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A study of the socio-economic profile of agricultural labourers in Odisha

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Abstract

Agriculture continues to be the backbone of India's economy, providing livelihoods to a substantial portion of the rural population. Among those engaged in this sector, agricultural labourers represent one of the most vulnerable groups due to their dependence on daily wages, irregular employment, and limited access to social security benefits. The present study was conducted in Keonjhar and Kendrapara districts of Odisha. This research work was conducted with specific objectives that included the socio-economic profile of agricultural labourers in the study area and assessing the livelihood assets of the respondents. The study found that the majority of respondents in the study area are middle-aged, mostly men involved in all farming activities, educated up to primary school, with a medium family size and medium land holdings. The majority of respondents had a medium level of livelihood assets, indicating a medium level of livelihood security. The study concludes that although agricultural labourers contribute significantly to the agrarian economy, their livelihoods remain constrained by low income, restricted access to resources, and inadequate social participation.

Keywords: Livelihood analysis, agricultural labourers, livelihood assets, Odisha

Introduction

The National Commission on Labour states that "An agricultural labourer is unskilled and unorganised and has little for his livelihood, other than personal labour." Therefore, individuals whose primary income source is wages and employment fall into this category. A notable characteristic of India's rural economy has been the increase in the number of agricultural workers, cultivators, and labourers involved in crop production. They typically earn low wages, working conditions that impose a significant burden on them, and experience highly irregular employment. (Vetrivel and Manigandan, 2013)^[1] Conceptually, the term "livelihood" refers to how individuals strive to fulfil their various consumption and economic needs, manage uncertainties, and take advantage of new opportunities (Sunil and Vinaya, 2016)^[2]. Many individuals are earning their livelihood through farming, especially agricultural labourers, who live in impoverished conditions and suffer from exploitation and discrimination (Singh and Singh, 2015)^[3]. The reduction in income levels, along with unproductive expenditure on rituals and ceremonies, is one of the main reasons peasant families are suffering under the burden of heavy debts (Gaur, 2014)^[4]. The low standard of living was reflected in the expenditure pattern of agricultural labourers, as most of the money was spent on food and clothing (Chitodkar, 1992)^[5]. Most of the farmers and agricultural labourers were not able to satisfy their consumption needs from their earnings. This results in the utilisation of a substantial part of debt to sustain basic

living (Singh *et al.*, 2017)^[6]. In Odisha, according to the 2011 census, 61.8 per cent of total workers are engaged in agriculture, and more than 60 per cent of the total workforce are directly dependent on agriculture (Chaudhary and Singh)^[7]. In India, half of the workforce is engaged as agricultural labourers. These labourers play a crucial role in determining production expenses, practising new technologies, and are vital for improving crop yields. Their means of livelihood are fundamental to the advancement of agriculture's socio-economic status; hence, they need to be critically examined to identify all the factors. Although numerous studies have been conducted on agricultural labourers, limited studies focus on their livelihood analysis. Given above, this study has been undertaken as one among those investigations, with a particular focus on the state of Odisha.

Methodology

The study was conducted in Keonjhar and Kendrapara districts of Odisha with a sample size of 400 respondents. Sample size was determined using Yamane's formula ($n = N / 1 + N(e)^2$). From each village of Keonjhar, 48 respondents and 52 respondents from Kendrapara were selected by simple random sampling, making a total of 400 respondents. The selection of differential numbers of respondents from two sample districts was because of availability of a limited number of agricultural labourers in the sample area. For this study, four blocks each from two of the sample districts were selected by using simple random sampling. Four villages, i.e., Lipinda, Podang,

Singhpur and Jatra, are selected from Keonjhar district, and the other four villages, i.e., Gajapitha, Jajanga, Kalapada and Birindola, are selected from Kendrapara district. An exploratory research design was used for this study because the livelihood realities of agricultural labourers in Odisha are incredibly complex and deeply tied to local social, economic, and environmental pressures. This approach allows us to bring the real, everyday challenges of these labourers to offer a clear picture that can help in guiding local policy and give future researchers a strong starting point. Primary data was obtained from the agricultural labourers by using a structured interview schedule, and focus group discussions and personal interviews were also conducted in the study area. The data was further analysed using statistical tools like mean, frequency and percentage.



Fig 1: Selected districts of Odisha for the research study

Results and Discussion

Socio-economic profile of the agricultural labourers in Odisha

Age

The respondents were classified into three categories, i.e, young (23 to 39 years), middle-aged (more than 39-55years), and the old age group (more than 55 to 70years). It is observed from Table 1 that in Keonjhar, most (53.12 per cent) of the respondents were in the young age group (23–39 years), followed by middle-aged (35.93 per cent), whereas Kendrapara had higher middle-aged (50 per cent) and older-aged (36.53 per cent) respondents, reflecting that in Kendrapara, older generations are dominant in agricultural activities. Overall, (43.25 per cent) of the respondents were found to be in the middle age group. Similar findings were found by (Nisha and Asokhan, 2015) [8], (Kumar *et al.*, 2019) [9] and (Chaudhari *et al.*, 2022) [10].

Table1: Age (n=400)

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	Young (23-39 years)	102	53.12	28	13.46	130	32.50
2.	Middle (>39-55 years)	69	35.93	104	50.00	173	43.25
3.	Old (>55-70 years)	21	10.93	76	36.53	97	24.25

Gender

The study categorises respondents based on gender into three groups: Male, Female, and others. It is observed from Table 2. Keonjhar had a greater percentage of female respondents (65.62 per cent) compared to male respondents (34.37 per cent), whereas in Kendrapara, the distribution was 71.15 per cent male and 28.84 per cent female; Collectively, males accounted for 53.5 per cent and females for 46.5 per cent.

Table 2: Gender (n=400)

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	Male	66	34.37	148	71.15	214	53.50
2.	Female	126	65.62	60	28.84	186	46.50

Education

It is observed from Table 3 that the educational status was low across both districts. In Keonjhar, 42.7 per cent had primary level education, and only 4.16 per cent had education beyond higher secondary. In Kendrapara, a significant proportion (35.09 per cent) had up to high school education, but only 8.65 per cent had pursued higher secondary education and above. The total analysis showed that 28.7 per cent of respondents had a primary education, followed by 26.5 per cent with high school, and 18.5 per cent were illiterate. It indicates a restricted educational background among farmers, which may impact awareness and uptake of better farming practices. Similar findings were found by Chaudhari *et al.* (2022).

Table 3: Education (n=400)

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	Illiterate	32	16.66	42	20.19	74	18.50
2.	Up to primary school	82	42.70	33	15.86	115	28.70
3.	Upto Middle school	37	19.27	42	20.19	79	19.70
4.	Upto High school	33	17.18	73	35.09	106	26.50
5.	Higher secondary and above	8	4.16	18	8.65	26	6.50

Land holdings

It was observed from Table 4 that none of the respondents in Keonjhar was landless, while 33.65 per cent of the respondents were landless in Kendrapara. Marginal holdings (2.5 acres or less) were most prevalent in both districts, 57.81 per cent in Keonjhar and 50.48 per cent in Kendrapara. Small holdings (2.5–5 acres) were also significant (26.25 per cent in total), but medium and above holdings were extremely rare (2.25 per cent). This data shows that there is a dominance of marginal land holdings in the study region.

Table 4: Land holdings (n=400)

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	Landless	0	0	70	33.65	70	17.50
2.	Marginal (up to 2.5 acres)	111	57.81	105	50.48	216	54.00
3.	Small(2.5-5 acres)	72	37.50	33	15.86	105	26.25
4.	Medium and above (>5 acres)	9	4.68	0	0	9	2.25

Annual Income

It is observed from Table 5 that there was an income gap between the districts. In Kendrapara, 21.63 per cent of the respondents belonged to the highest income group ($\geq$ Rs. 1,35,169), whereas just 8.33 per cent in 3637 Keonjhar belonged to this category. On the other hand, Keonjhar had a greater number of respondents belonging to the lower and middle-income groups (Rs. 33,793– Rs. 67,586). In total, 38 per cent of the respondents reported annual income between Rs. 67,587 and Rs. 1,35,168, with moderate income levels and a considerable portion earning below the subsistence level. Similar findings are found by Kumar *et al.* 2019).

Table 5: Annual Income

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	≥ 135169	16	8.33	45	21.63	61	15.20
2.	67587-135168	45	23.43	107	51.44	152	38
3.	50560-67586	58	30.20	14	6.73	72	18
4.	33793-50559	58	30.20	4	1.92	62	15.50
5.	20274-33792	12	6.25	21	10.09	33	8.25
6.	6768-20273	3	1.56	17	8.17	20	5

Source of extension contact

Extension contact plays a vital role in connecting farmers with research institutions, facilitating market access, and transferring technology. Different sources, such as Krishak Sathi, Block agriculture/ Horticulture officers, KVK scientists, NGO's, SHG/FPOs, are included in the data. Based on the mean and standard deviation, the respondents were divided into low, medium and high. In Keonjhar, 72.92 per cent of the respondents reported a medium level of extension contact, while 15.63 per cent reported high contact, and there were only 11.46 per cent reporting low contact. In Kendrapara, the situation was even more towards the medium level of contact, with 82.21 per cent of the respondents belonging to this level. But there were notably low percentages (4.81 per cent) who experienced high extension contact, while 12.98 per cent had low contact.

Table 6: Extension contact (n=400)

Sl. No.	Category	Keonjhar		Kendrapara		Total	
		f	%	f	%	f	%
1.	Low	22	11.46	27	12.98	60	15.00
2.	Medium	140	72.92	171	82.21	310	77.50
3.	High	30	15.63	10	4.81	30	7.50

Chi-Square Test of Independence for Socio-Economic Variables

Comparative analysis was made between the districts of Keonjhar and Kendrapara of Odisha to know the variations in the socio-economic status of agricultural labourers in different agro-ecological regions. A chi-square test for independence was used to determine if the distribution of socio-economic characteristics was significantly different between the two study locations. The empirical results reveal that all selected socio-economic variables are highly significant, indicating distinct structural differences in the profile of agricultural labourers between Keonjhar and Kendrapara.

Sl.no	Variables	χ^2
1.	Age	$\chi^2 = 79.87^*$, $P=0.002$
2.	Gender	$\chi^2 = 54.28^*$, $P=0.0017$
3.	Education	$\chi^2 = 40.91^*$, $P=0.0028$
4.	Land holdings	$\chi^2 = 93.16^*$, $P=0.002$
5.	Annual income	$\chi^2 = 124.8^*$, $P=0.002$

The Chi-square value for Age ($\chi^2 = 79.87^*$, $P=0.002$) reveals that the age composition of the workforce differs significantly across the district. This suggests regional variations in youth retention, possibly because some regions offer more off-farm employment, while others force younger generations to migrate. The strongly significant Gender variable ($\chi^2 = 54.28^*$, $P=0.0017$) indicates that the male-to-female ratio is directly associated with location. This is reflective of local cultural attitudes towards working women in the fields, and other economic pressures, which determine whether the local labour force is more female or male.

Education ($\chi^2 = 40.91^*$, $P=0.0028$) and Land Holdings ($\chi^2 = 93.16^*$, $P=0.002$) are highly geographically dependent. This close association indicates that access to schooling and basic resources, such as having land versus being completely landless, are dictated by deep regional inequities. Annual Income ($\chi^2 = 124.8^*$, $P=0.002$) had the highest Chi-square values throughout the study. The income and standard of living of a labourer are largely dependent on the local wages and the local economy.

Conclusion

The research study on the livelihood analysis of agricultural labourers in Keonjhar and Kendrapara districts of Odisha highlights significant demographic, social, and economic inequalities. Keonjhar revealed a greater percentage of younger, female respondents with poor education and more joint families, while Kendrapara contained more middle-aged and male respondents with slightly improved education and increased income levels. Most of the respondents were from the middle classes with different livelihood capitals; wage earning, and agriculture were major activities. Kendrapara was more wage-oriented, and Keonjhar had more diversified activities, such as horticulture and livestock.

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Authors Conflict

The author declares that there are no conflicts of interest regarding the publication of the manuscript.

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