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An analysis of factors affecting the rehabilitation and relocation of forest dwellers in Nagarahole and Kali tiger reserves

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Abstract

Forest-dwelling communities residing within protected areas often undergo rehabilitation and relocation as part of wildlife conservation initiatives. The present study analyzed the factors influencing rehabilitation and relocation decisions among forest dwellers in Nagarahole Tiger Reserve (NTR) and Kali Tiger Reserve (KTR) in Karnataka. Primary data were collected from 120 forest dwellers through personal interviews using a structured and pre-tested interview schedule. Information on socio-economic characteristics, willingness and unwillingness to accept rehabilitation or relocation, post-relocation challenges, and stakeholder suggestions was collected and analyzed using Binomial Logistic Regression and Garrett Ranking techniques. The results revealed that age, education, family size, and access to basic facilities significantly influenced rehabilitation and relocation decisions. Younger and better-educated respondents were more likely to accept rehabilitation and relocation, while access to electricity, educational institutions, and transportation facilities positively affected acceptance. Improved living conditions, educational opportunities, employment prospects, and administrative support emerged as the major reasons for willingness to relocate. Conversely, attachment to ancestral lands, livelihood insecurity, inadequate compensation, higher living costs, and disruption of traditional lifestyles were the primary reasons for reluctance. The study highlighted notable differences between the two reserves. In NTR, land grants, diversified livelihood opportunities, and protection from wildlife were important motivating factors, whereas in KTR, better employment opportunities, attractive compensation packages, and proactive support from officials played a greater role. Post-rehabilitation challenges in NTR included poor housing quality, land measurement discrepancies, lack of employment opportunities, and water scarcity. In KTR, inadequate compensation, rising land prices, increased cost of living, and social disintegration were major concerns. Officials identified inadequate funding, documentation delays, communication barriers, political interference, and inconsistent willingness among forest dwellers as key constraints.

Keywords: Forest dwellers, rehabilitation, relocation, tiger reserves, livelihood security, protected areas, binomial logistic regression, Garrett ranking

1. Introduction

India possesses one of the largest and most diverse forest ecosystems in the world, supporting a rich variety of flora and fauna while providing livelihood opportunities to millions of people. Forest-dwelling communities, particularly Scheduled Tribes and other traditional forest dwellers, have lived in close association with forests for generations and depend on them for food, fuel, fodder, medicinal plants, housing materials, and income. Beyond their economic importance, forests are deeply embedded in the cultural, social, and spiritual lives of these communities, shaping their identity, traditions, and way of life. The

relationship between forest dwellers and forests has therefore been characterized by both ecological dependence and cultural attachment.

Over the past few decades, increasing emphasis on biodiversity conservation has led to the expansion of protected areas such as national parks, wildlife sanctuaries, and tiger reserves. These protected areas play a crucial role in conserving endangered species and maintaining ecological balance. However, the creation and management of such areas have often imposed restrictions on human activities including cultivation, grazing, and collection of forest products. Consequently, many forest-dwelling

communities residing within protected areas have faced displacement, rehabilitation, or relocation in order to create inviolate habitats for wildlife conservation. While these measures are considered important from a conservation perspective, they have generated significant socio-economic challenges for affected communities.

The Government of India has introduced various policies and programmes to address the concerns of displaced forest dwellers. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, recognized the rights of forest-dependent communities over forest resources and established safeguards for relocation from protected areas. Similarly, the National Tiger Conservation Authority (NTCA) developed rehabilitation and relocation packages aimed at providing adequate compensation, housing, land, and livelihood support to affected families. Under the revised rehabilitation package, eligible families are provided financial assistance and other support measures intended to facilitate their transition to new settlements while ensuring livelihood security and social welfare. Despite these provisions, the success of rehabilitation and relocation programmes has varied considerably across regions and communities.

In Karnataka, Nagarhole Tiger Reserve (NTR) and Kali Tiger Reserve (KTR) are among the most important protected areas where rehabilitation and relocation programmes have been implemented. Nagarhole Tiger Reserve has witnessed rehabilitation of several tribal communities, while Kali Tiger Reserve has undertaken relocation programmes under the NTCA package. Although many families have voluntarily accepted these programmes, a substantial number continue to remain within forest areas or express reluctance towards relocation. Decisions regarding rehabilitation and relocation are influenced by multiple factors, including age, education, family size, livelihood opportunities, compensation packages, access to infrastructure, cultural attachment to ancestral lands, and confidence in government institutions.

Human-wildlife conflict has further intensified the need for rehabilitation and relocation in many forest areas. Crop damage, livestock predation, and threats to human life caused by elephants, tigers, leopards, and other wild animals have become increasingly common around protected areas. While relocation is often viewed as a strategy to reduce such conflicts and improve living conditions, its effectiveness depends largely on the adequacy of compensation, availability of infrastructure, livelihood opportunities, and social acceptance among affected communities. Failure to address these issues can result in dissatisfaction, economic hardship, and resistance to rehabilitation programmes.

The rehabilitation and relocation process also presents numerous challenges for implementing agencies. Forest officials often encounter difficulties related to inadequate funding, delays in documentation, political interference, community resistance, and coordination among different departments. At the same time, rehabilitated and relocated households may face problems such as inadequate housing, water scarcity, lack of employment opportunities, rising living costs, social disintegration, and difficulties in adapting to new environments. Understanding these challenges is essential for designing policies that balance conservation goals with the welfare of forest-dependent communities.

Against this backdrop, the present study was undertaken to analyze the factors affecting rehabilitation and relocation decisions among forest dwellers in Nagarhole and Kali Tiger Reserves. The study examines the socio-economic, infrastructural, and institutional factors influencing willingness and unwillingness to accept rehabilitation or relocation. It also documents the major constraints faced by beneficiaries and implementing officials and identifies possible measures for improving rehabilitation outcomes. The findings of the study are expected to contribute to the development of more effective, equitable, and sustainable rehabilitation policies that promote both conservation objectives and the livelihood security of forest-dwelling communities.

2. Methodology

2.1. Data: Primary data were collected through personal interviews using a well-structured and pre-tested interview schedule to ensure the reliability and consistency of responses. The information gathered covered socio-economic characteristics of forest dwellers, including income levels, employment status, and livelihood conditions. Data were also collected on factors influencing the willingness or unwillingness of forest dwellers to accept rehabilitation and relocation, as well as the challenges faced by both rehabilitated and non-rehabilitated households. In addition, information on constraints encountered during the rehabilitation process and stakeholders' suggestions for improving the effectiveness and implementation of rehabilitation programmes was obtained. The study aimed to identify and analyze the key socio-economic, institutional, and infrastructural factors influencing rehabilitation and relocation decisions among forest dwellers in Nagarhole and Kali Tiger Reserves.

2.2. Analytical tools used

Binomial Logistic Regression Model

The binomial logistic regression model was used to predict the probability of a binary outcome based on one or more predictor variables. The model was specified as follows:

$$y_i = \begin{cases} 1, & \text{if the household is rehabilitated / relocated} \\ 0, & \text{if the household is non-rehabilitated / non-relocated} \end{cases}$$

$$\ln \left(\frac{P_i}{1-P_i} \right) = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_i$$

α_0 is the intercept (constant term).

The explanatory variables included in the model are

- (X1) - Age
- (X2)- Education
- (X3)- Family size
- (X4)- Availability Basic facility in forest

$$\log \text{ odds (odds ratios)} = e^{\text{coefficiente}}$$

Which shows how the odds of accepting rehabilitation change with each one-unit increase in that variable (values >1 indicate higher odds; <1 indicate lower odds).

2. Garret ranking technique

Forest dwellers and officers were asked to rank the constraints faced in rehabilitation. Based on these ranks using the formula given below, ranks were converted into percentages. The order of the merit given in ascending order was converted into ranks by using the formula. Accordingly, these ranks were converted into scores by referring to Garret table. Garrett's formula for converting ranks into per cent was given by.

$$\text{Per cent position} = \frac{100 \cdot (R_{ij} - 0.50)}{N_j}$$

Where,

R_{ij} = Rank given for i^{th} item in j^{th} constraint

N_j = Number of items ranked in j^{th} constraint

The per cent position of each position of each rank was converted to scores by referring to tables given by Garret and Woodworth (1969). Then for each factor, the scores of individual respondents were summed up and divided by the total number of respondents for who scores were gathered. The mean scores for all the factors were ranked, following the decision criterion that higher the value the more is the constraint in rehabilitation.

2.3 Definitions of terms and concepts used

- **Tiger reserve:** A tiger reserve is a protected area designated for the conservation of tigers and their natural habitat. These reserves provide a safe environment for tigers to thrive, focusing on their protection from poaching and habitat destruction. They are often part of broader wildlife protection efforts aimed at preserving biodiversity.
- **Protected areas:** A protected area is a designated region where natural resources, flora and fauna are safeguarded from exploitation or destruction. These areas are managed to preserve biodiversity, protect ecosystems and maintain ecological balance. Human activities such as logging or hunting are restricted or controlled to ensure long-term conservation.
- **Buffer area:** A buffer area is a designated zone around a protected area, such as a wildlife sanctuary or reserve, designed to minimize human impact. It acts as a protective barrier, reducing encroachment and protecting the core area from external threats like poaching or deforestation.
- **Core area:** A core area is the central part of a protected region, such as a wildlife reserve, where human activity is strictly limited. It serves as the primary habitat for wildlife, ensuring minimal disturbance to preserve biodiversity and ecological balance.
- **Forest dwellers:** Forest dwellers are communities or groups of people who live in and around forests, often relying on the forest's resources for their livelihood. They typically have a deep cultural connection to the forest and engage in activities like hunting, gathering and traditional farming.
- **Restricted area:** A restricted area is a designated zone where access is limited or controlled due to safety, security, or environmental reasons. Entry is typically

prohibited or allowed only under specific conditions, often to protect sensitive resources or maintain public safety.

- **Rehabilitation:** Rehabilitation refers to the comprehensive support provided to relocated families to help them re-establish their lives at the new location. It includes the provision of land (agricultural and homestead), compensation for assets, housing, basic amenities (like roads, water, electricity, sanitation), and access to livelihood opportunities.

Relocation: Relocation refers to the voluntary shifting of individuals or entire villages from core/critical tiger habitats (the areas reserved strictly for tiger conservation) to safer locations outside these zones. The relocation process is based on the principle of mutual agreement and informed consent of the affected families and the Gram Sabha. It is carried out only after recognizing and settling the forest rights of the people under the Forest Rights Act, 2006. The aim is to create inviolate spaces for tigers while ensuring that the rights, dignity and livelihoods of forest dwellers are protected. To support this, the government provides a compensation package, which has been enhanced to ₹15 lakh per family since 2021.

There are two options in relocation / rehabilitation package

Option I (Relocation): Direct Cash Compensation

Under this option, families relocate independently and receive a lump sum payment of ₹15 lakh in a joint bank account. The amount can be used to purchase land, construct a house, or establish a livelihood at a location of their choice. Families are required to provide proof of land or asset purchase to access the full amount. This option offers greater flexibility and autonomy and is suitable for families capable of managing their own relocation process.

Option I has 2 components

- **Option IA:** In case, the villagers through the Gram Sabha agree for receiving a payment of Rs. 15 lakhs per family (inclusive of the valuation for their assets), then the said amount would be deposited in the name of the beneficiary (a joint account with spouse in case of a married individual).
- **Option IB:** In case, the villagers through the Gram Sabha do not agree for the above (option A) and demand due compensation for their assets then the following may be adopted:

Compensating the beneficiaries in proportion to the assets as per valuation done by the Collector

Distributing the balance amount equally to all eligible families / beneficiaries.

The shortfall, if any, of compensation amount in proportion to the assets will be met by the State Government.

Option II (Rehabilitation): Government-Assisted Relocation Package:

Under this option, the Forest Department manages the entire relocation process for each family. The revised package of ₹15 lakh is split into specific components to ensure comprehensive rehabilitation

Out of the total amount, ₹5.25 lakh (35%) is allocated for

procurement and development of agricultural land (2 hectares per family). ₹4.50 lakh (30%) is reserved for settling forest rights and compensating for existing assets. An amount of ₹3.00 lakh (20%) is provided for homestead land and house construction, while ₹0.75 lakh (5%) is given as a relocation incentive to each family. Finally, ₹2.25 lakh (10%) is earmarked for creating community facilities. This option ensures that families are settled in new, planned villages with proper housing, infrastructure and public services. It also ensures continued government support, including help in accessing welfare schemes, creating sustainable livelihoods and regular monitoring. This package is suitable for families seeking a structured and secure relocation process (Gok report 2025).

3. Results and discussion

3.1 Factors affecting rehabilitation of forest dwellers

Table 3.1 presents the results of the binomial logistic regression analysis conducted to identify the factors influencing rehabilitation and relocation decisions among forest dwellers in Nagarhole Tiger Reserve (NTR) and Kali Tiger Reserve (KTR). The findings revealed that age, education, family size, and access to basic facilities significantly influenced the likelihood of accepting rehabilitation and relocation.

Age had a significant effect in both reserves: Compared to respondents above 50 years, younger respondents, particularly those below 30 years, were more likely to accept rehabilitation and relocation. This suggests that younger individuals were more willing to adapt to new environments and explore alternative livelihood opportunities, while older respondents tended to remain attached to their traditional habitats and livelihoods.

Education positively influenced rehabilitation decisions:

The likelihood of accepting rehabilitation increased with educational attainment in both reserves, with degree-educated respondents showing the highest probability of relocation. Higher education appeared to enhance awareness of the benefits associated with rehabilitation and improved access to government services and employment opportunities.

Family size also played a role, particularly in NTR, where medium and large households were more likely to opt for rehabilitation than smaller families. Larger households may have been motivated by the prospect of improved housing, land allocation, and livelihood support. In KTR, however, the effect of family size was relatively weak.

Table 3.1: Factors affecting rehabilitation and relocation of the forest dwellers

Sl. No.	Explanatory variables	NTR			KTR		
		β	P-Value	Odd ratios	β	P-Value	Odd ratios
1	Age						
a	Above 50 years®	-	-	1.00	-	-	1.00
b	30-50 years	0.095**	0.012	1.10	0.085**	0.009	1.09
c	Below 30 years	1.241**	0.000	3.46	1.327**	0.000	3.77
2	Education						
a	Illiterate®	-	-	1.00	-	-	1.00
b	Primary	0.122**	0.016	1.13	0.263**	0.012	1.30
c	Secondary	0.841**	0.012	2.32	0.507**	0.007	1.66
d	Pre-university	1.486**	0.000	4.42	1.107**	0.000	3.03
e	Degree and above	2.719**	0.000	15.17	2.154**	0.000	8.62
3	Family size						
a	Small®	-	-	1.00	-	-	1.00
b	Medium	0.821**	0.008	2.27	0.214*	0.065	1.24
c	Large	1.245**	0.001	1.47	0.107*	0.078	1.11
4	Availability of basic facilities						
a	Electricity	0.947**	0.000	2.58	0.276*	0.072	1.32
b	School/college	2.150**	0.000	8.58	2.487**	0.000	12.03
c	Transportation	0.982**	0.024	2.67	1.015**	0.000	2.76
d	Market	0.287	0.142	1.33	0.412	0.217	1.51
7	Constant	-1.797**	0.041	0.17	-2.324**	0.043	0.10
8	Pseudo R ²	0.64			0.59		

Note: ® Reference category, ** significant at 5%, * significant at 10%

Access to basic infrastructure emerged as a major determinant of rehabilitation and relocation decisions. Availability of electricity, educational institutions, and transportation facilities significantly increased the likelihood of accepting rehabilitation in both reserves. Among these factors, access to schools and colleges exerted the strongest influence, indicating that educational opportunities for children were a key motivation for relocation. In contrast, market access did not significantly affect rehabilitation decisions.

The negative and significant constant term in both models indicated that the probability of accepting rehabilitation and

relocation was low in the absence of favourable socio-economic and infrastructural conditions. The Pseudo R² values of 0.64 for NTR and 0.59 for KTR suggested a good model fit.

3.2 Reasons for willingness or reluctance to rehabilitation and relocation

Table 3.2 presents the factors influencing the willingness of respondents in Nagarhole Tiger Reserve (NTR) and Kali Tiger Reserve (KTR) to accept rehabilitation and relocation. Among the social and cultural factors, the desire for improved living conditions emerged as the most important

motivation, reported by 78.33 per cent of respondents in NTR and 80.00 per cent in KTR. Better educational opportunities also played a significant role, motivating 58.33 per cent of respondents in NTR and 63.33 per cent in KTR. Access to healthcare facilities influenced 33.33 per cent of respondents in NTR and 40.00 per cent in KTR. Protection from wild animals was reported by 46.67 per cent of respondents in NTR compared to 23.33 per cent in KTR, whereas the influence of relocated peers was much stronger in KTR (60.00%) than in NTR (21.67%). Similarly, social integration prospects motivated 45.00 per cent of respondents in KTR compared to 30.00 per cent in NTR.

Economic motivations showed clear differences between the two reserves. In KTR, better job opportunities were cited by 86.67 per cent of respondents and better package amounts by 46.67 per cent, indicating the importance of employment opportunities and compensation benefits. In NTR, land grants by the government motivated 48.33 per cent of respondents, while diversified income sources influenced 58.33 per cent. Access to financial services played a supportive role in both reserves. The motivation of minimized exposure to natural hazards was reported by 13.33 per cent of respondents in NTR and 30.00 per cent in KTR.

Table 3.2: Reasons revealed by respondents for willingness to rehabilitate/ relocate

Sl. No.	Reasons to rehabilitate/ relocate	No. of respondents in NTR (%)	No. of respondents in KTR (%)
A	Social and cultural reasons		
1	Access to healthcare facility	20 (33.33)	24 (40.00)
2	Better educational opportunities	35 (58.33)	38 (63.33)
3	Protection from animals	28 (46.67)	14 (23.33)
4	Social integration prospects	18 (30.00)	27 (45.00)
5	Influence of relocated peers	13 (21.67)	36 (60.00)
6	Desire for improved living conditions	47 (78.33)	48 (80.00)
B	Economic reasons		
1	Better job opportunities	38 (63.33)	52 (86.67)
2	Better package amount	-	28 (46.67)
3	Land grant by the Govt.	29 (48.33)	-
4	Access to financial services	12 (20.00)	15 (25.00)
5	Minimized exposure to natural hazards	8 (13.33)	18 (30.00)
6	Diversified income sources	35 (58.33)	9 (15.00)
C	Administrative reasons		
1	Good relocation / rehabilitation package	16 (26.67)	31 (51.67)
2	Efficient implementation by forest department	8 (13.33)	43 (71.67)
3	Proactive support from officials	26 (43.33)	53 (88.33)
4	Monitoring and follow-up post-relocation	14 (23.33)	39 (65.00)
5	Legal land titles at resettlement site	19 (31.67)	-

Table 3.3: Reasons revealed by respondents for unwillingness to rehabilitation/ relocate

Sl. No.	Reasons not to rehabilitation relocation	No. of respondents in NTR (%)	No. of respondents in KTR (%)
A	Social and cultural reasons		
1	Attachment to ancestral land and forest	43 (71.67)	37 (61.67)
2	Resistance to urbanization	33 (55.00)	17 (28.33)
3	Disruption of traditional lifestyle	26 (43.33)	12 (20.00)
4	Waiting for children to become adult	13 (21.67)	21 (35.00)
5	Pressure from community leaders	3 (5.00)	4 (6.67)
6	Inability to adapt to new climatic	31 (51.67)	37 (61.66)
B	Economic reasons		
1	Loss of livelihood	36 (60.00)	20 (33.33)
2	Inadequate compensation	43 (71.67)	20 (33.33)
3	Higher cost of living in relocated / rehabilitation areas	34 (56.67)	20 (33.33)
4	Dependency on forest resources	17 (28.33)	20 (33.33)
5	Fear of economic instability	36 (60.00)	20 (33.33)
C	Administrative reasons		
1	Poor quality of housing	16 (26.66)	-
2	Expecting rehabilitation instead of relocation	-	26 (43.33)
3	Delay in RTC of land	18 (30.00)	-
4	Delays in sanctioning funds	6 (10.00)	13 (21.67)
5	Delay in relocation/ rehabilitation after application	8 (13.33)	20 (33.33)
6	Discrepancy in allotted agricultural land size	14 (23.33)	-
7	Lack of proper documents	-	98 (15.00)

Administrative factors were more influential in KTR than in NTR. Proactive support from officials was acknowledged by 88.33 per cent of respondents in KTR compared to 43.33 per cent in NTR. Similarly, efficient implementation by the

Forest Department was reported by 71.67 per cent of respondents in KTR but only 13.33 per cent in NTR. Monitoring and follow-up after relocation influenced 65.00 per cent of respondents in KTR, while the perception of a

good rehabilitation package motivated 51.67 per cent compared to 26.67 per cent in NTR. In contrast, legal land titles at the resettlement site emerged as an important motivating factor in NTR, reported by 31.67 per cent of respondents.

3.3 Problems and suggestions by stakeholders in NTR

Table 3.4 highlights the major challenges faced by rehabilitated respondents in Nagarhole. The most serious issue was small houses with rain leaks (Garret score: 86.40, rank I), indicating dissatisfaction with housing quality and durability. Discrepancies in land measurement (82.46, rank II) created uncertainty regarding land ownership and boundaries. Lack of new employment opportunities (81.33, rank III) remained a major concern, as many families continued to depend on labour work in coffee estates. Other important challenges included water scarcity for drinking and domestic use (77.00, rank IV), health issues after rehabilitation (75.53, rank V), lack of credit access due to unverified land ownership (74.26), insufficient agricultural training (72.26), and the persistence of elephant attacks (71.33).

Table 3.5 presents respondents' suggestions for improving rehabilitation outcomes. The most important recommendation was to build or repair larger houses with terracotta roofs (87.53, rank I), as they were considered more suitable than concrete roofs. Respondents also emphasized the need to resurvey land and issue titles (87.13, rank II) to ensure legal security and facilitate access to credit. Other major suggestions included providing job skills, microfinance and business support (85.26, rank III), developing sustainable water infrastructure (81.46, rank IV),

and ensuring timely agricultural credit (78.33, rank V). Additional recommendations included extensive farming training (76.20), construction of elephant-proof barriers (75.83), and, for some respondents, a preference to return to the forest (73.13).

Table 3.6 summarizes the constraints perceived by officers during the rehabilitation process. The most significant challenge was the inconsistent stance of forest dwellers towards rehabilitation (86.53, rank I), which frequently disrupted planning and implementation. Lack of government funds (84.96, rank II) was another major obstacle. Officers also reported challenges related to insufficient documentation (82.13), political interventions (81.63), distrust of authorities (80.33), and illiteracy among applicants (77.66). Additional constraints included opposition from NGOs and activists (76.23), improved in-forest facilities following FRA 2006 (75.33), inter-departmental coordination issues (74.23), and negative media narratives (71.00).

Table 3.7 presents officers' recommendations for improving rehabilitation programmes. The highest-ranked suggestion was ensuring consistent government funding (88.63, rank I), followed by increasing compensation amounts (87.23, rank II). Officers also recommended showcasing successful rehabilitation models (86.66) to encourage participation, reducing documentation requirements (86.13), managing political interventions effectively (84.56), and providing employment opportunities for rehabilitated forest dwellers (83.33). They further emphasized transparent engagement with NGOs and activists (80.10) and stronger inter-departmental coordination (76.23).

Table 3.4: Problems faced by respondents after rehabilitation in Nagarhole Tiger Reserve (n=60)

Sl. No.	Problems	Garret Score	Rank
1	Small house with rain leaks	86.40	I
2	Discrepancies in land measurement	82.46	II
3	Lack of new employment opportunities	81.33	III
4	Water scarcity for drinking and daily use	77.00	IV
5	Health issues after rehabilitation	75.53	V
6	Lack of credit access due to unverified land ownership	74.26	VI
7	Lack of agriculture training	72.26	VII
8	Persistence of elephant attack	71.33	VIII

Table 3.5: Suggestions by respondents after rehabilitation in Nagarhole Tiger Reserve (n=60)

Sl. No.	Suggestions	Garret Score	Rank
1	Build/Repair larger houses with terracotta roofs.	87.53	I
2	Resurvey land and issue titles	87.13	II
3	Offer job skills, microfinance, and business aid	85.26	III
4	Building sustainable water infrastructure	81.46	IV
5	Provide timely credit for agriculture activities	78.33	V
6	Offer extensive training in farming	76.20	VI
7	Build elephant-proof barriers	75.83	VII
8	Return to the forest	73.13	VIII

Table 3.6: Constraints faced by officers for rehabilitation in Nagarhole Tiger Reserve (n=10)

Sl. No.	Constraints	Garret Score	Rank
1	Inconsistent stance on rehabilitation by forest dwellers	86.53	I
2	Lack of fund from government	84.96	II
3	Insufficient documentation for rehabilitation	82.13	III
4	Political interventions	81.63	IV
5	Distrust on authorities	80.33	V

6	Illiteracy of applicants	77.66	VI
7	NGO and activist incitement against rehabilitation	76.23	VII
8	Improved in-forest facilities (post-FRA 2006)	75.33	VIII
9	Inter-departmental coordination issues	74.23	IX
10	Media sensationalism and negative publicity	71.00	X

Table 3.7: Suggestions by officers for rehabilitation in Nagarhole Tiger Reserve (n=10)

Sl. No.	Suggestions	Garret Score	Rank
1	Consistent government funding	88.63	I
2	Increase compensation amount	87.23	II
3	Showcase a successful relocation model to inspire others	86.66	III
4	Reduce the required documentation	86.13	IV
5	Create frameworks to manage political interventions	84.56	V
6	Provide employment for rehabilitated forest dwellers	83.33	VI
7	Engage in transparent discussions with NGOs and activists	80.10	VII
8	Improve inter-departmental coordination through better communication and shared goals	76.23	VIII

3.4 Problems and suggestions by stakeholders in KTR

Table 3.8 presents the major challenges faced by respondents after relocation in Kali. The most serious concern was the insufficient package amount (Garret score: 87.43, rank I), indicating dissatisfaction with the compensation provided. Increase in land prices (86.33, rank II) made it difficult for families to purchase land for housing and agriculture. Extreme water scarcity (84.13, rank III) and the rising cost of living (82.10, rank IV) further affected household welfare and livelihood security. Respondents also reported social disintegration (81.66, rank V), health issues after relocation (77.66), disruption of traditional celebrations (74.63), and discrimination or communal problems (70.33), highlighting the social and cultural difficulties associated with relocation.

Table 3.9 summarizes respondents' suggestions for improving relocation outcomes. The most preferred recommendation was to provide a rehabilitation package instead of relocation (88.63), as rehabilitation includes housing and agricultural land support. Respondents also suggested increasing the compensation package (87.33) and removing the age limit for considering children as separate families (85.66) to facilitate relocation. Other important recommendations included providing PDP reservations (82.10), identifying land areas for collective relocation (79.33), creating employment opportunities in the Forest Department (77.13), sanctioning the entire compensation amount at once (75.23), and appointing grievance redressal officers (74.66).

Table 3.10 highlights the major constraints faced by officers in implementing relocation programmes. The most important challenge was outreach difficulties (87.66, rank I), caused by language barriers, poor network connectivity, and irregular work schedules of forest dwellers. Other significant constraints included illiteracy among applicants (86.23), delays in documentation work (83.00), inconsistent willingness of forest dwellers to relocate (82.13), and RTC-related issues (80.63). Political issues (78.36), insufficient documentation (77.30), monsoon-related restrictions (76.66), inter-departmental coordination problems (74.00), and negative media publicity (71.63) further affected programme implementation.

Table 3.11 presents officers' recommendations for improving relocation programmes. The highest-ranked suggestion was to increase compensation based on asset ownership (88.66), followed by issuing PDP certificates (87.63) and reducing the age eligibility from 18 to 15 years (86.00). Officers also recommended additional support for widows and disabled persons (84.96), including local representatives in relocation committees (83.33), and introducing hybrid relocation models combining land and monetary benefits (81.03). Further suggestions included facilitating employment through skill development partnerships (78.31), utilizing CSR funds for post-relocation support (76.63), and implementing a three-year monitoring and follow-up mechanism (73.33).

Table 3.8: Problems faced by respondents after relocation in Kali Tiger Reserve (n=60)

Sl. No.	Problems	Garret Score	Rank
1	Insufficient package amount	87.43	I
2	Increase in land prices	86.33	II
3	Extreme water scarcity in relocated area	84.13	III
4	Increased cost of living	82.10	IV
5	Social disintegration	81.66	V
6	Health issues after relocation	77.66	VI
7	Disrupted traditional celebrations	74.63	VII
8	Discrimination and communal problems	70.33	VIII

Table 3.9: Suggestions by respondents after relocation in Kali Tiger Reserve (n=60)

Sl. No.	Suggestions	Garret Score	Rank
1	Instead of relocation give rehabilitation package	88.63	I
2	Increase the package amount	87.33	II
3	Remove age limit to consider children as separate family	85.66	III
4	Give PDP (project displaced persons) reservations in public sector employment	82.10	IV
5	Notify a land area for us to relocate	79.33	V
6	Provide employment opportunities in forest department	77.13	VI
7	Sanction total amount at once instead of instalments	75.23	VII
8	Appoint a grievance redressal officer in the relocated area	74.66	VIII

Table 3.10: Constraints faced by officers for relocation in Kali Tiger Reserve (n=10)

Sl. No.	Constraints	Garret Score	Rank
1	Challenges in Outreach	87.66	I
2	Illiteracy of applicants	86.23	II
3	Delay in documentation work	83.00	III
4	Inconsistent stance on relocation by forest dwellers	82.13	IV
5	RTC issues	80.63	V
6	Local political issues	78.36	VI
7	Insufficient documentation for relocation	77.30	VII
8	Monsoon and seasonal restriction for application scrutiny	76.66	VIII
9	Inter-departmental coordination issues	74.00	IX
10	Media sensationalism and negative publicity	71.63	X

Table 3.11: Suggestions by officers for relocation in Kali Tiger Reserve (n=10)

Sl. No.	Suggestions	Garret Score	Rank
1	Increase compensation based on asset ownership.	88.66	I
2	Issue Project Displaced Person (PDP) certificates.	87.63	II
3	Lower age eligibility from 18 to 15 years.	86.00	III
4	Raise package for disabled and widows	84.96	IV
5	Include locals in the District Level Relocation Committee.	83.33	V
6	Introduce hybrid models, land for parents and monetary benefits for adults.	81.03	VI
7	Facilitate employment through partnerships with skill development and training institutions.	78.31	VII
8	Diverting CSR Funds to Support Post-Relocation Well-being.	76.63	VIII
9	Implement a 3-year monitoring and follow-up mechanism for relocated families.	73.33	IX

Conclusion

The study examined the factors influencing rehabilitation and relocation decisions among forest dwellers in Nagarhole Tiger Reserve (NTR) and Kali Tiger Reserve (KTR). The results revealed that socio-economic and infrastructural factors played a significant role in shaping respondents' willingness to accept rehabilitation and relocation. Younger and better-educated respondents were more likely to opt for rehabilitation or relocation, while access to basic facilities such as electricity, educational institutions, and transportation significantly increased acceptance. In contrast, attachment to ancestral lands, concerns regarding livelihood security, inadequate compensation, and fear of economic instability emerged as major reasons for reluctance.

The findings further indicated notable differences between the two reserves. In NTR, respondents were primarily motivated by land grants, diversified income opportunities, and protection from wildlife, whereas in KTR, better employment prospects, attractive compensation packages, and proactive administrative support were the major drivers of relocation. Administrative support from officials and effective implementation mechanisms were found to be considerably stronger in KTR than in NTR.

Post-rehabilitation challenges in Nagarhole were largely related to poor housing quality, land measurement discrepancies, lack of employment opportunities, water

scarcity, and limited access to credit. In Kali, the major concerns included inadequate compensation, rising land prices, water scarcity, increased cost of living, and social disintegration.

From the perspective of implementing agencies, inconsistent willingness among forest dwellers, inadequate funding, documentation delays, political interference, and communication barriers emerged as major constraints. Both respondents and officials emphasized the need for improved compensation, livelihood support, housing facilities, employment opportunities, transparent implementation, and continuous post-relocation monitoring.

Overall, the study concludes that successful rehabilitation and relocation cannot be achieved through financial compensation alone. Sustainable outcomes require a comprehensive approach that integrates livelihood security, quality infrastructure, social and cultural well-being, effective institutional support, and active participation of forest-dwelling communities in the decision-making process. Strengthening these aspects will not only improve the welfare of displaced households but also contribute to achieving long-term conservation objectives in protected areas.

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