the most radical and crucial in the process of evolution was the rapid development of carnal capacity with the appearance of bipedalism.<sup>2</sup> This has led to rapid development of several 'brain-related' activities among humans. This progression sparked accomplishments like – coming up of new means of communications (sign languages), rapid improvement of tools, etc. which made humans stand out distinctive from other animals.<sup>3</sup>

In this progression, there were certain hurdles as well such as bad weather conditions, natural calamities, diseases, epidemic, death, etc., which have paved the path for origin of faith in super

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<sup>2</sup> Seth, S. (1993), 'New Perspective in Anthropology', M.D. Publications, p.27-48.

<sup>3</sup> *Ibid*

natural powers which are considered to be superior to humans. This led to coming up of 'religion' and 'magic' among humans.<sup>4</sup> If placed contrastingly, religion was supplicating in nature – in which powers were revered and pleased for preventing negative circumstances, whereas magic on the other hand, aimed at controlling over such powers, for causing benevolent and malevolent influences. The practices leading to socially acceptable good motives were referred as white magic, whereas the negative ones were labelled as black.<sup>5</sup>

Among the numerous black magic activities, witchcraft developed a prominent occult praxis, which was often held accountable for negative situations like disease, physical deformities, famine, bad crops, deaths and other detrimental stances. Characterised to be spiritual, divinatory and mystic in nature, it is to this day, omnipresent in almost every human community in earth since the beginning of human existence, whose social structure incorporate reverence towards supernatural realms.<sup>6</sup> Although often used interchangeably with black magic – witchcraft, as a standalone religion cultural practice – incorporates like divination, spell casting, sorcery, enchantment, necromancy, shamanism, demonology and mysticism. It is largely purported as the practice wherein supernatural powers are called upon by certain rites and techniques, for malevolent usages.<sup>7</sup>

This paper assesses the philosophy of 'witchcraft' by reviewing various literatures for better understanding of the term and to understand the cause of 'witch-hunting' by identifying the real 'victims' and 'perpetrators'. It elaborates the legal protection afforded by the country in general and the protection afforded for witch-hunting in the state of Odisha in particular and finds out whether the legal protections so afforded are serving their purpose. The paper provides an assessment of the effectiveness of the legal instruments so implemented for protection of 'witch-hunting'.

### **Understanding of the terminology 'witchcraft'**

Etymologically, the term 'witchcraft' is a compound of two words 'wicce' and 'craft' wherein the word 'wicce' derives its origin from the old English word 'wicca' which refers to 'witch' and 'craft' denotes 'skill or ability'.<sup>8</sup> Considered to be concomitant with deleterious actions and opposed to the publicly accepted benevolent goals of religion, it is supposed to be one of the several means through which the 'evil's' agenda of inflicting unfavourable influences, is advanced.

Owing to its perceived negative intents, witchcraft is popular as a 'wicked' practice and is often looked upon with pessimistic impression. People associated with witchcraft are often accused of causing detrimental impacts and hence, less socially acceptable and even socially ousted. It has been well depicted, documented and believed that witchcraft has mainly been practiced mostly by females.<sup>9</sup> Owing to its feminine affiliation, the practice has been widely known as 'witch-craft' and

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<sup>4</sup> Frazer, J.G. (1998), *The Golden Bough: A Study in Magic and Religion*, Oxford World's Classics, Oxford Publications, p. 27.

<sup>5</sup> *Ibid.*

<sup>6</sup> Varner, G.R. (2007), *The Dark Wind: Witches and the Concept of Evil*, Lulu Press, p. 16-17.

<sup>7</sup> Adinkrah, M. (2015), *Witchcraft, Witches and Violence in Ghana*, Berghahn Books, p. 1-19.

<sup>8</sup> Dilts, M.R. (2015), *Power in the Name: The Origin and Meaning of the Word 'Witch'*. Available at: [https://www.academia.edu/12416396/Power\\_in\\_the\\_Name\\_The-Origin-and-Meaning-of-the-Word-Witch](https://www.academia.edu/12416396/Power_in_the_Name_The-Origin-and-Meaning-of-the-Word-Witch) (accessed on 08.01.2020).

<sup>9</sup> Karlsen C.F. (1998), *The Devil in the Shape of a woman: Witchcraft in the Colonial New England*, W.W. Norton and Company, New York.

not its male counterpart which can be said as 'wizard-craft'. Females practicing this craft are often portrayed and attributed as 'ominous looking scary females, brandishing broomstick and doing chores that are considered to be 'wicked' and malevolent.<sup>10</sup> Alleged of causing detrimental influences, such women are trailed, branded as 'witches' and thereafter hounded, banished, flogged, raped, burnt alive and in most of the cases, ruthlessly murdered. These trails and hunting have existed as socially acceptable tools for weeding out the anti-social, malevolent witches from the society.<sup>11</sup>

Witchcraft, in some form or the other, has been a prominent socio-religious phenomenon in almost all existent communities of the globe. Faith in its actuality and presence has been unmoved in societies and religions, across the world. It is validated by evidences from the Old Testament, New Testament, Protestant Culture, Babylonian societies, Hebrew Bible, Jewish Culture, Islam, Hinduism and almost all the documented indigenous communities of the globe. Geographically also, witchcraft is almost omnipresent as evidently marked by documentations, paintings and other testimonies emanating from African, American, European, Middle East, South Asian and Island nations.<sup>12</sup>

### Identifying of the 'real victim'

In instances of witch hunting, the notion of 'victim' and perpetrator is quite bewildering i.e. who is the victim and who is the perpetrator? does not come out very clearly.<sup>13</sup> In fact, the cognition of victim and perpetrator is quite antagonistic among the 'insiders' and 'outsiders'. Here 'insiders' include the people who live in the village/community/society/place; whereas 'outsiders' are those who are unknown to the accused witch and are not the resident of the concerned place.

For 'insiders' one who brings harm to the community is the 'perpetrator' and the persons who suffered the burnt is the 'victim'. By this analogy, the accused witch is the 'perpetrator' and the individuals who are inflicted with ill effects of the evil powers of the witch is the 'victim'. In order to curb the cause of the misfortune and to prevent any further damages, the 'insiders' resolve to ex-communicate, ousted or killed is seen as the 'victim' and the people (the 'insiders') who are involved in this act are perceived as 'perpetrators'.<sup>14</sup>

### Witch-hunting in Indian scenario

Amidst its global footprint, the practice of witchcraft has been prevalently customary in India as well, especially among the rural and relatively isolated precincts, which also happen to be the adobe of indigenous/tribal people.<sup>15</sup> It is widely believed that the witches, who are mostly females, manipulate

<sup>10</sup> Oblau, C.W & Wrogemann, H. (2015). *'Witchcraft, Demons and Deliverance'*, LIT Verlag Münster, p. 75.

<sup>11</sup> Shaffer R. (2014), *'Modern Witch Hunting and Superstitious Murders in India, Skeptical Inquirer'*, Volume 38.4. Available at: [https://skepticalinquirer.org/2014/07/modern\\_witch\\_hunting\\_and\\_superstitious\\_murder\\_in\\_india/?%2Fsi%2Fshow%2Fmodern\\_witch\\_hunting\\_and\\_superstitious\\_murder\\_in\\_india](https://skepticalinquirer.org/2014/07/modern_witch_hunting_and_superstitious_murder_in_india/?%2Fsi%2Fshow%2Fmodern_witch_hunting_and_superstitious_murder_in_india) (Accessed on 08.01.2020).

<sup>12</sup> Alam, S. and Raj, A. (2017), *'The Academic Journey of Witchcraft Studies in India'*, Man in India, Vol. 97(21), p.123-138.

<sup>13</sup> Konwar, J.G. and Swargiari, D. (2015), *'Conflicting Idea of 'Victim' and 'Perpetrator' in Witch-Hunting: A Case Study in the State of Assam, India'*, The International Journal of Humanities and Social Studies, Vol. 3 Issue 5, pp. 132-139.

<sup>14</sup> *Ibid.*

<sup>15</sup> Saletore, R.N. (1981), *'Indian Witchcraft'*, Abhinav Publications, New Delhi.

the perceived evil supernatural powers to cause detrimental and inauspicious events such as destruction of crops, ill health of villagers, death of nearby children especially children, etc. The culpability of anything bad is written off upon her and thereafter she is subjected to mass anguish and outrage, often leading to adverse inhuman treatment, comprising of ostracizing, banishment, hounding, rape, burnt alive and even execution. This traditional customary practice of weeding-out of the cause of perceived evil by eventually murdering/killing the alleged witch, is witch hunting.

Though there are many national as well as state legislations implemented to protection of witch hunting, yet the inhuman practice of witch-hunting prevails in several states in India, including Jharkhand, Odisha, Chhattisgarh and Assam, mainly in the tribal areas. The social evil has long vanished from most parts of the world, barring India and some African countries. Examples of such legislations protecting witch hunting are Constitution of India, Indian Penal Code, The Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989, The Protection of Human Rights Act, 1993; The Protection of Human Rights (Amendment) Act, 2006, The Odisha Prevention of Witch-Hunting Bill, 2013, and the subsequent amendments in the Act 1989.

### **‘Witch-hunting’ in Odisha & protection afforded**

Though the State of Odisha made rapid strides in different spheres, witchcraft, a social evil arising out of superstitions still has strong roots in tribal pockets. It is evident from the national crime records Bureau’s report of 2016 which had placed Odisha in the second place after Jharkhand for witnessing the bizarre practice in the modern society. The NCRB report said a total of 24 murders were reported due to witch-hunting in the state.<sup>16</sup>

Further, Odisha Crime Branch (CB) informed that 99 cases of witch-hunting were registered in the State in 2017 compared to 83 in 2016 and 58 in 2015. According to CB officers, maximum number of witch-hunting cases was registered in Mayurbhanj, Nabarangpur and Keonjhar districts. Crime Branch ADG Santosh Upadhyay pointed out that murder cases related to witch-hunting in the State had, however, declined in 2017 compared to 2016. “About 18 murder cases related to witch-hunting were registered in 2017 against 25 in 2016.”<sup>17</sup>

Significantly, the state government promulgated Odisha Prevention of Witch Hunting Act 2013 to check witchcraft. Last year’s most sensational witch hunting was reported in Jharsuguda in March where two college girls allegedly killed another girl to cure her illness through sorcery.

It was also said by the secretary of the Odisha Rationalist society that “in many cases, men were also attacked and killed after being branded as witches”. Further, he alleged that the police in tribal areas have failed to implement the Odisha Prevention of Witch Hunting Act.<sup>18</sup>

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<sup>16</sup> National Crime Report Bureau (NCRB) Report 2016. Available at:

<http://ncrb.gov.in/StatPublications/CII/CII2016/pdfs/NEWPDFs/Crime%20in%20India%20-%202016%20Complete%20PDF%20291117.pdf> (Accessed on 08.01.2010).

<sup>17</sup> ‘Witch hunting cases show a rise in Odisha’, The New Indian Express, Published on 25.02.2018. Available at: <https://www.newindianexpress.com/states/odisha/2018/feb/25/witch-hunting-cases-show-a-rise-in-odisha-1778558.html> (Accessed on 08.01.2020).

<sup>18</sup> Mohapatra, D. (2018), ‘Witch-Hunting Continues Undebated in Tribal Pockets of Odisha’, Published on 23.02.2018. Available at: <https://timesofindia.indiatimes.com/city/bhubaneswar/witch-hunting-continues-unabated-in-tribal-pockets-of-odisha/articleshow/63043374.cms> (Accessed on 08.01.2020).

### **Burgeoning of 'witch-hunting'**

In communities where witchcraft is rampant, it is profoundly believed that 'witches' use magical powers to attack the fertility capacity of humans, cause harm to domestic animals, destroy crops, fly through night to engage in cannibalism, incestuous acts etc. They are usually perceived to cause misfortune, sickness and even death by casting 'evil eye'.<sup>19</sup> Due to such deleterious capabilities, witches are considered as threat to community members and are often looked upon with fear as suspension. For countering this, socially recognised sorcerers perform magic for identifying the witch responsible for such misfortunes.

Deeply embedded in the socio-cultural milieu, the sorcerers are believed by community members to possess special powers which can counter the malevolent activities of witches. Once it is confirmed that the disease/illness or any other misfortune occurring in the community, has occurred due to its ill influence of a particular witch; the matter no longer remains restricted merely to the victim's family members. It rather becomes a public affair.<sup>20</sup> To curb the cause of the menace, destroying the alleged witch (either by killing her or by inflicting severe punishments upon her) has emerged as the pre-eminent solution, internalised by community members. This notion, by and large sets the tone for thriving of witchcraft across the country.

### **Conclusion**

The very basic assumption behind the formulation of specialised anti-witchcraft laws is flawed. It is just a check-mechanism and should not be taken as 'sufficient response to the problems originating in the society due to evil practices, irrationality or suspicion'.<sup>21</sup> Such legislations cannot end superstitions, provided redressal to victims or inject scientific approach and rationality in the community. These legislations also do not take into account a) the conditions under which such practices flourish, b) the gaps in existing laws, c) the mode of reporting of cases, d) the investigation carried after reporting, and e) the emergent needs of the victims. Hence, a more social approach must be adopted than just being strictly legal.<sup>22</sup> Also majority of witchcraft cases are never taken to the police or court. Even if taken, more than half are dismissed due to lack of proper investigation, absence of witnesses, minor punishments to the perpetrators or compromise between the victim and the perpetrator. Due to the aforementioned conditions, anti-witchcraft laws are unable to achieve their desired spirit and purpose for which they were legislated.

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<sup>19</sup> Joshi, P.C., Kaushal, S., Katewa, S. & Devi, O.H. (2006), 'Witchcraft Beliefs and Practices among Oraons', Studies of Tribes and Tribals, Volume 4(2), p. 145-149.

<sup>20</sup> *Ibid.*

<sup>21</sup> Mehra, M. and Agarwal, A. (2016), 'Do We Need Special Laws? Witch-hunting' in India?', Economic and Political Weekly, Vol. 51, Issue No. 13, 26 Mar, 2016. Available at: <https://www.epw.in/journal/2016/13/special-articles/witch-hunting-india.html> (Accessed on 08.01.2020)

<sup>22</sup> *Ibid.*

# GENDER DISPARITIES AMONG THE SCHEDULED TRIBES OF ODISHA

Sitaram Pingua <sup>1</sup>  
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## ABSTRACT

*The paper focuses on the gender disparities among the Scheduled Tribes of Odisha specially disparities in education, health and work participation. It is observed that there is a wide variation in education, health and work participation status among male and female ST population in Odisha. This analysis has been based on some selected variables collected from secondary data especially from Census of India.*

*The analysis based on 2011 census data indicates that there are regional disparities in distribution of the sex ratio of STs in Odisha so also in case of work participation rate (WPR) varies considerably between male and female. Wide variation is noticed between rural and urban tribal sex ratio in Odisha. Gender disparities were also observed in case of literacy rate in Odisha as per Census 2011. These disparities have multi-dimensional implications in the Scheduled Tribes development context in the state. It is expected that by effective implementation of various state plans, policies and programs, and also by raising general awareness of people the disparities can be reduced.*

**Keywords:** Schedule Tribe, Gender disparities, Sex Ratio, Work Participation

## Introduction

Odisha, located on the east coast of the country is known for its unique tribal culture and Hindu religious monuments. The state, surrounded by West Bengal, Jharkhand, Chhatisgarh and Andhra Pradesh States is the 8<sup>th</sup> largest state by area and the 11<sup>th</sup> largest by population of Scheduled Tribes in India. With reference to the census 2011, the sex ratio of the state for all population and tribal sex ratio are 990 and 1029 respectively. The ST literacy rate in the state is 52.24% which is 63.70% in case of males and 41.20% for the females. The literacy rate has improved significantly in the last few years due to the consistent efforts of the State Government. However, there is still wide disparity between men and women in sex ratio, literacy and work participation rate (WPR) that has become a development concern for the state. It is worthwhile to present here the conceptual understanding, meaning and definition of gender, disparity and gender disparity, in the context of this paper, before going about the detailed analysis.

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By commonly held definition, gender is the state of being male or female in relation to the social and cultural roles that are considered appropriate for men and women. The term 'gender' refers to the social classification of men and women as 'masculine and feminine' (Oakley, 1972:16) and their expected behaviour based on their assigned social roles (Basin, 2000). The different roles that are ascribed to men and women are socially and culturally determined and influenced by traditional practices, institutions, customs and beliefs. Most of the societies in northeast India are patriarchal society where men dominate and exercise control over most of the resources and are considered superior to women. For thousands of years, India has been grappling with gender issues like discrimination, inequality and predictability since its inception.

Every country, society, sections of society, castes makes different rules for women and men according to their ideas, religious scriptures, customs, culture and rites etc. Both have their own templates or photos are fitted in: man should be like this, a woman should be like that. This social difference is made by the society itself that is not governed by dictum of God or nature. Nature interprets sex, not gender. With the help of physical or natural differences, the belief system of social discrimination is created and one gets to hear that the woman is naturally weak. According to United Nation (2010), gender is a social construction that defines and differentiates roles, rights, responsibilities and obligations of women and men. Further, it states that the innate biological differences between men and women are used to support social norms defining the adequate behaviour of women and men and to determine the differentiated economic, social and political power between men and women.

The conceptual difference between sex and gender is thus presented in the following table for understanding its general usage and contextual implications.

Sex	Gender
<ul style="list-style-type: none"> <li>• It is physical.</li> <li>• Sex remains the same in every society.</li> <li>• Cannot be changed normally (sometimes, whose gender is not clear, they are changed by operation)</li> <li>• It explains the natural difference between men, women and transgender.</li> </ul>	<ul style="list-style-type: none"> <li>• It is social and cultural.</li> <li>• It is made by society.</li> <li>• This is a mindset which creates the qualities, behaviour, role, rights etc. of men and women.</li> <li>• The gender depends on time, society, family, religion and culture.</li> </ul>

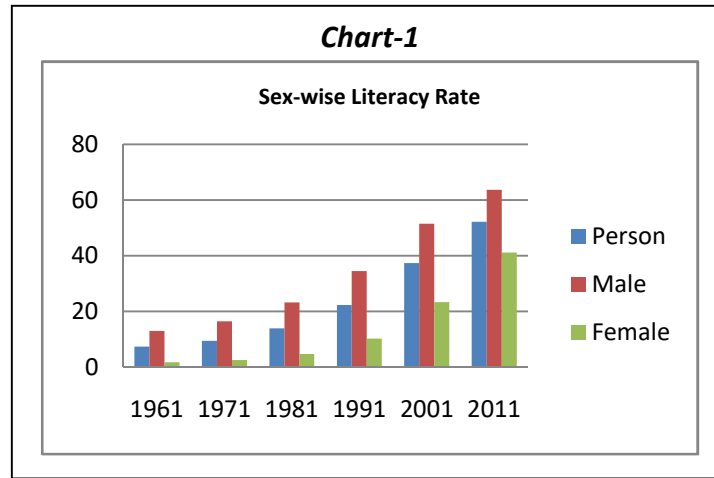
It has also been observed in Odisha that the difference between a man and a woman occurs only after being born. Discrimination on the basis of 'gender' has been observed in all spheres of human interests including the granting of land rights by the state (Agarwal, 2002), intra-household allocation of food and resources (Harris-White, 1996; Cowan and Dhanoa, 1983; Sen and Dreze, 1989) and payment of wages and remunerations (Unni, 1999). Keeping the above facts in view, this paper focuses on gender disparities in the areas of health, education, work participation etc.

### Objective and Methodology

The basic objectives that has guided the analysis presented in this paper are: to understand the position of schedule tribe women in Odisha; and to analyze the trends and disparities in education, health, work participation status of tribal women in the state.



The analysis is based on some selected variables got from secondary sources like Census of India reports, State level analysis of census reports, research papers, books and other relevant literature. The formula used to study gender inequalities among Scheduled Tribes of Odisha is as follows:



$$\text{Sex Ratio} = \frac{\text{Number of females}}{\text{Number of males}} \times 1000$$

$$\text{Literacy Rate} = \frac{\text{Number of Literates}}{\text{Population aged 7+ years}} \times 100$$

$$\text{Work Participation Rate (WPR)} = \frac{\text{Total no. of workers}}{\text{Total Population}} \times 100$$

## Result and Discussion

The gender disparity in literacy rate, sex ratio and work participation rate are discussed as below.

### A. Literacy

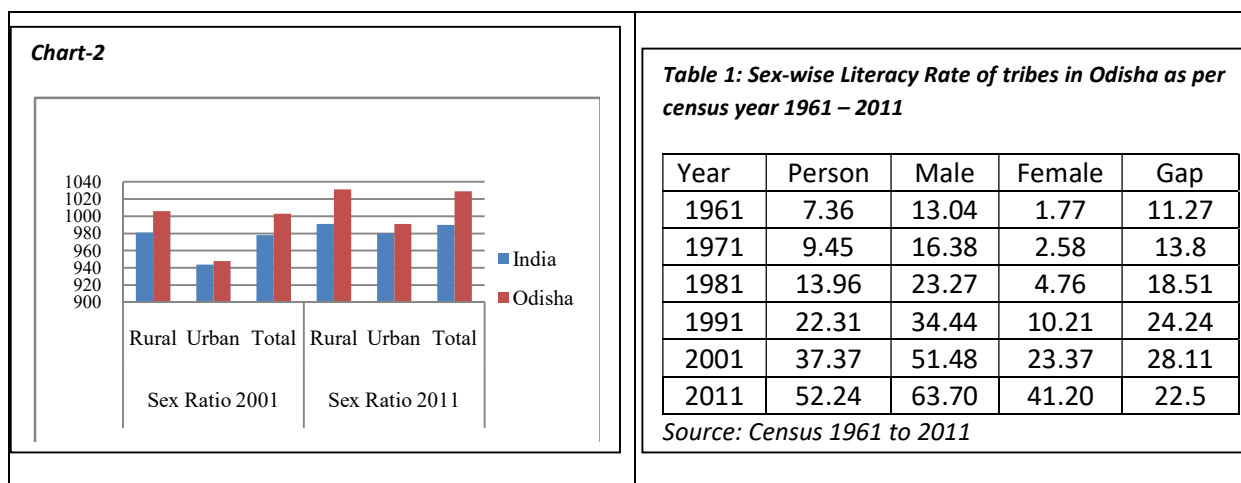
Literacy is one of the main components of the socio-economic development of a region or country. It is also one of the components of the Human Development Index (HDI) along with life expectancy and per capita income. The difference between female and male literacy rates is one aspect of this phenomenon of gender-based inequality in India. As per Census 2011, in Odisha 42.16 lakh persons have been counted as literates. Among all literates, 16.93 lakh are females, whereas 25.23 lakh are males. The overall literacy rate of STs of Odisha during 2011 is 52.24%. The male and female literacy rates of STs in Odisha are 63.70% and 41.20% respectively in 2011. The inter-district analysis shows that female literacy of ST is highest in Puri district (64.71%) and lowest in Koraput (25.37%). In Odisha, male and female illiteracy rates of ST are on declining trend over the years. During 2001 and 2011, the literacy gaps have declined from 28.11 to 22.5. It is also observed that the female literacy rate is continuously increasing over the period from 1961 to 2011. Odisha's ST female and male literacy gap was around

11.27 during 1961, while this gap has narrowed down considerably over the years, with the literacy gap exceeding 22.5 in 2011. (Table-1). It can be noticed that state like Odisha that was showing lower overall literacy rates continue to make huge differences in Scheduled Tribe male-female literacy rates with substantial improvement in female literacy. It also seems that low urbanization and low density of population affect the difference in male-female literacy rate at district level.

The status of Scheduled Tribe women in Odisha in terms of literacy is still at a relatively lower level. The Government of India and Government of Odisha have initiated various programs over the years to ameliorate the situation by promoting and improving the education level of tribal women in Odisha by implementing several schemes like- Non-Formal Education (NFE), District Primary Education Program (DPEP) and Sarva Shiksha Abhiyan (SSA). The state Government has taken steps to set up special schools for tribal children with residential facilities like Ashram School, Sevashram, and Ekalabya Model Residential (EMR) Schools. Number of 100 seated hostels for tribal girls has been set up in different tribal districts of Odisha which has contributed to improvement in the educational level of ST girls during last two decades.

## B. Sex ratio

Odisha holds a unique place in the ethnographic map of India as home to the greatest diversity of 62 scheduled tribe communities. Out of the 62 indigenous tribes, 13 tribes are listed as 'Particularly Vulnerable Tribal Groups (PVTG). Although scheduled tribes are found in all the districts of Odisha, as per census reports yet they assume more than 50% of total district population in Koraput, Rayagada, Nabarangpur, Malkangiri, Kandhamal, Gajapati, Keonjhar, Sundargarh and Mayurbhanj districts.



Total ST population in Odisha is 22.8% as per Census 2011 that has increased marginally from 22.1% in 2001. As per the 2011 census data, out of total ST population 22.3% are male and 23.4% are female (Office of the Registrar General Orissa, 2011). The sex ratio of ST has increased from 1003 in 2001 to 1029 in 2011 which is better than the National average. It is seen that the Scheduled Tribe sex ratio in Census 2011 is higher in both rural and urban areas than that of Odisha and India during 2001. The sex ratio in rural and urban areas has increased from 1006 to 1031 and 943 to 991 during 2001 and 2011 respectively. In case of India, the overall Schedule Tribe sex ratio which was 978 in 2001 has increased by 12 points to 990 in 2011. According to the 2011 census Rayagada district has highest sex ratio i.e.1092. The district with the lowest sex ratio is Jagatsinghpur (860).

### C. Health

Health is one of the basic indicators of human development. The health status and healthcare practices of the indigenous tribal communities varies considerably according to their geographical locations and work traditions. Belief in superstitions, black magic, sorcery and witchcraft still prevails among most of the tribal communities in the state. These belief systems reasonably influence their health and health seeking behavior. The body mass index (BMI) is a measure for human body shape and health status based on an individual's weight and height which is shown in the following Table-3. It is observed from the BMI stages, around 37% tribal women were malnourished and about 15% of them have low weight. It is also noticed that there is a wide variation in BMI level between male and female of ST of Odisha.

**Table-2 Sex ratio of the Scheduled Tribe population of Odisha**

Areas	Odisha		India	
	2001	2011	2001	2011
Rural	1006	1031	981	991
Urban	948	991	944	980
Total	1003	1029	978	990

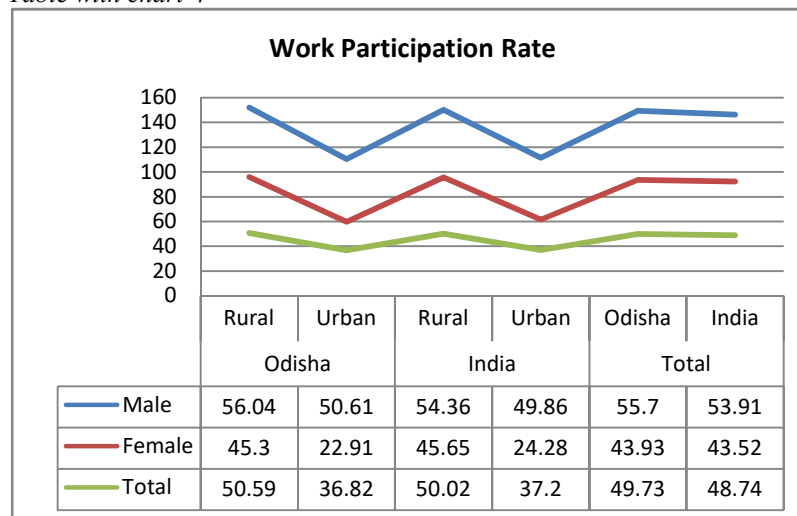
**Table-3 Nutritional status of Scheduled tribe women and men age 15-49 with specific body mass index (BMI) levels**

Sl. No.	BMI stage		Female	Male
1	< 18.5	Underweight/possible malnourished (total thin)	36.5	23.7
2	< 17.0	Low weight (moderately/severely thin)	14.6	7.7
3	≥25.0	Overweight or obese	5.5	9.9
4	≥30.0	Obese	0.8	1.1
5	Total		57.4	42.4

### D. Work Participation Rate

Participation in the labour force of Scheduled Tribe women provides a clear picture on gender disparities. The participation rate of work in Odisha is low but is improving. The female work participation rate is very low in comparison to male counterpart in case of rural and urban areas of Odisha. The ratio of female to male labour force participation rate is calculated by dividing the female labour force participation rate by the male labour force participation rate and multiplying it

*Table with chart-4*



*Source: Census of India 2011*

by 100. Women's work participation among the Scheduled Tribe in India has decreased marginally from 44.83% in 2001 to 43.52% in 2011. In Odisha, WPR has increased from 43.23% in 2001 to 43.93% in 2011 (Table-3). According to 2011 census total Scheduled Tribe main worker is 48.87% in Odisha which is 29.64 % for female and 64.47% for male. The total agriculture labourer figure out 32.55% with 46.09 % tribal women are engaged as agricultural labourers as against 27.49% of males. 4.94% of tribal women are engaged in house-hold industries as against 1.70% of male. Apart from domestic chores, Odisha's tribal women perform a large part of the agricultural work, such as field preparation, weeding, transplanting, harvesting, threshing and winnowing. It is observed that there is a wide disparity between male female of ST communities in case of WPR.

## Conclusion

It is observed from the analysis that there are regional disparities in distribution of the sex ratio of STs in Odisha. With reference to Census 2011 wide variation is noticed between rural and urban tribal sex ratio. Gender disparities in literacy rate, work participation rate is clearly visible from the analysis of census 2011. In case of WPR, female WPR is low as compared to male WPR during 2011. These disparities have multi-dimensional implications in the Scheduled Tribes development context in the state. It is expected that by effective implementation of various state plans, policies and programs, and also by raising general awareness of people the disparities can be reduced.

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