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Jhum Cultivation as an Indigenous Knowledge System: A Social Learning Perspective from Northeast India

Udita Das [1]*

ABSTRACT

Jhum cultivation, or shifting cultivation, is an ancient agricultural system practiced by tribal communities in Northeast India. Beyond food production, it represents a rich Indigenous Knowledge System (IKS) that includes ecological understanding, cultural values, and sustainable land management practices. Using Social Learning Theory (Bandura, 1977), this paper explores how jhum-related knowledge is transmitted across generations through observation, participation, and community interaction. A review of secondary sources highlights the ecological, socio-economic, and knowledge-based aspects of jhum. Findings suggest that traditional practices, especially long fallow periods and community collaboration, help maintain environmental balance and support livelihoods. However, modernisation, policy ambiguities, and shortened fallow cycles threaten its continuity. The study underscores the need to recognise jhum cultivation as a dynamic IKS and incorporate it into sustainable development strategies for ecological preservation and cultural continuity.

Keywords: *Jhum Cultivation, Indigenous Knowledge System, Northeast India*

Shifting cultivation, locally termed jhum, involves clearing a forest patch, burning vegetation, cultivating crops for a few years, and allowing the land to regenerate during a fallow period (Begum & Banerjee, 2025). Historically, long fallow periods sustained soil fertility and biodiversity, making jhum ecologically adaptive in hilly terrains (Bordoloi, 2025). Despite its ecological sophistication, jhum has often been mischaracterised as a primitive practice, particularly under shortened fallow cycles. Recent research challenges this perception, emphasising that jhum embodies a structured Indigenous Knowledge System in which tribal cultivators apply accumulated ecological knowledge and adaptive strategies based on environmental feedback (Hussain et al., 2024; Peseyie, 2024).

Social Learning Theory (Bandura, 1977) explains how knowledge is acquired through observation, imitation, and social interaction. In jhum systems, younger members learn agricultural practices, ecological management, and decision-making skills by observing elders and participating in cultivation activities (Datta et al., 2014; Bordoloi, 2025). Thus, jhum cultivation is not merely an agricultural activity but a living knowledge system that integrates ecological wisdom, social values, and intergenerational learning processes. Examining it through the lens of Social Learning Theory provides deeper insight into how Indigenous Knowledge Systems are preserved and adapted over time.

[1] Asst. Professor, Department of Education, Rukasen College, Bakalia, Karbi Anglong, Assam
*Corresponding Author: Email: uditadas50@gmail.com

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Aims and Objectives

1. To examine jhum cultivation as an Indigenous Knowledge System in Northeast India.
2. To understand how jhum-related knowledge and skills are transmitted through social learning processes.
3. To explore challenges affecting the continuity of this Indigenous Knowledge System and suggest sustainable integration strategies.

REVIEW OF RELATED LITERATURE

Begum and Banerjee (2025) conducted an ethnographic study on jhum cultivation in Assam and Tripura, focusing on its ecological and cultural aspects. The study revealed that jhum is an adaptive farming system grounded in indigenous ecological knowledge, in which practices such as intercropping, crop rotation, and fallow management enhance soil fertility and biodiversity. The authors emphasised that jhum represents a sustainable relationship between communities and the environment rather than a primitive practice.

Bordoloi (2025) examined indigenous farming practices in Northeast India with a focus on ecological knowledge systems. The study highlighted that jhum cultivation requires a deep understanding of environmental indicators, including soil health, rainfall, and vegetation cycles. It found that this knowledge is developed through long-term observation and experience, reflecting the dynamic nature of Indigenous Knowledge Systems.

Borthakur (2020) analysed land-use patterns of jhum cultivation in Karbi Anglong district, Assam. The study showed that jhum plays a key role in maintaining ecological balance through forest regeneration during fallow periods. However, shortened fallow cycles due to population pressure have led to soil degradation and reduced productivity.

Datta et al. (2014) studied the livelihood of tribal communities practicing jhum in Northeast India, particularly in Tripura. The findings indicated that jhum remains a major source of food security and income. The study also highlighted the role of family labour and community participation in sustaining productivity and transmitting traditional knowledge.

Peseyie (2024) examined changes in traditional shifting cultivation in Northeast India, focusing on sustainability challenges. The study found that modernisation, reduced fallow periods, and socio-economic changes are affecting jhum practices and disrupting the intergenerational transmission of indigenous knowledge.

A policy analysis by Down To Earth (2018) examined institutional challenges affecting shifting cultivation in India. It highlighted that ambiguity in classifying jhum land limits farmers' access to support. The study also noted that the shift towards settled agriculture is reducing youth participation, weakening the continuity of Indigenous Knowledge Systems.

Theoretical Framework: Social Learning Theory

Bandura's (1977) theory highlights learning through observation, imitation, and reinforcement. In Jhum, knowledge is gained by watching elders, engaging in cultivation cycles, and interpreting ecological feedback. This framework shows how tribal communities internalise complex agricultural skills, ecological ethics, and decision-making strategies without formal teaching.

METHODOLOGY

The study is qualitative and relies on secondary data, including ethnographic reports, peer-reviewed journals, and land-use studies. An analytical approach uses Social Learning Theory to interpret jhum practices, focusing on knowledge transmission, sustainability, and socio-economic importance.

DISCUSSION

Learning Through Observation and Participation

Learning in Jhum starts with observation. Younger members accompany experienced cultivators during site selection, clearing, burning, and crop planning. Participation further enhances understanding, as novices become actively involved in cultivation and land management. Community mentorship and repeated exposure reinforce ecological ethics and technical skills, illustrating Bandura's principles of modelling and reinforcement.

Table 1: Jhum Cultivation Practices and Social Learning Mechanisms

Jhum Practice	Description / Activity	Mode of Transmission	Social Learning Mechanism
Site Selection	Choosing suitable land considering slope, soil fertility, and water availability.	Observation of elders during scouting trips and community discussions.	Modelling & Observation
Clearing & burning	Manual clearing of shrubs and trees, followed by controlled burning	Practical engagement alongside skilled cultivators.	Imitation & Participation
Crop Selection & Intercropping	Deciding which crops to plant and arranging them to optimise soil fertility and yield.	Observation of previous years' practices; mentoring by elders	Observational Learning & Reinforcement
Sowing & Planting	Timing sowing according to rainfall and soil readiness; planting in traditional patterns.	Guided practice during fieldwork; community discussions	Participation & Reinforcement
Weeding & Pest Management	Removing weeds and managing pests using indigenous methods.	Hands-on participation; shared knowledge from elders and peer groups	Social Reinforcement & Modelling
Harvesting	Collecting crops at the appropriate stage to maximise yield.	Participating with elders, observing seasonal cues.	Observation & Experiential Learning

Jhum Practice	Description / Activity	Mode of Transmission	Social Learning Mechanism
Fallow Management / Secondary Succession	Leaving land fallow to regenerate soil and biodiversity, monitoring natural vegetation	Mentorship from older cultivators; learning from past cycles.	Observational Learning & Adaptive Feedback
Community Collaboration (Howri)	Group participation in clearing, planting, or construction activities without monetary exchange.	Group activities, social engagement, and peer observation	Reinforcement & Social Norms

Table 1 illustrates how knowledge is transmitted through observation, imitation, and social participation in each stage of jhum cultivation.

Adaptive Knowledge and Ecological Feedback

Farmers adjust jhum practices based on environmental signals, past experiences, and intergenerational discussions. Seasonal cues, soil fertility, pest patterns, and crop performance guide decisions. These adaptive behaviours demonstrate experiential learning, reinforcing the integration of ecological knowledge with cultural practices. In addition to ecological adaptation, the social and cultural context of jhum plays a significant role in sustaining this knowledge system.

Role of Cultural Values and Collective Identity

Jhum cultivation is deeply rooted in the cultural life of tribal communities, where agricultural activities are closely linked with rituals, festivals, and traditional beliefs. These cultural practices strengthen collective identity and promote active participation in farming activities. Social norms such as cooperation, mutual support, and respect for nature are reinforced through community-based practices like Howri. This cultural aspect not only facilitates the transmission of knowledge but also helps ensure the continuity of sustainable practices, as individuals feel socially and morally responsible for maintaining ecological balance. However, despite these strengths, various external pressures are mounting the challenge to the system's sustainability.

Challenges to sustainability

Policy ambiguities, shortened fallow cycles, and modernisation pressures threaten the continuity of jhum. Declining youth participation reduces knowledge transfer, weakening ecological stewardship and cultural continuity. Sustainable interventions require combining indigenous knowledge with modern conservation and agricultural strategies.

FINDINGS

1. Jhum cultivation is a dynamic indigenous knowledge system integrating ecological, socio-economic, and cultural dimensions.
2. Knowledge transmission occurs through observation, participation, and social reinforcement, aligning with Social Learning Theory.

3. Long fallow periods, community collaboration, and mentorship sustain ecological balance and livelihoods.
4. Modern pressures, including policy ambiguity and land scarcity, disrupt knowledge transfer and threaten sustainability.

CONCLUSION

Jhum cultivation exemplifies an adaptive, sustainable, and culturally rooted agricultural practice. It shows that ecological knowledge, technical skills, and community ethics are shared through observation, imitation, and participation, as Social Learning Theory explains. The system reflects a deep understanding of environmental balance supported by practices such as intercropping, fallow management, and collective labour.

Recognising jhum cultivation within policy frameworks and educational systems can enhance its relevance and support its continuity. Integrating indigenous knowledge with modern sustainable approaches can help develop context-specific development strategies while preserving ecological balance. However, challenges such as shortened fallow cycles, policy ambiguity, and declining youth participation threaten its sustainability. Addressing these issues requires a balanced approach that respects traditional knowledge while incorporating suitable modern interventions. Overall, preserving and promoting jhum cultivation is essential for sustaining tribal livelihoods, ecological balance, and cultural identity, while strengthening intergenerational learning for its future continuity.

REFERENCES

Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.

Begum, T., & Banerjee, S. (2025). *Jhum Cultivation in Tripura and Assam*. International Journal of Environmental Sciences. (theaspd.com)

Bordoloi, S. (2025). *Ecological Wisdom and Indigenous Farming in Northeast India*. RGU Journal of Social Science and Research. (rgujournal.in)

Datta et al. (2014). *Livelihood Status of Tribal People Practising Jhum*. Tropical Agricultural Research. (tar.sljol.info)

Government & Policy Analyses on Shifting Cultivation. (downtoearth.org.in)

Hussain et al. (2024). *Changing Patterns of Jhum Cultivation in Tripura*. Journal of Global Health Reports. (joghr.org)

Peseyie, T. (2024). *Transforming Traditional Shifting Cultivation*. Global Research in Environment and Sustainability. (hspublishing.org)

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Conflict of Interest

The author declared no conflict of interest.

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