

Education, Health, and Living condition of Agricultural Labourers in India: Insight from NSSO and Census Data

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Abstract:

This research paper examines the education, health, and living conditions of agricultural labourers in India using data primarily from the National Sample Survey Office (NSSO) and the census of India. Agricultural labourers constitute a significant and often vulnerable segment of the Indian workforce. Understanding their socio-economic status is crucial for formulating effective policies aimed at their upliftment and overall rural development. This paper aims to provide a comprehensive overview of their current situation, identify key challenges, and highlight regional disparities. By analyzing quantitative data from large-scale surveys, this study seeks to contribute to a more nuanced understanding of the realities faced by agricultural labourers in India.

Keywords: Agricultural Labourers, Education, Health, Living Conditions, NSSO, Census, India, Socio-economic Status, Rural Development.

Introduction:

Agriculture has historically been the backbone of the Indian economy, contributing significantly to employment, food security, and rural livelihoods. Even in the era of rapid industrialization and urbanization, a substantial portion of India's population remains dependent on agriculture either directly or indirectly. Within this sector, agricultural labourers form a pivotal component of the rural workforce. However, unlike cultivators who own or lease land, agricultural labourers typically do not possess any land and rely solely on wage employment on the farms of others. This economic dependency places them in a structurally vulnerable position, subjecting them to the vagaries of climate, agricultural cycles, fluctuating wages, and broader economic policies.

As per Census 2011, agricultural labourers constituted over 144 million individuals, marking a significant increase from previous decades. This growing number reflects deeper issues in rural economies, such as land fragmentation, lack of non-farm employment, and declining farm profitability. These workers are often characterized by poor socio-economic conditions, limited access to productive resources, and an absence of reliable safety nets. Seasonal employment, informal work arrangements, and the lack of regulatory oversight contribute further to their economic insecurity and social marginalization.

Agricultural labourers are not a homogenous group; they disproportionately belong to historically disadvantaged communities such as Scheduled Castes (SCs), Scheduled Tribes (STs), and Other Backward Classes (OBCs). This intersectionality of class and caste exacerbates their vulnerabilities. Marginalized not only economically but also socially, these labourers often face exclusion from institutional support systems such as formal credit markets, legal protections, and public services. Women among agricultural labourers encounter additional disadvantages, including wage discrimination, lack of recognition of their work, and limited access to land rights or leadership roles in local governance.

The socio-economic disadvantages faced by agricultural labourers manifest most visibly in three critical areas: education, health, and living conditions. These aspects are not merely indicators of well-being but are also determinants of long-term human development and intergenerational mobility. Understanding the challenges faced by agricultural labourers in these domains is crucial for any strategy that aims to achieve inclusive and sustainable rural development.

Education, a cornerstone of individual and societal progress, remains a distant dream for many agricultural labour households. According to the Socio-Economic and Caste Census (SECC) 2011, about 36% of rural Indians were classified as non-literate, with the rate being significantly higher among agricultural labour households. Data from the National Sample Survey Office (NSSO) indicates that a large segment of this group has received no formal schooling or only basic primary education. Female literacy rates are particularly dismal, often due to socio-cultural barriers, early marriages, economic constraints, and a lack of access to schools, especially in remote areas. Dropout rates among children of agricultural labourers are alarmingly high, driven by the need to contribute to household income or to compensate for household chores. The resultant lack of educational attainment perpetuates a cycle of poverty, reinforcing existing disparities across generations.

The health profile of agricultural labourers presents an equally concerning picture. Their work, which often involves physically strenuous activities under harsh environmental conditions, exposes them to a wide range of occupational hazards. The use of pesticides and fertilizers without adequate protective gear can lead to chronic health issues such as respiratory illnesses, skin conditions, and even long-term disabilities. The NSSO's 71st Round survey on health and morbidity reveals that agricultural workers report higher rates of illness and injuries than their urban or industrial counterparts. Furthermore, rural healthcare infrastructure remains underdeveloped and inequitably distributed, especially in states with high agricultural labour populations such as Bihar, Jharkhand, and Chhattisgarh. For many, out-of-pocket expenditure on health constitutes a significant portion of household income, often leading to indebtedness or postponement of necessary treatment. Lack of health insurance coverage and low awareness of preventive healthcare measures further compound the problem.

Living conditions of agricultural labourers are a direct reflection of their economic marginalization. Many reside in makeshift homes or “kutchas” dwellings, which are often overcrowded, poorly ventilated, and located in environmentally vulnerable areas such as floodplains or near industrial waste zones. The SECC 2011 notes that a significant proportion of rural families live in one-room houses, many of which lack access to clean drinking water, functional toilets, or electricity. These substandard housing conditions contribute not only to poor health outcomes but also to reduced dignity and increased vulnerability to climate-induced disasters. Inadequate public investment in rural infrastructure—roads, sanitation, housing, and schools—further entrenches inequality and hinders social mobility.

Economically, agricultural labourers are among the most poorly paid segments of India's workforce. The NSSO reports that the average daily wage of an agricultural labourer is significantly lower than that of

workers in other informal sectors. Wage stagnation, underemployment, and seasonal job availability force many to migrate to urban areas in search of alternative employment. Such migration, while offering temporary relief, often results in additional hardships, such as insecure living arrangements in urban slums, exposure to hazardous occupations, and exclusion from social safety nets due to lack of identity documentation.

Government policies and welfare schemes aimed at addressing these issues have had mixed success. While flagship programs like the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), Ayushman Bharat, and Pradhan Mantri Awas Yojana (PMAY) have made notable contributions, issues related to implementation, awareness, and corruption persist. For instance, MGNREGA guarantees 100 days of wage employment in rural areas, yet many agricultural labourers report delays in wage payments, non-transparent job allocation, and the influence of local elites in program execution. Similarly, Ayushman Bharat seeks to provide health insurance to economically vulnerable families, but poor enrolment rates and limited hospital networks in rural regions restrict its potential impact.

In light of these complex, interrelated challenges, this research paper aims to present a detailed analysis of the education, health, and living conditions of agricultural labourers in India using empirical data from the NSSO and Census of India. These datasets, being nationally representative, allow for a comprehensive understanding of the scope and scale of deprivation faced by agricultural labourers. The analysis is supplemented with findings from the Socio-Economic and Caste Census and supported by existing literature and policy evaluations.

The objective is not merely academic; this research seeks to inform policymakers, development practitioners, and scholars about the critical needs of one of the most disadvantaged groups in Indian society. By identifying gaps in policy implementation and structural barriers to development, the study proposes targeted recommendations aimed at enhancing the socio-economic well-being of agricultural labourers. These include expanding access to quality education, strengthening rural health infrastructure, improving housing schemes, and ensuring better wage security and employment conditions.

Ultimately, the condition of agricultural labourers serves as a litmus test for India's commitment to inclusive growth. As the country aspires to become a \$5 trillion economy and achieve the Sustainable Development Goals (SDGs), it is imperative to uplift those at the bottom of the socio-economic ladder. A renewed focus on equitable rural development, grounded in empirical evidence and participatory governance, can pave the way for a more just and resilient India.

Literature Review:

Education:

Tilak (2002) argues that low investment in rural education infrastructure, poor quality of government schools, and socio-economic constraints such as child labour contribute significantly to educational backwardness among agricultural labourers. NSSO reports (particularly the 75th Round) support these findings, showing that children from labour households are less likely to complete even primary education, often due to their need to support family income or care for siblings.

Mehrotra and Panchamukhi (2006) note that female agricultural workers face dual disadvantages—economic and gender-based—which limits their access to education. This is corroborated by findings from the Annual Status of Education Report (ASER), which consistently shows wide rural-urban and gender gaps in basic learning outcomes. The Annual Status of Education Report (ASER) and NSSO data further

reinforce the disparity in school attendance and completion rates between rural and urban areas, with a substantial dropout rate at the secondary level among children of agricultural labourers.

Dreze and Sen (2013), in their seminal work *An Uncertain Glory: India and Its Contradictions*, point out the persistence of educational deprivation in rural India, especially among marginalized communities like Scheduled Castes and Scheduled Tribes, who form a large proportion of agricultural labourers and educational attainments among rural labourers are significantly hampered by poverty, lack of infrastructure, and seasonal migration.

Health:

Basu and Das (2010) in their study on rural health note that while programs like the National Rural Health Mission (NRHM) have improved infrastructure to some extent, the availability of doctors and medical supplies in rural Primary Health Centres remains inadequate.

Narayanan (2012) highlights that exposure to agrochemicals, lack of protective equipment, and physically strenuous tasks make agricultural labourers especially vulnerable to chronic health issues.

Deshpande and Sharma (2016) emphasize the under-utilization of health insurance schemes among rural labourers, pointing to low awareness and poor penetration of programs like Rashtriya Swasthya Bima Yojana (RSBY) and Ayushman Bharat. Women and elderly agricultural labourers are often the most neglected, facing both economic and logistical barriers in accessing medical care.

Studies such as those by Rao et al. (2017) emphasize poor health outcomes among agricultural labourers, owing to limited access to healthcare facilities, poor sanitation, and high out-of-pocket medical expenses. The NSS 75th Round (2017–18) reports highlight that only a small fraction of rural agricultural households are covered under any health insurance scheme, making them vulnerable to health shocks

Living Conditions:

The 2011 Socio-Economic and Caste Census (SECC) identified housing, sanitation, electricity, and water access as critical indicators of deprivation among rural households. A large number of agricultural labour households reside in semi-permanent or temporary dwellings and lack access to piped water or clean cooking fuel.

Kundu (2011), in his research on rural housing, illustrates how most labourer households live in non-durable structures with limited access to water, electricity, and sanitation.

Patel and Joshi (2015) emphasize the intersection between poor housing and health, noting that inadequate living conditions contribute to the spread of communicable diseases and increase vulnerability during natural disasters.

Researchers such as Sharma and Mehta (2015) argue that these living conditions directly affect health outcomes and work productivity.

Objectives:

This research paper aims to achieve the following objectives:

- To analyze the educational attainment levels of agricultural labourers in India, including literacy rates and levels of schooling.
- To assess the health status of agricultural labourers, focusing on indicators such as access to healthcare facilities, prevalence of common ailments, and health expenditure.

- To examine the living conditions of agricultural labourers, including housing quality, access to safe drinking water, sanitation facilities, and energy sources.
- To identify regional variations in the education, health, and living conditions of agricultural labourers across different states in India.
- To explore the interlinkages between education, health, and living conditions among agricultural labourers.

Data and Methodology:

This research will primarily rely on secondary data from the following sources:

- National Sample Survey Office (NSSO): Specifically, data from the Employment and Unemployment Surveys (EUS) and the Situation Assessment Survey (SAS) of agricultural households will be utilized. These surveys provide detailed information on the socio-economic characteristics of rural households, including agricultural labourers, covering aspects such as education, health, employment, income, expenditure, and living conditions. The latest available rounds of these surveys will be analyzed to capture the current scenario. For instance, data from the NSS 77th round (January-December 2019) on household consumption expenditure and the Situation Assessment of Agricultural Households will be particularly relevant.
- Census of India: The decennial Census provides comprehensive demographic and socio-economic data at various levels of aggregation. Information on literacy rates, housing characteristics, and access to basic amenities for agricultural labourers, as categorized by their occupational status, will be extracted from the relevant Census reports (e.g., Census 2011).
- Other relevant reports and publications: Data from the Ministry of Agriculture and Farmers Welfare, the Ministry of Health and Family Welfare, and other relevant government and non-governmental organizations will be consulted to supplement the analysis.

Data representation and analysis:

Table: Total rural male and female literacy rates in state-wise:

State	Rural Male literacy Rate (in %)	Rural Female literacy Rate (in %)
Andhra Pradesh	70.3	53.3
Arunachal Pradesh	71.4	53.8
Assam	77.2	57.9
Bihar	71.3	49.7
Chhattisgarh	77.7	57.9
Goa	88.7	78.2
Gujarat	82.3	64.5
Haryana	81.5	60.3
Himanchal Pradesh	88.5	77.2
Jammu & Kashmir	75.3	58.0
Jharkhand	72.3	46.4
Karnataka	78.9	62.7
Kerala	95.3	93.0

Madhya Pradesh	76.3	50.2
Maharashtra	84.8	68.5
Manipur	82.4	65.5
Meghalaya	74.2	70.8
Mizoram	92.3	88.5
Nagaland	81.8	76.1
Odisha	78.2	60.6
Punjab	80.3	69.9
Rajasthan	78.7	45.8
Sikkim	86.2	74.4
Tamil Nadu	83.4	70.0
Tripura	89.0	80.1
Uttar Pradesh	76.2	53.8
Uttarakhand	84.8	71.0
West Bengal	80.3	65.7
All India (Rural)	77.2	56.8

Source: India's Census 2011

Key Observations from Overall Rural Literacy (as a proxy):

- **Gender Disparity:** A significant gender gap in literacy rates is evident across most states in rural India.
- **State-wise Variation:** There is substantial variation in rural literacy rates among states. Kerala consistently shows the highest literacy rates for both males and females, while states like Bihar, Jharkhand, and Rajasthan have considerably lower female literacy rates in rural area.

Health Conditions of Agricultural Labourers in Rural India: Evidence from NSS 77th Round and Related Data:

The health status of agricultural labourers in rural India is shaped by a combination of occupational hazards, poor living conditions, limited access to healthcare, and financial constraints. While the 77th Round of the National Sample Survey (2018–19) primarily focused on the Situation Assessment of Agricultural Households, it provides indirect yet crucial insights into the health vulnerabilities faced by agricultural labourers.

The average monthly income of agricultural households as per the NSS 77th Round was ₹10,218. Households primarily dependent on wage labour reported lower average incomes, around ₹9,061 per month, indicating a high level of economic vulnerability. This financial limitation has direct implications on healthcare access. Out-of-pocket expenditure remains the main mode of health financing in rural India, often deterring poor households from seeking timely medical intervention. A 2019 study found that approximately 14% of rural households face catastrophic health expenditures, pushing them further into poverty (ScienceDirect, 2020).

Although the NSS 77th Round does not focus directly on morbidity or access to medical services, it provides data on related indicators like access to sanitation, clean water, and housing, which significantly affect health outcomes. For example, around 28% of agricultural households reported lack of access to improved sanitation, while 18% lacked access to safe drinking water sources, exposing them to waterborne diseases and infections.

Occupational exposure is a major contributor to health risks among agricultural labourers. Repeated manual labour, exposure to pesticides and fertilizers, and prolonged hours under the sun lead to a high prevalence of respiratory ailments, skin diseases, and musculoskeletal disorders. The NSS 71st Round (2014) previously revealed that musculoskeletal issues were among the top reported health problems in rural workers, many of whom are employed in agriculture.

Additionally, health insurance coverage remains minimal among agricultural labourers. The NSS 75th Round (2017-18), which assessed health in India, reported that only about 14% of rural households were covered under any government-sponsored health insurance scheme, leaving the majority exposed to high health costs. Lack of insurance combined with low incomes restricts access to quality healthcare, particularly for chronic diseases and maternal care.

Gender-specific health concerns are also significant. Women labourers, who often work under physically demanding conditions, face higher risks related to maternal health, anemia, and reproductive issues, exacerbated by the dual burden of farm work and domestic responsibilities. Health services for women remain inadequate in many rural areas due to the shortage of trained personnel and lack of privacy and hygiene in public health facilities.

In summary, the health status of rural agricultural labourers remains precarious due to multiple factors—economic insecurity, unsafe working conditions, limited healthcare access, and inadequate public health infrastructure. While schemes like Ayushman Bharat aim to provide financial protection, better targeting and outreach are essential to ensure benefits reach the most vulnerable. There is a pressing need for policy interventions that address both preventive and curative aspects of healthcare for this underserved segment of India's rural economy.

Living Conditions of Agricultural Labourers in Rural India

The living conditions of agricultural labourers in rural India reflect deep-rooted structural poverty and inadequate access to basic amenities. These conditions are critical indicators of the quality of life and have a direct bearing on the health, education, and overall well-being of these workers and their families. Based on insights from the NSS 77th Round (2018–19) and the Socio-Economic and Caste Census (SECC) 2011, this section presents a snapshot of the prevailing realities.

Agricultural labourers, unlike cultivators, are generally landless or own very small and economically unviable plots. The NSS 77th Round reports that a significant proportion of agricultural households depend solely on wage labour, with limited or no agricultural assets. These labourers often reside in makeshift or semi-permanent homes, and their access to quality housing and civic infrastructure is considerably lower than the national rural average.

According to SECC 2011, approximately 56% of rural households had no land ownership, and a substantial portion of these were engaged in agricultural labour. The same survey shows that 13.25% of rural households lived in one-room houses, with a significant number living in kutcha (non-permanent) structures made of mud, bamboo, or other perishable materials. These structures are typically vulnerable to natural elements such as rain, wind, and extreme temperatures, providing inadequate shelter and privacy. Access to sanitation and drinking water remains poor. SECC 2011 data indicates that nearly 49% of rural households lacked access to a toilet facility, leading to widespread open defecation. Though this figure has seen improvement due to schemes like Swachh Bharat Abhiyan, disparities remain, especially among the poorest households such as those of agricultural labourers. In addition, over 25% of rural homes did not have access to treated or piped drinking water, increasing their risk of waterborne diseases.

Electricity access, while improving, still lags in remote and marginalised rural regions. The NSS 77th Round found that about 92% of agricultural households had electricity for domestic use, yet power outages and quality issues persisted. Many still relied on kerosene for lighting, especially in tribal and backward regions.

Moreover, agricultural labourers often lack access to modern fuel for cooking. A significant proportion rely on biomass fuels such as firewood, cow dung, and crop residues, which are not only environmentally harmful but also pose serious health risks due to indoor air pollution. The National Family Health Survey (NFHS-5) reports that around 55% of rural households use solid fuels for cooking.

Crowding is another concern. With large families and limited space, many agricultural labourer households face overcrowding, which impacts hygiene, education (lack of quiet study space), and health, especially for women and children.

In summary, the living conditions of rural agricultural labourers in India remain far from satisfactory. Despite improvements in recent years due to targeted welfare schemes such as Pradhan Mantri Awas Yojana (PMAY) and rural electrification initiatives, a large gap still exists between policy intent and on-ground implementation. Holistic interventions addressing housing, sanitation, clean energy, and safe drinking water are critical for uplifting the standard of living of this vulnerable workforce.

Conclusion

Agricultural labourers are the backbone of India's agrarian economy, yet they remain one of the most disadvantaged and marginalized segments of the rural population. Despite constituting a significant share of the agricultural workforce, their socio-economic conditions continue to reflect historical neglect, structural inequality, and policy inadequacies. This research has explored three crucial dimensions of their well-being—education, health, and living conditions—by analyzing data from authoritative sources such as the National Sample Survey Office (NSSO) and the Census of India. The findings reveal that agricultural labourers are trapped in a vicious cycle of poverty, illiteracy, poor health, and substandard living conditions, which further limit their opportunities for upward mobility.

In terms of education, a large portion of agricultural labourers remains either illiterate or has only attained primary education. This is especially true for women and marginalized social groups like Scheduled Castes and Scheduled Tribes, who form a sizable part of the agricultural labour force. Low educational attainment severely restricts their access to skilled employment and better livelihoods, perpetuating generational poverty. Despite the expansion of rural schools and government initiatives such as the Sarva Shiksha Abhiyan and mid-day meal schemes, the dropout rates remain high among children of labourers, especially during harvest seasons when children are expected to contribute to household income.

The health status of agricultural labourers is another area of deep concern. These individuals face multiple occupational health risks including pesticide exposure, musculoskeletal injuries, and heat-related illnesses due to prolonged hours under harsh environmental conditions. However, their access to healthcare remains severely limited due to inadequate infrastructure, unaffordable services, and low health insurance coverage. Many are forced to rely on unqualified local practitioners or delay seeking care until conditions worsen. High out-of-pocket expenditures push already vulnerable families further into debt. Government programs such as Ayushman Bharat and the National Rural Health Mission have made progress, but implementation gaps, poor outreach, and regional disparities continue to hinder effective coverage.

The living conditions of agricultural labourers reflect the broader deprivation they face. Many live in kutchha or semi-permanent houses without basic amenities such as clean drinking water, sanitation,

electricity, and cooking gas. Overcrowding, lack of privacy, and poor ventilation are common. These inadequate living environments directly impact health, education, and overall quality of life, especially for women and children. While schemes like the Pradhan Mantri Awas Yojana (PMAY), Ujjwala Yojana, and Swachh Bharat Abhiyan have sought to address these issues, the reach and effectiveness of such schemes are inconsistent across states and communities.

In conclusion, improving the conditions of agricultural labourers requires a multidimensional and inclusive policy approach. It is not enough to focus solely on employment or income support; interventions must simultaneously target education, healthcare, housing, and social protection. Strengthening rural infrastructure, improving service delivery mechanisms, enhancing awareness about government schemes, and ensuring social justice through better representation and legal safeguards are crucial steps toward empowering this vulnerable group. For India to achieve sustainable rural development and inclusive economic growth, the upliftment of its agricultural labour force must be prioritized—not only as a moral imperative but as a strategic necessity for the nation's long-term prosperity.

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