

Indigenous Knowledge System & Lesson of Sustainability: A Case Study of Saharia Tribe of Bundelkhand Region, India

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Abstract—In the emerging discussion on localization of sustainable development goals and strengthening of the local economy through ‘local for vocal’ reconsidering the role and potential of indigenous knowledge system could be crucial strategy for mainstreaming the indigenous communities including tribal and particularly vulnerable tribal groups (PVTGs) who continue to remain on the fringe of development discourse. Indigenous knowledge is embedded in community practices, Institutions, relationships and rituals and is inextricably linked to identity of indigenous peoples, their practices and experiences with the natural environment. Indigenous people, therefore, great importance on passing knowledge on to their future generation- not only for the sake of preserving the knowledge but also for preserving their own cultures and identities. Indian knowledge system (IKS) is an integral part of tribal culture and has wide-ranging relevance in livelihood, education, culture, agriculture and livestock. Indigenous communities are not only custodians of some of the most biologically diverse territories in the world, but also responsible for a great deal of the world linguistic and cultural diversity, and their traditional knowledge has been and continue to be invaluable resource that benefits all of mankind. However, these communities continue to face challenges in terms of preservation and expansion of their traditional knowledge and innovations in every field. The Indigenous knowledge is often not adequately valued and recognized even after 75 years of our independence. Indigenous knowledge is a new focus in development discourse, growing numbers of scientists and organizations are recognizing that it offers cheap, locally adapted solutions to the development problems. IKS melded with scientific knowledge to boost productivity and living standards. Therefore, policy makers need to understand the fact and should incorporate that knowledge in time of formulation and implementation of

development policy especially in forested area where our indigenous people are living.

Index Terms—Indigenous Knowledge System (IKS); Sustainable Development Goals (SDGs); Tribal Communities; Saharia Tribe; Sustainable Livelihoods.

I. INTRODUCTION

In a fast-changing world today, question of sustainable living in a healthy environment seems to be a big question and the situation is becoming more serious day by day with pace of Economic growth, unrestricted urbanization & Industrialization as to fulfill the unlimited wants of people with limited means. We can see a race is going ahead among the 192 countries in the world irrespective of their stages of Economic growth & development, human and materials resources viability, social and cultural landscapes. Economics theory only studies the aspects of life: What to produce, how to produce and for whom to produce. Hence, how the scarce resources may be efficiently allocated & utilized to maximize human happiness with limited available resource.

This believed and approaches of man as an economic entity transformed environmental goods to economic goods and economic principles to environmental issues, now whole world is sitting on the cater of a dormant volcano. Through a well-planned manner and with aggressive marketing multinational companies creating materialistic and monetarist behavior of common people and make them restless user and senseless consumer. This leads to the concept of sustainability and UNO made it compulsory for all

member country to compliances 17 SDGs in their way of life and activities. The purpose of this study is to explore the facts and examine study gap of sustainable knowledge, practices, belief, herbal & medicinal discoveries, habits & values, art & culture as a part of Indian knowledge system (IKS) are available since long past in our oldest inhabitants living in the hilly & forested areas in the country. The purpose of this research initiative to incorporated traditional knowledge and practices of our Tribal communities in strategic planning, preservation and development of our forested ecosystem.

India is land of God gifted diversity; we can see it in natural endowments, socio –economic & cultural spheres and even in our amazing population. India is a home to the second largest tribal population in the world. Schedule Tribes (ST) comprises 8.62 percent (As per census 2011) of total population of the country. The tribal people who are vibrant, culturally rich, have different traditions, lifestyles, beliefs, rituals, languages, fairs and festivals, music and dance forms. For millennia, despites urbanization, loss of habitat, and sinking livelihoods, many tribal people continue to practice their traditions and conserve the ancient wisdom inherited from their ancestors. Tribal communities are known as first ancient & primitive vulnerable race living in the nook and corner of the country like dense forest, hills, river ravines and the foot hills of mountains. We can see them from the high altitude to low altitudes and extremely harsh climatic zone to natural and unpolluted surroundings. Their backward way of dwelling styles is being a hall mark of their unique identities & make them different from the rest communities even after a long evolution of human civilization & political up heals.

North –East region of India is one of the most ethnically and linguistically diverse regions in Asia, and each states take prides in range of cultures and traditions. The percentage of tribal population in the seven states, popularly known as seven sisters of the region is also very high.

II. STUDY AREA

Bundelkhand situated in central India, stretches across the boundaries of Uttar Pradesh and Madhya Pradesh, encompassing a total of 13 districts, among these Uttar Pradesh claims seven districts, namely, Jalaun,

Hamirpur, Banda, Orai, Jhansi, Lalitpur, Mohaba and Chitrakoot, while the remaining six districts,

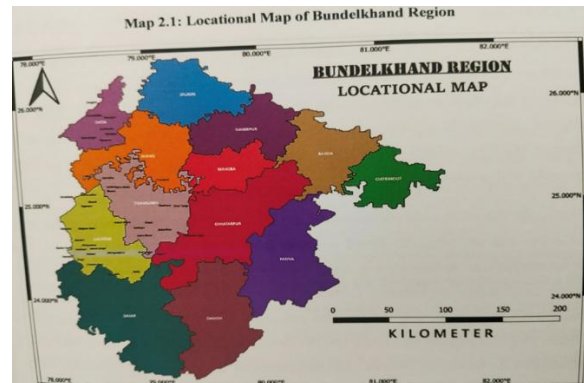


Figure 1.

Namely Datia, Tikamgarh, Chhatarpur, Panna, Damoh, and Sagar belong to Madhya Pradesh. This region shared rich cultural legacy, brave historical aspect under common rulers over the centuries. Bundelkhand situated at the heart of India, lies to the south of the Indo- Gangetic plain, bordered by the undulating Vindhyan mountain range stretching from the north-east to the south, covering a vast area of 7.08 million hectares(mha), its geographical coordinates range between 23 20' and 26 20' N latitude and 78 20' and 81 40' E longitude (NGSI,1989).

The landscape of Bundelkhand display a physical contrast between its northern and north-central parts, characterized by undulating plains that cover nearly two –thirds of the region, the remaining territory features a more hilly terrain, with elevation ranging from 300 meters to 450 meters above the sea level and in Vindhya Chal table land the elevation raised to 600 meters from sea level. Bundelkhand region can be sub divided into four regions further highlighted the diverse topography: the northern Bundelkhand plain, the central and southern Bundelkhand upland, and the Sagar and Damoh plateau (Vindhya Chal) in the south. Notably the Sagar plateau in the Malwa region while Damoh plateau plateaus integrated into the Vindhya Chal area.

Topography & Geology

Bundelkhand constitutes an ancient landmass characterized by flat rock layer under a steady base. The topography appeared rugged, showcasing a rolling landscape with minor rocky formations, slender valleys and flat expanses. Throughout the area

is consisting of diverse granite types originating from the lower pre-Cambrian/ Archean period.

Main Features of Tribes

Our primitive community is divided and sub-divided into several clans and each tribe and clan has their endogenous and exogenous identities in terms of their practices, culture, customary, languages and lifestyle but in the classification of tribes we used some established criterion on the basis of certain attributes such as:

- They lived always away from the civilized world and we found them in difficult and sometimes harsh climatic conditions.
- They generally belong to three races Negritos, Australoid and Magnoliids.
- They speak in vernacular dialoguing methods and in tribal dialects.
- They are mainly doing hunting, food gathering from forest and domestication of animals and some tribes also doing traditional agricultural practices.
- They have nomadic habits mostly carnivorous.
- They prefer to practice primitive religion known 'Animist'.

Though the above attributes are varying in degrees indifferent tribal communities India. In compare to other societies, tribal society is backward and static in nature even after 100 years of Indian independence; we can see no significant change in their life and living.

Tribal Scenario of India

India has the world's second largest size of tribal population and next to Africa. According to 2011 population census our ST population is 104.3 million i.e., 8.7 % (1/4th) of total population of the country. Indian traditional value 'unity in diversity' is truly visualized in in our demographic composition. India is known for its rich cultural diversity and this diversity is enriched by the tribal practices, folk songs & dances, folk tales & literature, art & craft, fair & festivals etc. In a land of kaleidoscopic diversity, our tribal communities made an indispensable contribution in it. Taking into account the geographical. Socio-economical, linguistic, ecological, ethnic & racial factors, the tribal communities are living in different regions of the country can be broadly divided into six distinct zones.

They are as-

1. North –Eastern region includes the states of Mizoram, Manipur, Arunachal Pradesh, Tripura, Assam, Sikkim, Meghalaya, Nagaland and mainly Kukis, Naga, Garo, Khasi, Abor, Dafla, Mikir tribes are found who are mostly belongs to Mongolian race.
2. Himalayan region includes the states of West Bengal, Uttara Khand, Himachal, Jammu. & Kashmir, Ladakh and in this zone mainly inhabited by Garo, Lepchas, Assures, loharas, Bhotias, Tharu's and belonging to Mongolian race.
3. Central India region includes the states of M.P, Chhattisgarh, Jharkhand, Orissa and in this zone mainly Bhumis, Gond, Santhal, Orans, Munda's, Baigas & Khonds communities are inhabited and they belonging to pre-Australoid race.
4. Western India region covering the states of Gujrat, Rajasthan, Maharashtra, Dadra, Nagar Haveli lives a quite significant numbers tribes like Bhils and they belong to proto-Australoid Race.
5. Southern India region covers the states of Karnataka, Kerala, Tamil Nadu, Andhra Pradesh where Kotas, kurubas, Todas, Koyas, kadars & Chenchus communities who are belonging to Negritos, Proto-Australoid, Mongoloid mixed races.
6. Island region includes Andaman and Nicobar, Lakshya Deeps where lives a large number of tribes like Andamanese, Onge, Sentilleses, Jarawas, Shompens.

Tribal scenario of Bundelkhand

Total population of Bundelkhand Region Including M.P & U.P around 8.3 & 0.8 percent respectively as per the 2001 census. If we talked about The Tribal groups, Gonds group constituted the largest and around 300,000, after that Bhils, Kols, Sahariyas, saurs, Khairwars and Bharia bhumias. All these ST groups are living the hilly and forested districts of Panna, Damoh,sagar, Tikamgarh ,Chhatarpur, Banda ,Lalitpur and Jhansi.

ST groups have undergone transitional changed in their culture, occupation, life styles and living conditions, education and social aspects even their participation in democratic politics are very satisfactory. Though their believed systems & traditional practices are not affected by this transitional and developmental process and transformation. Agriculture is the main occupation of

ST population of this region although outsiders are forced to leave their home land due forceful encroachment of their agriculture land. Till today we can see the most of the ST groups are nomadic and

they migrated because poor fertility of the land, social discrimination, indebtedness and absence of alternative employment opportunity.

Table 1. selected Villages in the study area District -Lalitpur

TABLEHAT	ST/TOTAL POP.	JAKHAURA	ST/TOTAL POP.	BIRDHA	ST/TOTAL POP.	MANDWARA	ST/TOTAL POP.
Khandi	785/1855	Naigon	302/873	Dhojri	455/651	Pahari-khurd	274/288
Khiriadang	121/316	Kalapahar	408/1398	SapuraMunjafta	549/751	Darutalla	370/375
		Bardehi	205/492	Rampura	406/415	Solda	458/586
				Pathara	072/72		

District - TIKAMGARH

Niwari	ST/TOTAL POP.	Prithivipur	ST/TOTAL POP.	Jatara	ST/TOTAL POP.	Baldeogarh	ST/TOTAL POP.
Urdora	328/1859	Mavai	232/239	Kita khera	669/1714	Gujrayandan-Ugad	99/105
Chandrayan	181/203	Gora-bhato	55/72	Vaidhpur	508/1594	Gagrra	218/248
				Baiwar jungle	159/161	Solda	458/586

District - DATIA

SECONDHA	ST/TOTAL POP.	DATIA	ST/TOTAL POP.	BHANDER	ST/TOTAL POP.
Lahar Kalan	202/709	Govind Nagar	366/374	Dhanpipri	409/1160
		Devghar	312/777	Atarikhera	56/56
		Parkhera	265/648	Hansapur	284/499

Work Participation of Saharia Household

Work is defined as participation in any economically productive activity with or without compensation, wages or profit. It includes fulltime, part time, unpaid or running own or family activities. Out of the total working population at the age group of 15-59 years, 55 percent main workers and 45 percent are marginal workers.

worker and others, in the others, they are working in Government schemes in rural area like MNREGA, quarry workers, Brick kiln workers etc.

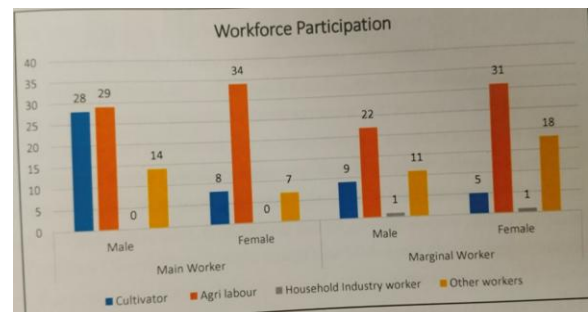


Figure 2.

Table 2.

Work type	Main Worker (%)	Marginal /Casual Worker (%)	Total
Cultivator	26	74	100
Agriculture Labour	54	46	100
Household Industry Worker	03	97	100
Other workers	17	83	100
Total	100	300	

As the data shows that both the Main and marginal workers are sub divided into four categories which are as Cultivator, agricultural Labour, Household Industry

III. PROBLEM STATEMENT

India has the world's second largest size of tribal population and next to Africa. According to 2011 population census our ST population is 104.3 million i.e., 8.7 % (1/4th) of total population of the country. Indian traditional value 'unity in diversity' is truly visualized in in our demographic composition. India is known for its rich cultural diversity and this diversity

is enriched by the tribal practices, folk songs & dances, folk tales & literature, art & craft, fair & festivals etc. In a land of kaleidoscopic diversity, our tribal communities made an indispensable contribution in it. Through this study we want to get an insight into the beautiful and responsible life, culture and practices of our tribal communities that live far away from this tech-savvy world.

IV. NEED FOR STUDY

The purpose of this study is to explore the facts and examine study gap of sustainable knowledge, practices, belief, herbal & medicinal discoveries, habits & values, art & culture as a part of Indian knowledge system (IKS) are available since long past in our oldest inhabitants living in the hilly & forested areas in the country. The purpose of this research initiative to incorporate traditional knowledge and practices of our Tribal communities in strategic planning, preservation and development of our forested ecosystem as to compliance the SDG goals 11 as 'sustainable cities and communities', Goal 12 as 'responsible consumption and production' and goal 13 as 'climate action' and how this precious and useful knowledge can be decoded & be used in formulation and making framework of sustainable development planning and policy the very grass root level.

V. OBJECTIVES OF THE STUDY

1. To understand the life, living, livelihood of tribal communities
2. Get to know the insight of their long and oldest sustainable practices in their habitats.
3. To decode their ancestral wisdom and knowledge for the strategic needs and importance.
4. To explore the glimpse of their traditions, art and cultures as a part of their sustainability even in difficult regions.
5. What lesson of sustainability of our oldest community can teach us in the policy formulation and strategic actions as to fight against climate change issues?

VI. HYPOTHESIS OF THE STUDY

1. There is wider gap between the traditional knowledge and strategic actions against climate change issues.

2. There are no honest efforts to explore the insight of the ancestral wisdom of our tribal communities.
3. There is little known about specific literatures and research work in the past to explore the knowledge about the practices, traditions and beliefs of tribal communities as an exclusive knowledge of sustainable practices.
4. Existing literatures and research work are unable to provide satisfactory outcomes in this direction.

VII. SCOPE OF THE STUDY

India has one of the largest and diverse tribal populations in the world. Tribal population has a distinct culture and history, though in terms of numbers they are a minority. Tribes are enormously diverse in respect of language, ecological settings in which they live, physical features, size of their population, modes of making a livelihood and level of development. There is a lot to learn from the tribal cultures, systems & their sustainable practices and natural bonding with their immediate environment. A traditional informal knowledge system how is transmitted from one generation to another. It is also a matter of investigation how the younger generation of our indigenous people have a strong commitment for the protection and preservation of nature and natural species? Is there any change comes in their mind and behavior due to spread of modernity and technological advancement? Are their practices can be incorporated in policy formulation and implementation in sustainable development? Is there any scope of mentorship of our indigenous youth to teach, educate and skilling to Rural-urban youth as an Environmental ambassador or messenger? It is already accepted globally and acknowledged their role in sustainability. A commission on sustainable development highlighted the key role of indigenous people in the conservation of natural areas and species on their land.

VIII. RESEARCH METHODOLOGY & DESIGN

An exploratory and descriptive research study is carried out to identify the adopted strategies for the sustainable living in their habitats. Descriptive method is used to conduct the research. Data is collected from the various tribal communities through interviews, questionnaires and group discussion as primary

sources of data. Previous research works, published and unpublished journals, governments reports, survey and census data as a part of secondary source of research data. With use of ANOVA, Contingency coefficient, P value, Pearson's coefficient and other SPSS techniques are used to test the research hypothesis for correct and effective evaluation of statistical data.

As to analysis the collected data various statistical tools and techniques are used like simple average like mean and median, correlation coefficient, standard deviation determining the predictive validity and reliability of research outcomes from this study

IX. LIMITATION OF THE STUDY

The study is conducted only in Bundelkhand regions and the tribal communities are living in this selected region like Bhil, Kol, Gonds and sahariyas and on selected respondents and the analysis is done on the basis of information provides by the respondents may not be entirely errorless and generalizations drawn by the study may not be applicable for other tribal community and their specific habitat. Sometimes respondents may be shy or not want to disclose the facts or their ignorance may be affects the analysis & research results.

X. CONCLUSION

Man has made culture but culture has its own carrying capacity and limit. With the increase in materials and moral density a new phenomenon emerged in the form of globalization for smooth survival of human being across the world. The fruits of globalization have not reached to tribal areas fully. Saharia tribes are recognized as PVTGS (PARTICULARLY VULNERABLE TRIBAL GROUPS). The saharia tribe faces significant health challenges due to geographical isolation, inadequate health care infrastructures facilities and cultural barriers.

Saharia tribes like other tribal groups, suffering from extreme poverty, food security, mal nutrition, economic constraints, land scarcity and environmental degradation. Besides of several issues and challenges, this tribal group alike other has continued their journey of life innocently and intimately with nature. They made us believe that our traditions would lead us to a shattered life, and to have a better vision of life we'd

have to borrow their eyes. It is not a matter of choice, but compulsion to accept and acknowledge the way of life they lead and they lived.

REFERENCES

- [1] Y. Atal, "The studies of the village in India," in *Indian Sociology from Where to Where: Footnotes to the History of the Discipline*, pp. 159–185. Rawat Publications, 2003.
- [2] S. Deshpande, *Contemporary India: A Sociological View*. Penguin Books, 2004.
- [3] S. C. Dube, *Indian Village*. Cornell University Press, 1955.
- [4] L. Dumont, *Religion, Politics and History in India: Collected Papers in Indian Sociology*. Mouton Publishers, 1970.
- [5] K. Ishwaran, Ed., *Change and Continuity in India's Villages*. Columbia University Press, 1970.
- [6] S. S. Jodhka, Ed., *Village Society: Readings on the Economy, Polity and Society*. Orient Black Swan, 2012.
- [7] O. Lewis, *Village Life in Northern India: Studies in a Delhi Village*. University of Illinois Press, 1958.
- [8] D. N. Majumdar, Ed., *Rural Profiles*. Ethnographic and Folk Culture Society, Uttar Pradesh, 1955.
- [9] D. P. Mines and N. Yazgi, Eds., *Village Matters: Relocating Villages in the Contemporary Anthropology of India*. Oxford University Press, 2010.
- [10] Office of the Registrar General & Census Commissioner, India, *Census of India 2001*. Government of India, 2001.
- [11] Office of the Registrar General & Census Commissioner, India, *Census of India 2011*. Government of India, 2011.
- [12] P. Gupta, "Indigenous knowledge system & lesson of sustainability: A case study of Saharia tribe of Bundelkhand region, India," 2024.