



Land Acquisition For Nilwande Dam And Its Impact On Tribal In Akole Tehsil

¹ Shantaram V. Sonawane, ² Dr. Suresh S. Deshmukh,

¹ Research Scholar, ² Associate professor

¹ Dept. of Economics,

PES, Modern College, Shivajinagar, Pune-411005,

Savitribai Phule Pune University, Pune, India

² Dept. of Economics,

PES, Modern College, Shivajinagar, Pune-411005,

Savitribai Phule Pune University, Pune, India

Abstract: The construction of Nilwande Dam, as part of Upper Pravara Irrigation Project, has significantly impacted socio-economic lives of tribal communities in Akole Tehsil, Ahmednagar District, in Maharashtra. This study explores effects of land acquisition for dam on these vulnerable populations, focusing on livelihood disruptions, compensation adequacies, and long-term developmental prospects. Through a mixed-method approach involving primary data from 400 households and secondary research, the paper critically examines the tribal communities' displacement and resettlement outcomes. Furthermore, the research highlights the state's promises and the extent of their fulfilment concerning resettlement. Findings advocate for more inclusive and sustainable policies for rehabilitating tribal communities affected by land acquisition projects like Nilwande Dam.

Keywords: Irrigation, socio-economic, tribal communities, land acquisition, livelihood, displacement and resettlement, sustainable policies, rehabilitation.

I. INTRODUCTION

Construction of large infrastructure projects like dams often comes with significant socio-economic and environmental costs, particularly for vulnerable communities. In India, tribes are among the most affected by such projects, given their historical connection to land and their dependence on natural resources for livelihood. The Nilwande Dam, located in Akole Tehsil of Ahmednagar district, Maharashtra, is one such project where land acquisition has disproportionately impacted the tribal communities residing in the region. The Nilwande Dam project, which began in the late 20th century as part of the Upper Pravara irrigation scheme, aimed to address water scarcity and improve agricultural productivity in downstream areas. However, its benefits came at a heavy cost to the tribal communities located in Akole. The acquisition of tribal lands for dam construction displaced hundreds of families, disrupting their traditional means of livelihood, cultural ties, and social structures. This research paper aims to critically examine the impact of land acquisition for the Nilwande Dam on the tribal communities of Akole Tehsil. By analysing both primary data collected from affected households and secondary sources, this study seeks to explore the socio-economic challenges faced by these communities, the adequacy of compensation and rehabilitation measures, and broader implications for their long-term development. Without adequate compensation or alternative means of income, many tribal families face poverty and food insecurity. Das, M. (2014). Compensation provided during land acquisition is often inadequate and does not reflect the true value of the land or the livelihoods it supports. This disparity can exacerbate existing inequalities and lead to long-term socioeconomic

challenges for tribal communities. Gupta, A. (2018). The Nilwande Dam case serves as a microcosm of the broader issues related to land acquisition and displacement in India, highlighting the tension between development needs and the rights of marginalized communities. Land acquisition often leads to the displacement of tribal communities, resulting in a loss of cultural identity and social cohesion. The process of land acquisition can lead to social disintegration within tribal communities, as traditional governance structures and communal ties are undermined. Kumar, R. (2019). Displacement disrupts their traditional ways of life, which are deeply intertwined with their ancestral lands. Bhattacharya, S. (2016). This study will contribute to the discourse on land acquisition, resettlement, and tribal rights, with a focus on importance of inclusive development and sustainable rehabilitation policies for affected communities. Land acquisition for industrial or developmental projects can lead to environmental degradation, affecting the ecosystems on which tribal communities depend. This degradation can disrupt their access to natural resources, further threatening their livelihoods and health. Sharma, R. (2015).

Land acquisition in India, especially in tribal areas, has been a contentious issue. The Scheduled Tribes, as one of the most marginalized groups, are often disproportionately affected by such projects. Bhatia and Wahi (2018) emphasize the legal and political dimensions of land rights in Scheduled Areas, pointing out that land acquisition often results in the erosion of the economic base of tribal communities. A study by Fernandes (2008) noted that tribal communities displaced by large projects face not only economic displacement but also cultural disintegration. Despite policies designed to safeguard the rights of displaced communities, several studies point out their inefficacy. The Ministry of Tribal Affairs (2020) noted that rehabilitation and compensation packages often fail to account for the long-term socio-economic impacts of displacement, especially among the tribal. The Nilwande Dam is not an isolated case. Similar projects across India, such as the Narmada Valley Development Project, have highlighted the long-standing issues related to the displacement of tribal communities. Baviskar (1995) discusses the Narmada project and its consequences on displaced tribal groups, shedding light on the inadequacies of resettlement and rehabilitation. These case studies provide valuable comparative insights for understanding the unique circumstances of the Nilwande Dam and its impact on Akole's tribal communities. The issue of land ownership is central to understanding the socio-economic conditions of tribal communities affected by land acquisition. Wahi and Bhatia (2018) argue that the secondary land ownership status of many tribal households creates vulnerabilities when compensation is calculated and land rights are enforced. Tribal communities often face legal and political challenges in contesting land acquisition. Their voices may be marginalized in decision-making processes, leading to a lack of representation and inadequate consideration of their rights and needs. Singh, P. (2017).

About Nilwande dam (Upper Pravara)

The Nilwande Dam project on the Pravara River has undergone significant modifications since its initial administrative approval in 1970. The project has experienced multiple revisions and substantial increases in budget allocations over the years. The dam will feature a stone and reinforced construction, measuring 533 meters in length and reaching a height of 74.40 meters, with a projected water storage capacity of 236.00 MCM (8.32 TMC) and two power generators expected to yield 11.60 MW.

Objectives

1. To analyse the socioeconomic changes experienced by the tribal communities in Akole tehsil following the land acquisition for the Nilwande Dam, focusing on aspects such as livelihood, income levels, and access to resources.
2. To investigate the effectiveness of policies and governance frameworks in addressing the needs and rights of tribal populations affected by the Nilwande dam project, including compensation mechanisms and rehabilitation measures.

Methodology

In this study, the data were collected by a mixed-methods approach. Primary survey data were gathered from 400 households within the tribal communities affected by the Nilwande Dam Project, focusing on their socio-economic status, health, education, and land ownership.

The study used mixed methods. Firstly, it reviewed various research articles, government reports, and census of 2011. Secondly, the primary field survey for the sample data was done. It used a simple random sampling method for the field survey. In-depth interviews were also undertaken. The findings of the primary data collection were analysed with the help of descriptive statistics.

Displacement and resettlement of tribals due to major project

The data presented in table I, provides an overview of the displacement and resettlement of tribal populations in India across various types of development projects. Dams emerge as the leading cause of displacement, with 63.2 lakh tribal people affected. However, only a fraction 15.8 lakh have been resettled, indicating significant gaps in rehabilitation efforts. Mining projects follow, displacing 13.3 lakh tribals, but resettling only 3.3 lakh. Industrial projects also contribute to the displacement, affecting 3.1 lakh tribals and resettling 0.8 lakh. Wildlife conservation initiatives, while aimed at preserving biodiversity, have displaced 4.5 lakh tribals, with 1 lakh receiving resettlement. Other projects collectively displaced 1.3 lakh tribals, with 0.3 lakh resettled. In total, 85.4 lakh tribals have been displaced across these projects, while resettlement has reached only 21.2 lakh, illustrating a substantial shortfall in the support provided to displaced tribal communities and raising concerns about the socio-economic impact on these populations.

Table I Displacement and resettlement of tribals due to major project

Sr. No.	Type of Project	Tribal Displaced (Number in Lakh)	Tribal Resettled (Number in Lakh)	Gap (Number in Lakh)
1	Dams	63.2	15.8	47.4
2	Mines	13.3	3.3	10
3	Industries	3.1	0.8	2.3
4	Wild-Life	4.5	1	3.5
5	Others	1.3	0.3	1
6	Total	85.4	21.2	64.2

Source: Government of India (Ministry of tribal affairs) Lok Sabha unstarred question no. 3076 to be answered on 31.12.2018 tribal people displaced since independence

Current status of land acquisition and rehabilitation of Nilwande Dam

A total area of 2823.46 has to be acquired for the project. In this, the private area is 1963.19. The government area is 473.54 and the forest area is 386.73. This area's acquisition cost is done under the sub-title of B-land. The required government land is fully developed 10.00 hectares out of the private sector and 3.27 hectares from forest is in the status of acquisition process progress. The remaining private sector is proposed to be acquired through outright purchase.

Dams, submerged areas, distribution canals, etc. in the project. The total area to be acquired for land acquisition is as follows Project wise and component-wise land acquisition information is as follows:

Table II Current status of land acquisition and rehabilitation

Project Components	Type of Area	Sanctioned by fourth revised administrative approval (hect)	Sanctioned by fifth revised administrative approval (hect)	Acquired area (hect)	Remaining Area (hect)	Remaining Land acquisition status
Dam and submer	Private	677.41	677.41	677.41	0	In progress

ged area	Govern ment	444.01	444.01	44.4.01	0
	Forest land	247.85	247.85	24.7.85	0
Canals and Distrib ution	Private	2476.51	1285.78	12.75.8	10.00
	Govern ment	106.91	29.53	29.53	0
	Forest land	132.98	138.88	13.5.61	3.27
Total (Includ ing Both)	Private	3153.92	1963.19	19.53.19	10.00
	Govern ment	550.92	473.54	47.3.54	0
	Forest land	380.83	386.73	38.3.46	3.27
	Total	4085.67	2823.46	28.10.19	13.27

Source: Secondary data received from Godavari Marathwada Irrigation Development Corporation, Upper Pravara Dam Department, Sangamner.

Table III Amenities provided in the displaced villages

Tap water supply scheme	Place for cattle
Primary school and playground	Bus Stand Shed
Gram Panchayat Chavadi / Samaj Mandir	Place for Commotion
Internally paved roads	A place for cows if available
Roads leading to the farm	Developed Place for Market
Electricity supply	Place of expansion of the village
Public toilets	A place for Primary Health Centre, Secondary School. Post office etc.
Open drains	Place Registered Institutions in Old Townships
Cemetery	A place for a garden

Source: Secondary data received from Godavari Marathwada Irrigation Development Corporation, Upper Pravara Dam Department, Sangamner.

Social and demographic characteristics of tribal communities

The tribal communities in Akole Tehsil exhibit unique social and demographic characteristics that set them apart from the broader population. These communities are primarily composed of marginalized groups that rely heavily on agriculture, small-scale farming, and forest-based livelihoods. The average

household size is larger than the regional norm, with a significant proportion of the population living in joint families. Literacy rates remain relatively low, particularly among women, which has implications for access to formal employment and overall social mobility. Traditional customs and cultural practices still play a vital role in their daily lives, shaping community interactions, social structures, and even decision-making processes. Health and education services are limited, further exacerbating the challenges faced by these communities. Moreover, the demographic composition is characterized by a youthful population, with a large percentage falling within the working-age group, though many are engaged in informal or subsistence-based activities. These social and demographic factors, coupled with the impacts of land acquisition and displacement, have deepened the vulnerability of tribal households in the region.

Distribution of sample by age group and gender

Table no. V elaborates on the age group and gender in the Akole tehsil. The age distribution among the tribal communities in Akole Tehsil reflects a relatively young population. A significant portion of the population falls within the 15-29 age group, representing 31.8 per cent of the total, with a nearly equal distribution between males (31.8 per cent) and females (31.9 per cent). The next largest group is the 30-44 age range, accounting for 27.0 per cent of the population, with females slightly outnumbering males (28.6 per cent vs. 25.8 per cent). The 45-59 age group constitutes 21.4 per cent, showing a consistent balance between males (21.6 per cent) and females (21.1 per cent). Lastly, the 60+ group comprises the smallest segment, making up only 8.5 per cent of the population, with 9.1 per cent males and 7.7 per cent females. This demographic structure indicates that a majority of the tribal population is of working age, which has implications for employment, income generation, and social services in the region.

Table IV Distribution of sample by age group and gender (%)

Age Group	Male	Female	Total
15-29	31.8	31.9	31.8
30-44	25.8	28.6	27.0
45-59	21.6	21.1	21.4
60+	9.1	7.7	8.5

Source: The author computed after the field survey, January to May 2023

Population Distribution of sample by family size and level of education in Akole Tehsil

Population distribution by family size and level of education is a crucial facet of demographic analysis that offers valuable insights into the educational and household composition of this specific region. Understanding how the population is distributed in terms of family size and educational attainment is fundamental for various aspects of socioeconomic planning and policy development. Analysing the population distribution by family size and level of education is essential for understanding the educational landscape and the socioeconomic dynamics of the region. This information is a foundation for informed decision-making, educational planning, and the development of policies that can uplift the educational and economic prospects of the people living in this part of Maharashtra.

Table V Population Distribution of sample by family size and level of education in Akole Tehsil

	1 t o 2	1 t o 4	1 t o 8	1 t o 15	T o t a l	1 t o 2	1 t o 4	1 t o 8	1 t o 15	T o t a l
Illite rate	2 . 2	1 . 1	3 . 5	3 . 2	1 0 0	7 0 0	2 . 6	3 0 2	2 . 1	2 . 8
Prim ary	0 . 8	2 . 7	5 . 8	1 . 7	1 0 0	2 5 0	3 . 2	2 4 5	3 . 2	2 . 0
Seco ndar y	0 . 0	2 . 3	5 . 9	1 . 8	1 0 0	0 . 0	2 . 4	2 5 1	2 . 2	2 . 7
High er	0 . 0	1 . 9	6 . 4	1 . 8	1 0 0	0 . 0	1 . 7	1 6 6	1 . 5	1 . 3
Tech nical Educ ation	1 . 5	1 . 9	7 . 1	1 . 4	1 0 0	5 . 0	2 . 1	3 7 7	1 . 9	3 . 0
Total	0 . 9	2 . 1	6 . 5	1 . 5	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0	1 0 0

Source: The author computed from the field survey, January to May 2023

Status of land size and source of livelihood of tribal in Akole tehsil

Understanding the connection between land ownership and livelihood sources is crucial for crafting policies and initiatives aimed at improving the socio-economic conditions of tribal populations. An in-depth examination of the status of land size and the source of livelihood among tribal communities is essential for understanding their unique economic challenges and opportunities.

The provided in table no. VI-A illustrates the percentage distribution of land size categories (Marginal, Small, Semi-medium, Medium) based on different types of occupations (Agriculture, Agriculture and Service, Agriculture and Labourer). In the Marginal category, 10.6 per cent of the land is allocated for Agriculture, while 100.0 per cent is utilized for Agriculture and Labourer activities. Small-sized land holdings predominantly involve Agriculture and Service (66.7 per cent), with varying contributions from Agriculture and Agriculture and Labourers. Semi-medium land holdings allocate 23.2 per cent to Agriculture and 33.3 per cent to Agriculture and Services; while Medium-sized land holdings primarily engage in Agriculture (7.3 per cent). The overall distribution sums up to 100 per cent in each occupation category, reflecting the comprehensive composition of land use based on size and occupation.

The data provided in Table No. VI-B illustrates the distribution of land sizes among various employment categories in a given region. Across different land size categories such as Marginal, Small, Semi-medium, and Medium, the majority of the land is predominantly engaged in agriculture, with percentages ranging from 97.7 per cent to 100 per cent. Notably, the medium land size category exclusively involves agricultural activities. Additionally, marginal lands show a minor allocation (2.3 per cent) to agriculture and labor, while small lands exhibit a small percentage (0.9 per cent) dedicated to both agriculture and service. The overall distribution, represented in the "Total" row, emphasizes the agricultural focus, accounting for 99.0 per cent of the total land, with smaller contributions from agriculture and service (0.8 per cent) and agriculture and labor (0.3 per cent).

Table VI Status of land size and source of livelihood of tribal in Akole tehsil**A-Column percentage**

Land Size	Agriculture	Agriculture and service	Agriculture and labourer	Total
Marginal (< 1 Ha)	10.6	0.0	100.0	10.8
Small (1-2 Ha)	58.8	66.7	0.0	58.8
Semi-medium (2-4 Ha)	23.2	33.3	0.0	23.3
Medium (4-10 Ha)	7.3	0.0	0.0	7.3
Total	100	100	100	100

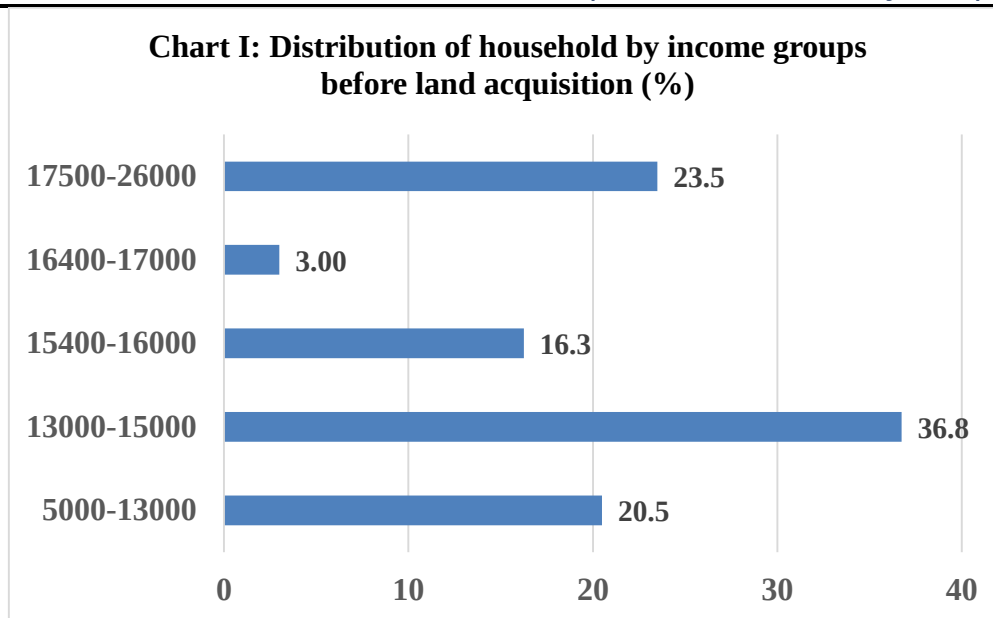
B-Row percentage

Land Size	Agriculture	Agriculture and service	Agriculture and labourer	Total
Marginal (< 1 Ha)	97.7	0.0	2.3	100
Small (1-2 Ha)	99.1	0.9	0.0	100
Semi-medium (2-4 Ha)	98.9	1.1	0.0	100
Medium (4-10 Ha)	100.0	0.0	0.0	100
Total	99.0	0.8	0.3	100

Source: The author computed after the field survey, January to May 2023

Distribution of household by income groups before land acquisition

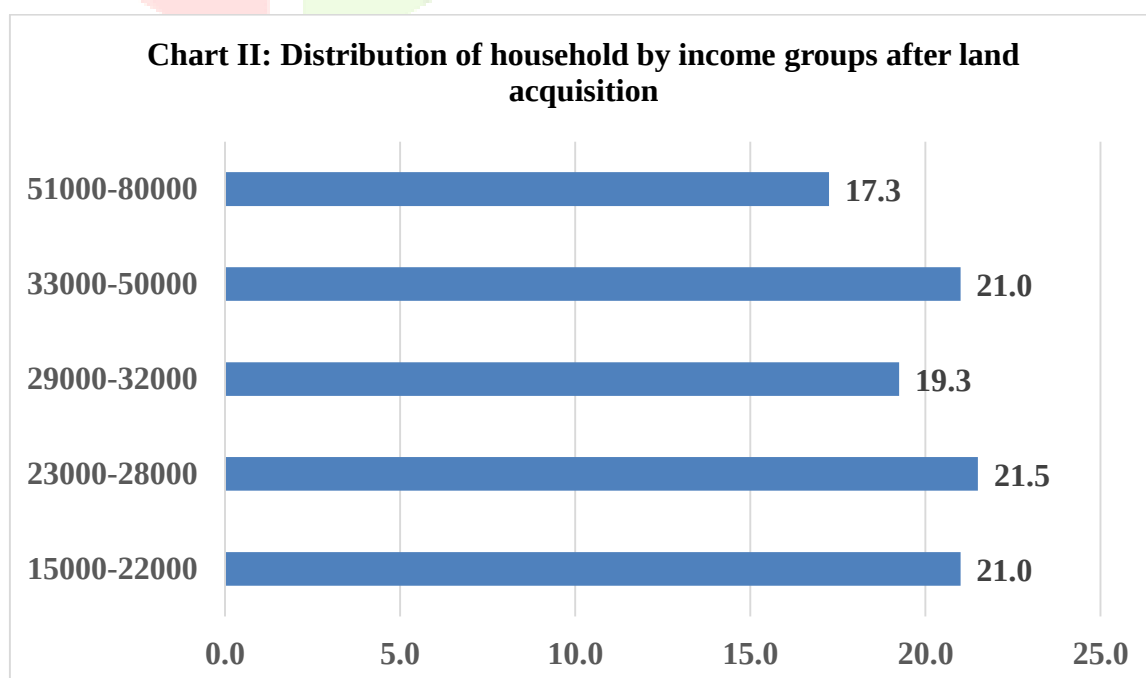
The chart I outline the distribution of income across different quintiles, shedding light on the economic stratification within the population. Each quintile represents a specific income range and its corresponding percentage of the population. The first quintile (Q1), which includes incomes from 5000 to 13000, accounts for 20.5 per cent of the population, indicating that about one-fifth of the population falls into this lower income bracket. The second quintile (Q2) covers incomes between 13000 and 15000 and represents the largest segment, with 36.8 per cent of the population. This suggests that over one-third of the population earns within this range, highlighting its prevalence. The third quintile (Q3), with incomes from 15400 to 16000, comprises 16.3 per cent of the population. Although smaller than the second quintile, it still represents a significant portion of the population. The fourth quintile (Q4), which includes incomes between 16400 and 17000, makes up only 3.0 per cent of the population, indicating a relatively small group within this slightly higher mid-range bracket. Finally, the fifth quintile (Q5) covers the highest income group, ranging from 17500 to 26000, and includes 23.5 per cent of the population. This significant portion indicates that nearly a quarter of the population falls within the upper-income bracket.



Source: The author computed after the field survey, January to May 2023

Distribution of household by income groups after land acquisition

The chart no. II provides a detailed breakdown of income distribution across quintiles, offering insights into the economic structure of the population. Each quintile represents a specific income range and its corresponding percentage of the total population. Starting with the lowest income quintile (Q1), which spans from 15000 to 22000, it comprises 21.0 per cent of the population. This quintile captures individuals earning within a mid-range income bracket, reflecting a significant portion of the population at this income level. Moving to Q2, which includes incomes from 23000 to 28000, it represents 21.5 per cent of the population, slightly higher than Q1 and indicating a broader segment of individuals earning in this mid-range to upper mid-range bracket. The third quintile (Q3) covers incomes ranging from 29000 to 32000, accounting for 19.3 per cent of the population. This quintile reflects individuals earning in the upper mid-range income levels. Q4 extends from 33000 to 50000 and represents 21.0 per cent of the population, encompassing individuals with relatively higher incomes compared to the previous quintiles. Lastly, Q5 represents the highest income group, with incomes ranging from 51000 to 80000 and comprising 17.3 per cent of the population. This quintile captures individuals with the highest income levels within the population, highlighting a smaller but still significant portion of high-income earners.



Source: The author computed after the field survey, January to May 2023

Distribution of households by income group across the level of income before land acquisition & after land acquisition

The provided data table VII shows the percentage distribution of households by income groups across various education levels, both before land acquisition (BLA) and after land acquisition (ALA) among tribal communities in Akole Tehsil. The income groups range from ₹5000-13000 to ₹17500-26000 before land acquisition and from ₹15000-22000 to ₹51000-80000 after land acquisition. The educational levels are categorized as not literate, primary education, secondary education, higher secondary education, and technical education.

Before land acquisition, a significant proportion of households in the lowest income group (₹5000-13000) were not literate (41.5 per cent), with only 1.2 per cent having technical education. As income levels increased to ₹13000-17000, the percentage of literate individuals improved slightly, but a significant number of households remained without any formal education. In the higher income groups, such as ₹17500-26000, while 58.5 per cent of households were still not literate, there was a small rise in the number of people with primary (24.5 per cent) and secondary education (13.8 per cent), although access to higher secondary or technical education remained extremely limited.

After land acquisition, there was a shift in income groups, with new households entering the higher income brackets, such as ₹51000-80000. However, even in these higher income groups, educational attainment remained low. For instance, in the ₹51000-80000 group, 60.9 per cent of households were still not literate, and only 7.2 per cent had reached secondary education. Although a slight improvement in education can be observed, such as in the ₹29000-32000 group where 6.5 per cent of households had higher secondary education, access to technical education remained almost non-existent across all income levels. The overall not literate population across all income groups remained at 46 per cent, both before and after land acquisition, suggesting that any educational progress was minimal and unevenly distributed.

We can argue that based on this data is that land acquisition, while beneficial in terms of raising household incomes for some tribal communities, does not lead to significant improvements in education, which is a critical driver of long-term socio-economic mobility. Without addressing educational inequalities and providing opportunities for skill development, the benefits of land acquisition will remain limited to short-term economic relief, leaving tribal communities vulnerable to future socio-economic challenges. Therefore, a holistic approach to land acquisition that includes financial compensation as well as investments in education, infrastructure, and skills training is essential to ensure that the displaced tribal communities can fully participate in and benefit from future development opportunities.

Table VII Distribution of households by income group across the level of income before land (BLA) acquisition & after land acquisition (ALA)

Inco me Grou p BLA	Not litera te	Prima ry	Seconda ry	Higher Seconda ry	Technic al	Total
5000-13000	41.5	29.3	23.2	4.9	1.2	100
13000-15000	40.1	39.5	16.3	4.1	0.0	100
15400-16000	43.1	36.9	15.4	4.6	0.0	100

16400 - 17000	66.7	33.3	0.0	0.0	0.0	100
17500 - 26000	58.5	24.5	13.8	3.2	0.0	100
Total	46.0	33.3	16.5	4.0	0.3	100
Inco me Grou p ALA						
15000 - 22000	46.4	31.0	17.9	3.6	1.2	100
23000 - 28000	38.4	36.0	22.1	3.5	0.0	100
29000 - 32000	42.9	28.6	22.1	6.5	0.0	100
33000 - 50000	44.0	39.3	11.9	4.8	0.0	100
51000 - 80000	60.9	30.4	7.2	1.4	0.0	100
Total	46.0	33.3	16.5	4.0	0.3	100

#BLA – Before Land Acquisition, #ALA- After Land Acquisition

Source: The author computed from the field survey, January to May 2023

Average Expenditure of Households Before and after Land Acquisition

In the context of average expenditure of households before and after the land acquisition for the Nilwande dam, it's essential to understand the broader economic context of the affected tribal communities in Akole. Prior to the acquisition, households relied heavily on traditional livelihoods such as agriculture, fishing, and labor, which shaped their expenditure patterns. This reliance resulted in a relatively stable income that allowed for consistent spending on essential categories like food, healthcare, and education. However, the land acquisition disrupted these livelihoods, leading to significant changes in household income and, consequently, expenditure. Many families faced immediate financial strain due to the loss of land, which diminished their agricultural output and food security.

In the table VIII household expenditure before and after the land acquisition for the Nilwande dam presents a detailed overview of how financial priorities shifted among tribal communities in Akole.

Before the land acquisition, education accounted for 14.5 per cent of total household expenditure. This reflects a strong investment in education, indicative of families valuing educational opportunities for their children. After the land acquisition, expenditure on education slightly increased to 14.9 per cent, suggesting that, despite economic challenges, families continued to prioritize educational expenses, possibly viewing it as a crucial investment for future stability.

In contrast, grocery spending decreased from 16.2 per cent to 14.7 per cent. This decline may indicate difficulties in maintaining food security following the loss of agricultural land, highlighting how displacement affected access to essential resources.

Interestingly, expenditure on fuel rose significantly from 7.3 per cent to 15.1 per cent. This increase could reflect a shift towards greater reliance on alternative energy sources or transportation costs as families adapted to new living conditions, possibly necessitating longer travel distances for work or access to services. Health expenditure, on the other hand, saw a notable decline from 15.5 per cent to 12.5 per cent. This drop raises concerns about access to healthcare, suggesting that financial strain may have led families to prioritize other needs over health-related expenses.

Expenditure on clothing and festivals remained relatively stable, with clothing decreasing slightly from 15.5 per cent to 14.5 per cent and festival spending dropping from 15.4 per cent to 14.1 per cent. This stability indicates that, despite economic pressures, families continued to engage in cultural practices and maintain some level of spending on clothing.

The "Other" category also experienced a decrease from 15.6 per cent to 14.2 per cent, which suggests a reduction in discretionary spending and highlights the impact of land acquisition on the overall financial flexibility of households.

Table VIII Average Expenditure of Households Before and after Land Acquisition

Sr. No	Title	Before land acquisition (Previous)	After land acquisition (Current)	Gap
1	Education	14.5	14.9	0.4
2	Grocery	16.2	14.7	-1.5
3	Fuel	7.3	15.1	7.8
4	Health	15.5	12.5	-3
5	Clothes	15.5	14.5	-1
6	Festival	15.4	14.1	-1.3
7	Other	15.6	14.2	-1.4
8	Total Expenditure	100.0	100.0	

Source: The author computed from the field survey, January to May 2023

Percentage distribution of households by employment

The data table IX illustrates the changes in the main occupation categories among the tribal communities affected by land acquisition (LA). It reveals a significant transformation in their employment landscape, highlighting critical socio-economic challenges.

Before land acquisition, the majority of individuals (58.33 per cent) were engaged in agriculture, reflecting the traditional agrarian lifestyle of tribal communities. However, post-LA, this percentage dropped to 43.25 per cent, indicating a gap of 15.08 per cent. This decline suggests that the displacement and loss of agricultural land due to acquisition have disrupted their primary source of livelihood, forcing many to seek alternative occupations.

The percentage of unemployed individuals rose dramatically from 12 per cent before LA to 30 per cent after LA, a staggering increase of 18 per cent. This sharp rise in unemployment underscores the lack of adequate resettlement and rehabilitation efforts, as well as the limited employment opportunities available to the displaced population.

Table IX Percentage distribution of households by employment before and after land acquisition

Sr. No	Main Occupation Category	Percentage before LA	Percentage after LA	Gap (%)
1	Unemployed	12	30	18
2	Agriculture	58.33	43.25	-15.08
3	Business	00	2	2
4	Labor	29.67	24.25	-5.42
5	High-Income Professionals	00	0.5	0.5
6	Total	100	100	

Source: The author computed from the field survey, January to May 2023

Conclusion

This research reveals the deep socio-economic challenges faced by tribal communities displaced by the Nilwande Dam. The displacement has led to significant disruptions in their traditional livelihoods, cultural practices, and social networks. Although compensation and rehabilitation measures were implemented, they were inadequate in addressing the long-term needs of the affected families. The promises made by the government regarding livelihood restoration were only partially fulfilled, with

several gaps in ensuring sustainable development. Policymakers need to re-evaluate land acquisition practices, emphasizing transparent land rights and comprehensive compensation and rehabilitation plans to safeguard the interests of marginalized communities.

References

1. Fernandes, W. (2008). *Development-induced displacement: The context of involuntary resettlement in India*. Social Action, 58(1), 29-46.
2. Ministry of Tribal Affairs, Government of India. (2020). *Annual Report 2020-21*.
3. Wahi, N., & Bhatia, A. (2018). *The legal regime and political economy of land rights of Scheduled Tribes in the Scheduled Areas of India*. Centre for Policy Research, New Delhi.
4. Baviskar, A. (1995). *In the belly of the river: Tribal conflicts over development in the Narmada Valley*. Oxford University Press.
5. Secondary data was received from Godavari Marathwada Irrigation Development Corporation, Upper Pravara Dam Department, Sangamner.
6. Bhattacharya, S. (2016). "Land Acquisition and Tribal Communities: A Study of the Impact on Livelihoods and Identity." *Journal of Adivasi Studies*, 6(1), 45-60.
7. Das, M. (2014). "Economic Impact of Land Acquisition on Indigenous Communities in India." *Economic and Political Weekly*, 49(31), 87-94.
8. Gupta, A. (2018). "Compensation and Land Acquisition: A Critical Analysis of Policy and Practice." *Land Use Policy*, 73, 108-117.
9. Singh, P. (2017). "The Politics of Land Acquisition: Marginalization of Tribal Voices." *Social Change*, 47(4), 543-560.
10. Sharma, R. (2015). "Environmental Justice and Tribal Rights: The Case of Land Acquisition in India." *Journal of Environmental Management*, 159, 68-75.
11. Kumar, R. (2019). "Land Acquisition and Social Disintegration: A Study of Tribal Communities in Jharkhand." *Tribal Studies Journal*, 18(2), 135-150.

