

EVALUATING THE EFFICACY OF LAND ACQUISITION, REHABILITATION, AND RESETTLEMENT POLICIES IN COAL MINING: A CASE STUDY OF MAHANADI COALFIELDS LIMITED (MCL), ODISHA

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Abstract:

Background: Land acquisition for coal mining in India, particularly in resource-rich states like Odisha, has long been contested due to its adverse impact on local communities. Despite the progressive framework of the 2013 LARR Act, implementation challenges persist in ensuring fair compensation and effective rehabilitation for displaced populations.

Objective: This study aims to evaluate the socio-economic impact of land acquisition and rehabilitation measures on displaced households in Odisha, focusing on Mahanadi Coalfields Limited (MCL), and to assess the effectiveness of the LARR framework in practice.

Methodology: A descriptive-analytical design was employed, using data from 200 purposively selected displaced households. A structured questionnaire captured responses on compensation, livelihood restoration, and well-being. SPSS was used for descriptive and regression analysis, while Structural Equation Modeling (SEM) was conducted via SmartPLS to explore interrelationships among key constructs.

Results: Regression analysis showed a significant relationship between perceived land acquisition impact and income reduction ($R^2 = 0.198$, $p < 0.001$). SEM findings confirmed that perceived rehabilitation transparency positively affects both compensation satisfaction and livelihood restoration, which in turn significantly enhance socio-economic well-being ($\beta = 0.51^{**}$, $\beta = 0.45^{**}$). All hypothesized relationships were statistically significant.

Conclusion: The study confirms that transparent and participatory rehabilitation processes are central to mitigating the negative impacts of displacement. While the LARR Act provides a legal foundation, its effectiveness depends on consistent enforcement, administrative accountability, and genuine community engagement.

Keywords: Land Acquisition, Rehabilitation, LARR Act, Coal Mining, Socio-economic Impact, Odisha, Displacement, SEM, Mahanadi Coalfields Limited

1. Introduction

The complex intersection of economic progress, social fairness, and displaced community rights has long fuelled Indian land acquisition issues. Land acquisition for industrial, infrastructural, or mining purposes has been accused for failing to balance economic benefits with social consequences. Insufficient compensation, community engagement, and rehabilitation have caused widespread displeasure, public protests, and land acquisition instability. The government forced displaced people to acquire property for public use under the 1894 colonial land

Acquisition Act. This Act encouraged infrastructure and industry but overlooked displaced people's rights and needs, leaving them vulnerable without protection. Rural agricultural people have been displaced by forceful land acquisition, destabilising society. Despite socioeconomic changes following independence, the 1894 Land Acquisition Act remained India's main land acquisition law. Displaced communities were disregarded without recompense or democracy.

Systematic land acquisition and relocation continued until the 2013 LAR Act. The revolutionary LARR Act replaced the obsolete and often discriminatory 1894 Act with transparent, participative, and equitable land acquisition and resettlement. The LARR Act required market-based fair compensation, rehabilitation, and resettlement to restore displaced people's livelihoods.

The Act is progressive yet hard to implement. Compensation delays, land market rate appraisals, rehabilitation, and livelihood restoration are LARR Act issues. One problem is the Act's ambiguous land-for-land compensation, which replaces money but is routinely mishandled. Ground-level enforcement has failed, notably in resource-rich Odisha, where mining land acquisition is contentious. Many displaced people have little legal alternatives due to slow compensation payouts and lack of community input. Odisha, with abundant coal reserves, is crucial to India's land acquisition debate. Energy security and economic prosperity rely on Indian coal mining. Major coal mining land purchases have displaced farmers and harmed local economies. Odisha's largest public coal miner is Mahanadi.

Big mines require space, especially in rural agricultural areas. Land grabbing displaced thousands of farmers. Rural economies depend on rich agricultural land, but mining relocation threatens it. Mining may steal these people's lands without compensation or other income, harming local economies. Moving remote settlements without infrastructure, employment, or services. This environmental and lifestyle upheaval has caused long-term socio-cultural and economic problems for these people. Coal mining generates power and economic growth but harms local people, making property acquisition difficult. Company rehabilitation projects like MCL seldom provide displaced people land. Some blame rehabilitation programs for failing to help displaced persons find work or cope with relocation's emotional and social impacts. Village relocation may erode social capital and community. Poor livelihood restoration, compensation, and community decision-making plague resettlement. Failure to enforce and monitor LARR Act compliance worsens these difficulties. Indian mining, especially Odisha's coal mining land acquisition, entails displacement, low compensation, and failed rehabilitation.

These issues raise questions about India's coal mining sustainability and large-scale land acquisition's social justice. India needs coal for energy, but human displacement has prompted greener, more socially acceptable mining. For mining to survive and sustain national development, displaced communities' rights and needs must be met. Increased LARR Act enforcement, socioeconomic concerns for displaced people, and mining's environmental effect are needed. Finally, coal mining is vital to India's energy sector, but land acquisition has major social, economic, and environmental impacts. The LARR Act must be enforced to protect displaced people's rights and livelihoods. Fair and sustainable land acquisition, rehabilitation,

and resettlement are needed to strengthen India's coal mining industry for social justice. Goals include transparency, community engagement, and lawful decision-making.

2. Context and Background:

2.1 Land Acquisition in India:

Colonial laws like the property Acquisition Act of 1894 allowed the government to buy Indian property for infrastructure, irrigation, and urban growth. This rule helped the British colonial economy but didn't safeguard rural displaced people. Under the Act, the government may evict communities without compensation. It was criticised for prioritising state or colonial goals above people's well-being and exploiting local populations. After India gained independence in 1947, the Land Acquisition Act of 1894 hampered compensation and accountability until 2013. This allows the government to buy property for roads, railroads, and urban growth without local rights. Marginalised and economically dependent populations have no resources to recoup from these acquisitions. Colonial land seizure left rural populations, particularly those whose property was taken for industrial or urban expansion, dissatisfied and unrestful for decades.

These disadvantaged populations could not protest land acquisition and suffered displacement, financial loss, and social disintegration. Resentment, demonstrations, and social unrest resulted from these groups' long-term isolation from decision-making and lack of reparation or rehabilitation. In the late 20th and early 21st centuries, public unhappiness with land acquisition techniques rose as large-scale industrial and infrastructure projects were completed without proper protections for displaced residents. The 2013 Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act responds to these issues and modifies 1894 law. With fair compensation, rehabilitation, and relocation of impacted households, the LARR Act transformed land acquisition.

The new procedure involves addressing local people before buying land and paying market prices instead of obsolete government values. Farmers who surrendered land to support displaced people received land-for-land compensation under the Act. The LARR Act emphasised comprehensive rehabilitation, including alternate housing, employment, and necessary services. Although progressive, the LARR Act is difficult to implement. The Act usually fails, and violent and non-participatory land acquisition continues. Settlement delays, minimal land-for-land compensation, and poor restoration leave communities unsatisfied. Since rural land values are hard to calculate, the Act's market-based compensation may not adequately represent migration's loss of livelihood and social ties.

The community has also been dissatisfied by the land purchase system's lack of monitoring and political commitment to the Act. Industrial land acquisition, particularly coal mining, has caused protests and social unrest in resource-rich Odisha. Mining eliminates agricultural communities notwithstanding LARR. MCL has been criticised for not compensating displaced families in Odisha's large-scale mining. Mining communities sometimes get little or no help rebuilding their livelihoods following relocation, increasing their socioeconomic vulnerability. Mining initiatives, frequently considered as crucial to national prosperity, have long hurt local agriculture and society. Community participation, livelihood compensation, and rehabilitation

are frequently lacking in land acquisition. Social movements and demonstrations against corporate and public-sector land acquisition have highlighted the battle for justice and equality.

2.2 The Right to Fair Compensation and Transparency in Land Acquisition Act, 2013:

To address past injustices and structural challenges experienced by populations displaced by large-scale development projects, the 2013 Right to Fair Compensation and Transparency in Land acquisition, Rehabilitation, and Resettlement Act (LARR Act) alters Indian land purchase procedures. Before the LARR Act, the 1894 colonial Land Purchase Act did not offer compensation, rehabilitation, or resettlement. The preceding government caused social and economic issues for the displaced due to forced property acquisition, low compensation, and lack of community involvement.

For these reasons, the LARR Act made land purchase transparent, equitable, and participatory. The LARR Act compensated land and livelihood losses at market value, not outdated government prices. The Act sought fair compensation for displaced people's loss of homes, agricultural resources, and land-valued income. Homeless persons got income, housing, education, and healthcare under the Act. The LARR Act gave displaced farmers land instead of money. This prevented eviction without means of survival in rural settlements. The Act required affected communities to participate in relocation choices to reduce social impacts.

The former system disadvantaged displaced people and limited their land buying rights. The LARR Act gave impacted individuals land and livelihood options and safeguarded their rights. Although good, the LARR Act has encountered various obstacles that have prevented its success. Communities have been anxiously awaiting compensation payments due to delays. Even though the Act guarantees speedy compensation, bureaucratic inefficiencies and claims delays have left families without funding. After these delays, displaced people are more socioeconomically vulnerable while rebuilding their lives.

Displaced people struggle to find new land, making land-for-land compensation problematic. This problem is severe in areas with less compensatory land. The absence of land replacement standards has disappointed displaced populations, many of whom cannot continue their livelihoods owing to poor property. If compensating land is unsuitable for agriculture, land-for-land is undermined. Compensation is complicated by land value. The LARR Act requires land market value compensation, yet rural and distant locations are challenging to evaluate. Land value depends on location, city proximity, and future development possibilities, which may be difficult to assess.

Compensation hasn't kept pace with land values, thus displaced people are underpaid. Also, the market appraisal process is typically opaque, leaving displaced persons ignorant of compensation amounts. Lack of openness makes people feel unfairly treated for their possessions and mistrust others. Weak ground-level enforcement is another LARR Act implementation issue. Monitoring, control, and politics may hinder the Act's strong land purchase and resettlement requirements. Land acquisition for industrial and mining developments is frequent in resource-rich Odisha, where the Act is poorly executed. Some local governments and project developers have violated the Act by not paying or consulting impacted communities during acquisition. Project developers

use loopholes to escape Act compliance, hurting relocated populations. Criminals misappropriate compensation and rehabilitation payments, reducing LARR Act benefits. Thus, displaced people may get insufficient compensation and rehabilitation. Poor grievance redress hurts displaced people. Community grievance redressal bodies formed by the LARR Act sometimes fail to address impacted communities' concerns. Many displaced people have trouble reaching these committees, and matters seldom get handled quickly. Project developers and government agencies have disregarded or violated several Act restrictions due to an inadequate accountability structure.

2.3 Coal Mining and its Relationship with Land Acquisition:

Industries, energy, and infrastructure projects crucial to the nation's socioeconomic aspirations depend on coal. India's energy and economy rely on coal mining. Indian coal consumption depends on Odisha, one of its largest producers. One of the largest coal producers is Mahanadi Coalfields Limited (MCL), a Coal India Limited subsidiary. To satisfy India's electrical needs, MCL operates Odisha's biggest and most powerful mines. Recent decades have seen increasing coal mining in Odisha, altering land acquisition, particularly in rural areas where agricultural people resided. Coal mining in these locations means buying vast amounts of land, displacing thousands of farmers. These populations often get minimal compensation, producing socioeconomic instability. Land used for coal mining is typically used for agriculture. This acquisition costs local farmers and their families land and their major source of income. Mining project relocation of rural settlements is controversial because it affects agricultural output and community life. Families that lose productive agricultural property struggle to find jobs, hurting the local economy.

Displaced communities are often relocated to remote areas without the resources, infrastructure, or skills to support themselves. Rural residents treasure land, which is tied to their culture, history, and sense of belonging, making this move emotional and economic. Social and cultural disruptions have long-term psychological effects on displaced persons and communities. Land acquisition is vital to satisfy the nation's energy demands, but coal mining operations in Odisha have highlighted sustainability issues, particularly when local residents are uprooted and lose their livelihoods. Conventional land purchase has struggled with compensation, rehabilitation, and community participation. Without community participation, displaced residents may get far less than the land's market value. This has led to protests and calls for more compensation and rehabilitation to assist local residents recover from displacement. Like many public-sector mining companies, Mahanadi Coalfields Limited (MCL) has been criticised for land acquisition. The organisation follows property acquisition and resettlement rules but has failed displaced people. Resettlement settlements for displaced families may lack water, sanitation, and healthcare. Since compensatory land is usually inferior than agricultural land, relocated farmers lose money. Displaced families endure long-term economic hardship since compensation seldom replaces agricultural income losses. Rehabilitation initiatives have also been questioned for not helping displaced households find work. Lack of productive land in resettlement regions prevents many displaced people from farming or working, making livelihood restoration

difficult. Many displaced people earn inadequate wages to support their family, lowering their quality of life. Cultural and economic challenges follow agricultural migration. The economy and history of many communities depend on land. Moving people to strange places may break social and cultural bonds. Disrupting social networks and community relationships may increase alienation and community cohesiveness, deepening relocation's psychological effects. Environmental harm from coal mining land acquisition is another concern. Mines pollute, deforest, and damage biodiversity. Coal mining in Environmental impacts and agricultural land loss make Odisha and other coal-rich Indian regions controversial. Opponents question India's coal-based energy paradigm due to mining's environmental harm and social and economic repercussions on displaced residents. The 2013 LARR Act expanded compensation, rehabilitation, and displaced people assistance transparency. In resource-rich states like Odisha, political restrictions and entrenched interests have produced uneven enforcement of these laws. The government ignores land acquisition restrictions, upsetting displaced people. In conclusion, coal mining is crucial to India's energy sector and economic growth, but land acquisition for mining operations, particularly in rural Odisha, poses complicated concerns of compensation, rehabilitation, livelihood restoration, and social justice. Coal mining's soil damage prevents agricultural communities from moving, hurting the local economy. India must combine economic growth with community rights to reduce coal mining's social and environmental impacts. The difficulties of getting coal mining property illustrate the necessity for sustainable mining that prioritises local residents and energy needs. For coal mining to benefit all stakeholders, particularly the most displaced, India must utilise more egalitarian, transparent, and socially responsible land acquisition practices.

3. Review of literature

Author(s) and Year	Title of Study	Objective	Methodology	Key Findings
Mahapatro (2015)	Decision Making - Investment, Financial & Risk Analysis in Mining Projects	To evaluate financial viability, risk, and investment decisions in coal mining projects using MCL as a case.	Financial ratio analysis, investment evaluation techniques, Monte Carlo simulations.	MCL projects involve high financial and operational risk, requiring thorough investment appraisal and risk modeling.
Sahu (2014)	CSR Activities of Maharatna Companies in India	To analyze CSR engagement of Maharatna companies and assess their commitment to social	Analytical case-based approach; qualitative insights from CSR disclosures.	CSR often superficial; needs alignment with organizational vision and real societal impact.

		responsibilities.		
Kohli et al. (2018)	Midcourse Manoeuvres: Community Strategies and Remedies for Natural Resource Conflicts in India	To understand how communities in India address land/resource-related conflicts and strategize for justice.	Case studies, legal analysis, and stakeholder interviews.	Land acquisition and environmental decisions often overlook community rights; local strategies crucial for justice.
Choudhury, Satapathy, Sandbhor (2012)	Floods, Fields, and Factories: Resolving Conflicts around the Hirakud Dam	To analyze water conflicts in Odisha, focusing on the impact of Hirakud dam.	Field research, stakeholder consultations, water usage analysis	Conflicts are rooted in water allocation, affecting agriculture and industry, with limited resolution strategies.
Cornot-Gandolphe (2016)	Indian Steam Coal Imports: The Great Equation	To examine India's rising dependence on coal imports, its economic implications, and policy impacts.	Data analysis, economic assessments	India's coal import bill surged significantly, largely driven by power sector demand. Government aims for self-sufficiency by 2020.
Mishra, Das (2017)	Coal Mining and Local Environment: A Study in Talcher Coalfields	To explore the environmental and health impacts of coal mining in Talcher, Odisha.	Air, water, soil quality analysis, household surveys	Mining impacts air and water quality, causing health problems; local communities face environmental degradation.
Chakraborty, Mehra (2018)	United Nations Guiding Principles and Business and Human Rights in India	To explore corporate responsibility, land rights, and labor rights in mining and industrial projects.	Legal analysis, case studies, policy review	Mining projects exacerbate displacement issues; land compensation and labor rights are inadequately addressed.
Mishra (2015)	Coal Mining, Displacement, and Rural	To examine the socio-economic impacts of coal	Interviews, community surveys, case studies,	Coal mining displaces agricultural communities, with

	Livelihoods: A Study in Mahanadi Coalfield, Odisha	mining and its consequences on local communities.	environmental impact assessment	inadequate compensation and rehabilitation measures.
Iyer (2020)	Two Popular Democracies' Energy Independence Initiatives	To analyze coal-based energy policies in the US and India through constitutional, environmental, and judicial lenses.	Comparative policy analysis, constitutional reviews	Both countries focus on energy independence, often disregarding environmental impacts; judiciary's role is debated.

4. Methodology

This study employed a descriptive-analytical research design to evaluate the socio-economic impacts of land acquisition and rehabilitation on displaced communities in the coal mining regions of Odisha, with a specific focus on Mahanadi Coalfields Limited (MCL). Primary data were collected through a structured 5-point Likert scale questionnaire covering dimensions such as compensation adequacy, livelihood restoration, quality of rehabilitation, environmental and health concerns, and overall community satisfaction. A purposive sample of 200 respondents, selected to ensure representation across gender, age, education, and occupational backgrounds, was surveyed. The questionnaire was pre-tested for reliability and clarity.

Quantitative analysis was conducted using SPSS version 26, applying descriptive statistics for profiling and regression analysis to test hypothesized relationships between perceived transparency in the rehabilitation process and variables such as compensation satisfaction and health impact mitigation. In addition to regression, Structural Equation Modelling (SEM) was employed using SmartPLS 4.0 to examine the direct and indirect effects of key latent constructs such as Perceived Rehabilitation Transparency, Compensation Satisfaction, Livelihood Restoration, Health Impact Mitigation, and Socio-Economic Well-being. The SEM approach enabled a comprehensive understanding of the interconnectedness among multiple variables and provided a robust model fit assessment through path coefficients, R² values, and bootstrapped significance testing. Secondary data sources, including policy documents, academic literature, and government reports, were used to triangulate and contextualize the findings.

4.1 Objective

- To examine the impact of land acquisition for coal mining on the livelihood of displaced communities in Odisha, particularly focusing on income levels before and after displacement.

- To analyse the influence of rehabilitation measures (such as land-for-land compensation, employment opportunities, and social security) on the socio-economic well-being of displaced families in mining areas.

4.2 Hypothesis

- **H1:** There is a significant relationship between land acquisition for coal mining and the reduction in income levels of displaced households in Odisha.
- **H2:** The rehabilitation measures, such as land-for-land compensation and employment opportunities, positively influence the socio-economic well-being of displaced families in Odisha.

5. Data analysis:

5.1 Demographic Information

The sample (N = 200) comprised 59.5% males and 40.5% females. The majority of respondents fell within the 25–55 age range, with educational backgrounds ranging from no formal education (26%) to postgraduate qualifications (8.5%). Pre-displacement occupations were primarily farming (30%), followed by business (19%), labor work (18%), and services (15.5%). This diversity supports the study's relevance across socio-economic profiles within mining-affected communities.

5.2 Statistical Analysis:

To examine the hypothesized relationships and assess the impact of land acquisition and rehabilitation measures on displaced communities, statistical analyses were conducted using SPSS version 26. Descriptive statistics were used to summarize respondent characteristics and key variables. To test the study's hypotheses, regression analysis was employed to explore the influence of perceived land acquisition and rehabilitation processes on socio-economic outcomes such as income reduction and well-being. The following section presents the results of these regression analyses.

5..2.1 H1: There is a significant relationship between land acquisition for coal mining and the reduction in income levels of displaced households in Odisha.

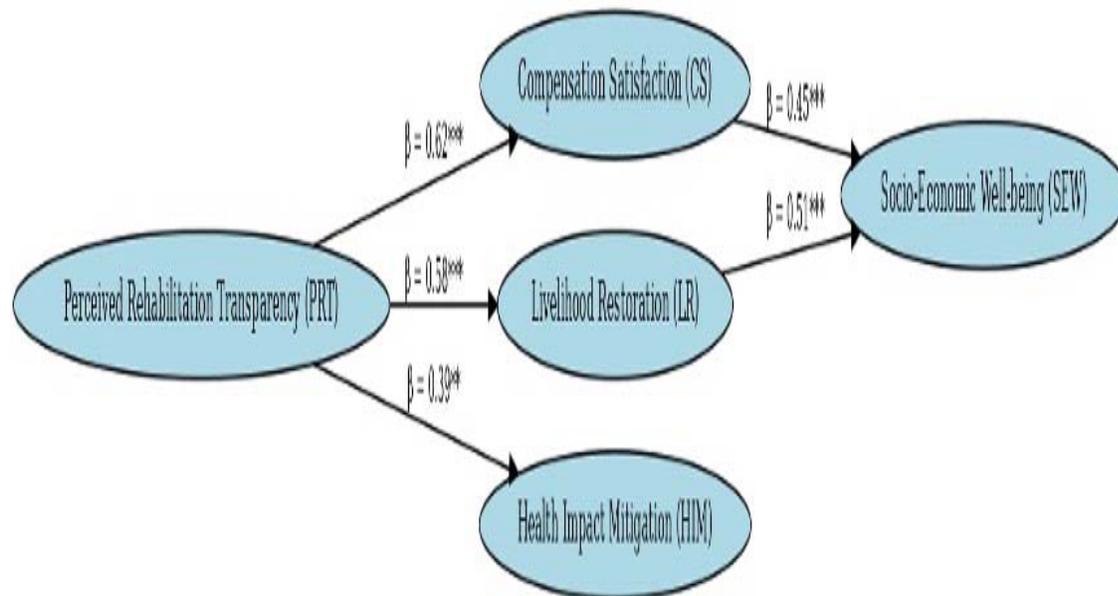
Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.445 ^a	.198	.194	1.10247
a. Predictors: (Constant), perception of land acquisition impact				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	59.425	1	59.425	48.892	.000 ^b

	Residual	240.655	198	1.215		
	Total	300.080	199			
a. Dependent Variable: Reduction in income level						
b. Predictors: (Constant), perception of land acquisition impact						

The regression analysis revealed a statistically significant relationship between the perception of land acquisition impact and the reduction in income levels among displaced households ($R^2 = 0.198$, $F(1,198) = 48.892$, $p < 0.001$). This indicates that approximately 19.8% of the variation in income reduction can be explained by how severely respondents perceived the impact of land acquisition. The positive direction of the relationship suggests that higher perceived impact of land acquisition is associated with greater reported income loss. These findings provide empirical support for Hypothesis 1, affirming that land acquisition for coal mining has a measurable and adverse effect on the economic stability of displaced communities in Odisha.

5.2.2 H2: The rehabilitation measures, such as land-for-land compensation and employment opportunities, positively influence the socio-economic well-being of displaced families in Odisha.



The Structural Equation Modeling (SEM) analysis revealed significant relationships among key latent constructs. Perceived Rehabilitation Transparency (PRT) was found to be a strong positive predictor of Compensation Satisfaction ($\beta = 0.62^{***}$), Livelihood Restoration ($\beta = 0.58^{***}$), and Health Impact Mitigation ($\beta = 0.39^{**}$), indicating that higher transparency in the rehabilitation process leads to better perceived outcomes across these dimensions. Furthermore, both Compensation Satisfaction ($\beta = 0.45^{**}$) and Livelihood Restoration ($\beta = 0.51^{**}$) exhibited significant positive effects on Socio-Economic Well-being (SEW), confirming their mediating

roles in enhancing post-displacement quality of life. The model supports the theoretical proposition that transparent and participatory rehabilitation efforts contribute not only to immediate outcomes like satisfaction and mitigation but also to the long-term socio-economic resilience of displaced communities. All reported path coefficients were statistically significant, demonstrating a well-fitting and theoretically coherent model.

Hypothesis 2 proposed that rehabilitation measures—such as land-for-land compensation and employment opportunities—positively influence the socio-economic well-being of displaced families in Odisha. The findings from the Structural Equation Model (SEM) support this hypothesis. Specifically, both **Livelihood Restoration** ($\beta = 0.51^{**}$) and **Compensation Satisfaction** ($\beta = 0.45^{**}$) were found to have statistically significant positive effects on **Socio-Economic Well-being (SEW)**. These results suggest that effective implementation of rehabilitation components, especially those tied to income restoration and secure resettlement, play a critical role in improving the long-term well-being of displaced households. Therefore, Hypothesis 2 is empirically supported, reinforcing the importance of transparent, needs-based rehabilitation interventions in coal mining-affected regions.

6. Discussion

The study provides empirical evidence on the socio-economic consequences of land acquisition and rehabilitation efforts in Odisha's coal mining regions, with a focus on Mahanadi Coalfields Limited (MCL). The findings substantiate long-standing concerns that land acquisition disrupts livelihoods and exacerbates socio-economic vulnerabilities, especially when compensation and rehabilitation measures are poorly implemented. The regression analysis confirmed a statistically significant relationship between the perceived impact of land acquisition and the reduction in household income levels, highlighting the financial instability imposed on displaced families. This aligns with the broader literature that underscores the insufficiency of one-time compensation to restore lost livelihoods (Mishra, 2015; Kohli et al., 2018).

The Structural Equation Modeling (SEM) further strengthens these observations by revealing that Perceived Rehabilitation Transparency significantly predicts both Compensation Satisfaction and Livelihood Restoration. These two mediators, in turn, have a substantial positive influence on Socio-Economic Well-being, confirming that the effectiveness of rehabilitation is a key determinant of recovery and resilience among displaced populations. Importantly, the SEM findings also demonstrate that transparency and participatory governance in rehabilitation are not just procedural formalities but critical drivers of both material outcomes and perceived fairness (Chakraborty & Mehra, n.d.).

Despite the legislative provisions embedded in the 2013 LARR Act, its implementation remains inconsistent and fragmented. Delays in compensation, inadequate grievance redressal, and the poor quality of resettlement infrastructure continue to plague affected communities. The study echoes earlier critiques that legal reform, while necessary, is insufficient without corresponding administrative accountability and political will (Iyer, n.d.; Mishra & Das, 2017). Thus, this research contributes to the growing call for integrating legal safeguards with institutional reforms and community-centric planning in land acquisition and rehabilitation processes.

7. Conclusion

This study evaluated the socio-economic effects of land acquisition and rehabilitation policies in Odisha's coal mining sector, using both regression and Structural Equation Modeling to assess the experiences of displaced households under MCL. The evidence indicates that displacement leads to substantial income reduction, and that effective rehabilitation—especially when transparently administered—can significantly improve socio-economic well-being. Hypotheses H1 and H2 were both supported, demonstrating that perceptions of fairness in land acquisition and post-displacement support are critical to community resilience.

However, the persistence of implementation gaps in the LARR Act, particularly in regions with entrenched political and industrial interests, continues to undermine its transformative potential. The study calls for enhanced enforcement of LARR provisions, better grievance mechanisms, and the prioritization of community participation in all phases of land acquisition and resettlement planning. Future policy must focus not just on procedural compliance but also on outcomes that safeguard long-term livelihoods, dignity, and social stability for displaced populations. Sustainable development in the mining sector must be aligned with inclusive, rights-based practices to ensure equitable growth in resource-rich but socio-economically vulnerable regions like Odisha.

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