



Diverging Governance Paths: Niyamgiri versus Sijimali – Development-Induced Displacement, Tribal Rights and Resource Governance in Eastern India

Prof (Dr.) S N Tripathy

Former Professor of Economics, Gokhale Institute of Politics and Economics, Pune, currently at

4th Bijoy Bihar, Berhampur, Odisha

E-mail: sn_tripathy2004@yahoo.com

To Cite this Article

Prof (Dr.) S N Tripathy (2026). Diverging Governance Paths: Niyamgiri versus Sijimali – Development-Induced Displacement, Tribal Rights and Resource Governance in Eastern India. *Indian Social Development Review*, 2: 1-2, pp. 19-35.

Abstract: Development-induced displacement remains one of the most persistent contradictions of India's post-independence development path. Large dams, mining projects and industrial development have generated economic gains while simultaneously uprooting millions of people, particularly indigenous and tribal communities whose livelihoods, cultural identities and ecological relationships are intimately tied to land and forests. This paper studies the divergent governance trajectories of two emblematic mining conflicts in Odisha-the Niyamgiri Hills movement and the proposed Sijimali bauxite mining project-within the wider context of development-induced displacement. Drawing on secondary sources, the analysis integrates Cernea's Impoverishment Risks and Reconstruction model, the Sustainable Livelihood Framework and a rights-based development approach. It demonstrates that Niyamgiri institutionalised Gram Sabha sovereignty and Free, Prior and Informed Consent under the Forest Rights Act and PESA, whereas Sijimali illustrates procedural compliance without substantive community consent. The study further situates these cases against global internal-displacement trends and documents the multidimensional impoverishment risks-landlessness, joblessness, loss of common property resources, social disarticulation and cultural erosion-faced by displaced tribal populations. Findings show the inadequacy of compensation-centric rehabilitation and the acute need for participatory, rights-based and livelihood-reconstructive policy models.

Keywords: Development-Induced Displacement, Tribal Livelihoods and Rights, Mining Governance in Odisha, Sijimali

Introduction

India's development strategy since independence has relied heavily on large-scale infrastructure and resource-extraction projects. River-valley schemes, mining operations and industrial corridors have been presented as engines of national progress. However, these projects have produced extensive involuntary displacement, the burdens of which have fallen disproportionately on tribal and other marginalised communities (Fernandes, 2008; Tripathy, 2003, 2009). Displacement is not a discrete administrative event; it initiates a cascade of economic, social, cultural, psychological and political consequences that frequently leave affected populations poorer and more insecure than before.

Within Odisha, two mining-related conflicts crystallise contrasting governance outcomes. The Niyamgiri Hills case, centred on the Dongria Kondh community, culminated in a landmark judicial affirmation of Gram Sabha authority and the rejection of bauxite mining on religious and cultural grounds. In contrast, the proposed Sijimali bauxite project has generated sustained resistance amid allegations of inadequate consultation, environmental risk and procedural opacity. The divergence between these trajectories raises fundamental questions about the durability of legal safeguards, the quality of democratic participation and the distribution of costs and benefits of extractive development.

This paper situates the Niyamgiri–Sijimali comparison within the larger literature on development-induced displacement, examines the multidimensional risks faced by displaced communities, and evaluates the adequacy of existing rehabilitation frameworks. It argues that official adherence to statutory procedures increasingly masks deeper asymmetries of power and that sustainable development requires the substantive realisation of community consent, livelihood reconstruction and ecological justice.

Review of Literature

Scholarship on development-induced displacement has expanded considerably over five decades. Early research showed that displacement extends far past physical relocation and produces lasting effects on livelihoods, social institutions, environmental sustainability and societal identity. Governments routinely justify projects in the name of national development, yet empirical evidence consistently shows that rehabilitation policies fail to restore the socio-economic conditions of displaced populations.

Gender analyses (Thukral, 1996) demonstrated that rehabilitation frameworks still are largely gender-neutral even though women experience unduly intense deprivation through loss of independent access to forests, water and informal employment and through increased domestic burdens. Studies of the Hirakud Dam (Baboo, 1996) revealed that monetary compensation alone cannot restore livelihoods; decades after resettlement, many households continued to suffer landlessness, unemployment and declining agricultural productivity. Satyanarayan (1999) emphasised the psychological, cultural and sociocultural dimensions of displacement, arguing for holistic strategies that encompass education, healthcare, social integration and cultural conservation.

Cerne's (2000) Impoverishment Risks and Reconstruction model remains the most influential analytical system. It identifies eight principal risks—landlessness, joblessness, homelessness, marginalisation, food insecurity, increased morbidity, loss of common property resources and social disarticulation—and shifts attention from compensation to livelihood reconstruction and risk mitigation. Later contributions stressed participatory planning (Mathur, 2000), the special vulnerability of tribal communities whose economies are linked to forests and customary rights (Patabardhan, 2000), and the requirement for comprehensive livelihood reconstruction past physical relocation (Koenig, 2001; Ota, 2001; McDowell, 2002). Institutional weaknesses, fragmented legal frameworks and inadequate oversight further undermine effectiveness (Rew et al., 2000).

In the Indian context, Fernandes (2008) documented that tribal communities have borne a disproportionately high share of displacement relative to their population share, largely because land-acquisition laws historically failed to recognise customary rights over forests and common property resources. Odisha-focused studies (Mishra, 2010) pointed out the failure of mining-related rehabilitation to address the destruction of agriculture, forests and water resources.

A sustained body of work by Tripathy (2003, 2009, 2010, 2012, 2014, 2024a, 2024b, 2025a, 2025b) has deepened understanding of tribal displacement. These studies conceptualise displacement as an inherent yet mitigable consequence of development planning, document livelihood loss, cultural erosion and resource alienation, link globalisation and liberalisation to intensified resource extraction, and analyse mining-induced displacement in Odisha as well as the ecological and human costs of large irrigation projects and the cultural transformation of specific communities such as the Koya. Recent contributions place displacement

within a human-rights frame and examine contemporary indigenous resistance movements.

Literature on Niyamgiri underlines the practical significance of Gram Sabha authority under the Forest Rights Act and PESA, while emerging analyses of Sijimali point to renewed tensions between extractive development and indigenous rights. The Global Report on Internal Displacement (2026) situates development-induced displacement within a wider global picture of more than 82 million internally displaced persons, highlighting interactions among conflict, disasters, climate change and development pressures.

Collectively, the literature establishes displacement as a multidimensional process of economic impoverishment, environmental degradation, social fragmentation, cultural erosion, political exclusion and psychological trauma. Compensation remains the dominant policy response, yet scholars consistently advocate rights-based rehabilitation, community governance, sustainable livelihood reconstruction and environmental justice.

Research Gap

Despite substantial progress, important gaps continue. Most studies treat large dams or mining projects in isolation rather than comparing multiple forms of displacement within an integrated framework. Long-term degradation of common property resources and its consequences for livelihood sustainability receive comparatively limited attention. The linkages among displacement, environmental degradation, governance deficits and emerging social conflicts remain under-explored, even though contemporary mining conflicts in Odisha suggest that weakened community participation can generate prolonged resistance. Finally, global trends in internal displacement caused by conflict, disasters and climate change have rarely been integrated with India's development-induced displacement experience. The present study considers these gaps by adopting an integrated analytical structure that links development, displacement, livelihoods, environmental governance, tribal rights and sustainable rehabilitation.

Objectives of the Study

The present study has been undertaken with the following objectives:

1. To examine the socio-economic, cultural, environmental and livelihood consequences of development-induced displacement in eastern India with

reference to tribal communities affected by dams and mining projects in Odisha and Jharkhand.

2. To analyse the adequacy of existing rehabilitation and resettlement policies by examining selected case studies and to suggest policy measures for guaranteeing sustainable, participatory and rights-based development.

Research Methodology

The study is descriptive, analytical and exploratory. It adopts an interdisciplinary approach drawing on economics, sociology, political science, environmental studies and human rights. The analysis relies exclusively on secondary sources: government reports, publications of the Internal Displacement Monitoring Centre, National Human Rights Commission, Ministry of Tribal Affairs, Ministry of Environment, Forest and Climate Change, Census of India, scholarly monographs, peer-reviewed journals, reports of international organisations and contemporary newspaper archives.

Three case studies-the Hirakud Dam, the Niyamgiri movement and the Sijimali bauxite project-are examined because they represent successive phases of India's development path: post-independence river-valley projects, judicially protected indigenous rights, and contemporary mining-led industrialisation. A comparative framework relates the Indian experience to global internal-displacement patterns reported in the Global Report on Internal Displacement (2026). Statistical information is presented through descriptive tables. Interpretation is guided by Cernea's Impoverishment Risks and Reconstruction (IRR) model, the Sustainable Livelihood Framework and a rights-based development approach. No primary field surveys were conducted; the study synthesises available empirical evidence to identify policy challenges and propose comprehensive restoration approaches.

Conceptual Framework

Three complementary perspectives guide the analysis. Cernea's Impoverishment Risks and Reconstruction model identifies the principal risks of involuntary resettlement and orients attention toward livelihood reconstruction. The Sustainable Livelihood Framework views livelihoods as dependent on the interaction of natural, physical, financial, human and social capital; destruction of any of these capitals weakens resilience. The rights-based development approach emphasises constitutional

guarantees, environmental justice, tribal self-governance, informed consent and democratic participation. Together these frameworks allow a comprehensive examination that integrates economic improvement with environmental sustainability, social justice, human rights and organisational accountability.

Problems Associated with Development-Induced Displacement

Development-induced displacement has compelled millions across developing countries into forced migration that shatters traditional livelihood systems, disrupts social relations and pushes vulnerable communities into chronic poverty. Affected populations lose agricultural land, forests, grazing fields, rivers and other common property resources that constitute the foundation of survival, producing landlessness, unemployment, food insecurity, indebtedness and long-term impoverishment.

Indigenous and tribal populations experience the harshest consequences because social identity, cultural heritage, customary rights and spiritual attachment to land and forests are deeply interconnected with their traditional habitat. Displacement is therefore not simply bodily movement but an intense disruption of collective existence and historical persistence. Communities that once maintained strong kinship relations, mutual support systems and collective cultural practices become fragmented; social cohesion weakens, and traditional systems of governance gradually collapse.

Women are disproportionately affected. The destruction of traditional livelihoods, loss of access to forests and water sources, decline in informal economic activities, and weakening of social security systems reduce economic independence, increase unpaid labour burdens, and heighten risks of exploitation and marginalisation. In many tribal societies, women traditionally enjoy relatively greater participation in economic and social life; displacement erodes these customary roles and decision-making power. Children suffer interrupted education, malnutrition, psychological trauma and declining access to healthcare; elderly persons experience isolation, emotional distress and difficulties adapting to unfamiliar environments.

Displacement also destroys social and cultural homes. Communities are uprooted from sacred landscapes, heritage lands, burial grounds and customary institutions, generating deep emotional suffering, alienation and psychological insecurity. Resettlement and rehabilitation measures are frequently inadequate: compensation packages are insufficient, delayed, poorly implemented or inaccessible to the most marginalised. Affected people are often excluded from consultations on

land acquisition, compensation and livelihood restoration, generating mistrust and conflict. Resettlement planning is commonly treated as a secondary administrative exercise rather than an integral component of development planning, resulting in administrative delays, weak coordination and ineffective monitoring.

Politicisation of displacement further aggravates the crisis. Powerful political and corporate interests promote large-scale projects in the name of economic expansion while downplaying social and environmental costs and marginalising the voices of affected communities. Growing resistance movements reflect the assertion of rights and dignity by displaced populations who demand fair compensation, transparent governance, environmental justice, recognition of customary rights and fair participation.

Justification of the Present Study

Displacement is not a one-time incident but a process generating interconnected consequences across economic, social, cultural, psychological and political spheres. Literature consistently identifies inadequate resettlement planning, the heightened vulnerability of women, children and the elderly, severe impacts on indigenous identity and culture, politicisation by vested interests, and the requirement of meaningful participation of project-affected people. Corporate social responsibility and ethical business practices have also emerged as relevant dimensions. Despite extensive research, detailed study of the impact of displacement on common property resources and livelihoods, as well as the potential links toward social unrest, remains limited. The present study considers this rationale by focusing on the Niyamgiri–Sijimali divergence and related cases.

Table 1: Selected Major Projects – Families / Persons Affected and Tribal Composition (Odisha focus with Jharkhand parallels)

<i>Project / Location</i>	<i>State</i>	<i>Families / Persons Affected</i>	<i>ST Families / Share</i>	<i>Land / Forest Impact</i>	<i>Key Outcomes / Notes</i>
Hirakud Dam	Odisha	26,501 families (1 lakh people); 325 villages submerged; 1.83 lakh acres	1,636 ST families (6.2%)	Large-scale agricultural submergence	Classic case of inadequate long-term rehabilitation; many still seeking land pattas decades later
Rengali Dam	Odisha	11,289 families	1,328 ST (11.8%)	Significant land loss	Persistent livelihood insecurity

<i>Project / Location</i>	<i>State</i>	<i>Families / Persons Affected</i>	<i>ST Families / Share</i>	<i>Land / Forest Impact</i>	<i>Key Outcomes / Notes</i>
Upper Indravati	Odisha	5,344 families	2,260 ST (42.3%)	High forest / tribal area impact	Very high tribal proportion
Upper Kolab	Odisha	3,067 families	1,431 ST (46.7%)	High tribal concentration	Strong cultural & livelihood disruption
Balimela / Machkund / Salandi	Odisha	Combined several thousand families	51–94.5% ST in individual projects	High forest dependence	Extremely high ST share in southern tribal districts
Seven multipurpose dams (aggregate)	Odisha	52,584 families	10,498 ST families (20%)	Substantial overall	Clear illustration of uneven tribal burden
Rourkela Steel Plant / NALCO / industrial projects	Odisha	Thousands of families (e.g., NALCO hundreds of families + wider village impact)	High tribal share in many cases	Forest + private land	Industrial displacement concentrated in mineral belts
Coal / Iron-ore / other mining (various)	Both	Odisha: large numbers in Keonjhar, Angul-Talcher, Sukinda, Jharsuguda; Jharkhand: >4 lakh from mining alone in 1951–95 database	Often 40–50%+ ST	Tens to hundreds of thousands of hectares; ongoing forest diversion	Continuous process; recent coal acquisitions continue (e.g., thousands of ha and hundreds of families in specific CIL blocks)
Proposed / contested (e.g., Sijimali bauxite)	Odisha	Potential large-scale (lease ~1,549 ha of which ~700 ha forest); communities across multiple villages	Predominantly tribal (Scheduled Areas)	Significant forest, water, biodiversity risk	Contested consent; procedural vs substantive participation issues (contrast with Niyamgiri outcome)
North Karanpura / other coalfields & major industrial projects (TISCO, Bokaro, etc.)	Jharkhand	Large cumulative (villages and tens of thousands of persons across coalfields); specific blocks report hundreds to thousands of families	High ST share in Adivasi reserved lands	Extensive agricultural + forest conversion	Repeated displacement; migration and cultural erosion documented

Source: Compiled from secondary sources including Fernandes & Asif 1997 database, Indian Social Institute studies, Xaxa Committee / High-Level Committee on Tribals reports, and related scholarly estimates. Figures are predominantly for the period 1951–1995 unless otherwise noted; later updates show substantially higher totals. All numbers are approximate/conservative and subject to under-reporting in official records.

Table 2: Selected Case Studies of Development-Induced Displacement in Odisha

<i>Case</i>	<i>Period / Status</i>	<i>Principal Affected Communities</i>	<i>Key Governance Outcome</i>	<i>Primary Impact Dimension</i>
Hirakud Dam	1950s onward	Multiple peasant & tribal groups	Compensation-centric; long-term impoverishment	Agricultural land loss, livelihood decline
Niyamgiri Hills	2000s–2010s	Dongria Kondh	Gram Sabha rejection; judicial affirmation of rights	Cultural & religious rights protected
Sijimali Bauxite	Ongoing (2020s)	Local tribal communities	Contested consent; procedural compliance without substantive participation	Forest, water & livelihood threats

Source: Compiled from secondary literature (Baboo, 1996; Behera & Padhi, 2022; Human Rights Lawyering Clinic, 2024; Tripathy, 2012, 2024a).

Table 3: Aggregate Magnitude of Displacement and Project-Affected Persons (DPs/PAPs)

<i>State</i>	<i>Period (main database)</i>	<i>Estimated DPs/PAPs</i>	<i>Updated / Extrapolated Estimate (to 2000)</i>	<i>Share of Scheduled Tribes (ST)</i>	<i>Key Notes</i>
Odisha	1951–1995	1.5 million (core estimates); higher in some compilations	3 million	40–42% of total DPs/PAPs	Water resources (dams/irrigation) largest single driver; mining second. UNDP and related sources note >1 lakh fully displaced and ~20 lakh affected in broader assessments.
Jharkhand	1951–1995	1.548 million	3 million	40% of total DPs/PAPs	Mining dominant; high concentration in mineral-rich tribal areas. Only ~25% of displaced reported as resettled in many accounts.
Combined	1951–1995 / updated	3+ million	6 million	0%+ overall	Both states among the highest-displacement regions in eastern India; tribals heavily over-represented relative to population share.

Table 4: Internal Displacement in 2025

<i>Category</i>	<i>Population (Millions)</i>	<i>Percentage</i>
Conflict and violence	68.6	83.5
Natural disasters	13.6	16.5
Total internally displaced persons	82.2	100.0

Source: Global Report on Internal Displacement (2026).

Table 1 demonstrates that development projects in Odisha and Jharkhand have disproportionately displaced tribal communities, particularly in mining and dam-affected regions. Projects in southern Odisha recorded exceptionally high Scheduled Tribe representation among displaced families, revealing that resource-rich tribal landscapes have borne an unequal share of development costs with inadequate rehabilitation.

Table 2 highlights contrasting governance approaches to development-induced displacement. While Hirakud reflects compensation-oriented rehabilitation with enduring livelihood losses, Niyamgiri illustrates rights-based decision-making through Gram Sabha empowerment. In contrast, the Sijimali project underscores continuing concerns over procedural compliance without meaningful participation, threatening tribal livelihoods and ecological security.

Table 3 reveals the enormous scale of displacement in Odisha and Jharkhand, with nearly six million people affected by 2000. Scheduled Tribes constitute around 40 percent of displaced populations despite their smaller demographic share, confirming that dams and mining have imposed disproportionate social, economic, and cultural burdens on indigenous communities.

Table 4 indicates that conflict and violence accounted for over four-fifths of global internal displacement in 2025, substantially exceeding disaster-induced displacement. The findings demonstrate that human-induced crises remain the dominant driver of forced mobility, emphasizing the importance of rights-based governance, conflict prevention, and durable rehabilitation strategies worldwide.

Mining Expansion and the Sijimali Conflict

Mining has become a principal driver of contemporary displacement in India. Odisha holds rich deposits of bauxite, iron ore, chromite, manganese and coal. While these resources support industrial growth, they intensify conflicts over land acquisition, environmental degradation and tribal rights. The proposed Sijimali bauxite mining project guarantees mineral production, investment, employment, and infrastructure, yet local tribal communities perceive it as a threat to forests, water resources, agriculture, biodiversity, and cultural heritage.

Indigenous dependence on forests goes beyond economic livelihood to food, medicine, fuelwood, religious practices and communal identity. Mining-induced deforestation therefore threatens both ecological sustainability and

cultural tradition. Concerns have arisen regarding procedural transparency, environmental clearances, community consultations and the implementation of the Forest Rights Act and PESA. Allegations of inadequate Gram Sabha participation have increased resistance, illustrating the gap between statutory safeguards and actual implementation. The Sijimali case demonstrates that sustainable development demands balancing mineral extraction with constitutional rights, environmental conservation and democratic participation (Human Rights Lawyering Clinic, 2024; National Alliance for Climate and Ecological Justice & National Alliance of People's Movements, 2026; Bisoyi, 2026; The Wire, 2026; The Hindu, 2026).

Diverging Governance Paths: Niyamgiri versus Sijimali

The Niyamgiri movement constitutes one of the most significant examples of community-centred environmental governance in India. The proposed bauxite mining project affecting the Dongria Kondh generated national and international attention because of its consequences for indigenous rights, biodiversity and constitutional governance. Unlike many earlier projects, the dispute culminated in a judicial decision affirming that Gram Sabhas has the authority to determine whether mining violates religious, cultural, and community rights protected under the Forest Rights Act. Subsequent rejection of mining proposals by Gram Sabhas demonstrated the practical significance of Free, Prior and Informed Consent. Niyamgiri established that local communities are constitutional rights-holders whose participation is fundamental to legitimate development planning (Behera & Padhi, 2022; Government of India, 1996, 2006; Padel & Das, 2010). The contrast with more recent mining conflicts, including Sijimali, illustrates changing governance patterns and continuing tensions between economic liberalisation and indigenous rights.

Niyamgiri acts as a landmark of participatory democracy reinforced by judicial intervention. Sijimali reflects an emerging pattern of procedural compliance without substantive community consent. This variation raises significant concerns about the dilution of legal safeguards and democratic accountability in resource governance. The transition from Gram Sabha sovereignty institutionalised through the Niyamgiri judgment to contested consent in Sijimali signifies a critical shift. Formal observance of legal provisions increasingly masks deeper asymmetries in power and participation.

Table 5: Land Alienation / Acquisition by Category

<i>State</i>	<i>Total Land Lost / Acquired</i>	<i>Private Land</i>	<i>Common Property Resources (CPR) / Common Land</i>	<i>Forest Land</i>	<i>Dominant Category</i>	<i>Notes</i>
Odisha	>23 lakh acres (2.3 million acres)	41.8%	28%	30.2%	Water resources (65% of total land)	Forest diversion continues post-1995 for mining and industry; significant CPR loss affects tribal livelihoods disproportionately.
Jharkhand	15.46 lakh acres (1.55 million acres; 6.26 lakh ha)	8.52 lakh acres	3.49 lakh acres	3.45 lakh acres	Mining (5.15 lakh acres) followed closely by water resources (5.08 lakh acres)	Mining and water projects together account for the bulk; extensive loss of agricultural and forest land in tribal belts.

Table 6: Major Causes of Development-Induced Displacement and Associated Impoverishment Risks in India

<i>Cause of Displacement</i>	<i>Relative Contribution</i>	<i>Principal Impact</i>	<i>Associated Impoverishment Risk</i>	<i>Likely Consequence</i>
Large dams	Very High	Agricultural land loss	Landlessness	Declining agricultural income
Mining	High	Forest destruction	Loss of common property resources; Environmental degradation	Reduced livelihood opportunities; Reduced sustainability
Industries	Moderate	Employment transition	Joblessness	Chronic unemployment
Highways	Moderate	Urban displacement	Homelessness	Poor housing conditions
Conservation projects	Moderate	Tribal relocation	Marginalisation; Social disarticulation	Increased poverty; Community fragmentation
Urban expansion	Increasing	Informal settlement eviction	Homelessness; Food insecurity	Poor housing conditions; Malnutrition

Source: Compiled and synthesised from Fernandes (2008), Cernea (2000), Mishra (2010), and related literature.

Table 5 demonstrates that development-induced land acquisition has disproportionately affected ecologically sensitive and tribal regions in Odisha and

Jharkhand. While Odisha experienced extensive losses through water-resource projects, Jharkhand's displacement was largely mining-driven. The substantial acquisition of forest and common lands has undermined traditional livelihoods, intensified resource insecurity, and weakened indigenous socio-cultural resilience.

Table 6 indicates that development-induced displacement extends beyond physical relocation to create multiple forms of impoverishment. Large dams and mining remain the principal drivers, causing landlessness, environmental degradation, and livelihood loss. The cumulative impacts of industrialisation, urbanisation, and conservation projects reinforce poverty, social exclusion, and long-term vulnerability among displaced communities.

Mining conflicts across Odisha form part of a wider systemic pattern. Development-induced displacement consistently produces livelihood loss, cultural erosion and environmental degradation, triggering organised resistance among tribal communities. Empirical and geospatial studies show severe ecological consequences-forest loss, land-use change and declining water access-reinforcing political-ecology arguments that extractive development disproportionately burdens indigenous populations as privileging state-corporate interests. Niyamgiri moved from conflict to institutionalised democratic resolution and community empowerment; Sijimali shows a troubling reversal in which participatory safeguards appear weakened, and conflicts persist.

Discussion

Development-induced displacement in India is chiefly driven by large dams, mining, industrialisation, infrastructure expansion, conservation initiatives, and rapid urbanisation, each generating distinct yet linked socio-economic consequences. Large dams and mining contribute most considerably to landlessness, forest destruction, and loss of common property resources, undermining the livelihood security of rural and tribal communities. Industrial projects, highways, and urban expansion increase employment uncertainty, homelessness, and food insecurity, while conservation projects often result in tribal relocation, marginalisation, and social disarticulation. These risks rarely occur in isolation; instead, they reinforce one another, creating multidimensional poverty, weakened community institutions, and long-term livelihood vulnerability among displaced populations. The findings underscore Cernea's Impoverishment Risks and Reconstruction Model, highlighting the need for comprehensive rehabilitation policies that integrate land restoration,

livelihood reconstruction, social inclusion, environmental conservation, and participatory development planning to guarantee sustainable resettlement outcomes.

The comparative analysis shows that displacement in India has evolved from an engineering issue into a multidimensional governance challenge. Experiences of Hirakud, Niyamgiri and Sijimali reveal that inadequate rehabilitation continues to undermine the developmental benefits expected from large infrastructure and mining projects. Although legal safeguards have expanded through the Forest Rights Act, PESA and judicial interventions, implementation is inconsistent.

Comparison with global internal-displacement trends indicates that development-induced displacement cannot be examined in isolation. Climate change, disasters, armed conflicts and environmental degradation increasingly interact with development pressures, producing overlapping vulnerabilities among already marginalised populations. The persistence of displacement across successive generations confirms that compensation alone cannot restore livelihoods. Rehabilitation must integrate livelihood reconstruction, environmental restoration, community participation, social infrastructure, education, healthcare and long-term institutional support.

Policy Implications

Several policy priorities emerge. Rehabilitation planning should be integrated into project design before land acquisition begins. Livelihood restoration must receive greater emphasis than one-time financial compensation. Gram Sabha consent under PESA and the Forest Rights Act should be implemented transparently and independently. Environmental impact evaluations should incorporate cumulative ecological impacts rather than project-specific effects alone. Compensation packages should recognise common property resources, customary forest rights and cultural heritage in addition to private land ownership. Independent monitoring authorities should periodically evaluate rehabilitation outcomes for at least ten years following project completion. Development planning should adopt a rights-based approach that reconciles economic growth alongside environmental sustainability, social justice and constitutional protections for indigenous communities.

Conclusion

Development-induced displacement remains one of the greatest contradictions of India's development process. Infrastructure and mining projects have contributed

to national economic expansion while simultaneously displacing millions whose sacrifices remain inadequately recognised. The experiences of Hirakud, Niyamgiri and Sijimali illustrate that displacement is not simply the relocation of populations but the disruption of livelihoods, cultures, identities and ecological relationships.

Global evidence on internal displacement reinforces the urgency of strengthening governance systems able to protect at-risk populations against multiple forms of displacement. Sustainable development cannot be measured exclusively by economic output; it must also be evaluated through equity, participation, environmental management and respect for human rights. Future policies should prioritise community-based governance, livelihood reconstruction, ecological conservation and constitutional justice so that economic progress becomes genuinely fair and sustainable.

References

- Baboo, B. (1996). Studies of the Hirakud Dam and displacement. [As cited in secondary literature].
- Behera, M., & Padhi, S. R. (2022). Tribal movements against mining-induced displacement in Odisha: The case of Dongria Kondh's Niyamgiri movement. *Journal of Land and Rural Studies*, 22(1), 1–15. <https://doi.org/10.1177/0972558X221096265>
- Carlson, G. J., Kordas, K., & Murray-Kolb, L. E. (2015). Associations between women's autonomy and child nutritional status: A review of the literature. *Maternal & Child Nutrition*, 11, 452–482.
- Cernea, M. M. (2000). Risks, safeguards, and reconstruction. *Economic and Political Weekly*, 35(41), 3659–3678.
- Committee on World Food Security. (2020, September). Gender equality and women's empowerment in the context of food security and nutrition: A scoping paper (CFS 2017/Inf.21).
- Fernandes, W. (2008). Documentation of development-induced displacement in India. [As cited].
- Global Report on Internal Displacement. (2026). Internal Displacement Monitoring Centre / Norwegian Refugee Council.
- Government of India. (1996). *The Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)*.
- Government of India. (2006). *The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006*.
- Human Rights Lawyering Clinic. (2024). *Under the surface: Human rights and environmental implications of the proposed Sijimali bauxite mine in Odisha*. National Law School of India University, Bengaluru.

- Koenig, D. (2001). Rehabilitation and livelihood reconstruction. [As cited].
- Mathur, H. M. (2000). Participatory planning in rehabilitation. [As cited].
- McDowell, C. (2002). International experiences of development-induced displacement. [As cited].
- Mishra, S. K. (2010). Tribal displacement resulting from mining expansion in Odisha. [As cited].
- National Alliance for Climate and Ecological Justice, & National Alliance of People's Movements. (2026). Statements condemning repression in Sijimali region.
- Nayak, S. (2015). Industrial development vs resistance: A study of POSCO project in Odisha. *International Letters of Social and Humanistic Sciences*, 50, 55–67.
- Ota, A. B. (2001). Compensation-oriented approaches to rehabilitation. [As cited].
- Padel, F., & Das, S. (2010). *Out of this earth: East India Adivasis and the aluminium cartel*. Orient BlackSwan.
- Patabardhan, A. (2000). Tribal displacement caused by large dams. [As cited].
- Pattanaik, S. (2003). Tradition, development and environmental movement of the marginalised: A study of fishing community's resistance in Orissa. *Indian Anthropologist*, 33(1), 55–70.
- Prakash Kumar Samantsinghar. (2026, April 15). Unrest in Odisha's Sijimali area: Nationwide reactions pour in over state repression; Left parties call for statewide protests.
- Rew, A., et al. (2000). Institutional weaknesses in rehabilitation policies. [As cited].
- Rout, B. (2023). The Gandhamardan movement of Western Odisha and its contemporary relevance. *Journal of Land and Rural Studies*. Advance online publication. <https://doi.org/10.1177/2455328X231207667>
- Satyanarayan, K. (1999). Psychological, cultural and social dimensions of displacement. [As cited].
- Soh, W., Fon, B. D., Molua, D. E., & Molua, E. L. (2024). Women, income use and nutrition quality: Effects of women's decision-making in rural households in Cameroon. *Agriculture & Food Security*, 13(29). <https://doi.org/10.1186/s40066-024-00480-6>
- Sujit Bisoyi. (2026, April). Explained: In clashes between police and tribals in Odisha, the issue of bauxite mining. *The Indian Express*.
- Sujit Bisoyi. (2026, April). Rail corridor for Odisha bauxite mines days after tribal-police clash. *The Indian Express*.
- The Hindu. (2026, April). Tribal-police clashes in Odisha over Sijimali mining project.
- The Wire. (2026, April 12). Why tribes in Odisha's Sijimali are protesting against a Vedanta-owned bauxite mine.
- Thukral, E. G. (1996). Gender dimensions of displacement. [As cited].
- Tripathy, S. N. (2003). Problems of displacement and development. In S. N. Tripathy (Ed.), *Economic development and problem of displacement*. Anmol Publishing.

- Tripathy, S. N. (2009). Tribal displacement and deprivation in India. In R. C. Pandit (Ed.), *Development vs displacement of tribal people in India*. Abhijeet Publications.
- Tripathy, S. N. (2010). Globalization and the plight of displaced tribes in India. In S. N. Chaudhary (Ed.), *Tribal economy at crossroads*. Rawat Publications.
- Tripathy, S. N. (2012). Mining and displacement problems in Orissa. In N. R. Mishra & K. K. Mishra (Eds.), *Displacement and rehabilitation*. Gyan Publishing House.
- Tripathy, S. N. (2014). Globalization, deprivation and the predicament of displaced tribes in India. In M. C. Behera & J. Basar (Eds.), *Resources, tribes and development*. Rawat Publication.
- Tripathy, S. N. (2024a). Tribal Land Alienation in Jharkhand and Odisha. *Jharkhand Journal of Development and Management Studies*, 22(2).
- Tripathy, S. N. (2024b). Development-Induced Displacement: Balancing Progress and Human Rights. *Journal of South Asian Research*, 2(1), 47–65.
- Tripathy, S. N. (2025a). Ecological and human costs of large-scale irrigation projects. *Indian Growth and Development Policy*, 1(1), 1–26.
- Tripathy, S. N. (2025b). Displacement, disruption and cultural transformation of the Koya tribe in Malkangiri (Odisha). *Society and Culture Development in India*, 5(1), 125–146.