

Indigenous Knowledge Systems of the Oraon Tribe of India: A Key to Environmental Education and Sustainability

Priyanka karunamay¹, Dr. Rasmirekha Sethy², *Dr. Dipanshu Sharma³

¹Research Scholar, Department of Education, Regional Institute of Education (NCERT), Bhubhaneswar-751022 (India)

²Associate Professor, Department of Education, Regional Institute of Education (NCERT), Bhubhaneswar-751022 (India)

³Assistant Professor in Social Science Education, Department of Education, Regional Institute of Education (NCERT), Bhubhaneswar-751022 (India)

Corresponding Author: Dr. Dipanshu Sharma

KEYWORDS	ABSTRACT
ESD: Education for Sustainable Development, IKS: Indigenous Knowledge Systems, Oraon Tribe, Environmental Sustainability, TEC: Traditional Ecological Knowledge, Biodiversity Conservation, Oral Traditions.	Indigenous knowledge System (IKS) plays a fundamental role in environmental conservation and sustainable education. Oral transmission of this knowledge frequently occurs through songs, rituals, storytelling, and other cultural traditions across the various tribes of India. It seeks to provide individuals the information, abilities, attitudes, and values they need to create a sustainable future. The teaching and learning methodology known as Education for Sustainable Development (ESD) enables people to make contributions to sustainable development. This research explores the well-heelled and varied knowledge systems of the Oraon tribe of India, focusing on their conventional ecological wisdom, forest management, sustainable agricultural practices and oral traditions. Researcher used qualitative methods like; Focus Group Discussion (FGD), Interviews and Field notes for data collection. Result of this research study revealed that Oraon tribe have diverse tribal indigenous knowledge which can help in education for sustainable development. The Oraon people's deep understanding of biodiversity, resource management and holistic education offers valuable insights for modern-day sustainability efforts. By integrating these aboriginal practices into contemporary educational and environmental policies, we can encourage a more inclusive, broad and resilient future. The study highlights the need for policy acknowledgment and the assimilation of IKS in mainstream education and in conservation strategies.

1. Introduction

The term "indigenous knowledge," sometimes referred to as "traditional knowledge" or "local knowledge," describes the information, abilities, and customs that indigenous cultures have accumulated over many generations because of their close observation and engagement with the natural world. Indigenous knowledge is a comprehensive system of a particular society that encompasses its worldviews, practices, laws, holistic know-how, and guidelines regarding interrelationships within the society and with the natural environment

The goal of education for sustainable development (ESD), also known as "education for sustainability," is to help students build sustainability competences (Demssie, et al., 2020). The UN designated the years beginning in 2005 as the United Nations Decade of Education for Sustainable Development in 2002 in recognition of the critical role that education plays in fostering the competencies needed for sustainable development. Stressing the important significance ESD is one of the Sustainable Development Goals (SDGs) which promotes education for sustainability (UNESCO, 2018).

The ESD discourse itself, however, has come under fire for being limited to western education and neglecting Ethiopia (Asgedom, 2005) and Africa (Nagesh, 1996) The goal of education for sustainable development (ESD), sometimes known as "education for

sustainability," is to help students build sustainability capabilities. Research on ESD is expanding in the modern era. Considering how important education is in fostering the skills necessary for sustainable development.

The creation of the SDGs is a significant move taken by the UN to address global sustainability challenges. The goal of the 17 SDGs that were adopted in 2015 was to address significant global issues. Goal 4's Target 4.7 acknowledges the importance of education and the necessity of specific Sustainable Competencies for sustainable development to cultivate these kinds of skills. However, the SDGs are critiqued for failing to acknowledge and incorporate IKS as a feasible possibility in the endeavour to accomplish the global goals.

According to (Cummings et al., 2018) a technical support team and stakeholders who represented indigenous people offered guidance regarding the potential of IKS and the areas in which this knowledge could be used throughout the SDG preparation process and discussions on the outcomes of the actions action are very essential.

The Oraon tribe, one of India's major indigenous communities, has a deep-rooted Indigenous Knowledge System (IKS) that offers invaluable contributions to sustainable development. Their traditional wisdom in environmental conservation, sustainable agriculture, biodiversity management, education, healthcare, governance, and social sustainability presents a holistic approach to achieving the United Nations Sustainable Development Goals (SDGs). Integrating their knowledge into modern development strategies can help build resilient communities, preserve biodiversity, and ensure cultural sustainability.

2. Objective of the study

"To Identify the Oraon Tribal Indigenous Knowledge Practices of Education for Sustainable Development"

2.1. Research Question

What are the various Oraon Tribal Indigenous Knowledge Practices of Education for Sustainable Development?

3. Methodology

Qualitative study was adopted for this study, Field visit, Interview, and Focused group discussion used for the data collection. For this researcher used five village of Gumla District, of Jharkhand State of India, where most of the village people are belongs to Oraon Tribes.

4. Oraon Tribe

The Oraon are indigenous to the Chota-Nagpur area in the Indian state of Bihar. They speak a Dravidian language similar to Gondi and other central Indian tribal languages, and they identify as Kurukh. They used to reside on the Rohtas Plateau, more to the southwest, but other populations drove them out and they moved elsewhere. Chota Nagpur, where they made their home near tribes that spoke Munda. It's uncertain where the name "Oraon" came from. Since they think they were created from the blood of a holy man's chest, some Oraons claim that the name is derived from Ur (chest). Many people believe that the moniker was derogatory, given by caste-conscious Hindus who thought the tribe was dirty. The actual Oraons make use of the "Kurukh" may be a reference to the legendary Oraon monarch Karakh. Kurukhs' history and customs state that they once coexisted peacefully and sophisticatedly with other Indus Valley people in the "Indus Valley Civilization" prior to 2500 B.C. The Indus Valley in Sind is home to the oldest cities, Mohenjodaro and Harappa. Another ancient city higher up was found, such as Lothal in Ahmadabad and Ropar near Chandigarh, etc. These cities were meticulously planned before any homes or streets were constructed. Brick was used to build homes. The Oraons have historically relied on farms and the forest for their rituals and means of subsistence, but in more recent years, they have mostly settled as farmers.

With about 19.60 percent of the total population, the Oraons, who speak Dravidian, are the largest indigenous group in Jharkhand. The districts of Ranchi, Gumla, Lohardaga, Latehar, Palamu, Garhwa, Hazaribagh, Dhanbad, Santhal Pargana, and Singhbhum are home to the Oraons. As stated by According to folklore, the Oraons originated in Konkan. They moved from India's west coast to its north due to overcrowding and outside pressure. They eventually made their home in the Shahabad area of Bihar as farmers and landowners. They sought refuge on the Rhotas plateau after being driven by a series of outside villages. Despite fortifying the area, they were unable to make it impregnable. Most likely, the Cheros forced them to leave.

In addition to nations like Fiji, Guyana, Trinidad & Tobago, and Mauritius, many Oraon relocated to the tea estates of Assam, West Bengal, and Bangladesh during They were referred to as Hill Coolies during British control. For the purposes of the reservation system, they are designated as a Scheduled Tribe in seven Indian states. The Oraons once made their living from the forest and its products. In contrast to many other Jharkhand communities that engage in jhum, the Kurukh community uses Furthermore, a large number of Oraon tribe members have expanded into several fields, such as trade and commerce, and some have pursued careers in the workforce. Nonetheless, agriculture continues to play a vital role in their way of life and is intricately linked to their cultural identity (Magni, 2017).

In their homeland, the Oraons had been agriculturalists, and over many years and generations, they created a land-based culture. The Oraons practiced many rites, rituals, and festivals at various phases and seasons of cultivation, and agriculture featured varying seasons and crops. These celebrations of agriculture include the Dhanboni (seed-planting festival), the Dhangari (rituals and festival associated with seedling transplanting), the Khalihan Festival (festival associated with the paddy threshing floor specifically), and others. Land ownership is also a necessary element of The Ekka, Tigga, Barla, Kujur, Bara, Lakra, Tirkey, Bakhla, Toppo, Kispotta, Minz, and Kerketta are among the sub-tribes that make up the Oraons. In the center province, the Oraons lack legitimate sub-tribes. Even the presumed Oraon sub-tribes, the Kuda and Kisan, see themselves as distinct tribes and refrain from marrying Oraon (Nagesh, 1996).

There are numerous totemic clans among the Oraons. They reside in central India's Chota Nagpur plateau. In Bangladesh as well as the districts of Raigarh, Surguja, and Jaspur in Chhattisgarh, Ranchi in Jharkhand, Jalpaiguri in West Bengal, and Sundargarh in Orissa. When an offender is reinstated, Pannu, the Head of Oraon, takes on the burden of the transgression and first drinks water from his hand. Pannu typically receives a little amount of money for this conduct. Oraons traditionally adhered to Sarna Dharma.

However, others began Sarna Dharma in a Hindu manner as a result of Hinduism's influence. Because of Hindu influence, there were different forms of Sarna Dharma. Bishnu Bhagat is this person. Tana Bhagat, Bacchinda Bhagat, and Karmu Bhagat. Religious rites are carried out by Sarna devotees beneath the shadow of a holy burial. They revere the Moon as Chanda and the Sun as Biri. In Sarna Puja, the terms Chanda and Biri are utilized. They refer to the earth as their mother. Many of the Oraons gave up their ancient Sarna beliefs. Indeed, in Oraons suffered greatly in the 19th and early 20th centuries as a result of British traders' exploitation. Oraons were discovered to be hungry and sad by Christian missionaries. Many Oraons were persuaded to embrace Christianity by them. Protestant Oraons, who have multiple denominations, and Roman Catholic Oraons are two types of Christian Oraons.

4.2. Characteristics of the Oraon Tribe

Language: The Kurukh or Oraon language is spoken by the Oraon tribe. Kurukh, a Dravidian ethnic group that lives in the Indian states of Jharkhand, is sometimes spelled Uraon. Kurukh, a member of the Dravidian language family, is the language they speak the most. The Sanskrit

verb Kash (to plough) is connected to the English kudukh. Many people today speak Bengali, Odia, Hindi, and Sadri, among other languages. Sadari, Nagpuri, Hindi, and Kurukh are the main tribal languages spoken in the Jharkhand districts of Nagri and Bharno. Sadari and Kurukh are the primary languages used by the villagers to interact with one another. In order to ensure that their children remember their tradition, parents speak this language to them.

Habitat: The Oraon people maintain their cultural identity while living in different, multiethnic settlements. Ten to thirty families make up a community. The homes are dispersed and connected by crooked streets. These days, they construct homes on both sides of the street because they have direct touch and connection with the nearby castes. The homes open to the kitchen gardens or courtyards, which are enclosed by a fence wall. Mud walls are used in the construction of the houses. Its roof is covered with khappar and sloped. The house features a low verandah in front and a high verandah in back.

Art and Craft: The majority of homes use khatti, which are hardwood frames braided with rape, and every home utilizes patia, which are created from wild date palm leaves. Plates and pots of different sizes made of brass, bell metal, or aluminum are examples of home utensils. They stored water or cooked meals in these aluminum containers. To store and transport water, water rice, and rice bears to the agricultural field, brass vessels and dry battle guards are also utilized.

Agriculture: For their rituals and means of subsistence, the Oraon rely on the farms and forest. However, they have mostly settled as farmers in recent years. Jhum cultivation is used by the Oraon tribes of Jharkhand. These folks worked in agriculture using traditional implements like ploughs, oxen, spades, and so forth. The majority of the tribe is employed by others as farm laborers. In order to improve their standard of living and their children's future, some Oraon people have modernized and now prefer to live in cities rather than return to their ancestral homeland. Many people choose to remain in their hometown and manage their finances using the customs and traditions of their ancestors (Nagesh, 1996).

Local Administration: Pahan (village priest), Panibharwa (Phan's water bearer), Pujar (Phan's assistant), Bhandare, and Chowkidar are among the positions in the village-level political organization known as Parha. Each plays a specific part in religious rituals, celebrations, and resolving conflicts within the community. Dhumkuria is the name of the traditional informal educational institution's youth dormitory. Akhra is a popular and frequently used meeting spot where people go to talk and work out issues. A Parha council is made up of 12 to 30 villages. Every village under the leadership of the Parha chief, village council members serve as Parha council members. Praja is the name of the remaining villages, while Parha is known as Raja (King), Dewan (Prime Minister), Panrey (Clerk), and four Kotwar (Ordly People). Traditional governance systems, strong community networks support cooperative resource sharing; Indigenous festivals ensure equitable land and water distribution. And promote ecological balance and sustainable living. "Bhuinhari" means "landowner." Pahan Khunt and Mahato Khunt are the two subgroups of Khunt.

Religion: Nature worship is the foundation of the Oraon's traditional religion, Saranasim. A few of the organizations began practicing Sarnaism in a Hindu manner. A number of Sarna sects were founded by the Oraon. The Sun is worshipped by Oraons as biri, which is another name for Dharmesh. Kurukher believes in animism as well. Sarna, an Adivasi religion indigenous to the Chota Nagpur Plateau, make up the majority of the population. Religious ceremonies are performed by the Sarna under the cover of a sacred forest. They venerate the sun as Biri and the moon as Chando, and they call the earth Dharti Aayo, meaning mother

Earth. Chando Biri is the phrase used in Sarna pujas. Dharmesh is their supreme, all-powerful god. They celebrate a number of holidays, including Sarhul, Karma, Phagun, Sohrai, Dussehra, Jatia, Hariari, Kadleta, Kharhiani, Asari, and Nawakhani. Using the branches of the Kadam tree, karama is a symbolic act of tree worship.

Food Habit: Green vegetables and bhaat, or cooked rice, are the staple foods of the Oraon people. Their diet consists of gondli, mahua, wild tuber, kand-mul, saag-pat, mahua flower, and other fruits and flowers. They consume chuda as well. Rich Oraon consumes a wide variety of vegetables and pulses while ordinary oraon consumes fewer pulses. In Maad, they prepare saag, particularly green saag, with salt and turmeric to create a sort of porridge, which they then consume. Ghee, milk curd, and oil are less common. They consume fish, birds, eggs, and meat from various animals. Nowadays, hunting is a pleasure rather than a career. Their favorite beverage is hadiya, or rice beer. Offerings are made to the gods and goddesses using the Hadiya.

Festival: Within the Oraon tribe, the celebrations were significant. They become closer and more fraternal as a result. For eons, the Oraon have worshipped the Sun, land, fire, stone, water, trees, and the so-called Panchabhutas, which make up the universe. There are numerous festivals with a variety of meanings, such as honoring ancestors, the gods of nature, or delicious food. The Oraon tribe frequently celebrates Dhan Buni, Bangari Asari, Hariyari, Karma, and Sohrai. Before the monsoon season crop is sown, farmers celebrate Bhan Buni, a ceremony in which they honor their anaster. Among the festivals are Sarhul, celebrations of which take place in March and April during the month of Chaitra. Chala Aayo (the woman of the environment), Dhartimata, and Dharmesh (the sun) are the three gods they worship this month. The word Khaddi, which denotes a newborn human, animal, bird, or even plant, is related to the Kurukh word Khadd. The entire natural world is teeming with fresh animal and plant offerings. Bangari, a paddy seedling is referred to as bangari when it is prepared for transplantation. Pahan and the other are invited by the villagers to the paddy field. A pot of rice-bear, arwa rice, sal leaves, sindoor, and other ingredients is being taken. Then, in order to have good crops, Pahan prays to Dhartimata. The ladies in the fields then begin to establish plantations. As they participate, the women sing the song and have fun.

5. Importance of Oraon Tribe Indigenous Knowledge System for Sustainable Development

The Oraon tribe, an indigenous community in India, possesses a rich Indigenous Knowledge System (IKS) that plays a crucial role in sustainable development. Their traditional wisdom in environmental conservation, resource management, and community-based education offers valuable lessons for modern sustainability efforts.

- **Medicinal Practices:** They conserve biodiversity through protection of medicinal plants and traditional herbal. Respect natural cycles and wildlife through sustainable use of forest resources without over-exploitation. A wild herb in Jharkhand, it's also called chakod is included in the WHO "list of medicines" and is frequently used as a strong laxative. The medicinal properties of this plant's leaves, seeds, and root have been discovered to help treat a variety of skin conditions, including ringworm, leprosy, and skin infections. Liver disorders are also treated with it. It also aids in the pancreas's healthy operation in terms of secreting insulin (UNESCO, 2018).
- **Environmental Conservation:** For forest management Oraon people practice sacred groves conservation, ensuring biodiversity protection and ecosystem balance. Their traditional mixed-cropping system reduces soil degradation and promotes sustainable

agriculture and indigenous techniques such as rainwater harvesting and small check dams help in water resource management.

- **Food Security through Sustainable Agriculture:** They use of drought-resistant crops to adapt to climate change and practice organic farming without chemical fertilizers or pesticides with deep knowledge of seed preservation techniques for long-term sustainability.
- **Transfer of Indigenous Knowledge and Education:** Oral traditions and folklore pass down ecological knowledge and moral values to the next generations. They promote community-based intergenerational learning to foster a holistic understanding of sustainability and for preserving of cultural identity (Magni, 2017).
- **Climate Change Adaptation:** Sustainable housing and architecture using local materials reduce ecological impact, traditional weather prediction techniques help in disaster preparedness and indigenous disaster risk management strategies mitigate environmental hazards.

6. Oraon Tribe IKS in align with UN Sustainable Development Goals (SDGs):

The Oraon tribe's Indigenous Knowledge System is a valuable resource for sustainable development. Integrating their ecological wisdom, agricultural practices, and cultural values into modern policies can enhance environmental sustainability, food security, and climate resilience. Recognizing and respecting indigenous knowledge is crucial for building a more sustainable and inclusive future.

Sr. No.	SDG	Oraon Contribution
1.	SDG 2: Zero Hunger	Sustainable agriculture, seed preservation, organic farming
2.	SDG 3: Good Health & Well-being	Indigenous medicinal practices
3.	SDG 4: Quality Education	Oral traditions, folk education, knowledge transmission
4.	SDG 5: Gender Equality	Active participation of women in governance and economy
5.	SDG 6: Clean Water & Sanitation	Rainwater harvesting, sacred water conservation
6.	SDG 13: Climate Action	Indigenous climate adaptation strategies
7.	SDG 15: Life on Land	Biodiversity conservation, sacred groves protection
8.	SDG 16: Peace, Justice, and Strong Institutions	Traditional Governance & Social Equity

7. Conclusion

Oraon tribe is one of second largest tribes of Jharkhand, their practices are very rare and which has opportunity for sustainable development. Every practice by the Oraon tribe has possible to achieve various goals of sustainable development Because of their deep understanding of the environment, indigenous peoples often embrace sustainable practices that can help address today's environmental issues, such as protecting biodiversity, managing natural resources, and adjusting to climate change. Many modern pharmaceuticals are derived from traditional indigenous knowledge of medicinal plants and healing methods. This information remains a valuable resource for the creation of new drugs and treatments. Methods of Agriculture: Indigenous agricultural methods that can enhance food security and agricultural sustainability include crop rotation, polycultures, and soil fertility management.

The IKS of the Oraon tribe is a holistic model of sustainability, integrating environmental conservation, sustainable agriculture, biodiversity management, education, and governance. By recognizing, preserving, and incorporating these practices into modern development policies, we can promote climate resilience, food security, and social sustainability. Strengthening indigenous rights and knowledge systems is essential for building a more equitable and sustainable future and an invaluable asset for sustainable development. Their traditional practices align with global environmental and social policies, proving that indigenous wisdom is crucial for a sustainable future. By integrating their knowledge into national and international frameworks, India and the world can achieve climate resilience, biodiversity conservation, social equity, and economic sustainability.

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