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Affirmative action, social inclusion and tribal development in Odisha, India: Persistent issues and the way forward

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Abstract--The main aim of this exploratory study is to examine the impact of affirmative action on social inclusion and development of tribal communities or Scheduled Tribes (STs) in the eastern Indian state of Odisha by critically analyzing their quality of life and level of living based on certain selected human development indicators such as level of literacy and education, income and consumption patterns, health and nutritional status, livelihood and employment patterns, and access to basic needs. Using secondary data from multiple credible sources such as National Sample Survey (NSS) reports, Census of India statistics, National Family Health Survey (NFHS) reports and Unified District Information System for Education Plus (U-DISE+) for analysis, the study finds a very poor quality of life among the tribal people despite the fact that the central and the state governments are keen to eliminate the worst forms of human deprivations through affirmative action and anti-discrimination policies. From an affirmative action perspective, it is argued in this research that such poor quality of life among the tribal people is mainly owing to their historically rooted social disadvantages and exclusion from the recent development paradigm. The study emphasizes on the need for proper implementation of affirmative action policies to redress such exclusion and concludes with suggestions on how practical policy options can improve the quality of life and well-being of the tribal people.

Keywords--quality of life, affirmative action, scheduled tribes, inclusion, human development.

JEL Codes: D63, I31, I32, I38, O15, P36

1. Introduction

Human development and improvement in quality of life of people have become the key objectives of development planning in India (Ghosh, 2006; Mukherjee et al., 2014; NITI Aayog, 2024; Saksena & Deb, 2016; Singh, 2024). The central as well as the state governments have taken steps for broad-based improvements in the quality of life and well-being of the people through a variety of social, economic and institutional means that encompass both income and non-income dimensions. Making economic growth and development percolate to the marginalized and disadvantaged sections of the society, such as the Scheduled Castes (SCs), the Scheduled Tribes (STs), the Other Backward Classes (OBCs) and the minorities, remains the official policy of inclusive growth for the country (Pothal, 2024). Both the central and the state governments are keen to eliminate the worst forms of human deprivations and protect the interest of the people, especially of the STs or the tribal communities (popularly known as Adivasis in India), through anti-discrimination and affirmative action policies and programmes that put people at the centre of the country's broader development agenda where economic growth is a means to development, not an end by itself. Substantial resources including specialised development packages have been made available by these governments (Dungdung & Pattanaik, 2020; Government of Odisha, 2024; Pradhan et al., 2023) through a number of socio-economic schemes for addressing the concerns associated with the historical marginalization and exclusion of the tribal or indigenous people from the mainstream development.

Such efforts, however, have generated some positive impacts, but seem not to be commensurate with the real needs of the target groups. Even after seven decades of development planning, it is hard to find a measureable change for better in relative terms among the deprived and vulnerable people (Arora & Siddiqui, 2025). The STs are suffering from systematic exclusion from the means to achieve vertical mobility (Oxfam India, 2023). Several social, economic and institutional obstacles have remained major stumbling blocks to the proper distribution of the benefits of recent economic growth among the different sections of the society. Odisha (formerly known as Orissa), which is considered as one of the most poverty-stricken states in India, is a case in point, where the march of development tends to create new types of inequalities among the marginalised and disadvantaged groups such as the STs and the SCs.

Odisha holds a special position in the tribal map of India for having the largest number of tribes among all states and union territories of the country. With 64 distinct and recognised tribal communities¹, including 13 particularly vulnerable tribal groups (PVTGs), the state has a unique, rich and diverse tribal demographic landscape. Tribal population of the state, as per the Census of India 2011, is 9.59 million, constituting nearly 22.85% of the total state population and 9.2% of the total tribal population of the country. In the hierarchy of distribution of tribal population, the state comes third in position in India, the first two being Madhya Pradesh with 14.69% and Maharashtra with 10.08% (Government of India, 2013).

¹ As per the Constitution (Scheduled Castes and Scheduled Tribes) Orders (Amendment) Act, 2024, there were two new entries in the list of 62 tribes of Odisha, increasing the total number to 64. The new entries are: 1) Muka Dora, Mooka Dora, Nuka Dora and Nooka Dora, and 2) Konda Reddy and Konda Reddi.

The tribal communities of Odisha are found across the state, with significant concentrations in the northern and the southern hilly regions.

Odisha's socio-economic development has followed varied patterns, with some areas showing faster improvement while others showing slow down and even regression. The volume of such improvement has been lower among the STs than other social groups. The tribal people of the state present a widely acknowledged multifarious socio-economic system, with different degrees of exposure to modernity and social change. Historically, they have been subjected to marginalisation, social exclusion and discrimination (Bhagat, 2024; Mallik & Paltasingh, 2025; Panda & Padhi, 2020). Though state-sponsored targeted interventions and affirmative action policies have of late resulted in some progress in the socio-economic development of indigenous communities, the STs are not yet on an equal footing with the mainstream society on any well-being indicator.

It is thus imperative to examine the impact of affirmative action and welfare schemes on quality of life of the tribal people in order to evaluate the effectiveness of the policies that aim to ensure that "no community is left behind". Various studies have been conducted to comprehensively assess the persistent challenges in human development of Odisha's tribes, highlighting the issues related to economic stability, inclusion, livelihood, health, education, and other well-being indicators. But research studies on these issues on a regular basis and consistent monitoring are critical to deeply understand the trends, initiate planned strategies and take practical policy measures from time to time in order to empower the tribal communities. To this end, the present study contributes to the growing discourse on the effectiveness of government interventions on tribal development by providing insights on the following basic research questions.

- i) What is the effectiveness of affirmative action in reversing the historical trends of structural discrimination and social exclusion of STs from the mainstream society?
- ii) How do the inclusive policies (backed by constitutional provisions) redress both social group disparity and emerging forms of backwardness?
- iii) What could be the practical policy options to include the hitherto excluded marginalised sections in the development process right away?

2. Objectives of the Study

In order to address the aforementioned research questions, the specific objectives framed for the present study are to: (a) analyse the substantive coverage and efficacy of the inclusion process concerning tribal development in Odisha, (b) critically examine the impact of affirmative action on social and economic inclusion, and tribal development within the framework of a few selected quality of life parameters, (c) understand the issues, challenges and shifts in policy and process in achieving sustainable socio-economic transformation of the tribes, and (d) suggest potential policy options that could address the challenges in empowering the tribal people.

3. Data and Methodology

This descriptive and exploratory study is based on the analysis of secondary data collected from multiple sources such as the Census of India reports, National

Sample Survey (NSS) reports, National Family Health Survey (NFHS) reports, the repeated survey data on diet and nutrition collected by the National Nutrition Monitoring Bureau (NNMB), Odisha Economic Survey reports (different issues from 2003-04 to 2024-25) and the Unified District Information System for Education Plus (U-DISE+) data. In addition, the study uses data and information published in different other reports, bulletins and working papers like the Sample Registration System (SRS) bulletins, human development reports and reports of international organizations such as the World Bank, IMF, UNDP and WHO. The various analyses in this study are carried out under different sections.

This research examines the quality of life and level of living of the tribal people through key indicators such as health and nutritional status, literacy and educational attainment, level of income and consumption, extent of indebtedness and incidence of poverty. To examine the nutritional status, the dietary, nutrient intake and anthropometric measures have been used. To examine the level of literacy and education, descriptive statistical analysis has been done. To estimate the incidence of poverty, the study employs the Foster, Greer and Thorbecke (FGT) class of poverty measures. The Foster-Greer-Thorbecke (FGT) class of decomposable poverty measures is a widely used family of poverty indices. Measures like the head count ratio or HCR (to measure the incidence of poverty), the poverty gap ratio or PGR (to measure the depth of poverty), and the squared poverty gap ratio or SPGR (to measure the severity of poverty) can be estimated using the following formula.

$$\text{FGT}(\alpha) = P_\alpha = \frac{1}{n} \sum_{i=1}^m \left[\frac{z - y_i}{z} \right]^\alpha$$

Here, 'n' is the number of people in the sample population, 'm' is the number of people below the poverty line, 'y_i' is the income of the poor individual 'i' and 'z' is the poverty line (income). Values of α = 0, 1 and 2 give us the head count ratio, poverty gap ratio and squared poverty gap ratio (also known as FGT ratio), respectively.

4. Conceptual Background

The present research is theoretically grounded in the concepts of social inclusion, quality of life, level of living and affirmative action (all in the perspective of tribal development).

4.1. Social Inclusion

In policy discourse, social inclusion is a multi-dimensional phenomenon (Atkinson & Marlier, 2009; Azhar & Adil, 2019) which includes a range of fields beyond the elimination of extreme poverty. It is a legal and moral imperative that can be viewed both as a process and a goal. It is the process of improving the terms of participation of the disadvantaged or marginalized people and fostering shared prosperity through better opportunities, access to resources, and respect for rights, voice and dignity. On the other hand, it is a goal that aims to prevent discrimination and stigmatization of people by ensuring that all people have the best opportunities to participate fully in economic, social, political and cultural life. It aims at freeing all sections of the society from poverty, discrimination, exploitation, isolation, deprivation and development-induced impoverishment,

and to ensure, among other things, healthy lives with better access to education, basic necessities of life, justice, and inclusive and participatory decision-making.

All efforts to promote social inclusion have arisen from the concerns over the complex and multi-dimensional process of social exclusion that grossly affects both the quality of life of people, and equity and cohesion of the society as a whole (Levitas et al., 2007). Social exclusion describes a state in which individuals or groups are unable to participate wholly or partially in economic, social, political and cultural life due to the denial of equal opportunities imposed by certain groups upon others. Such a state creates adverse consequences in terms of discrimination, deprivation, poverty and human rights violation (Halkos & Aslanidis, 2023; Sen, 2000), and captures “an important dimension of the experience of certain groups of being somehow ‘set apart’ or ‘locked out’ of participation in social life” (Kabeer, 2000). Social exclusion creates a condition that impedes social inclusion. Hence, social inclusion can be promoted by addressing the broader issue of social exclusion.

India has a longstanding commitment to build an inclusive society or ‘society for all’ that could be a key component of its quest for inclusive, balanced and sustainable development (Ahluwalia, 2020; Bhalla, 2011; Virmani, 2023). However, in the highly stratified and hierarchical Indian society, the institutional policies and processes have socially and economically excluded, isolated and discriminated some sections of the population on the basis of ethnicity, origin, religious background, gender, socio-economic status, class or caste (social stratification), among others. The refutation of access to resources and entitlements leads to violation of human rights of such marginalised or structurally discriminated people, with disproportionately negative effects on their individual opportunities.

4.2. Level of Living

In recent times, the escalating interest in designing and developing better measures of development (to measure both economic hardship and affluence) has reflected a concern for quality of life, but lack of a cohesive conceptual and theoretical framework has been a major problem. However, the well-established concept of level of living, which is a critical contributing factor to examine an individual’s quality of life, can provide such a framework (Knox, 1974). The concept of level of living implies the scale of preferences and satisfaction of wants of individual members in a household and the collective wants of groups or communities. It implies the degree to which the needs of a population are met with the goods and services they receive over a period of time.

Level of living is viewed as a tangible and quantifiable term that is generally concerned with objective metrics. Some researchers follow the level of living approach to empirically measure and assess quality of life by focusing on objective descriptions to explain the living conditions that are viewed as the prerequisites for people being able to manage their life situation and thereby realize their own quality of life. Such an approach focuses on what could be the determinants of quality of life, such as health, education, consumption pattern, income, occupation and working conditions, housing, etc.

4.3. Quality of Life

Research on quality of life, having its origins in the social indicators research of the 1960s and early 1970s, has gained prominence in academic parlance. Quality of life is a multidimensional concept, reflecting the physical, psychological, social, economic and environmental dimensions of life. It has occupied an important place in every realm of public policy making in developing countries like India.

Different researchers have followed different ways to conceptualize the term “quality of life” in the literature. Many researchers have adopted both objective (e.g. income, access to goods and services, and other socio-economic indicators) and subjective (e.g. happiness and life satisfaction) approaches to better conceive of quality of life (Diener et al., 2009; Flanagan, 1978). Abrams (1973) defines quality of life as the degree of satisfaction or dissatisfaction felt by people with different aspects of their lives. In the same line of approach, it is asserted that quality of life is the provision of the “necessary conditions for happiness and satisfaction” (McCall, 1975, as cited in Bond & Corner, 2004).

The connotation of the two terms “level of living” and “quality of life” often creates ambiguity from the perspective that there may be perceived overlap in how these terms are defined. At the same time, there exists no universally agreed-upon technique to measure them. Striving for a balance between these two broad and highly contested concepts, however, is the key to create inclusive societies that can prioritize sustainable well-being. Both are used to measure the well-being of individuals and groups by taking into account the factors such as income, consumption pattern, education, access to healthcare, etc. But both are different in the sense that “level of living” is mainly focused on measuring material well-being while “quality of life” is a broader concept that encompasses both material and non-material factors including happiness, health, safety, security and social connections influenced by culture, values and social goals.

4.4. Affirmative Action

The concept of affirmative action recognizes the fact that the state must affirm and uphold the economic and political rights of the historically discriminated groups which have been disabled economically, socially and educationally. According to the United Nations Sub-Commission on the Promotion and Protection of Human Rights (2002)², “Affirmative action is a coherent packet of measures, of a temporary character, aimed specifically at correcting the position of members of a target group in one or more aspects of their social life, in order to obtain effective equality.” Affirmative action thus implies a liberal democratic approach to enhancing the equality of opportunity of the disadvantaged or marginalized groups within the grasp of the state.

In the global perspective, affirmative action is referred differently, such as ‘positive action’ (Europe), ‘preferential policies’, ‘special measures’ (international law), ‘reservations’ (India and Nepal), ‘employment equity’ (in a narrower context in Canada and South Africa), ‘compensatory or distributive justice’, ‘preferential

² For details, see “The Concept and Practice of Affirmative Action”. Final report submitted by Marc Bossuyt, a special rapporteur on special measures for the U.N. sub-commission on the promotion and protection of human rights, in accordance with sub-commission resolution 1998/5, UN doc. E/CN.4/SUB.2/2002/21 (2002).

treatment', etc. Affirmative action policies take some kinds of initiatives either voluntarily or under the compulsion of law. These are carried out by actors belonging to public and private sectors for providing preferential treatment to marginalised groups on the ground that they have hitherto been disadvantaged either by the governmental policies or as a result of popular prejudice.

5. Affirmative Action and Welfare Schemes for STs in India and Odisha

India's affirmative action programme is the most comprehensive in the world (Sönmez & Yenmez, 2022). The Indian Constitution has given express recognition to the disadvantaged sections by laying down certain general principles for deliberative policy of affirmative action for upliftment of these sections. It incorporates essential provisions to provide testimony to tribal welfare programmes, making them a constitutional obligation for the government. It provides statutory recognition to the rights of the indigenous communities and other traditional forest dwellers over forest land and resources, and has created scheduled areas for development of tribal communities.

The Constitution of India adopts equality and justice as the basic organising principles of the country's socio-economic and political systems. Equality (under Articles 14, 15 and 16) comprises the twin concepts of 'equality before law' and 'equal protection of laws'. While the former implies the absence of any special privilege in favour of any person and ensures equal status to everybody, the latter aims at achieving substantial equality by ensuring that no person shall be subjected to discriminatory treatment and by classifying the advantaged and disadvantaged sections in order to provide the disadvantaged people the opportunities through affirmative action. Article 15(4) allows the state to make special provisions for the advancement of SCs and STs, and this clause enables affirmative action to promote social equity for marginalized groups. Under Article 15(5), the state is allowed to make special provisions for SCs and STs related to their admission to educational institutions. Article 16(4) permits to make provisions for reservation of appointments or posts in favour of the inadequately represented backward classes in public service. Article 16(4A) allows for reservations in promotions in favour of SCs and STs if the state believes they are underrepresented in public services. Under Article 46, the state promotes the educational and economic interests of the SCs and STs, and protects them from exploitation and social injustice. Article 164 deals with the appointment of a minister in charge of tribal welfare in the states of Chhattisgarh, Jharkhand, Madhya Pradesh and Odisha. Seats and chairperson posts are reserved for SCs, STs and women in Panchayats under Article 243D and Municipalities under Article 243T. Article 275(1) guarantees grants-in-aid from India's consolidated fund each year for promoting the welfare of STs, particularly for the development of infrastructure facilities like safe drinking water facilities, road connectivity, electricity and housing in tribal areas. Article 330 reserves seats for SCs and STs in the House of the People (Lok Sabha) while Article 332 reserves seats for them in state legislative assemblies. Moreover, the Constitution provides for the appointment of a National Commission for STs to safeguard their interests (Article 338A).

India's reservation policy is specifically designed to address the historical and systemic discrimination by creating special opportunities for underrepresented

groups such as STs, SCs and OBCs, aiming to achieve redistributive justice by counteracting the cumulative effects of past disadvantage. As a quota based affirmative action, it was introduced to address and remedy the impact of past and present discrimination on employment, education, political positions and other activities. India's reservation policy is mainly categorized into three important dimensions, such as (i) appointment and promotion of the disadvantaged people in government services, (ii) reservations for ST, SC and OBC students in government-run education institutions, and (iii) reservation of constituencies/seats for SCs, STs, women, or economically weaker section (EWS) in central and state legislatures and local self-government institutions to give them better political representation in proportion to their population. Reservation, however, is not provided in defence and judiciary sectors.

Affirmative action programme in India also includes financial support, interaction programmes and awareness campaigns. Financial support is given to the linguistic and religious minorities to establish and run educational institutions of their choice. Interaction programmes include the programmes and activities to promote interaction and understanding between different communities. Awareness campaigns are conducted to raise awareness about the significance of social inclusion and about the negative effects of discrimination in order to bridge the inequalities in standards of living.

Affirmative action in Odisha, guided by the Indian Constitution, promotes the educational and economic interests of the weaker sections by encompassing reservation policies, skill development and capacity building programmes, etc. Historically, the Panchayati Raj Acts of the state included reserved seats for STs, SCs and women, ensuring that these weaker sections are represented in the decision-making bodies of local government (Mohanty, 2009; Patnaik, 2005). Different approaches have been followed to reverse the social inequality, keeping in mind the special needs of the tribal people. An example of such approach is the Tribal Sub Plan (TSP) which was adopted in India's Fifth Five Year Plan (1974-79) with a focus on integrated development of the tribal areas, wherein all programmes irrespective of their sources of funding operate in unison in order to reduce the development gap between the tribal areas and the rest by accelerating access to education and health services, transformation and expansion of livelihood and income generating opportunities and protection against exploitation and oppression. Integrated Tribal Development Agencies (ITDAs), Modified Area Development Approach (MADA) and the PVTG development projects are the essential components of the TSP approach.

The state government has launched several schemes for the indigenous people under the broad strategy of the TSP, and health and education are the major focus areas of such schemes. To improve the health status of tribal people, emphasis has been given on improvement in public healthcare services and extension of health infrastructure including primary health centres (PHCs) and community health centres (CHCs). There has been consistent increase in the provision of funds for healthcare system over the years. For educational development, there has been a rapid expansion of educational facilities in the scheduled areas. Special provisions for establishment of model tribal schools on the pattern of Nayodaya Vidyalaya, free education with boarding and lodging

facilities for SC and ST students, special Adivasi hostels in approachable places, vocational training, scholarship facility, mid-day meals, quality education to ST and SC students in partnership with urban educational institutions (Anwasha scheme), etc., have been made by the state government. In the sphere of employment generation and economic development, various schemes have been implemented, such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Odisha Tribal Empowerment and Livelihoods Programme (OTELP), Food for Work Programme (FWP), Integrated Tribal Development Projects (ITDPs), Rural Landless Employment Guarantee Programme (RLEGP), micro projects for development of the PVTGs, Dispersed Tribal Development Programmes (DTDPs), special programmes for KBK districts, skill training programmes, rural housing schemes, 'Mission Shakti' scheme for women empowerment, social pension schemes, supply of PDS rice at Re.1 for below poverty line (BPL) households for food security, etc.

Now the question arises whether the affirmative action policies and targeted welfare schemes have addressed the real needs of the marginalized communities to overcome their systemic human development challenges. In order to understand this, this research follows a comprehensive approach in briefly assessing the key aspects of their quality of life and well-being. It involves analyzing the health and educational status, income and employment levels, livelihood security, extent of indebtedness, incidence of poverty, and access to basic amenities.

6. Impact of Affirmative Action on Human Development of STs

6.1. Literacy and Educational Level

Level of literacy and education has a direct bearing on human development and quality of life of people. This section briefly examines the status of tribal education through three important output (outcome) parameters such as literacy rate, GER and dropout rate.

6.1.1. Literacy Rate

Literacy rate is rather a crude measure which is derived in India in terms of number of literates divided by the total population excluding the population in the age group of 0-6 years. Odisha has done reasonably well on literacy front (Pothal & Panda, 2017) and its literacy rate increased by 4.65 times from 15.8% in 1951 to 72.9% in 2011, growing at an annual compound rate of about 2.59% (Government of India, 2013). According to the NSS 75th round survey on household social consumption on education in India, the literacy rate in Odisha was 77.3% in 2017-18.

The overall ST literacy rate increased by 44.88 percentage points from 7.36% in 1961 to 52.24% in 2011 whereas the literacy rate for the total population increased by 51.24 percentage points from 21.66% in 1961 to 72.9% in 2011 (Table 1). However, the ST literacy rate was considerably below the state average in 2011. The SCs performed better than the STs on literacy front during the period from 1961 to 2011. The gap between the SC and the total literacy rates declined at a faster rate than that between the ST and the total literacy rates.

Table 1
Literacy Rates in Odisha by Social Groups from 1961 to 2011 (in %)

Year	ST	SC	All Population (Including STs, SCs and Others)	Gap between ST and SC Literacy Rates	Gap between Literacy Rates of STs and All Population	Gap between Literacy Rates of SCs and All Population
1961	7.36	11.60	21.66	4.24	14.30	10.06
1971	9.45	15.60	26.18	6.15	16.73	10.58
1981	14.00	22.40	33.62	8.40	19.62	11.22
1991	22.31	36.80	49.09	14.49	26.78	12.29
2001	37.37	55.53	63.08	18.16	25.71	7.55
2011	52.24	69.02	72.90	16.78	20.66	3.88

Source: Census of India data (1961–2011), Government of India

Table 1 indicates that the STs had the lowest literacy rate of 52.24% in 2011 compared to the literacy rates of the SCs and all population. The literacy gap between the STs and all population had a decreasing trend starting from 1991. It decreased from 26.78% in 1991 to 20.66% in 2011.

6.1.2. Gross Enrolment Ratio (GER)

GER indicates the population of a particular age group enrolled in schools as per cent of total population in that age group. The GER among tribal students has been quite encouraging. The GER among the STs in the elementary stage of education (classes I-VIII, age group 6-13 years) in Odisha³ was 93.9% in 2010-11. It was 111.7% for primary (classes I-V, age group 6-10 years) and 60.8% for upper primary (classes VI-VIII, age group 11-13 years) education. The GER among STs for classes I-XII (6-17 years) was 76.1% in the same year. The gender parity index for enrolment (the quotient of the number of girls by the number of boys enrolled in a given stage of education) was 0.94 for elementary stage (0.94 for primary and 0.91 for upper primary education) and 0.92 for classes I-XII in 2010-11.⁴

The same encouraging trend in GER was observed after five years. According to the Department of School Education and Literacy (DSEL), Government of India, the GER among the STs in the elementary stage of education in Odisha was 106.82% (113.47% for primary and 93.84% for upper primary education) in 2015-16. The gender parity index was 0.95 for primary and the same 0.95 for upper primary education, and 1.03 for secondary education in 2015-16. Moreover, as per the latest All India Survey on Higher Education (AISHE) data, the overall enrolment of students (18-23 years of age group) in higher education (across categories, girls, SCs and STs) in Odisha increased considerably in the five years from 2017-18 to 2021-22. About 1.63 lakh ST students took admission in higher

³ Enrolments in elementary stage include underage and overage pupils, and thus the total percentage may be more than 100 in some cases.

⁴ For details, see "Statistics of School Education" (as on 30th September 2011), MHRD (now MoE), Government of India. https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/SES-school-2011-12.pdf

education in 2021-22 compared to 1.24 lakh in 2017-18. The estimated GER of the tribal students improved from 11.9% to 15.5% in the five years till 2021-22.

6.1.3. Dropout Rate

An analysis of the data from the Directorate of Elementary Education (Odisha) and the Odisha School Education Programme Authority (OSEPA, formerly OPEPA) related to the trends in dropout rate (i.e., percentage of students dropping out of a class or classes in a given year) depicts that the dropout rates among the ST students fell from 6.46% to 2.71% at primary level, from 9.72% to 3.63% at upper primary level, and from 69.2% to 19.0% at secondary (high school) level during the five years from 2009-10 to 2013-14. But the dropout rates among the ST students were higher than that of the SC and all students at all levels of school education during this period.

These dropout rate figures can be compared with the latest figures. As per the estimates based on the UDISE+ database, the dropout rates among the ST students in the state were 0.4%, 8.8% and 33.1% for primary, upper primary and secondary levels, respectively, in 2021-22. On the other hand, the dropout rates among the SC students were 0.0%, 8.1% and 31.2% for primary, upper primary and secondary levels, respectively, in the same year. These figures show that though the dropout rate among the ST students has fallen over the years, it is still very high especially at the secondary level, and there exists a significant gap in the dropout rates among the ST students and all students.

6.2. Health Status

This section uses important outcome indicators such as infant and maternal mortality rates, life expectancy at birth, and incidence of morbidity to analyse the tribal health status.

6.2.1. Infant and Maternal Mortality Rates

An analysis of the NFHS-5 (2019-21) data shows that the infant mortality rate (IMR) was 55.9 (per 1,000 live births) for STs compared to that of 36.0 for SCs and 27.2 for others in the state during the five-year period preceding the survey (Table 2). On the other hand, the IMR for the STs was found to be 41.6 during the same time period at the all-India level. This shows that the IMR for Odisha's STs is much higher than that at the national level. The neonatal mortality rate (NNMR) for the STs was 41.6 compared to 27.0 for all population of the state during 2019-21. The neonatal, post-neonatal, infant, child and under-five mortality rates in Odisha are the highest for the ST children than for children belonging to other social classes.

Table 2

Neonatal, Post-neonatal, Infant, Child and Under-five Mortality Rates in Odisha during 2019-21

Social Group/State	Neonatal Mortality	Post-neonatal Mortality*	Infant Mortality	Child Mortality	Under-five Mortality
ST	41.6	14.3	55.9	10.9	66.2
SC	25.0	11.0	36.0	3.8	39.7
OBC	18.8	5.3	24.1	2.6	26.6
Others	21.0	6.2	27.2	1.2	28.3
Odisha	27.0	9.3	36.3	5.0	41.1

* Computed as the difference between infant and neonatal mortality rates.

Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

There exists a high correlation between infant mortality and maternal mortality. As per the SRS data, maternal mortality ratio or MMR was found to be very high at 119 per 1,00,000 live births in Odisha during 2018-20, compared to 97 in India during the same time period. It was 235 in 2012-13 in the state, compared to 178 at the national level.

6.2.2. Life Expectancy at Birth

Life expectancy at birth, which is a summary measure of health, reflects the overall mortality level of a population. An analysis of NFHS-3 (2005-06) data shows the persistence of major differences in life expectancy at birth across social classes. The estimated life expectancy at birth in 2005-06 was 60 years among STs, 65 years among SCs and 68 years among others in India. However, an estimation of the Expert Committee on tribal health, Government of India, based on the Census of India 2011 data shows that there was a slight improvement in life expectancy at birth for ST population in the country. As per the report of this Committee, life expectancy at birth for STs was 63.9 years in 2011, as against 67 years for general population.⁵ Life expectancy at birth for STs in Odisha was 61.2 years in 2011, as against 64.4 years for SCs and 66.5 years for all population.

6.2.3. Incidence of Morbidity and Disease Burden

Tribal people in Odisha suffer illnesses of greater severity and duration. They suffer from high incidence and heavy burden of communicable, non-communicable and genetic diseases, resulting in high infant, child and maternal mortality rates. They commonly suffer from diseases such as malaria, meningitis, sickle-cell anaemia, G-6 PD deficiency, sexually transmitted diseases (STDs), tuberculosis, various skin diseases, liver diseases and diseases related to genetic disorder. Health condition of tribal females is found to be little better than that of the males. Tribal males are quite addicted to home-made liquor and are exposed to various health risks. Anaemia is a major health issue particularly among the tribal women and children.

⁵ For further reading, see the report "Tribal Health in India: Bridging the Gap and the Roadmap for the Future", Ministry of Health and Family Welfare, Government of India.

6.3. Dietary Intake and Nutritional Status

Many field-level studies on the consumption pattern of tribal households of the state have reported that the daily food intake of tribal people is very poor in quality and ill-balanced, and fails to supply the necessary nutrients. Tribal infants, pre-school children, and pregnant and lactating women are the most vulnerable to malnourishment and malnutrition. Tribal diets are generally seen to be deficient in calcium, protein, iron, iodine, riboflavin, vitamin A and vitamin C (NNMB, 2009).

High infant and under-5 mortality rates in the scheduled areas of the state reflect large concentration of child malnutrition. The magnitude of undernutrition is significantly high among pre-school children in the Integrated Tribal Development Agency (ITDA) areas of the state (NNMB, 2009). Micronutrient deficiency is a major cause of childhood morbidity and mortality in tribal areas. High prevalence of wasting among the ST children is of particular concern.

Female malnutrition is the most common health problem among STs and SCs in low per capita income states like Odisha (Government of India, 2011; Panda et al., 2006). High prevalence of nutritional deficiency and chronic energy deficiency (CED) are observed among the ST women in Odisha. A substantially higher proportion of tribal women are found to be underweight with BMI <18.5 kg/m², indicating a high prevalence of nutritional deficiency (Pothal, 2017). According to the NNMB survey in 2007-08, the prevalence of CED (BMI below 18.5 kg/m²) was about 52.3% and 38.6% among the adult ST women and men, respectively. The percentage of men with a BMI below 18.5 kg/m² decreased by five percentage points during the period from 1998-99 to 2007-08 whereas it increased marginally in case of the ST women during the same time period. High prevalence of nutritional deficiency and CED are observed among the ST women in the state, indicating nutritional problem being more serious for this section of tribal population.

6.4. Housing Condition, Sanitation and Hygiene

In terms of housing conditions, the STs are lagging behind the general population. Housing conditions of many tribal people in Odisha are very poor, with poor ventilation and lighting and lack of basic household amenities like electricity, sanitation and clean water facilities. A less number of pucca and semi-pucca houses are found in the hilly regions of western and southern Odisha. Tribal houses are mostly Zhoparis or Kutcha (non-permanent houses). Due to lack of access to clean fuel, tribal households use smoke-producing domestic fuel such as fire-wood, crop residue and cow dung cake. This contributes significantly to the spread of diseases such as tuberculosis, lung cancer, cataract and blindness, and acute respiratory infections (ARIs). Tribal people also face difficulties in accessing the various housing schemes of the government mainly due to illiteracy and social exclusion. However, some tribal people have gradually adopted more permanent pucca housing, with factors such as proximity to state highways/bus routes and access to resources.

According to the World Health Organization (WHO), safe water, sanitation and hygiene (WASH approach) are not only the prerequisites to good health, but contribute to livelihoods, school attendance and dignity. Odisha has rather done

well in terms of coverage of rural and urban habitations with safe sources of drinking water including piped water supply and tube wells. However, there are several areas of concern. Water quality in many pockets of the state is a serious issue. As per the Census of India 2011, only 6.2% of the ST population in Odisha has safe drinking water facility within the housing premises. Tribal people still fetch drinking water from hill springs, rivers and ponds. They generally rely on the same source of water for drinking purposes, bathing, scrubbing of cattle, washing clothes, etc. Such water is responsible for the periodical spread of water-borne diseases.

The tribal people particularly living in hilly terrain or forested areas suffer from poor household sanitation. As per the Census of India 2011, among all Indian states, Odisha was seen to be the lowest with only 7.1% ST households against 22% all households in having latrine facilities within the housing premises. However, under the ongoing Swachh Bharat Mission, Odisha has done remarkably well in constructing toilets, managing solid and liquid waste, and promoting behavioral change to eliminate open defecation and achieve comprehensive cleanliness. But challenges remain in ensuring sustained use of toilets and maintaining behavioral changes. A number of tribal people still defecate in the open. Fecal-oral-transmitted infections are common in tribal areas.

6.5. Livelihood, Income and Consumption Expenditure

Differences in level of living of different communities may arise due to the variations in occupation, level of income/expenditure, degree of monetisation, etc. Tribal people in Odisha receive their income from three sources such as (i) agriculture, (ii) collection of minor forest products (MFPs) or non-timber forest products (NTFPs), and (iii) other sources which include wage income and income from services, petty trade, etc. Adoption of agriculture as the main livelihood option has significantly been declining. Instead, the STs are adopting new strategies that include non-farm employment and migration. However, the wage income of the tribal people is found to be irregular because employment outside agricultural sector is not ensured and quite irregular.

Level of income is a crucial determinant of consumption expenditure. According to the NSS 68th round survey (2011-12) data on household consumer expenditure across socio-economic groups, the average monthly per capita consumption expenditure (MPCE) was Rs. 792 for ST households, Rs. 934 for SC households and Rs. 1,003 for all households in rural areas of Odisha, and it was Rs. 1,587, Rs. 1,234 and Rs. 1,941 for ST, SC and all households, respectively, for the urban areas in the state. This shows that the average MPCE of the ST households was much less than that of all households both in rural and urban areas.

A comparative analysis of the NSS 68th round survey data with the NSS Household Consumption Expenditure Survey (HCES) of 2022-23 data depicts that the average MPCE of different social groups both in rural and urban sectors in Odisha varied significantly (Table 3), with a considerable increase in the average MPCE of ST households over the years. In 2022-23, the average MPCE of the ST households was Rs. 2,384 whereas it was Rs. 2,899, Rs. 3,258 and Rs. 3,484 for SC, OBC and other households, respectively, in rural Odisha. On the other hand,

the average MPCE of the ST households was 3,563 whereas it was Rs. 4,509, Rs. 5,045 and Rs. 6,252 for SC, OBC and other households, respectively, in the urban areas of the state in the same year. It is also observed that the average MPCE of ST households in 2022-23 is much less than that of the SC and other households both in rural and urban areas.

Table 3

Average MPCE (Rs.) by Social Groups in Odisha in 2011-12 and 2022-23

Social Group	2011-12			2022-23		
	Rural	Urban	Urban-Rural Differences (%)	Rural	Urban	Urban-Rural Differences (%)
ST	792	1,587	100	2,384	3,563	49
SC	934	1,234	32	2,899	4,509	56
OBC	1,062	1,728	63	3,258	5,045	55
Others	1,250	2,589	107	3,484	6,252	79
All	1,003	1,941	94	2,950	5,187	76

Source: Author's calculation using data from NSS HCES of 2022-23 and 68th round survey (2011-12) on household consumer expenditure

6.6. Incidence of Poverty

According to the NITI Aayog's "National Multidimensional Poverty Index: A Progress Review 2023", Odisha has witnessed a substantial reduction in the proportion of multi-dimensional poverty between 2005-06 and 2019-21. While 15.68% of the people in the state were multi-dimensionally poor in 2019-21, the percentage was 29.34 in 2015-16 and 63.84 in 2005-06. However, such fastest reduction in the proportion of multi-dimensional poverty was confined to certain sections of the population. Poverty among the STs and the SCs is still a matter of serious concern. One in every two persons in the tribal-dominated districts like Malkangiri, Koraput and Nabarangpur is below poverty line while districts like Kalahandi, Rayagada, Mayurbhanj, Kandhamal and Keonjhar also present a similar picture (NITI Aayog, 2023).

6.6.1. Trend of Regional Variation of Poverty

The NSS divides Odisha into three regions, such as coastal, southern and northern regions. The coastal region comprises nine districts, such as Balasore, Bhadrak, Kendrapara, Jagatsinghpur, Cuttack, Jajpur, Nayagarh, Khordha and Puri. The southern region includes 12 districts, such as Ganjam, Gajapati, Kandhamal, Boudh, Sonepur, Bolangir, Nuapada, Kalahandi, Rayagada, Nabarangpur, Koraput and Malkangiri. The northern region includes the remaining nine districts, such as Bargarh, Jharsuguda, Sambalpur, Deogarh, Sundargarh, Kendujhar, Mayurbhanj, Dhenkanal and Angul. The NSS region-wise poverty estimates reveal that the incidence of poverty declined from 56.47% to 24.1% in the coastal region, from 79.08% to 50.8% in the southern region and from 72.28% to 39.8% in the northern region of Odisha during the period from 1983 to 2009-10 (Table 4). The overall incidence of poverty declined from 66.24% to 37.3% in the state during this time period.

Table 4*Incidence of Poverty across NSS Regions in Odisha from 1983 to 2009-10 (in %)*

Year	NSS Regions			All-Odisha
	Coastal	Southern	Northern	
1983	56.47	79.08	72.28	66.24
1987-1988	47.67	80.29	58.16	56.75
1993-1994	45.57	66.07	43.92	48.64
1999-2000	31.51	81.28	50.10	47.37
2004-2005	43.50	78.00	66.10	57.60
2009-2010	24.10	50.80	39.80	37.30

Sources: Government of Odisha (2017), and Pothal et al. (2018)

Table 4 reveals that the incidence of poverty was much higher in the southern region as compared to the other regions of the state. The districts in the southern region are inhabited by a large proportion of tribal population and are unevenly developed. The chronically backward KBK region⁶ forms an important part of the southern region. One important reason for the high incidence of poverty in the southern region might be the high percentage of very poor people among the STs and the SCs in this region.

6.6.2. Incidence of Poverty among Social Classes

This section shows the social class poverty estimated on the basis of the Tendulkar committee methodology⁷. Table 5 shows that the incidence of poverty (HCR) in 2011-12 (based on 68th round of NSS data) was the highest (63.52%) for the ST households followed by the SC households (41.39%) and other caste households (21.03%) in rural Odisha. On the other hand, the HCR was the highest (39.69%) for the ST households followed by the SC households (26.32%) and other caste households (12.57%) in urban Odisha. Similarly, the PGR and the SPGR were also the highest for the ST households both in rural and urban areas.

Table 5*Social Class Poverty in Odisha in 2011-12 (HCR, PGR and SGPR in %)*

Social Group	Rural			Urban		
	HCR	PGR	SGPR	HCR	PGR	SGPR
ST	63.52	14.43	4.62	39.69	8.24	2.38
SC	41.39	8.24	2.29	26.32	4.81	1.41
OC	21.03	3.23	0.77	12.57	2.21	0.55

Source: Directorate of Economics and Statistics, Government of Odisha

⁶ The old districts of Kalahandi, Balangir and Koraput (KBK districts), which have since 1992-93 been divided into eight districts viz. Kalahandi, Nuapada, Balangir, Sonapur, Koraput, Nabarangpur, Rayagada and Malkangiri, are regarded as the most backward and poverty-stricken districts of Odisha (Gual & Das, 2025; Shah, 2007). Economic development of such districts through a revised long term action plan (RLTAP) has been a major challenge for the state as well as the central government.

⁷ For details of Tendulkar committee methodology, see the "Report of the Expert Group to Review the Methodology for Estimation of Poverty" (2009), Planning Commission, Government of India.

6.7. Tribal Indebtedness

In the absence of sufficient margin of income over expenditure, the likelihood of incurring debts by the tribal communities becomes stronger. The data from the different rounds of NSS depict that the financial position of ST households in Odisha is perilous because of the combination of low assets and a debt structure that relies heavily on the risky non-institutional sources which often carry higher interest rates and less favorable terms. Such financial vulnerability persists across both rural and urban areas in the state, though with different patterns.

Table 6 shows the important indicators of household assets and indebtedness across social groups in Odisha and such indicators include average value of assets (AVA) per household, average amount of debt (AOD) per household, debt-asset ratio (DAR) and incidence of indebtedness (IOI) as on 30.06.2018. Debt-to-asset ratio measures the burden of debt relative to assets and it is a critical indicator of financial vulnerability. The incidence of indebtedness is the percentage of households which have outstanding loans on a specific date. It is observed from Table 6 that the ST households had the lowest incidence of indebtedness (24%) in the rural areas and surprisingly the highest incidence of indebtedness in the urban areas (same 24%). The average value of assets was the lowest for ST households in rural and SC households in urban areas. The debt asset ratio was very high (10.7%) for the SC households in urban areas followed by the ST households. The average amount of debt per household was the lowest for ST households in both rural and urban areas, and the highest for 'Others'. It is observed that the debt burden disproportionately affects the marginalized groups in the state. In spite of their low incidence of indebtedness, the tribal communities often have a high debt-to-asset ratio because of their low average asset value.

Table 6

Household Assets and Indebtedness across Social Groups in Odisha

Social Group	Rural				Urban			
	AVA (000' Rs.)	AOD (000' Rs.)	DAR (%)	IOI (%)	AVA (000' Rs.)	AOD (000' Rs.)	DAR (%)	IOI (%)
ST	367	11	3.0	24.4	964	39	4.0	24.4
SC	419	23	5.5	49.0	466	50	10.7	18.8
OBC	599	40	6.6	46.4	1,148	41	3.6	23.1
Others	800	54	6.7	43.6	1,971	66	3.4	19.7

Source: All-India debt and investment survey 2019 (NSS 77th round), Ministry of Statistics and Programme Implementation, Government of India

7. Summary of Findings and Conclusion

The foregoing analysis brings out the various dimensions of tribal development in Odisha, with some of the well-being indicators showing continuous improvement over the years. There are also glaring gaps in the socio-economic development of the indigenous people. The findings of this research are briefly summarised and analysed over the following six points.

First, the study finds significant improvement in almost all key indicators of educational status of the STs. There have been noteworthy gains in literacy levels;

the GER among the ST students has been remarkable; and there is a declining trend in dropout rates. However, the study also finds a wide gap between the STs and the non-STs on literacy attainment. The dropout rates among the ST students are found to be higher than that of the non-ST students. All efforts to promote tribal education still fall far short of the specific educational needs in the scheduled areas.

Second, while progress has been made, the health status of tribal people is improving at a slower rate than that of the general population, with challenges in areas like maternal and child health, malnutrition, living conditions, and increase of chronic conditions. Health facilities in scheduled areas are insufficient to cater to the specific needs of the targeted population. The number of outpatient consultations per head of tribal population per year and the number of inpatients per bed per year are very low in absolute terms. Malnutrition is a serious and persistent problem among the tribal people of all age groups. The poor health and nutritional status of the STs can be directly attributed to a range of interconnected factors such as low level of income and chronic poverty, inadequate availability of food grains (due to low production), poor consumption habits, lack of diet diversity, unsafe drinking water, poor sanitary facilities, illiteracy and ignorance, changing lifestyle, poor access to and inadequate availability of health services, and poor monitoring of operational schemes and administrative lapses.

Third, it is observed that the STs are confronted with low level of income due to their subsistence level of livelihood patterns. Factors like livelihood dependency on traditional (subsistence) methods of production, low agricultural output, decline in output from forest resources, unsustainable utilization of forest resource, low-paid seasonal wage jobs, and inadequate access to resources and services translate to low per capita income and consumption expenditure. Low MPCE in scheduled areas indicates a lower standard of living of the people. The disparity between urban and rural areas in Odisha further highlights the lower living standard of the rural STs, with the majority of them suffering from severe consumption poverty.

Fourth, chronic poverty is rampant among the tribal people with all its manifestations. The analysis on social group-wise rural and urban variation in incidence of poverty in this study depicts a decreasing trend in the incidence of poverty among all social groups. However, the rate of decline in the incidence of poverty is sluggish. Most of the STs are stricken with absolute poverty. The aggregate poverty ratio hides significant differences in the poverty ratio among social classes as well as across the three NSS regions of the state. The trend of poverty ratio is also influenced significantly by wide variation in the trend of poverty ratio among the social classes. The persistence of high incidence of poverty in Odisha is clearly due to higher percentage of the poor among the STs and the SCs.

Fifth, the study finds that due to extreme poverty, many tribal people are often forced into simple occupations with low income, leading to cycles of debt. Indebtedness problem among the STs is widespread. The ST households have limited access to formal credit institutions. Consequently, the money lenders,

traders and other informal sources of credit hold significant influence, charging high interest rates that make it nearly impossible for the STs to escape debt. High incidence of indebtedness again causes a cycle of debt for basic consumption and unproductive activities. This cycle is further exacerbated by lack of education, limited access to formal credit and inadequate awareness regarding government welfare schemes, leading to a continuous state of economic vulnerability.

Finally, the general findings of the present study substantiate the findings of some earlier studies (including Ballabh & Batra, 2015; de Haan & Dubey, 2005; Panagariya & More, 2014; Pothal et al., 2018; Radhakrishna, 2015), and reinforce that the benefits of development and affirmative action programmes in Odisha have not percolated uniformly to all sections of the population. A significant portion of the ST population remains unreached by the affirmative action because of the barriers in accessing resources. It seems that the implementation of affirmative action policies is facing challenges in ensuring equitable access for the most deprived within the reserved categories and navigating the complex dynamics of merit and opportunity.

Based on the findings, it is concluded that the tribal people in Odisha are not yet on an equal footing with the mainstream society on any well-being indicator and the process of their marginalization has gone on unabated. The magnitude of their economic deprivation depicts the failure of the government in several respects to translate the constitutionally guaranteed rights and policy guidelines into development practices. Affirmative action can be a powerful tool for human development of the tribal people when it is combined with other strategies that respect tribal autonomy and cultural heritage.

8. Limitations of the Study and Scope for Future Research

The main limitation of this study is related to the unavailability of disaggregated, reliable, comparable and region-specific secondary data continuously and consistently. It is difficult to analyse the rapidly changing issues like health, education, income, employment and poverty in the absence of updated data. Furthermore, an analysis of quantitative data cannot provide clear insights into qualitative factors that considerably impact a tribe's human development, such as empowerment, cultural identity, social cohesion and discrimination, personal security, interactions with external political and economic forces, etc. Another important limitation is that the present study included the brief analyses of a few dimensions of quality of life and well-being in order to present a basic overview of the impact of affirmative action on human development of the indigenous people in Odisha. Due to the scope constraints, it was impossible to include a detailed analysis of all these dimensions of tribal quality of life within a single paper.

However, despite its limitations, the present study presents a robust picture of the persistent inequalities and challenges faced by the marginalized communities in Odisha, highlighting the critical areas that require policy attention and intervention. It opens up future research avenues delving into in-depth and updated studies on specific dimensions of tribal human development in order to provide a more comprehensive understanding of the impact of affirmative action on tribal development. The implications of its findings warrant further

investigation on tribe-specific and region-specific human development issues in Odisha to identify vulnerabilities and assess the effectiveness of interventions.

9. The Way Forward

To address the challenges to the proper implementation of affirmative action policies and welfare schemes, a more targeted and comprehensive approach is necessary. Towards that end, this study recommends the following broad measures to enhance the effectiveness of tribal development programmes in Odisha.

- 1) For framing the development policies and schemes, the aspiration level of the tribal people should be carefully assessed and their needs are to be given due recognition. Structural changes at the grassroots level are crucial for effective integration of the STs with the mainstream of the society.
- 2) It is important to facilitate the collaboration among government departments, community leaders and civil society organizations to ensure integrated efforts in development. Community-inclusive approaches must be followed to involve the tribal communities in planning and delivering services.
- 3) Efforts must be taken to effectively address the persistent gap between policy enactment and actual implementation. Transparency must be maintained in implementation processes, and independent monitoring bodies must be established to assess policy effectiveness and prevent fraud.
- 4) Supporting traditional economic practices and investing in sustainable and locally appropriate livelihood options can reduce economic marginalization. Awareness must be promoted to ensure that the STs are fully informed about the schemes available to them.
- 5) Implementation of employment and income generating programmes, and strengthening of social security system and service delivery mechanisms will help promote socio-economic development of the deprived people.
- 6) To boost creation of economic opportunities, special microcredit schemes (with low interest rates) can be framed for tribal self-help groups (SHGs) and entrepreneurs to support income-generating activities and reduce dependency on moneylenders.
- 7) It is vital to promote entrepreneurship among tribal communities. Emphasis must be given on promoting tribal products through marketing initiatives in order to create sustainable livelihood opportunities for artisans and collectors of MFPs.
- 8) Government must prioritize development action plans and schemes for improving basic infrastructure like road connectivity, electrification, irrigation facilities, safe drinking water facilities, etc., in tribal areas.
- 9) To enhance healthcare services, it is recommended to establish more health and wellness centers and deploy mobile medical units in tribal areas. These services are to be staffed with trained health workers from tribal communities to build trust and address specific health issues. The government must ensure the last-mile delivery of essential healthcare services to every ST household.
- 10) Addressing the issue of tribal malnutrition requires a multi-pronged approach focusing on quality healthcare accessibility, improved sanitation

facilities, provision of diverse and adequate food supply, integrating nutrition with education, and community awareness. Priority must be given on proper implementation of schemes like Poshan Abhiyaan and establishment of village grain banks in tribal areas.

- 11) Special attention has to be given to bridge the literacy hiatus between the STs and the general population. Further improvement in tribal education can be made by establishing more residential schools, promoting instruction in tribal languages at foundational levels, incorporating local culture into curriculum (through folklore and arts), providing vocational training, ensuring basic amenities and nutrition for students, strengthening infrastructure of educational centers, providing additional financial assistance and scholarship, encouraging NGO/civil society collaboration, appointing professionally trained teachers, and utilizing technology and e-learning resources to reach remote students.
- 12) For more effective and equitable community upliftment, affirmative action can be expanded beyond reservation quotas. Affirmative action policies can be extended to the private sector through mandates, incentives or partnerships, since most ST workers are employed in this sector and lack protection from discrimination.
- 13) Government policy should be directed, among others, towards providing forest rights (individual and community rights) to the tribal and other dwellers residing in forest areas for generations. It is vital to strengthen the legal frameworks including the enforcement of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) to prevent land alienation caused by industrial projects, mining and non-tribal encroachment. It is also important to strengthen the decentralized governance through the Panchayats (Extension to Scheduled Areas) Act (PESA), devolving power to the STs to manage their resources and local issues. Tribal village councils (Gram Sabhas) must be empowered with greater control and decision-making authority over local resources.
- 14) Industrial development (including MSMEs) can be encouraged in the tribal belts. But participatory and bottom-up approaches must be followed to give tribal people a voice and a central role in their own development. Development projects must not create problems like displacement, loss of livelihood, cultural disruption, etc. Policies must acknowledge and uphold tribal demand for self-sufficiency and control over their natural resources. Guaranteeing ownership over land and natural resources is crucial for ensuring that the STs benefit from development rather than being dispossessed.
- 15) Some studies indicate that the benefits of affirmative action/reservations are often not distributed evenly within the tribal communities. The PVTGs frequently have the least access to the benefits. Hence, such intra-group inequality must be addressed.
- 16) Last but not the least, the government must ensure that the affirmative action benefits reach genuinely the most disadvantaged members within the tribal communities, rather than being captured by a more privileged “creamy layer”. Introducing additional socio-economic criteria, together with the existing reservations, could better target the benefits to the most backward members.

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