





Roots of Resilience: Indigenous Leadership Styles Among Tribal Communities of Purulia

Ms. Sonali Hota⁵, Dr.Laxmiram Gope⁶

ABSTRACT

This study examines the leadership styles embedded in the tribal indigenous knowledge systems of the tribes in Purulia, India. Focusing on their roles in community development, resource management, cultural preservation, conflict resolution, and social governance, the research examines how these women embody unique leadership principles rooted in their traditions. Adopting a multidisciplinary approach, the study investigates the interconnectedness of cultural values, decision-making processes, and collective responsibility within these tribes. The findings highlight how these leadership styles contribute to sustainable development, gender equity, and resilience in the face of external pressures, offering valuable insights for modern governance systems. This study underscores the importance of integrating indigenous perspectives into broader discussions on leadership and development.

Journal: Boston Research Journal of Social Sciences & Humanities

Keywords: Tribal indigenous knowledge, women's leadership, sustainable development, cultural governance, gender equity, traditional decision-making.

Accepted: 09 May 2025 **Published:** 06 June 2025

ISSN: Online ISSN: 2834-4863 | Print ISSN: 2834-4855

Language: English

Research ID: 67b466b2-f703-4cff-8acd-a1a637ce7950
Type: Peer-Reviewed Research Article (Open Source)



The authors declare that no competing interests exist. The authors contributed equally to this work. This article is distributed under the terms of the Creative Commons Attribution License as an open access article. CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

Read Online: https://bit.ly/4jGmlhU

Author(s): δ - Assistant Professor Gangadhar Meher University, Sambalpur, Odisha β - Assistant Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal.

I. INTRODUCTION

The tribal communities of Purulia hold deep indigeneity and through their indigenous practices, they sustained in this challenging era. They collected their livelihood through their rich indigenous practices and knowledge systems, which hold rich cultural legacy. It advances within

the context of cultural, social, and environmental factors that shape communities worldwide. Among tribal societies, leadership is deeply rooted in indigenous knowledge systems, which serve as the cornerstone of social organization, governance, and decision-making. Indigenous tribal communities developed a unique social and administrative capacity for running their society. During the field

visit, it was observed that most tribal communities their lives through decision-making processes. Therefore, through this researchers focused on the leadership styles observed within the tribal communities of Purulia., It explores how indigenous knowledge influences leadership practices and fosters community cohesion. Tribal societies in Purulia are characterized by their unique cultural identities, traditional wisdom, and a deep connection with nature. They possess an extensive repository of knowledge passed down through generations of oral traditions, rituals, and practices. Leadership in such societies is not merely about authority or hierarchy but involves consensus-building, collaboration, and stewardship of natural and cultural resources. Unlike conventional Western leadership paradigms prioritizing individualism and authority, tribal leadership emphasizes collective well-being, reciprocity, and inclusiveness.

The district of Purulia is home to several prominent tribal groups, including the Santhals, Mundas, Oraons, and Bhumijs. Each of these tribes has its distinct leadership structures, vet there are shared principles that govern their practices. For example, the role of tribal leaders such as the "Manjhi" among the Santhals or the "Pahan" as spiritual custodians reflects a leadership style that combines administrative, social, and spiritual responsibilities. These roles demonstrate how leadership functions as a holistic process, rooted in community welfare and cultural continuity. This study analyzes how leadership styles in Purulia's tribal communities reflect indigenous knowledge and values. By understanding these traditional leadership systems, we can gain insights into leadership that alternative models of sustainable, inclusive, and deeply connected to cultural identity. In an era marked by globalization and rapid socio-economic change, indigenous leadership practices offer valuable lessons for contemporary leadership models that aim to strike a balance between progress and sustainability, as as community integrity. This research addresses key questions: How is leadership defined and practiced within these tribes? What role does indigenous knowledge play in shaping leadership styles? How do tribal leaders navigate challenges posed by modernity while preserving traditional values? Through a qualitative exploration of these questions, this study contributes to the broader discourse on leadership, cultural knowledge, and

indigenous ways of knowing in relation to leadership skills.

Thus, researchers can express that the leadership styles within the tribal communities of Purulia offer a nuanced perspective on governance and community building. By studying these leadership practices, researchers document invaluable indigenous knowledge and highlight its relevance in fostering inclusive and sustainable leadership models in the contemporary world. This introduction sets the stage for a deeper exploration of leadership as a reflection of cultural values and collective wisdom in tribal societies.

1.2 Needs and Significance of the Study

The study, which explores leadership systems grounded in indigenous knowledge, provides a distinctive perspective on leadership from the tribal communities' viewpoint. The need for this research stems from the growing recognition that indigenous communities continue to be underrepresented in academic and leadership discourses, despite their rich cultural heritage and sustainable ways of living. The leadership styles practiced within these communities reflect profound wisdom, collective decision-making, and a harmonious relationship with their environment. However, these systems are often overlooked or deemed "non-modern," leading to their marginalization in the contemporary narrative of leadership studies. Thus, this study becomes crucial for preserving, documenting, and validating these indigenous practices while highlighting their relevance and significance in today's world.

The tribes of Purulia, such as the Santhals, Bhumijs, Oraons, and others, possess unique leadership frameworks shaped by their cultural traditions, social structures, and environmental connections. Their leadership styles are not driven by power or hierarchy but by communal responsibility, trust, and consensus. In an era when leadership in mainstream contexts is frequently criticized for being overly individualistic or exploitative, the tribal leadership of Purulia presents a sustainable and inclusive alternative. This study addresses the need to examine indigenous systems, providing fresh insights into leadership models that prioritize the collective over the individual, emphasize resource preservation, and coexistence ensure harmonious within communities.

Furthermore, Purulia, a region rich in tribal diversity, is an ideal focal point for this exploration. The indigenous leadership systems in this region reflect centuries of accumulated wisdom that has allowed these communities to adapt, survive, and thrive amidst challenges. As globalization and modernization continue to impact these tribal societies, there is an urgent need to document and understand their leadership patterns before they are lost or diluted. This study ensures that their knowledge systems are preserved as historical artifacts and living, evolving frameworks with potential solutions for modern-day challenges such environmental sustainability, equitable governance, and community development.

The significance of this study also lies in its potential to reshape mainstream narratives around leadership. While Western or corporate paradigms have largely dominated leadership studies, this research introduces indigenous perspectives that are deeply ethical, participatory, and holistic. These leadership styles challenge contemporary norms and offer an alternative understanding of power and governance, where decisions are collective, roles are inclusive, and leaders emerge organically from within the community. By studying the tribes of Purulia, this research highlights their resilience and ingenuity, demonstrating that indigenous leadership styles are both relevant and invaluable in addressing pressing global issues, such as climate change, social inequality, and cultural erosion. The study holds cultural and social significance as it validates and empowers tribal communities by recognizing their contributions to leadership thought. It challenges stereotypes of tribal societies as "backward" and instead positions them as custodians of rich knowledge systems that have withstood the test of time. For policymakers, the findings from this research can inspire more culturally sensitive developmental initiatives that include tribal voices and respect their leadership structures.

At the outset, researchers can assert that this study fulfills an urgent need to preserve and understand indigenous leadership styles, while underscoring their broader significance leadership discourses. Focusing on the tribes of Purulia bridges the gap between traditional indigenous knowledge and contemporary leadership frameworks, offering insights that are both regionally grounded and globally relevant. It not only honours the wisdom of tribal communities

but also enriches leadership studies with alternative models that emphasize inclusivity, sustainability, and collective well-being.

II. REVIEW OF RELATED RESEARCH LITERATURE

Xaxa, V. (2013). Conducted a study on "Leadership in Tribal Communities: Traditional vs. Modern Practices." Researchers discuss how leadership in tribal communities, such as those in Purulia, operates in a decentralized manner, often in contrast to the hierarchical models seen in mainstream Indian society. This study examines the role of wisdom, experience, and consensus-building in tribal leadership, where elders often assume leadership roles, particularly during times of crisis or periods of change.

Gupta, R. (2014). Conducted a study on "Sustainability and Traditional Leadership: A Tribal Perspective." In this study, researchers investigate the role of tribal leadership in promoting sustainability. The research highlights how tribal leaders sustainably manage resources by utilizing indigenous ecological knowledge. In Purulia, this form of leadership embodies the understanding that leaders must strike a balance between community needs and environmental stewardship.

Bhowmik, S. (2015). Conducted a study on "The Role of Elders in Tribal Leadership." Ethnographic Studies in Tribal India. This study delves into the role of elders in tribal leadership. Bhowmik argues that elders possess unique wisdom, often passed down orally, that is essential for maintaining social harmony and guiding younger generations. This model is particularly relevant for Purulia's tribes, where the authority and knowledge of elders, combined with their understanding of ancestral customs, provide the foundation for leadership.

Sen, D. (2016). Conducted a study on "Visionary Leadership in Tribal Societies: A Case Study of Purulia." The researcher focuses on the visionary aspect of tribal leadership, particularly in Purulia, where leaders are seen as problem-solvers and visionaries who guide their communities toward sustainable futures. This leadership style is deeply rooted in indigenous knowledge about land management, spirituality, and collective welfare.

Das, A. (2017). Conducted a study on 'Tribal Leadership and Conflict Resolution'. Researchers investigate how tribal leadership plays a crucial role

in resolving conflicts within the community. Tribal leaders serve as mediators and play a crucial role in ensuring justice through traditional or customary laws. This conflict resolution system, based on consensus and dialogue, is prominent among the tribes of Purulia, where leaders guide the community through disputes while maintaining respect for traditional norms.

Bhatnagar, M. (2018). Has investigated a study entitled 'Tribal Governance in the Contemporary Context of India'. This research highlights the evolving nature of tribal governance in India, emphasizing the importance of retaining traditional governance structures while integrating modern concepts. Bhatnagar notes that tribal leaders in Purulia, like those in other regions, blend traditional knowledge with modern administrative challenges, ensuring the preservation of culture and sustainability in their leadership.

Munda, S. (2021). Conducted a study on 'Leadership, Identity, and the Future of Tribal Communities.'. Researchers discuss the complex relationship between leadership, cultural identity, and the future of tribal communities. He argues that leadership in tribal societies, such as those in Purulia, is fundamentally about preserving cultural identity. Leaders are expected to manage the present and safeguard the traditions and knowledge that will ensure the community's survival and flourishing in the future.

Jana, S. (2020). Conducted a study on 'Traditional Leadership in the Tribal Communities of West Bengal'. The researcher's work examines tribal leadership specifically in West Bengal, including Purulia. She identifies a participatory style of leadership where decisions are made collectively, and leaders are often chosen for their wisdom and ability to mediate conflicts. This mirrors the collaborative leadership styles observed among the Purulia tribes, emphasizing community and collective decision-making over individual authority.

Pati, B. (2021). Conducted a study on 'Cultural Resilience among and Leadership Adivasi Communities'. Researchers emphasize how indigenous leadership is resilient in the face of challenges, including political economic pressures. Leaders are seen as guardians of culture and tradition, guiding their communities through external changes while anchoring in indigenous knowledge systems. This has substantial implications for understanding the leadership styles

of Purulia's tribes, where leadership is inextricably linked to preserving cultural identity.

Randall, M. (2022). Conducted a study on 'The Native American Leadership Model'. This model offers a unique framework for understanding leadership through core tribal values. The model emphasizes the importance of ceremony, spiritualism, and a community-centric approach to leadership. The concept that tribal leaders must reclaim and assert their leadership based on cultural perspectives aligns with the traditional leadership styles of Purulia's tribes, where respect for elders and deep cultural knowledge form the basis of authority.

III. RESEARCH GAP

There has been growing interest in indigenous leadership styles, particularly regarding how cultural, social, and environmental contexts shape community life.

In recent years, there has been growing interest in indigenous leadership styles, particularly in how the cultural, social, and environmental contexts influence these styles. However, much of the existing research focuses on the practical of indigenous leadership, including aspects community governance, resource management, and political structures. While some studies have examined the role of indigenous leadership in tribal communities and its influence on local culture, a significant gap exists in understanding how these leadership styles can be adapted and incorporated into modern institutional frameworks, particularly in education. Furthermore, the literature often overlooks how leadership indigenous in communities can contribute to educational management in a way that respects traditional knowledge and contemporary educational practices. This study aims to fill this gap by exploring the leadership styles reflected in indigenous communities, specifically in Purulia, and investigating how these styles can be integrated into education management systems.

IV. RESEARCH QUESTIONS OF THE STUDY

- 1. What are the leadership styles reflected in these indigenous communities?
- 2. What are the possibilities of incorporating the Indigenous leadership styles within education management?

V. OBJECTIVES OF THIS STUDY

- 1. To know the leadership styles reflected in the Indigenous community
- 2. To explore the possibility of incorporating these Indigenous leadership styles within education management

VI. METHODOLOGY AND DATA COLLECTION TECHNIQUES

This study employs a qualitative research methodology to explore the leadership styles among the tribal communities of Purulia. Data collection techniques include field visits, in-depth interviews, and focus group discussions with tribal leaders, elders, and community members to capture their lived experiences and indigenous knowledge. Participatory research is conducted to understand leadership practices in their natural setting, while secondary data from existing literature, reports, and historical records provide contextual support. This approach ensures a comprehensive understanding of tribal leadership styles and their reflection in indigenous knowledge systems.

6.2. Methodology

This study employed a qualitative research design, utilizing case study methodology to explore the leadership styles of indigenous communities in Purulia. The primary data collection techniques included semi-structured interviews with key informants, participant observation, and document analysis. Key informants include tribal elders, community leaders, and educators, local administrators with experience in traditional leadership practices and the contemporary education system. Interviews were conducted in the local language to ensure cultural sensitivity and accuracy of responses. These interviews were supplemented by direct observations in tribal communities, with a particular focus on leadership practices during community gatherings, processes, interactions decision-making and between leaders and community members. Document analysis reviewing records from local schools, educational policies, and reports on tribal leadership structures.

The data collected was analyzed using thematic analysis to identify recurring themes and patterns related to leadership styles, the role of traditional knowledge in leadership, and the potential for integrating Indigenous leadership practices within educational management. This approach allowed for an in-depth understanding of the dynamics of tribal leadership and its implications for education, providing valuable insights for future educational reforms.

VII. DISCUSSION

Village Administration System of Santal Community:

The rural administration of the Santal community is based on a well-organized and traditional structure. This system plays a vital role in conducting social. cultural. religious. administrative activities. It is essential to preserve their identity and unity. The Santal community maintains peace, brotherhood, and prosperity through this traditional knowledge. One is that they have a way of living collectively; in this regard, the words of UNESCO, "Save yourself and let others live", are very relevant and vital based on the administrative structure of the Santal community. The Santal community is already a peace-loving group, lives in unity, and finds suitable resources for survival. They have learned their way of living from traditions and thus transmit the traditional customs and values in their society from one generation to another. This provides an important direction in the current education system. Therefore, the researcher has presented the administrative system of the Santal community through research.

The Santal rural administration is comprised of five individuals who are collectively referred to as Morehat. These five members are:

1) Majhi Haram 2) Jog Manji 3) Pernik 4) Godet 5) Nayak

The position and responsibilities of these five members in the administrative structure of the tribal community are discussed below.

 Majhi Haram: The village headman, the supreme leader of the administration, makes the final decision in any case. He manages the village's social, cultural, and administrative activities. Majhi Haram listens to everyone's opinion and resolves any disputes or conflicts in the town. He follows the traditional rules and regulations to maintain the village's peace. Additionally, the Majhi Haram is also essential during village weddings, births, deaths, and religious festivals.

- Jog Manji: Village Deputy Head, in the traditional Santal community, the Jog Manji plays a significant role in maintaining peace and order within the community. He carries out the orders of the Majhihadam and helps in various religious ceremonies. In the absence of the Majhi Haram, he performs all the duties of the Majhi Haram. His responsibilities include disputes or conflicts between resolving community members, administering judicial system, and making fair and impartial decisions. Preserve the Santal community's traditions, culture, and moral values of the Santal community and pass them on to the next generation, negotiating on behalf of the community with outsiders and taking steps to solve other problems of the village or community
- 3 Paranik: An essential part of the well-organized rural administration of the Santal community is the Paranik-the chief assistant of the Majhi, who implements decisions and helps the Majhi in various tasks. In the absence of the Majhi Haram and Jog Manji, the Paranik is responsible for performing all the duties. If any dispute or conflict arises in the village, the Paranik works jointly with the Majhi to resolve it. The Paranik plays a crucial role in upholding the traditional rules and customs of the town. He ensures that the villagers follow the rules.

The Paranik also plays an active role in the village's religious and social festivals. He helps organize and maintain order in the Santhal society.

Finally, it was revealed that the Santhal community sustains its society through customary laws. It was also observed that the fewest judicial cases were found in the Purulia district court among the Santhal community. Thus, researchers can conclude that even today, the Santhals' customary laws remain effectively resolved effective and have conflicts within society through their customary law.



Figure 1: Pyramid of Village Administration of Tribal Community

- 4. Gadet is a vital post in the traditional village administration of the Santal community. Gadet conveys various important decisions or messages of the village to everyone. He gathers the people of the town as per the orders of the Majhi or Naik. He is the protector of the village society and is responsible for maintaining security and order within it. He helps maintain order in the village in the event of a crime or dispute.
- Nayek: Religious leader, who conducts religious rituals, various pujas and festivals, such as Baha Parab, Sohrai Parab, and other traditional festivals. Events like marriages, births, and deaths in the village. He plays a vital role in worshipping gods and goddesses and pays homage to the forces of nature. The keeper of tradition, the Nayek, is the keeper of the customs and traditions of the Santal community. He works to maintain the continuity of culture and tradition from one generation to the next. He also listens to everyone's opinions and resolves any social

problems or disputes in the village. He strives to maintain peace and order in the village

7.1. Administrative Structure of Majhi Pargana

The traditional administrative structure of the Santal community is an integral part of their social and cultural life. The Desh Pargana, Muluk Pargana, Pir Pargana, and Ghat or Majhi Pargana have a special role within this structure. These Parganas are interconnected, helping to maintain order in society and preserve the traditions and culture of the Santals.

- Desh Pargana: The Desh Pargana is the highest administrative unit within the Santal society. It is a symbol of unity and solidarity of all the Santal people. Major festivals and social rituals are organized under the leadership of the Desh Pargana. It serves as a mediator in resolving disputes between different villages and plays a vital role in maintaining inter-village relations.
- Muluk Pargana: The Muluk Pargana is a regional administrative system. It works at the country's intermediate level. It coordinates among the

villages of the Muluk Pargana region and assists them in resolving their problems. It leads local development activities and social responsibilities. The Muluk Pargana establishes connections with the Majhis of different villages, and a proper social system is built.

- social, cultural, and ecological balance, symbolizing their identity and unity.
- 3. Pir Pargana: The Pir Pargana mainly takes responsibility for the judiciary. Its role is immense in maintaining law and order in the Santal society. It enforces social rules and regulations and resolves family and social disputes. According to the Santal tradition, the Pir Pargana ensures fairness in the judicial process and maintains societal peace and stability.
- 4. Ghat Pargana: The Ghat, also known as Majhi Pargana, is responsible for managing the environment and natural resources. It manages the rivers, water bodies, and other natural resources appropriately. Since rivers and water bodies play a crucial role in the lives of the Santals, the Ghat Pargana strives to resolve these disputes and protect natural resources. The work of the Majhi Pargana is vital in protecting the environment and preserving the traditional way of life.

The country, Muluk, Pir, and Ghat Pargana, form the basis of the traditional structure of the Santal community. These Parganas preserve their

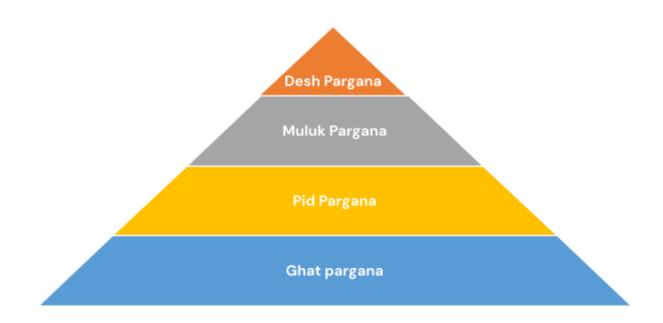


Figure 2: Indigenous administrative structure among the Santhal community in eastern India

VIII. CONCLUSION

We can integrate this Santhals administration system into the current education curriculum. In doing so, the relevance of education will increase, and we can form place-based, need-based, and decontextual educational processes. The traditions and customs that have been lost over time can be revitalized and celebrated. At the same time, regional aspects can be emphasized in the existing education curriculum, making it enjoyable and inspiring for students as they recognize the connection between school and society. While ensuring the quality of education, students will be encouraged to find joy and discover their passions; they will learn, understand, and create. They will observe, comprehend, and produce. Above all, the gap between society and education will be bridged. The slogan of education in life will truly be reflected, and through the integration of the Santhal administration system into the existing education curriculum, the relevance of education will increase. The traditions and customs that have been lost over time can be revitalized and celebrated once more, simultaneously highlighting regional aspects within today's educational framework. This approach will be enjoyable and inspiring for students as they discover the connections between school and society. By ensuring the quality of education, students will be motivated and find joy in learning; they will know, understand, and create. They will see, they will understand, and they will make. Above all, the gap between society and education will be bridged, truly reflecting the slogan of education in life and education for life.

We can add the Santhals administration system to the current education or curriculum. In that case, the relevance of education will increase. The traditions and customs that have been lost over time can be reorganized and celebrated again. At the same time, regional aspects can be brought to the fore in the current education curriculum, which will be enjoyable and hopeful for the students because they will find the similarity between the school and the society, while ensuring the quality of education in the school, the students will be encouraged and find joy, they will know, understand and create. In this way, we will transform knowledge, skills, and value, and students will be able to assimilate and accommodate the knowledge pattern from the known to the unknown, from near too far, from abstract to concrete, and finally, they

will understand, which leads to creativity. By the indigenization of social justice and values, we eradicate the discrepancy between society and education. We will be able to formes context cum content based pedagogy, in a real sense. As Professor Dewey rightly said, "education is life and life is education; only through the indigenization of our curriculum with traditional knowledge systems can we bridge the gap between what we think and what our society demands."

XI. REFERENCES

- Modak, B., & Mukherjee, N. (2020). Indigenous knowledge and practices on water conservation and management in Purulia district, West Bengal. *Journal of Environmental* Studies, 76(3), 45-58.
- Dattaray, D., & Mukherjee, N. (2024). Study the significance and the drivers of indigenous traditional knowledge in the Purulia district. International Journal of Future Management Research, 12(2), 155-170.
- 3. Raviya, H., Dattaray, D., & Mukherjee, N. (2024). Digital empowerment and traditional knowledge systems: A case study from Bankura and Purulia, The Times of India.
- 4. Mukherjee, N. (2023). Impact of modern education on the indigenous knowledge system of the tribal people of Ajodhya Hill, Purulia. In Handbook of Research on Indigenous Knowledge and Bi-Culturalism in a Global Context (pp. 215-230). IGI Global
- Ghosh, D., & Banerjee, S. (2019). Role of leadership in the socio-economic development of tribal communities in Purulia. Journal of Tribal Studies, 19(1), 33-49.
- Singh, R., & Saha, T. (2021). Leadership styles among indigenous tribes: A comparative study of Purulia and West Midnapore. Indigenous Knowledge Review, 5(3), 120-135. Retrieved from https://www.ikrjournal.com/
- Mukhopadhyay, S., & Das, A. (2022). The role of tribal elders in decision-making: A study on the Santal community of Purulia. Tribal and Rural Research Journal, 10(2), 75-89. Retrieved from https://www.trrjournal.com/
- 3. Banerjee, S., & Ray, S. (2018). Indigenous governance systems and leadership styles in tribal communities: A case study of the Santal tribe in Purulia. Journal of Social Anthropology, 44(4), 269-285. Karmakar, M., & Ray, D. (2020). Traditional leadership and community cohesion

- in Purulia's indigenous tribes. International Journal of Ethnology, 3(1), 99-115
- Pradhan, B. (2021). Indigenous governance systems in West Bengal: The case of Purulia district's tribal communities. Indian Journal of Tribal Development, 23(2), 198-211.
- Ghosh, R. (2022). Tribal leadership and its role in conflict resolution: A case study from Purulia. Conflict Resolution and Peace Studies, 16(1), 47-60.
- 11. Hembrom, P., & Tudu, M. (2021). Rituals and leadership in Santal tribal communities: Understanding the intersection of religion and leadership. Journal of Tribal Religion and Society, 10(2), 105–120.
- Banerjee, P., & Mandal, S. (2020). Understanding indigenous leadership: Perspectives from Purulia's tribal elders. Indigenous Cultural Studies, 8(3), 150–164.
- 13. Chakraborty, S., & Sardar, S. (2019). Cultural preservation and leadership in Purulia: The role of the tribal leaders in socio-cultural continuity. Cultural Preservation Review, 11(4), 199-210.
- Bauri, K., Gorai, P., & Modak, B. K. (2020). Indigenous knowledge and practices on water conservation and management in Purulia District, West Bengal. Journal of Environment and Sociobiology, 17(1), 89–98.
- 15. Singha, N. S. (2024). Study the significance and the drivers of indigenous traditional knowledge in agricultural water resource management in water scarcity, Purulia District of West Bengal. International Journal For Multidisciplinary Research, 6(2).
- Roy, S. (2024, January 3). Tribal schools in Bengal defy odds and nurture cultural roots. Village Square
- Bauri, K., Gorai, P., & Modak, B. K. (2020). Indigenous knowledge and practices on water conservation and management in Purulia District, West Bengal. Journal of Environment and Sociobiology, 17(1), 89–98.
- Bauri, K., Gorai, P., & Modak, B. K. (2020). Indigenous knowledge and practices on water conservation and management in Purulia District, West Bengal. Journal of Environment and Sociobiology, 17(1), 89–98.
- Raul, M., & Singh, R. (2021). Indigenous knowledge and endogenous development: Exploring survival strategy of a tribal community of Jharkhand, India. International Journal of Research & Review, 8(8), 162–170.
- 20. Bandyopadhyay, S. (2018). Trends of change in livelihood in two Bhumij villages of Purulia, West

- Bengal. The Indian Journal of Anthropology, 3(2), 85–95.
- 21. Haldar, S., & Saha, P. (2015). Identifying the causes of water scarcity in Purulia, West Bengal, India—a geographical perspective. Journal of Environmental Science, Toxicology and Food Technology, 9(8), 41–51.
- 22. Das, B., Pal, S. C., Malik, S., & Chakrabortty, R. (2019). Modeling groundwater potential zones of Purulia District, West Bengal, India using remote sensing and GIS techniques. *Geology, Ecology, and Landscapes, 3*(3), 223–237.
- Mishra, P. K., & Rai, S. C. (2013). Use of indigenous soil and water conservation practices among farmers in Sikkim Himalaya. Indian Journal of Traditional Knowledge, 12(3), 454–464.
- 24. Sharma, N., & Kanwar, P. (2009). Indigenous water conservation systems—a rich tradition of rural Himachal Pradesh. Indian Journal of Traditional Knowledge, 8(4), 510–513.
- 25. Kumar, D. S., & Palanisami, K. (2010). Impact of drip irrigation on farming system: Evidence from southern India. Agricultural Economics Research Review, 23, 265–272.
- 26. Ben-Asher, J., Pinhas, A., & Ben-Zvi, A. (2010). Dew is a significant factor affecting vegetation water use efficiency rather than a water source in the eastern Mediterranean area: Water Resources Research, 46(10).
- 27. AyaaAya, S. (2003). Temple tanks—Kerala's ancient water harvesting systems and their multifarious roles. Indian Journal of Traditional Knowledge 2(3), 224–229.Zemadim, B., Tabo, R., Bougouna, S., Nicolas, F., & Wani, S. P. (2014). Assessment of contour bunding technology for improved land and water management in Mali. Resilient Dryland Systems Research Report No. 63. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).