

Environmental Degradation and Tribal Educational Exclusion: A Critical Social Work Perspective

Dr. Girish M. Atram

Assistant Professor

College Of Social Work, Kamptee.

Rashtrasant Tukdoji Maharaj Nagpur University,
Nagpur.

Pin code- 441001

Mob No.- 9890996604

Email ID- girish.atram@gmail.com

Abstract

Environmental degradation—comprising deforestation, forced displacement, and the erosion of forest-based livelihoods—has emerged as a critical yet under-researched determinant of educational exclusion among Scheduled Tribe (ST) children in India. This paper provides a detailed analysis of the causal pathways linking ecological decline to poor school attendance, high dropout rates, and diminished learning outcomes. Drawing upon secondary data from government reports, empirical studies, and policy documents, the paper identifies three primary mechanisms: (1) increased household labour burdens and child work; (2) migration-induced educational discontinuity; and (3) the cultural-psychological alienation caused by the erosion of forest-linked identity. The paper critically reviews existing social work interventions, finding them largely sectoral, reactive, and ecologically blind. It then proposes an integrated eco-social work framework comprising forest rights advocacy, community-based culturally responsive pedagogy, and multi-systemic intervention. The paper concludes with policy recommendations and a call for social work education to incorporate environmental justice as a core competency.

Keywords: Environmental degradation; tribal education; social work; displacement; forest livelihoods; educational exclusion; eco-social work; India.

1. Introduction

India's Scheduled Tribe (ST) population, numbering over 104 million across 705 distinct communities, remains the most educationally disadvantaged social group in the country. According to the National Statistical Office (2021), the literacy rate for STs stands at 63.0 per cent compared to 73.5 per cent for the general population, with ST female literacy languishing at 54.7 per cent. More alarmingly, the dropout rate for ST children at the secondary level (Classes 9–10) exceeds 35 per cent, rising to over 50 per cent for ST girls in several states (Ministry of Education, 2022).

These statistics are often attributed to poverty, inadequate school infrastructure, teacher absenteeism, or cultural mismatch of curricula. While these factors are relevant, they miss a deeper, more structural driver: environmental degradation. Approximately 70 per cent of India's ST population resides in forest-rich, hilly, and remote regions. Their lives, livelihoods, cultures, and social institutions are fundamentally intertwined with forest ecosystems. When forests are degraded—through deforestation, mining, dam construction, wildlife sanctuaries, or industrial projects—the consequences ripple directly into the educational trajectories of tribal children.

This paper argues that environmental degradation is not merely a background condition but an active, causal agent of educational exclusion. It systematically unpacks the mechanisms linking ecological harm to schooling outcomes. It then critically assesses existing social work responses and proposes an alternative, ecologically grounded framework.

2. Methodology and Scope

This paper is a critical review based on secondary sources, including:

- Government reports (Ministry of Tribal Affairs, Ministry of Education, Census of India, NSSO, ASER, NCERT).
- Peer-reviewed journal articles (social work, tribal studies, environmental education, gender studies).
- NGO evaluations and case studies from states such as Jharkhand, Odisha, Chhattisgarh, Madhya Pradesh, Maharashtra, and Kerala.
- Legal and policy documents (Forest Rights Act 2006, Right to Education Act 2009, National Education Policy 2020).

The analytical framework integrates critical social work theory (questioning power structures and advocating structural change) and environmental justice perspectives (recognizing ecological harm as social harm).

3. Environmental Degradation: Key Manifestations in Tribal Areas

Before examining impacts on education, it is necessary to understand the forms of environmental degradation affecting tribal regions. Table 1 summarises the primary drivers.

Table 1: Major Forms of Environmental Degradation Affecting Scheduled Tribe Communities

Form of Degradation	Primary Causes	Tribal Regions Most Affected
Deforestation	Commercial logging, mining, infrastructure projects, agricultural expansion	Central India (Bastar, Jharkhand, Odisha), Western Ghats, Northeast
Forced Displacement	Dams (e.g., Sardar Sarovar, Maheshwar), wildlife sanctuaries (e.g., Kanha, Sariska), mining (e.g., Niyamgiri, Singrauli)	Narmada Valley, Godavari Basin, Scheduled Areas across 10 states
Livelihood Erosion	NTFP depletion, loss of grazing land, fishing bans, forest restriction policies	All forest-dependent tribal belts
Climate Change Impacts	Irregular rainfall, crop failure, increased forest fires	Rain-fed tribal hinterlands

The cumulative effect of these processes is not simply economic hardship but a fundamental destabilisation of tribal ways of life. For children, this translates directly into barriers to schooling.

4. Pathways of Impact: How Environmental Degradation Causes Educational Exclusion

This section analyses three distinct yet interconnected pathways.

4.1 Pathway 1: Time Poverty and Increased Child Labour

When forests shrink or are declared off-limits, tribal households must travel longer distances to collect fuelwood, water, non-timber forest produce (e.g., tendu leaves, mahua, honey), and fodder. This labour is traditionally performed by women and children. As collection distances increase, the time required expands, reducing children's available hours for school attendance, homework, and study.

Table 2: Estimated Time Burden Increase Due to Deforestation (Based on Multiple Studies)

Activity	Average time before degradation (hours/day)	Average time after degradation (hours/day)	Increase (%)
Fuelwood collection	1.5	3.5	133
Water collection	1.0	2.5	150
Minor forest produce collection	2.0	4.0	100
Fodder collection	1.0	2.0	100

Source: Compiled from NCAER (2018); Joshi (2025); Fernandez (2021).

Case Example: In the Garasiya tribal village of Hevdadama Kalan (Madhya Pradesh), girls as young as 12 rise at 5 am to complete household chores, collect water, and tend livestock before walking 3 km to school. After school, they collect fuelwood and work in fields until 7 pm. Their study time is confined to 8–10 pm, but exhaustion often prevents effective learning. One girl interviewed stated: “I want to study, but my body hurts, and my eyes close by 9 pm” (Joshi, 2025).

4.2 Pathway 2: Displacement and School Discontinuity

Displacement—whether due to dams, mines, or conservation laws—is perhaps the most violent disruption to tribal children’s education. A displaced family often loses access to its original school, and the resettlement site may have no school or a school at a great distance. Moreover, the trauma of displacement, coupled with economic distress, pushes children into wage labour.

Table 3: Educational Impact of Displacement – Selected Studies

Location/Project	Displaced Families	ST	Reported Rate	Dropout Among Children	Primary Reasons
Sardar Sarovar Dam (Gujarat/Maharashtra)	~40,000		62%		No school in resettlement colonies; need to work
Singrauli coal mines (MP/UP)	~15,000		58%		Migration for work; loss of documentation
Kanha Tiger Reserve (MP)	~1,500 (evicted)		71%		Fear of forest guards; distance to school
Polavaram Dam (Andhra Pradesh)	~50,000 (planned)		48% (early data)		Incomplete rehabilitation

Sources: Fernandes (2021); Amnesty International (2019); CBGA (2020).

Case Example: In Kerala’s Idukki district, six tribal children of the Mangapparakkudi hamlet remain completely cut off from formal education. The nearest school is 8 km away through dense forest with no transport. In Tamil Nadu’s Thamarakkuppam tribal hamlet, children must trek 5 km daily, risking encounters with wild animals and being turned away if late. Many eventually drop out.

4.3 Pathway 3: Erosion of Cultural-Ecological Identity and Alienation from Formal Schooling

Tribal children are not only materially deprived but also culturally alienated. Formal school curricula are designed in urban centres, taught in languages not spoken at home, and ignore indigenous knowledge systems. When forests disappear, the cultural relevance of that knowledge also erodes, but the curriculum does not compensate. Children see their own worlds devalued, leading to low self-esteem, disengagement, and eventual dropout.

Table 4: Content Analysis of State Board Textbooks (Classes 6–8) in Three States

State	Mention of Tribal cultures in syllabus (%)	Inclusion of Ecological Knowledge (TEK)	Language of instruction matches tribal mother tongue?
Jharkhand	8%	Very low	No (Hindi/English)
Odisha	6%	Negligible	No (Odia/English)
Madhya Pradesh	5%	None	No (Hindi)

Source: NCERT Review (2020); Adivasi Ekta Parishad (2021).

As one study notes, “the deterioration of India’s forests has been linked directly with the erosion of Adivasi cultures” (Cahman, n.d.). Children are caught in a double bind: if they succeed in formal education, they become alienated from their communities and lose ATEK; if they fail, they leave school with neither formal credentials nor intact indigenous knowledge. This paradox is rarely addressed by mainstream interventions.

5. Critical Review of Current Social Work Responses

5.1 Government Schemes: Strengths and Gaps

Several centrally sponsored schemes target tribal education. Table 5 provides an evaluative overview.

Table 5: Critical Evaluation of Major Government Schemes for Tribal Education

Scheme	Target Group	Key Provisions	Strengths	Weaknesses (Ecological Blindness)
Eklavya Model Residential Schools (EMRS)	ST children (Class 6-12)	Residential schooling, free boarding	Provides access in remote areas	No linkage to forest livelihood stability; high dropout among PVTGs (only 3.4% enrolment)
Kasturba Gandhi Balika Vidyalaya (KGBV)	SC/ST/OBC girls (upper primary)	Residential, life skills	Helps girls from poor families	Does not address ecological determinants; no flexibility for seasonal migration

Ashram Schools	ST children	Residential near forests	Cultural familiarisation	Poor quality; often disconnected from community forest rights
National Social Assistance Programme (NSAP)	BPL elderly, widows, disabled	Cash pensions	Supports household income	Reach among forest-dependent tribals is low; no educational conditionality

Sources: Ministry of Tribal Affairs (2024); ASER (2022); Rupavath (ed., 2023).

The fundamental gap is that no government scheme treats forest degradation or livelihood insecurity as an educational problem. Social workers implementing these schemes are not trained to assess ecological factors, nor do they advocate for forest rights as part of their educational interventions.

5.2 NGO and Civil Society Interventions: Localised but Limited

NGOs have filled some gaps. Examples include:

- Muskaan (Bhopal): Runs a mud school for 210 children from de-notified tribes. However, the school building is crumbling, and resources are scarce.
- Rotary Foundation (South Gujarat): Provided e-learning facilities and solar water heaters for 884 tribal students across four residential schools.
- Dantewada agriculture-based teaching: Introduced local farming into the curriculum to reduce dropout, with modest success.

While valuable, these interventions remain small-scale, donor-dependent, and rarely replicated. More critically, they do not challenge the structural drivers of environmental degradation.

6. Toward an Eco-Social Work Model: Proposing Integrated Responses

A critical social work perspective requires moving beyond amelioration to structural transformation. The following three-pronged model is proposed.

6.1 Forest Rights Advocacy as an Educational Strategy

Secure forest tenure reduces household economic precarity and the need for child labour. The Forest Rights Act (FRA), 2006, recognises individual and community forest rights, including rights to NTFP collection, grazing, and habitat. However, implementation remains abysmal. Social workers can:

- Assist tribal gram sabhas in filing FRA claims.
- Link legal aid networks to communities facing eviction.
- Monitor that FRA implementation is included as a metric in tribal educational programs.

Table 6: Potential Impact of FRA Implementation on Educational Indicators (Projections)

FRA Implementation Level	Expected change in child labour (hours/week)	Expected change in school attendance (days/year)
None (current baseline)	15 hrs	180 days
Partial (individual titles)	-5 hrs	+25 days
Full (individual + CFR rights)	-10 hrs	+50 days

Source: Author's estimates based on impact assessments (see NCAER, 2018).

6.2 Community-Based, Ecologically Grounded Curriculum

Social workers should advocate for and facilitate curriculum reform that integrates Traditional Ecological Knowledge (TEK). This includes:

- Inviting tribal elders into classrooms to teach forest taxonomy, sustainable harvesting, and medicinal plants.
- Using local languages as medium of instruction in early grades.
- Designing project-based learning around local environmental issues (e.g., water conservation, forest regeneration).

Evidence from a pilot in Jharkhand's Saranda forest found that introducing TEK modules reduced dropout rates by 18 per cent over two years (Adivasi Ekta Parishad, 2022).

7. Conclusion and Recommendations

This paper has demonstrated that environmental degradation is a primary, not peripheral, cause of tribal educational exclusion. Deforestation increases child labour, displacement destroys school continuity, and cultural-ecological erosion alienates children from formal learning. Current social work responses are fragmented, reactive, and ecologically blind.

The following recommendations emerge:

1. For social work educators: Integrate eco-social work and environmental justice into BSW/MSW curricula. Train students to assess ecological determinants of educational outcomes.
2. For practitioners: Prioritise FRA implementation as a core intervention. Use community organising to link forest rights awareness with school enrolment drives.
3. For policymakers: Mandate educational impact assessments for all projects involving forest diversion or displacement. Link MGNREGA and FRA implementation to conditional cash transfers for tribal children's schooling.

4. For researchers: Conduct longitudinal studies quantifying the causal impact of forest degradation on tribal children's learning outcomes. Develop validated tools for eco-educational assessment.

Social work cannot afford to remain silent on environmental issues. For millions of tribal children, the path to a classroom passes through the forest. Protecting that path is a professional and ethical imperative.

References

- Adivasi Ekta Parishad. (2022). TEK integration pilot in Saranda forest: Dropout reduction study. Ranchi: AEP.
- Amnesty International. (2019). Displaced and forgotten: Tribal communities in India's development projects. London: Amnesty International.
- ASER Centre. (2022). Annual Status of Education Report (Rural) 2022. New Delhi: ASER.
- Cahman, K. (n.d.). Incorporating Adivasi ecological knowledge into rural curricula. EconBiz.
- CBGA. (2020). Polavaram displacement: Educational status of children. Hyderabad: Centre for Budget and Governance Accountability.
- Fernandes, W. (2021). Development-induced displacement and tribal education. In R. Rupavath (Ed.), Education as development (pp. 112–145). Routledge.
- Joshi, L. (2025). "We want girls to study, but...": Why tribal girls miss out on school. Youth Ki Awaaz.
- Ministry of Education. (2022). Educational statistics at a glance. New Delhi: Government of India.
- Ministry of Tribal Affairs. (2024). Eklavya schools struggle to meet PVTG sub-quota. New Delhi: MoTA.
- NCAER. (2018). Impact of forest degradation on tribal livelihoods and time use. New Delhi: National Council of Applied Economic Research.
- NCERT. (2020). Review of tribal content in school textbooks. New Delhi: NCERT.
- Rupavath, R. (Ed.). (2023). Education as development: Deprivation, poverty, dispossession. Routledge.