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Traditional practices in indigenous education: the knowledge systems of the Dongaria Kandha in Rayagada district, Odisha

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Abstract

One such community, the Dongaria Kandha people, an Indigenous community belonging to the Niyamgiri Hills, Chatikona, Rayagada District of Odisha, India, has accumulated a rich traditional knowledge system as an integral part of their livelihood system. The paper explores the Indigenous educational system of the Dongaria Kandha, focusing on the methods of transmission of knowledge across generations through oral traditions, folk narratives, caste specific rituals, apprenticeship, and association with nature. Unlike mainstream education, which often stresses intellectual regimentation, Dongaria Kandha education is about holistic learning, the ethos of sustainability, understanding the web of life, spirituality, and social responsibilities. They have the knowledge about agriculture, herbal medicine, forest conservation, and artisan way of living on one side, which is one of the major dimensions of deep ecological wisdom and sustainability, around which the study revolves. But due to modernisation, deforestation, and intervention from outside, the Indigenous educational system of the Dongaria Kandha is being threatened. The effects of globalization and modernization are taken into account in the transmission of Indigenous knowledge, including the tribal sustainable practices and the prospects of the future of the practices that will lead to the local tribal community development and sustainable development in general, which inspire academic thought and studies. Modelling upon international comparative models, the research presents policy recommendations at the national and regional levels, sensitive to the significance of Indigenous knowledge in promoting conservation and sustainability. Community involvement, policy backing and making use of digital media for documentation are necessary, the study suggests, in the effort to retain what is being passed on by the Dongaria Kandha. The study calls for an education system where alternative pedagogical traditions of the Indigenous communities are respected and adopted, and thus, the demand for the knowledge of the Dongaria Kandha community remains for posterity.

Keywords: Kondha tribe, indigenous knowledge, traditional practice, ethno-medicine, sustainable agriculture, Odisha

1. Introduction

Indigenous education, embedded in Indigenous knowledge systems for generations, is based on a holistic, experiential approach to learning that is inextricably linked to cultural identity, environmental stewardship, and social cohesiveness. Dongaria Kandha are identified as one of the Particularly Vulnerable Tribal Groups (PVTG) and live in the Niyamgiri Hills of Odisha, India. And their teaching is primarily oral, informal, and experiential; about agriculture, forest conservation, herbal medicine, spirituality, and handicrafts. (Nag, H., & Majhi, P., 2024) ^[2]. In contrast to formal systems of education, characterized by codified curricular domains and institutionalized ways of imparting knowledge, says the researcher, the Dongaria Kandha rely on storytelling, folklore, rituals, and apprentice systems of knowledge sharing, as well as group participation in the life of the community. Thus, being immersed in an environment that provides knowledge on wildlife, sustainability, and self-sufficiency, their education is built around their environment. For example, traditional educational forms are increasingly under pressure due to modernization, deforestation, and external socio-economic influences. As formal education and acculturation into the dominant society become increasingly important with new generations, the transmission of Indigenous knowledge between older and younger generations is in decline, as young people move to

urban centres for modern education and the job market. Furthermore, the policies and projects focused on the development and empowerment of the tribes by the government do not value the Indigenous pedagogy, thereby resulting in the degradation of cultural identity and loss of Indigenous knowledge. Such practices are becoming increasingly divergent from broader systems of knowledge, which are seldom represented in formal educational realms, and this also prompts questions about the longevity of these practices and the relevance of cultural preservation in Dongaria Kandha. Indigenous Education System among the Dongaria Kandha. Analysis of the Understanding and respect for Indigenous knowledge, and the role of the elder and community participation in the Indigenous learning/harmonisation system with nature. It also looks at the problems and threats that this form of Indigenous education faces as a result of recent educational reforms and political and social transformations (Kumar, K. *et al.*, 2023) ^[14]. From this analysis, one goal for this study is to design these policies in a way that can support systems to ensure that they can subsist and co-exist with modern education, to revitalise DGK traditional education and the preservation of DGK traditional education practices. Analyses of Canadian universities have examined environmental education failures and how these failures may play a role; education is the culprit and thus does not escape indictment.

In settler colonialism and social injustice, and calling for the need to address place and recognition of Indigenous rights and knowledge in education in response to remarks on the urgency of blending both voices in learning as imperative for teaching in ways that are place-based and culturally responsive. Although formal education is present, understanding of an Indigenous pedagogy framework allows for an integrated education system that respects traditional knowledge (Ranjan Nath, n.d.). Therefore, it is important not only for Indigenous education to protect and preserve the knowledge system of the Dongaria Kandha; it also helps to generate knowledge for broader discourses of cultural resilience, biodiversity conservation and Indigenous rights. They are documented and portrayed in the Gallery of Particularly Vulnerable Tribal Groups (PVTGs) of Odisha as a dioramic display of their socioeconomic and cultural lifestyles (Ravjani and Yadv, 2019) ^[1].

2. Review of Literature

N Nag, P Majhi. (2024) ^[14]. The paper presents the Indigenous knowledge system of the Kandha tribe, a primitive race of Odisha, India. The inclusion is in terms of agricultural systems, Ethnomedicine, Spiritualistic beliefs and management of resources for sustenance. The research underscores the cultural richness and villagers' profound ties to their way of life. These results underscore the importance of traditional knowledge to sustainable livelihoods and ecological integrity. "So, it is not only land loss and cultural and environmental degradation, marginalization and less access to family resources and other Indigenous people in Kandha. Globalization, climate change and the increase of social changes pose many threats and challenges to the world of Indigenous culture and knowledge; all these could impair the survival of Indigenous people in some areas and call for cooperation to resolve issues relating to the protection of traditional knowledge and rights, cultural diversity, and sustainable development by integrating traditional knowledge.

Kumar, K., *et al.* (2023) ^[14]. Investigated some dimensions of agricultural knowledge and knowledge preservation practices of the Indigenous people called the Adivasis in India, and their social and cultural bonding with nature. The research was carried out in four villages in the Koraput and Rayagada district to document their practices and how they relate to local beliefs and festivals, and how this knowledge of language is part of community life. These populations are predominantly dependent on agriculture, and a number forage for diverse products from plants growing in nearby forests. The approach involved field data collection through participatory observation and knowledge sharing by local actors.

Dandapat, S. (2021) ^[4]. Existing studies have highlighted the concept of Traditional Ecological Knowledge and its possible contribution as a means to move toward the issues of environmental change at the global level. This research emphasises the role of Traditional Ecological Knowledge in the development of sustainable swidden agricultural cultures. In a situation like this, what the research will reach is the knowledge, ideas, culture, beliefs, and practices that were used by the Dongria Kondh for practicing swidden farming from the past to this date. Additionally, the finding demonstrates how the Dongria Kondh's conventional swidden cultivation contributed not only to meeting their daily necessities but also to the sustainable development and economic prosperity in the community. The essay shows how a subsistence farming system can evolve into economic agriculture, without even having changed the traditional practice of the farming system.

3. Objective

1. To investigate the traditional knowledge system of the Dongoria Kondha Tribe in the Rayagada District of Odisha.
2. To explore challenges faced by the Dongaria Kondha tribe in preserving their Indigenous knowledge system

4. Methodology

This research utilises a descriptive and ethnographic framework to investigate the indigenous educational methodologies and knowledge systems of the Dongaria Kandha in Rayagada District, Odisha. Data were obtained from primary sources, including rituals, agricultural practices, oral traditions, and community interactions, as well as secondary sources such as academic literature, policy studies, and governmental records. Using participant observation, interviews, and content analysis, the research identified key themes of cultural preservation, knowledge transmission, and indigenous pedagogy. The triangulation of sources guaranteed legitimacy and yielded a detailed narrative of how traditional knowledge is preserved and transmitted within the community.

4.1 Traditional Education Practices of the Dongaria Kandha

Instead of institutions of formal education governed by formal curricula, the Dongaria Kandha enquired through life, they experienced, and they experimented. It is inherited through oral histories, hands-on experience and community involvement. Their education focuses on

4.2 Agriculture and Sustainable Farming: Traditional farming methods, including mixed cropping and water

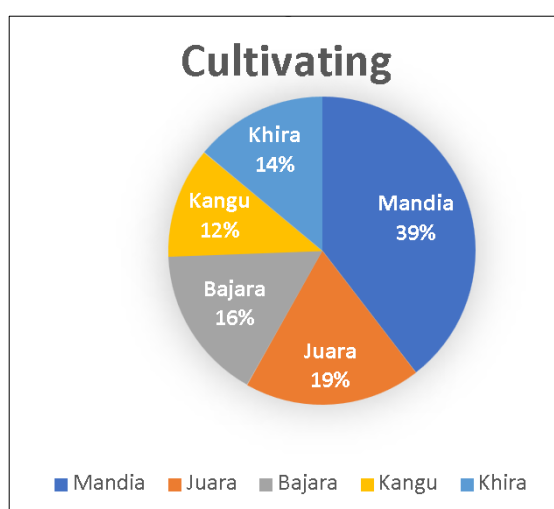
harvesting. In addition to supporting livelihoods and improving lives, these techniques have also reflected the cultural beliefs, ceremonies and customs along with their farming systems. (Sethi, S., & Naik, P., 2020) [22]. The Dongria Kondh have not only converted their swidden agriculture into horticultural agriculture using traditional knowledge, but their practice of ecological adoption for food security and sustainable and economic growth

opportunities has drawn considerable attention. They continue to grow a vast variety of Indigenous crops, including millets and pulses. We also need seeds of fruits, vegetables, mushrooms and other crops for subsistence. In addition, the Dongria Kondha give priority to locally produced vegetables, especially their crops rich in iron and calcium, such as Mandia and Juara with Madoi, Jhankri, Bajara, Kangu, Khira and Suan.

4.3 Household Participation in Millet Cultivation

Table 1: Household Participation in Millet Cultivation

Millet Variety	Local Name	%ofHouseholds Cultivating	Approx. No. of Householdsoutof 1600	AverageHouseholdSize Engaged (members)
Finger Millet	Mandia	85%	500	5-6members(allinvolved in sowing/harvest)
Sorghum	Juara	40%	210	4-5 members
Pearl Millet	Bajara	35%	236	3-4 members
Foxtail Millet	Kangu	25%	154	3-4 members
Little Millet	Khira	30%	260	4-5 members
Barnyard Millet	Suan	20%	240	3-4 members



Community farming operations are concentrated on growing several hardy ancient grains, ideal for their climate conditions and topography. Finger millet (locally called Mandia) is the predominant cereal crop (share of 39%) being grown, implying its importance as a major staple source. This is followed by sorghum (Juara) 19%, pearl millet (Bajara) 16%, corn (Khira) 14%, and foxtail millet

(Kangu) 12%. This distribution is the result of a mindful approach to farming that endeavours to save crop variety and is friendly to both food security and planetary health. Each grain serves a purpose in their diet and agriculture, representing generations of Indigenous wisdom passed on through oral traditions and community-based education.

4.4 Forest and Wildlife Conservation: Rituals and customary laws that regulate hunting and resource use.



For communities like India's Indigenous Dongria Kandha, culture and game conservation will be closely related to

ritual practices and customary laws about food and the use of natural resources. These cultural practices, represented by

religious rituals, taboos, and customary governance, serve as an impediment to hunting and forest resources exploitation. These are the restrictions to prevent resource exhaustion and the existence of animals and plants for a long time. When used in respect of such customary rules which are observed by the community at large, the exercise in application of customary laws may facilitate the involvement of the community in the equilibrium of ecology in nature and the



Traditional societies are characterised by the mastery of weaving, tattooing, jewellery making and special places of cultural expression. Characteristic of these practices and performances is, however, that they mean more than they 'do'; they also are full of symbols that represent the culture, identity and value system of the communities in question. The craft of weaving is the fusing of sections of cloth that have shared developing heritage within a loom, drawing on shared patterning traditions and construction techniques,

protection of biodiversity. This modality is a stimulus-response conservation strategy and a complex Indigenous environmental management system that combines Indigenous cultural beliefs with forest degradative uses.

4.5 Artisanal Skills: Weaving, tattooing, and jewelry-making as forms of cultural expression.

often creating cultural legends in the process. Tattooing serves as a corporeal archive of both personal and social identity, important events, social roles and spiritual affiliations. The art of jewellery includes the construction of decorative objects made with native materials that represent aesthetic values, tradition, and often magical manipulation. In concert, these crafts serve to preserve cultural knowledge, encourage artistic exploration, and uphold community links to cultural tradition.



4.6 Spiritual and Ethical Teachings: Worship, folklore, and moral storytelling to instill community value.

Among the Dongria Kandha and other communities, ethical norms are transmitted through worship rituals and oral traditions containing spoken fables and tales. The worship of the ancestors and nature forces provides for this great fusion with the universe and the heritage. Storytelling among the Amakyeana elders is one of the means used by them to impart good moral behaviour, social norms and community responsibility. Their stories usually illustrate some significant moral messages relating to honesty, mutual respect, mutual help, and the maintenance of ecological equilibrium. These religious and ethical teachings play a role in encouraging personal development, strengthening nomadic social organisation, and preserving the cultural diversity of the community.

5. The Dongria Kandha use several methods to transmit knowledge from generation to generation

- **Teaching Oral Traditions:** By storytelling, the old hand over folklore, mythology and other historical

knowledge to the young. A pedagogy of the oral traditions of the Dongria Kandha should be an education from their culture and knowledge. No written script writing, and the Dongria Kandhas communicate the stories, thoughts and practices verbally through stories, songs and ritual performances. Huys, N. (2025)^[7]. This information is inherited from older generations by the youth through elders and community leaders. In order to teach these traditions well, teachers and researchers need to get out among the people, listen to and tend to Kui, and hear the stories in their contexts. Whether the teaching and communication methods should involve local people, whether the dialogue between the old and young generations should be promoted, or whether the telling places of the stories should be kept in their current locations, for example, around utilitarian events and religious festivals. Idowu, S. O and Abbass, K. F. Videos, interviews, and translation to local and national languages are the elements we can use to be able to continue to let these traditions live, that's how I see it." In the end, educating

about the oral heritage of the Dongaria Kandha helps to maintain their culture and emphasises the meaning and importance of Indigenous knowledge for today's world.

- **Apprenticeship and Observational Learning:** The child observes and assists adults with their simple daily activities. It describes how children learn from adults by observing and becoming involved in their everyday activities. Unlike traditional classroom learning, children learn through apprenticeship and learning by doing, wherein they perform tasks with the skilled adults and learn from them. (Jadhav, S. N., & Kar, M. (2020) ^[8]. They learn through interested observation how adults accomplish things as diverse as farming, cooking, making things, or hunting and begin to mimic the behaviour, all the while becoming competent at doing it themselves. This hands-on, experiential way of learning provides access to a child's understanding of traditional ways, the acquisition of basic skills, and preparation for future roles in the community. It provides an organic and efficient mechanism for passing down vital information and traditions from one generation to another.
- **Ritual sand ceremonies:** Sacred practices that reinforce traditional knowledge. Among the Dongaria Kandha, rituals and ceremonies hold deep cultural and spiritual meaning, serving as key mechanisms for safeguarding and transmitting traditional knowledge. These practices often include singing, dancing, prayer, and other symbolic acts that strengthen the community's bond with their ancestors, the natural world, and their spiritual worldview (Tadingi, A., *et al.*, 2025) ^[25]. By actively taking part in these events, especially among the younger members of the tribe, individuals gain an understanding of their cultural heritage, moral values, and sustainable ways of life. These communal gatherings function like informal schools, where Indigenous knowledge and identity are continuously nurtured and handed down through generations.
- **Gatherings:** Fests and Storytelling sessions for Learning together as a community. In the case of Dongaria Kandha, the collective learning practices under fests and storytelling workshops during festival time play an important role as venues of shared learning and intergenerational transmission. These events are not just festive; they offer opportunities for traditional songs, ancestral stories and legends, and personal experiences to be shared. The old play the part of cultural instructors, sharing traditional stories and moral teachings with other members who become participatory learners. These are events that build strong communities, maintain key cultural values and facilitate a lively inter-generational flow of traditional know-how. And these disciplines are central to securing the cultural future of the Dongaria Kandha and that lineage relationship.

6. Role of Nature and Ecology in Education

The Dongaria Kandha understand their surroundings as part of their natural knowledge systems. which they practice:

6.1 Protection of sacred groves for the sake of biodiversity preservation.

For the Dongaria Kandha, sacred groves are not only a matter of religious importance but also fulfil. The function serves as an efficient tool for biodiversity conservation. Local people treat these forests as sacred because they are growing on ancestral land and considered to be the residence of the local deity, so that humans refrain from activities such as felling timber, hunting or farming. They therefore act as ecological refuge a for a broad range of plants and animals, some of which are rare and endemic. The preservation of these groves reflects the society's traditional ecological knowledge and long-held practices of keeping a harmonious co-existence with nature. It's an example of how a local ecology can be maintained through cultural belief and spiritual tradition. Methods of sustainable harvesting to maintain the health of the environment.

Sustainable harvesting techniques entail a conservative removal of the natural resource so as not to upset the ecosystem that depends on it, in effect maintaining long-term health on a local level. These methods serve to accommodate the flow patterns of plants, soil fertility and biodiversity by controlling harvesting timing, quantity and method. For Indigenous communities like the Dongaria Kandha, these practices are embedded in traditional ecological knowledge that emphasises symbiotic interaction with nature. Through the practice of these sustainable methods, communities are not only aiding in preserving local ecosystems, but they are also avoiding overuse and ensuring there is something left for future generations.

6.2 The weather forecast, as in some of Inina's other stories, is read from natural signs, such as the cry of animals and plants.

Predicting weather using nature is the art of reading nature to show what it will do in terms of weather, such as plant growth, animal behaviour and more. "This kind of traditional wisdom has been honed over generations among Indigenous and rural peoples, like the Dongaria Kandha, through constant interface with nature. For example, changes in bird movement patterns or insect emergence, early flowering of some plants, or unusual animal behaviour are often accepted as an indication that the weather is about to change, such as coming rainfall, drought or onset of a particular season. This practice has been borrowed from an extensive knowledge of the native ecosystems, and condition is a means for planning agriculture and daily sustenance. It also demonstrates the complexity of recording accurate ecological and meteorological knowledge by Indigenous knowledge systems, and their strength, in comparison to modern meteorological instruments, in areas where they may be scarce or unavailable.

7. Challenges to Indigenous Education

The Dongaria Kandha are confronted with a multitude of challenges, all of which threaten their traditional knowledge system

- **Modernization and Formal Education:** The promotion of formal schooling is often at the expense of Indigenous pedagogies. The declaration draws attention to the fact that the impulse for modernization, particularly through formal education systems, frequently fails to consider Indigenous teaching and learning. Governments and societies follow

standardized schools with examination-centred, curriculum-centred classrooms and easily forget the Indigenous pedagogies that are based on orality, sense experiences, community and intimacy with nature. Not only does this inattentiveness jeopardise valuable cultural knowledge, but it also alienates our Indigenous students from the more formal learning system, making it difficult for them to find relevance in a public education that they might deem irrelevant. Loss of forests disrupts traditional knowledge transmission, which means that the destruction of forests and the illegal or forced takeover of Indigenous lands severely affect how traditional knowledge is passed from one generation to the next. For many Indigenous communities, forests are not just natural resources; they are deeply connected to their culture, identity, and learning systems. These environments are where elders teach younger generations about medicinal plants, spiritual practices, hunting techniques, and sustainable living. When forests are cleared or occupied for commercial purposes (like mining, agriculture, or urban development), these vital learning spaces disappear. As a result, Indigenous people lose access to the land-based experiences that are essential for preserving their heritage, leading to the gradual erosion of their cultural identity and ancestral knowledge.

- **Government Policies:** Insufficient recognition of Indigenous education in national curricula also illustrates how many nation-states fail to properly recognise or incorporate Indigenous knowledge, languages and pedagogies into the official educational programs of schools. Most official curricula follow standardised, Western-style models of education that are not conducive to incorporating Indigenous cultural perspectives and learning systems. The consequence is that the Indigenous students are not made to think of what they learn as being part of who they are, and their history, culture and perspective do not find their way into the smoother story of education. The absence of such representation not only denies access to cultural understanding for all students but also serves to marginalise and delegitimise Indigenous identities in the larger society.
- **Cultural Erosion:** The effect of outside culture, Indigenous' original cultural concepts will disperse because of migration, and ethnological influence is just about the fact that the presence of people migrating away from them and contact with other cultures (as long as it's practised) can dilute that distinct value to engender tradition over time. Migration for education, work opportunities or safety can see Indigenous people displaced from culture, languages and community. Meanwhile, the increasing influence of mass media, globalised living and an established cultural regime can mask or supplant traditional belief systems and traditions. This degradation can erode cultural pride, diminish the use of native languages and the collapse of traditional knowledge, with implications of losing Indigenous identity between generations.

7.1 Strategies for Preserving Indigenous Knowledge

To ensure the survival of Dongaria Kandha's education system, several approaches can be adopted:

- **Integrate Indigenous Knowledge into Formal Education** Indigenous knowledge needs to be incorporated into schools in tribal areas. Incorporating Indigenous knowledge into formal education, particularly in tribal schools, is important for conservation and proper respect of the cultural heritage of Indigenous communities. It is an approach that seeks to build the school curriculum to include local languages, traditions, eco-practices, folklore and worldviews. In the process, not only does it add value to students' learning experiences, but identity, pride and continuity in the community as well. It supports that transition from traditional knowledge systems to more modern forms of education, making learning seem a lot more relevant for Aboriginal children." There is also the fact that combining Indigenous knowledge with contemporary science further cultivates respect for cultural diversity and promotes practices of sustainable living over centuries of ecological understanding.
- **Initiatives for Mobile and Community-Driven Education** Include elders and traditional knowledge keepers who can act as educators. Community and mobile learning solutions offer flexible, inclusive education options, especially in geographically isolated or disadvantaged areas. Mobile learning uses portable classrooms, roving educators and technology to bring lessons to groups of learners who, in different ways, are prevented from settling into regular schooling. Simultaneously, community-based education stresses active participation of local communities in curriculum, teaching methods and governance so that content receives contextual relevance as well as community priority. Together, these methods tackle systemic barriers to education and promote community empowerment, the preservation of cultural heritage and sustainable knowledge transfer.
- **Documentation and Digital Archiving:** Oral history, folk song and ritual needed to be recorded. Documentation and digital archiving are particularly important for sustaining intangible culture such as oral history, folk songs, and ritual ceremonies. These components of cultural expression, which are usually communicated orally, are subject to vanishing in the face of social and technological progress. This knowledge is also preserved by recording on audio, video or in text, which may later be accessed by generations of the future. Digital archiving offers not only a permanent and transparent archive, which everybody can access, but also respects the intellectual property rights of originating communities. They play a major role in cultural preservation, academic research and reintroduction of traditional practices in a modern framework.
- **Policy advocacy:** the work undertaken to influence governments formally to declare and get behind Indigenous education systems. Such systems often comprise learning with traditional teaching methods, in the native language and cultural knowledge that are

mostly unlike mainstream school education. Advocates mobilise to push for policies that fund, develop culturally appropriate educational materials and train teachers from Indigenous communities. Policy support for Indigenous education helps to protect cultural identity, promote local control and ensure that schooling is respectful and meaningful to Indigenous students.

- **Sustainable Development Programs:** Ecotourism and cultural conservation programs could help promote awareness. Sustainable development projects, including ecotourism and cultural preservation, are crucial in maintaining environmental friendliness as well as the protection of Indigenous heritage. Ecotourism promotes sustainable travel that respects natural landscapes and traditional ways of life. At the same time, cultural preservation work seeks to safeguard and renew Native languages, traditions, arts and religions. These programs, when implemented with close collaboration of the local communities, not only create economic opportunities but also bring about an awareness, at the level of public perception, of the importance and value of both cultural and ecological diversity. These efforts ultimately contribute to a two-pronged approach to ensuring healthy, sustainable development that encourages conservation and community-based empowerment.

8. Policy Recommendations for Integrating Indigenous Education

Recommendations to bridge the gap between Indigenous and formal education:

- **Bilingual Education Programs:** Focuses on literacy in both Indigenous languages and mainstream languages.
- a) **Indigenous Pedagogy Teacher Training:** Educators need to be trained to use culturally responsive teaching strategies.
- b) **Indigenous Knowledge Curriculum Development** Inclusion of Dongria Kandha customs in textbooks and practical learning.
- c) **Legal Recognition of Indigenous Education Rights** Ensure policies protect and preserve Indigenous intellectual heritage.

9. Results and Discussion

The Dongria Kondh are an Indigenous people in the area of Niyamgiri Hills, India, who rely on traditional paradigms for their Indigenous education and knowledge systems. Based on their cultural heritage, cultural elements involve agriculture, health, craft and social systems.

9.1 Farming Methods

The agro-ecosystem used by the Dongria Kondh, namely 'shifting cultivation', or the 'poduchasa'/'slash and burn' method of agriculture, is inherent to their way of life. Here, sections of forest are cleared and burned, crops are cultivated for a number of years, and the land is then left to fallow before reseeded. As I understand it, this circle of cultivation maintains the fertility of the land and points toward greater forest conservation as well as more sustainable land uses. Society and culture are meshed into agriculture, so they follow an agricultural calendar that is associated with their cultural rituals and festive times.

9.2 Knowledge of Ethno medicine

The Dongria Kondh have great knowledge about the local plants and use them for medicinal purposes. Traditional mind healers capture this ethno-medicinal wisdom orally through generations and play a vital role in community healthcare. They use certain plants to treat illnesses, which suggests a profound knowledge of their environment. (Swain, M *et al*, 2022).^[28] The ethno medical information gathered from tribal people in the Niyamgiri hill region of Odisha, India, is the main focus of the study. Finding the most widely used plant parts and their ethnotherapeutic benefits for treating different illnesses is the goal. The study found that 48 human ailments, including fever, piles, coughing, colds, diarrhoea, and dysentery, were treated with 50 plant species from 47 genera and 35 families. *Bacopa monnieri*, *Bryonia laciniosa*, *Andrographis paniculata*, *Bryophyllumpinnatum*, and *Celastrus paniculatus* were the most widely used plants. The study highlights the importance of local culture and traditional knowledge in the treatment of illnesses. (Das, S., Patnaik, S., & Veni, A. L. (2024)^[29].

9.3 Gender Roles and Manliness

Artisanship is a central focus of their cultural identity, and generations have passed down skills like weaving, basketry and woodwork. Kapdagand, an embroidered shawl, is one of the best examples portraying their expertise. This vivid and soulful Indigenous wisdom is highly respected not only by their own people, but has permeated out to the surrounding area and beyond. The promotion and production of handicrafts is a significant aspect of the Dongria Kandha society. They participate in traditional production activities, including basketry and weaving, cooking utensil preparation, instrument making, grass skirts and barkcloth making, as well as local markets and shows. The gendered delineation of roles in handicraft production is a regular one, with women often doing precision-based and detailed work. This gender-specific specialisation not only results in very high-quality products, but also ensures the maintenance of traditional technical and design practices. Although Dongria Kandha women have made strong inroads into handicraft promotion, they encounter several problems that mar their efficiency. The lack of access to the market, absence of formal training and socio-cultural barriers are among some of the major problems faced by women artisans. Not only that, but institutional support and resources are also absent, which makes it hard for women to compete in a dynamically evolving market scenario.

9.4 Transmission of Knowledge

Indigenous knowledge system and transmission to the Dongria Kondh Indigenous practices are orally transmitted, e.g., through rituals, storytelling, etc., and collective experience. Education of the youth is also important for elders and traditional leaders work to keep cultural tradition, ecological knowledge and practice being passed on. This mentality is something that their system takes to the next level, closer to their heritage and environment, and can be strong as a community. Yet, there are some attempts to record and assimilate Aboriginal knowledge into mainstream teaching, with the intention of conserving these precious cultural wares. (Madhu S *et al*, 2025)^[10]

9.5 Adjustments and resilience

On the one hand, urbanisation, modernisation and external intervention are increasing in the traditional knowledge of the Dongria Kondh, but at the same time, the traditional knowledge system is very rich. In formal teaching environments, Indigenous ways of knowing and doing may not be valued or included, which may lead to a loss of the use of traditional methods and teachings. However, Indigenous solidarity and wisdom, which are part of these cultures, are in the struggle to stay on in education. The kids who played their roles at intermission collected all of this, but the dialogue they had was so thoughtful and familiar, and it sprang from a mode of schooling that is profoundly Indigenous to the land: excavated and unearthed by some rather unconventionally taught children. Agriculture, medicine and craftsmanship systems - staples of not only daily survival but weird vectors of their particular facts of identity. Recognize and integrate these Indigenous knowledge systems within ongoing educational and developmental efforts for the sustainable development of the Dongria Kondh and their empowerment.

10. Conclusion

The Indigenous education and knowledge system of the Dongria Kondha tribe is a classic case study for sustainable living rooted in social, cultural, and ecological settings. Centuries-old wisdom passed through generations on agriculture, medicine, handicrafts, and social regulation, as well as affording them food in the harsher areas of the Niyamgiri Hills. Formal education is an elaborate institution, which is based on written documents and content with structured lessons; however, the 'learning' in Dangria Kondha was entirely different as it was oral, experiential and integrated into their everyday life. Question: The roles of elders in society.

Uniquely reliant on this theme of Indigenous knowledge is its ecologicalized wisdom. "Poduchasa" or shifting cultivation is not just an agricultural activity. If you want to know if something is a soul practice and time honoured tradition of land management that increases soil fertility, improves the structure of soil, while providing habitat for wildlife (even centuries before science matured enough to reveal the secret behind a successful farm). In a way very similar to what they use ethnomedicinal plants, with a nice knowledge of the environment that surrounds them and the consequences of what plants do to your body. Similarly with their crafts that not only serve a purpose, such as the extremely favoured 'Kapdaganda' shawl embroidery, but also denote who they are and what they will leave behind. However, in the context of modernisation, deforestation and official education that ignore traditional knowledge, the threat to Indigenous knowledge and practice is always present. Use & Conservation Over Time. As education has changed and with other influences, their bases of knowledge have become less influential. So, a combination of the Indigenous knowledge and formal education has to be harmonised; without that, the Dongria Kondha feel that their autonomy about the learning process is no longer there. The preservation and retention of the conventional system remain at least significant to amplify the survival of their culture and environment. It will necessitate a policy that empowers them with their Indigenous chunk to live alongside modernity without loss of identity or ecological co-existence.

References

1. Behera HB, Ghosh P, Koley J, Chakraborty S, Das N, Mistri S. The role of women in rural marketing: empowerment and economic drivers. *Asian Journal of Management and Commerce*. 2024. <https://doi.org/10.22271/27084515.2024.v5.i1f.294>
2. Berkes F. *Sacred ecology*. 4th ed. Routledge; 2017.
3. Bhoi N, Acharya SK. Health status of particularly vulnerable tribal groups (PVTGs) of Odisha: a narrative review. *Journal of Health, Population and Nutrition*. 2024;43(1):176.
4. Dandapat S. Traditional ecological knowledge and continuation of swidden cultivation: a case study of the Dongria Kondh of Niyamgiri hills, Odisha. *Man in India*. 2021;101(3-4):159-173.
5. Das S, Patnaik S, Veni AL. Ethno-medicinal uses of Dongoria Kandha of Niyamgiri Hill, Odisha, India. *Current Traditional Medicine*. 2024;10(7):145-153.
6. Dash M. Indigenous knowledge system and sustainable development with special reference to tribal communities. *Orissa Review*. 2006;62(4):37-41.
7. Huys N. *History of folklore*. Nicky Huys Books; 2025.
8. Jadhav SN, Kar M. *Compendium on traditional tribal medicine*. 2020.
9. Kanrar P, Goswami M, Roy S. Health issues of the indigenous communities with special reference to the particularly vulnerable tribal groups (PVTGs) of Odisha: a review. *Papers on Anthropology*. 2023;32(1):45-80.
10. Madhu S, *et al*. Dongaria Kondh tribe and higher education: a case study 2025.
11. Malhotra N. Introduction to indigenous tribes. In: *Sustainable Pathways: The role of indigenous tribes and native practices in India's Economic Model*. Emerald Publishing; 2024. p. 1-39.
12. Mishra S. Farming system in the Jeypore tract of Orissa, India. *Asian Agri-History*. 2009;13(4):271-292.
13. M KS, Patil, *et al*. Empowering women through sericulture: transforming defective cocoons into opportunities. *Advances in Research*. 2024;25(6):29-35. <https://doi.org/10.9734/air/2024/v25i61175>
14. Nag H, Majhi P. Indigenous knowledge system among the Kondh tribe in Odisha. *New Trends of Teaching, Learning and Technology*. 2024;2:177.
15. Nath S. *Defending the sacred: discourses of development, identity and everyday resistance among the Dongria Kondh [dissertation]*. University of Sussex; n.d.
16. Pandey AD. The challenges of neoliberal policies and the indigenous people's resistance movement in Odisha, India. *e-cadernos CES*. 2017;(28).
17. Rath J. *Tribal folklore: a study on Kuvis (Kandhas) of Koraput*. Concept Publishing Company; 2019.
18. Ravjani D, Yadav G. *Threads of heritage: exploring folk culture and its representation, indigenous knowledge and sustainability in Bhubaneswar's tribal museum*. [Conference/Journal if available]; 2019.
19. Sajjan SK, Mohapatra PP, Tripathy B, Rout SD. Ethnobiological knowledge and socio-biodiversity value among the Kutia-Kandha tribe of Odisha, India. *Journal of Traditional and Folk Practices*. 2017;5(2):50-62.
20. Sethi S, Naik P. Cultural perspective on shifting cultivation: a case study of Dongria Kandha in South

- Odisha. International Journal of Applied Research. 2020;6(2):145-148.
21. Shah A. In the shadows of the state: indigenous politics, environmentalism, and insurgency in Jharkhand, India. Duke University Press; 2020.
 22. Singh KS. People of India. Vol. 1. Anthropological Survey of India; 1992.
 23. Skaria A. Hybrid histories: forests, frontiers and wildness in western India. Oxford University Press; 1999.
 24. Tandi NK. Tribal development schemes and programmes: retrospect and prospect. Concept Publishing Company; 2023.
 25. Tadingi A, Behera MK, Among G. Prospects of education among the tribal students in Odisha: a focus on sacred education. Indian Journal of Lifelong Learning & Educational Guidance. 2025;6(1):245-261.
 26. Dakapraska J, Behera MK. Enhancing tribal education in Odisha: exploring the role of sacred groves in cultural and educational development. Indian Journal of Lifelong Learning & Educational Guidance. 2025;6(1):227-244.
 27. Raj S, Singh AK. Woven heritage, and indigenous knowledge systems: a comprehensive review on preservation of embroidery culture.
 28. Swain M, Debsarma K, Srinivas BK. Ethnomedicinal plants used by the Dongaria Kondha tribe of Rayagada district, Odisha. Indian Journal of Traditional Knowledge. 2022;21(2):276-286.
 29. Das S, Patnaik S, Veni AL. Ethno-medicinal uses of Dongoria Kandha of Niyamgiri Hill, Odisha, India. Current Traditional Medicine. 2024;10(7):145-153.
 30. Naik KC. Impact of Right to Education: a study among PengoKondh tribe of Odisha. Journal of the Anthropological Survey of India. 2017;66(1-2):133-142.